



PROPOSED INVERCARGILL CITY DISTRICT PLAN

Report No. 33

Noise

**28 April 2015, 9.00am
COUNCIL CHAMBERS
CIVIC ADMINISTRATION BUILDING**

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JOHN EDMONDS AND ASSOCIATES LIMITED**

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1. EXECUTIVE SUMMARY

Noise is an aspect of amenity that is addressed in the Proposed District Plan through Issues, Objectives, Policies and Rules. Noise can adversely affect amenity values and detract from people's enjoyment of an area. The ability to create noise can also be something that needs to be protected and can be interpreted by some as an element of a Zone that attracts certain types of activities.

This report addresses approximately 71 submission points and 60 further submission points relating to the noise provisions in the Proposed District Plan. These submissions range from comments and support through to opposition.

There are a number of changes recommended in this report in response to submissions. A number of these changes address concerns related to reverse sensitivity, particularly in relation to the transportation corridors, including the railway, roads and airport. The concept of notional boundary is discussed in some detail and recommendations are generally in support of this concept with minor changes recommended. One of the other areas that is discussed in some detail in response to submissions is the Entertainment Precinct and while the concept is supported in this report, a number of changes are recommended. Noise issues at the interface of industrial and residential activities was also the subject of a number of submissions. The Proposed District Plan's approach to this issue is again generally supported through recommendations.

In this report:

- Part 2 considers several key procedural issues.
- Part 3 provides background information on the noise provisions.
- Part 4 summarises the various statutory provisions that apply to the consideration of the Proposed District Plan.
- Part 5 assesses the relevant issues raised by the submitters.
- Part 6 provides a discussion on the Section 32 matters.
- Part 7 sets out the overall conclusions.
- Appendix 1 sets out the recommendations on each of the submission points.
- Appendix 2 sets out the recommended changes to the text of the Proposed District Plan.
- Appendices 3 – 5 include advice from an acoustic consultant, and maps of some areas addressed in the report

2. INTRODUCTION

2.1 Report Author

My name is Elizabeth Ann Devery. I am the Senior Planner – Policy, at the Invercargill City Council, a position I have held since January 2003. I have over 14 years planning policy experience working in planning and regulatory roles in local government in New Zealand and the United Kingdom. These roles have focused on both developing and implementing District Plans and planning documents. I hold the qualifications of LLB/BA (Hons I) in Geography.

2.2 Peer Review

This report has been prepared with the guidance and advice of Stuart Camp from Marshall Day Acoustics and has been peer reviewed by Dan Wells from John Edmonds and Associates Ltd.

Stuart Camp is the Christchurch office manager and a principal with Marshall Day Acoustics Ltd. Stuart has 32 years' experience in acoustics, with a focus on environmental noise. In recent years, Stuart has assisted with the review of several District Plans, including Hurunui, Christchurch, and the now complete Ashburton plan. Stuart is regularly involved with noise related aspects of plan changes and resource consents, and has presented expert evidence at the Environment Court on many occasions. Written advice received from Mr Camp on a number of the submissions is appended to this report as **Appendix 3**. Because Marshall Day Acoustics act for Invercargill Airport Limited, Mr Camp has not been involved in assessing the submissions on noise provisions specific to the airport.

Dan Wells is a practising resource management planner with a variety of experience throughout the plan change preparation process. Dan has a Bachelor of Resource and Environmental Planning (Hons) and a Post Graduate Diploma in Development Studies, both from Massey University.

2.3 How to Read this Report

This report is structured as follows:

- Interpretation (an explanation of some of the terms used).
- A summary of the hearing process.
- Background to the Noise topic, and the provisions of the Proposed Invercargill City District Plan 2013.
- Description of the statutory framework within which the proposed provisions have been developed.
- Analysis of the submissions.
- Discussion of Section 32 matters.
- Concluding comments.
- Tracked changes of the Proposed District Plan provisions relating to noise.
- Recommendations on individual submissions.

To see my recommendation on an individual submission please refer to the table in **Appendix 1**. The table sets out the name and relevant submission number of those that submitted on the noise provisions; a brief summary of their submission and decisions requested, followed by my recommendation and the reasons for it.

2.4 Interpretation

In this report, the following meanings apply:

“Council” means the Invercargill City Council

“Hearings Committee” means the District Plan Hearings Committee

“OCB” means the Outer Control Boundary

“Operative District Plan” means the Invercargill City District Plan 2005

“Proposed District Plan” means the Proposed Invercargill City District Plan 2013

“Provisions” is a term used to collectively describe Objectives, Policies and Rules.

“RMA” means the Resource Management Act 1991

“SESEB” means the Single Event Sound Exposure Boundary

2.5 The Hearing Process

A number of hearings are to be held to consider the submissions lodged to the Proposed Invercargill City District Plan 2013. The hearings have been divided up to ensure that submissions on similar issues have been grouped together and to enable the District Plan Hearings Committee to make decisions on the provisions relating to those issues. This report applies to the Noise provisions of the Proposed District Plan.

The Hearings Committee comprises of accredited Invercargill City Councillors, with the assistance of an Independent Hearings Commissioner. This Committee is to consider the Proposed Plan and the submissions and further submissions lodged. The Hearings Committee has full delegation to issue a decision on these matters.

This report is prepared pursuant to Section 42A of the Resource Management Act 1991 (the “RMA”). Section 42A provides for a report to be prepared prior to a hearing, setting out matters to which regard should be had in considering a Proposed District Plan and the submissions lodged to it. This report highlights those matters that are considered appropriate by the author for the Hearings Committee to consider in making decisions on the submissions lodged. This report has been prepared on the basis of information available prior to the hearing.

While the Hearings Committee is required to have regard to this report, regard must also be given to the matters raised in submissions, and presentations made at the hearing. The comments and recommendations contained in this report are not binding on the Hearings Committee and it should not be assumed that the Hearings Committee will reach the same conclusions set out in the report having heard from the submitters and Council advisers.

The hearing is open to the public, and any person may attend any part of the hearing. Those persons who lodged a submission have a right to speak at the hearing. They may appear in person, or have someone speak on their behalf. They may also call evidence from other persons in support of the points they are addressing.

At any time during or after the hearing, the Hearings Committee may request the preparation of additional reports. If that is done, adequate time must be provided to the submitters, to assess and comment on the report. The Hearings Committee may determine that:

- The hearing should be reconvened to allow responses to any report prepared, or
- Any responses be submitted in writing within a specified timeframe.

At the conclusion of the hearing process, the Hearings Committee will prepare a written decision. The decision is sent to all persons who lodged a submission. If not satisfied with the decision the submitters have a right of appeal to the Environment Court. If an appeal is lodged, the RMA requires a copy to be served on all submitters with an interest in that matter. Any submitter served may, if they wish, become a party to the appeal either in support or opposition to it.

If there is an appeal, the Environment Court will provide an opportunity for mediation between the parties. If mediation is not accepted, or does not resolve the issues, a further hearing will take place before a Judge and Court appointed Commissioners.

Except on points of law, the decision of the Environment Court is final.

3. BACKGROUND

Noise is one of the few aspects of amenity that, while being quite a subjective topic, is objectively measurable. The District Plan details the level of noise anticipated in certain areas of the District and sets out in technical terms how this noise can be measured and assessed.

Noise can adversely affect amenity values, detracting from people's enjoyment of the pleasantness of an area. Noise can be both intrusive and annoying causing discomfort or, at worst, health problems. On the other hand, moderate to high levels of noise may be appropriate in certain areas of the District. The ability to create noise may itself be a feature of an area that requires protection. Noise can be interpreted by some as an indicator of a working environment, or place of production. Certain types of noise may provide vibrancy to an inner city area.

The approach to noise issues is similar in the Proposed District Plan to that taken in the Operative District Plan. Both include a District Wide standard, with related policies spread out within the different Zones as part of the anticipated amenity values. Noise has also informed decisions on zoning. However, there are a number of changes in the Proposed District Plan which seek to update the provisions to the more recent best practice as well as seeking to address noise issues that have been raised over the duration of the Operative District Plan.

The Noise provisions in the Operative District Plan acknowledge noise generated by the Airport by requiring insulation for noise sensitive activities within the Single Event Sound Exposure Boundary (SESEB). This was to address potential reverse sensitivity effects. The Proposed District Plan approach to reverse sensitivity effects relating to the transportation network has been amended with a broader focus on state highways and railways as well.

This report relates to the provisions in the Proposed District Plan with regard to Noise. This includes:

- Sections 2.19 to 2.43, containing the issues, objectives, policies and methods of implementation for each of the Zones;
- Section 3.13, which contains the District Wide Rules for Noise;

3.1 Zoning

A number of noise issues have arisen at the interface of Zones. This is particularly the case when industrial activity directly adjoins residential properties. At times, activities meet the Sub-Area noise limits without considering that noise limits are required to be met at the Sub-Area boundary. As such, the noise from activities in the Enterprise Sub-Area, for example, has resulted in adverse effects on neighbouring residential properties. These issues have led to improved clarification of the application of the noise provisions. They have also led to zoning decisions.

There were a number of areas throughout the district where the Enterprise Sub-Area directly adjoined the Domicile Sub-Area. The permissive noise rules in the Enterprise Sub-Area (65dB, 24hours per day) were not compatible with immediately adjoining residential dwellings. To address this issue, amongst others, the Enterprise Sub-Area has been split into two Industrial Zones in the Proposed District Plan, with the Industrial 1(Light) Zone being that area closest to residential areas. The industrial zoning has led to a number of submissions that will be addressed at a later Hearing. However, it should be noted here that noise has been a significant factor in

decisions determining the type of activities considered appropriate in areas adjoining residential zones.

3.2 Proposed Issues, Objectives and Policies

There are no specific objectives and policies in the District Wide Section of the Proposed District Plan relating to noise.

In the Zone Specific Issues, Objectives and Policies Section of the Plan, there are noise policies for all Zones, apart from the Industrial 4 Zone. The policies vary slightly between Zones, setting out the anticipated noise levels for the zones. For example, low ambient noise levels are anticipated within residential zones during the day and night, while a reasonable level of noise associated with a range of industrial, warehousing and service activities is provided for within the Industrial Zones. Where noise from agricultural and/or transportation infrastructure is likely to be present, the Zone policies make specific reference to this.

Also raised within the s42A Report on Subdivision, was the influence of airport noise on the density of development permitted within the Airnoise boundaries.

3.2 Proposed Rule

As in the Operative District Plan, the Proposed District Plan includes District Wide rules on noise (Section 3.13). The noise rules are kept in one section of the Proposed District Plan because noise producers always need to look at rules for the neighbouring zones, not just their own.

The Proposed District Plan provisions were drafted in a bid to be consistent with the most recent noise standards. NZS6801:2008 Acoustics – Measurements of environmental sound; and NZS6802:2008 – Environmental noise are the most important standards for dealing with environmental noise. However, there are other noise standards that address noise sources not addressed in these standards. Where considered necessary the noise rules include reference to these other standards.

The rule sets out different noise standards for the different zones, for both day and night, including notional boundary provisions where considered relevant. The table of noise standards is followed by a number of explanatory notes, and any exceptions to the limits.

The Business 1 - Entertainment Precinct is new to the Proposed District Plan. Within this precinct noise sensitive activities are to be designed to meet internal sound levels. This concept recognises that noise from late night entertainment venues, both music and people noise, can result in adverse effects on inner city residents and visitors. The rules address potential reverse sensitivity effects and aim to spread the responsibility for mitigating these effects by setting reasonably stringent noise limits for the zone and requiring noise sensitive activities to adopt appropriate treatment to mitigate residual effects of noise.

The Seaport noise provisions have been carried through from the Operative District Plan. These acknowledge the noise generated by seaport activities in and around the Seaport Zone.

Introduced into the Proposed District Plan are provisions requiring consideration of noise effects generated around transport corridors.

The Temporary Military Training noise provisions have been largely carried through from the Operative District Plan, although the provision only exempts these activities from the general Zone noise limits for explosives and the use of firearms.

The provisions exempting emergency activities are carried over from the Operative District Plan.

The Proposed District Plan includes provision for Temporary Activities and Events. This provision allows for a limited number of events to occur on a site within a year, and sets higher noise levels for these types of activities up until 10pm.

The Airport rules are similar to the Operative District Plan. However, the Acoustic insulation provisions are different. They apply to the areas in both the SESEB and the Outer Control Boundary (OCB), where the Operative District Plan provisions only applied to the SESEB. The rules also provide that where the insulation requirements are not met then the activity status will be non-complying. In the Operative District Plan, non-compliance with the insulation requirements was a discretionary activity.

The matters of consideration for resource consent applications are more detailed in the Proposed District Plan.

4. STATUTORY CONTEXT / LEGISLATIVE REQUIREMENTS

4.1 Resource Management Act 1991

In reviewing the District Plan, Council must follow the process outlined in Schedule 1 of the RMA.

The First Schedule procedure includes notification for submissions (clause 5) and further submissions (clause 8), holding a hearing into submissions (clause 8(b)), and determining whether those submissions are accepted or rejected and giving reasons for the decisions (clause 10).

Clause 29(4) of the First Schedule to the RMA states that after considering a plan the local authority may decline, approve, or approve with modifications, the plan change, and shall give reasons for its decisions.

Under s74 of the RMA, in relation to changes to the District Plan, Council must consider Part 2 of the Act (purposes and principles), s32 (alternatives, benefits and costs), and relevant regional and district planning documents.

4.1.1 Part 2 of the RMA

Part 2 of the RMA (ss5-8) sets out its purpose and principles of the RMA.

The purpose of the RMA is set out in s5. I confirm that the provisions for noise fall within the purpose of the RMA. In particular the provisions are designed to provide for sustainable use of resources whilst avoiding, remedying and mitigating the adverse effects on the environment. This is in accordance with section 5(1) and 5(2) of the RMA.

Section 6 of the RMA sets out the matters of national importance which must be recognised and provided for. None of these are especially relevant to the issue of noise.

The maintenance and enhancement of amenity values is a matter that the Council is to have particular regard to under section 7(c) of the RMA. It is considered that the provisions related to noise in the Proposed District Plan demonstrate particular regard to amenity values.

Section 8 of the RMA obliges persons exercising functions and powers under the RMA to take account of the principles of the Treaty of Waitangi. Representatives from Te Ao Marama Inc have been part of the Plan Review process as members of the Council's Plan Group that worked on developing the Proposed District Plan. Consultation with Iwi has also occurred.

4.1.2 Functions of Territorial Authorities under the RMA

Section 31 of the RMA states the functions of a territorial authority under that Act. To give effect to the RMA, s31 of that Act requires a territorial authority to have functions including, s31(1)(a):

“The establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district.”

The control of the emission of noise and mitigation of the effects of noise is set out as one of the functions of a territorial authority in s31(1)(d).

The provisions in the Proposed District Plan relating to Noise include policies, and methods intended to manage the actual or potential effects of activities on the environment.

4.1.3 Consideration of alternatives, benefits, and costs

Section 32 of the RMA states the Council's obligations in assessing the alternatives, benefits and costs.

The Section 32 report released with the Proposed District Plan did not include a specific chapter analysing the noise provisions, however, it did include an overview and assessment of the different Zones. The zoning, zone specific issues, objectives and policies, and some of the district wide rules, including noise, combine to make up the zones provisions that were covered in this Section 32.

Whilst a Section 32 report was released at the time of notification of the Proposed District Plan, the Council is required to carry out a further evaluation of any amendments made through the hearing, consideration and deliberation process before making its decision on the Plan Change. A discussion on the Section 32 matters are set out in Section 6 of this report.

4.1.4 Other Noise provisions within the RMA

Section 16 of the RMA requires that noise is kept to a reasonable level by adopting the best practicable option. This duty applies to every person who occupies or carries out an activity within New Zealand's territorial boundaries. Generally if a noise exceeds the standards set by the rules, it will be treated as unreasonable. However, if a person complies with a national environmental standard, rule or applicable resource consent condition, the duty in s16 is not necessarily met. The occupier may still need to do more if the noise is unreasonable and a practicable option is available to reduce it.

The RMA also includes provisions covering "excessive noise". This is noise that is of such a nature as to unreasonably interfere with the peace, comfort and convenience of any person (other than the person responsible for it). There are enforcement options under these provisions as well.

As such, noise can be enforced through the District Plan, through section 16 or through the excessive noise provisions of the RMA.

4.2. Relevant Planning Policy Documents

The RMA specifies a number of documents that need to be considered in a decision on a Proposed District Plan and the weight that should be given to these. These are addressed in the following section.

4.2.1 New Zealand Coastal Policy Statement

Section 75 of the RMA requires that a District Plan must give effect to any New Zealand coastal policy statement. The Coastal Environment provisions were discussed in the section 42A Report No. 17.

The New Zealand Coastal Policy Statement recognises that the “sounds” of the sea are part of the experiential attributes of the natural character of the coastal environment (Policy 13(2)(h)). These “sounds” are recognised within the Coastal Environment policies of the Proposed District Plan. Noise may affect the values of these “sounds” and where a resource consent is required for a site within the Coastal Environment, then the Coastal Environment provisions will need to be considered as set out in section 3.2 of the Proposed District Plan.

4.2.2 National Policy Statements and National Environmental Standards

In accordance with Section 75 of the RMA, a District Plan must give effect to National Policy Statements.

Section 44A of the RMA prescribes how District Plans must be amended if a rule conflicts with a National Environmental Standard.

There are no National Policy Statements that directly relate to noise that should be given effect to. Although the National Policy Statements do refer within their policies to the consideration of adverse effects on the environment, see for example Policy 7 of the National Policy Statement for Electricity Transmission 2008 which refers to minimising adverse effects on urban amenity.

The National Environmental Standards for Telecommunication Facilities 2008 include conditions on noise of cabinets within a road reserve. The noise levels permitted within the Proposed District Plan are consistent with the noise levels stipulated within the National Environmental Standard. While some of the standards in the Proposed District Plan are more permissive than the NES, this will not inhibit the development of the telecommunication facilities. I do not consider that this is a conflict.

The National Environmental Standards for Electricity Transmission Activities 2009 includes provisions for noise and vibration from construction activity. The Proposed District Plan refers to the same New Zealand Standard used within the NES, NZS6803:1999 Acoustics – Construction Noise and recommendations are consistent with this standard.

4.2.3 Regional Policy Statement

Under Section 75 of the RMA, a District Plan must give effect to an operative Regional Policy Statement.

There are no objectives and policies in the Southland Regional Policy Statement (1997) that are specifically relevant to the noise provisions. There are provisions that relate to the built environment as set out below:

Objective 10.1

To achieve the sustainable management of the built environment in such a way that the needs of future generations are met.

Objective 10.2

To maintain and enhance the environmental quality of the Region's built environment.

Policy 10.1

Encourage development and use of the built environment that provides for the efficient use of existing facilities and infrastructure while simultaneously avoiding the development of unnecessary additional infrastructure.

Policy 10.3

Encourage the use of corridors for network utilities where practicable, where this will result in mitigation of environmental effects.

Policy 10.7

Recognise that changes to one component of the built environment can have adverse effects on other components of the built environment.

The Noise provisions give effect to the above objectives by seeking to manage the adverse effects on the environment. The Noise Rule seeks to maintain amenity values by providing standards which need to be met and where they cannot be met, requiring resource consent to ensure adverse effects are considered and reduced, mitigated or avoided recognising that the relationship between different components of the built environment. The Noise provisions also recognise the need for corridors for network utilities, in particular transportation corridors.

4.2.4 Proposed Regional Policy Statement

In accordance with Section 74, regard needs to be given to any proposed Regional Policy Statement. The Proposed Southland Regional Policy Statement was notified in May 2012. There are a number of provisions with the Proposed Policy Statement that are relevant to the noise provisions in the Rural Land/Soils, Urban, and Infrastructure/Transportation sections. The following policies are some of those that are relevant to the issue of noise.

Rural Land/ Soils:

Issue RURAL.2

Subdivision, land use change and development in rural areas of Southland can adversely affect soil, water, amenity, iwi cultural values, landscapes, the transportation network, and may give rise to reverse sensitivity issues.

Policy RURAL.2 – Land use change and land development activities

Manage subdivision, land use change and land development activities in rural areas of Southland, in a way that maintains or enhances existing amenity values and rural character.

Urban:

Objective URB.1

Urban (including industrial) development occurs in an integrated, sustainable and well-planned manner which provides for positive environmental, social, economic and cultural outcomes.

Policy URB.1

The adverse effects of urban development on the environment should be appropriately avoided, remedied or mitigated.

Infrastructure

Objective INF.1

Southland's infrastructure – Southland's regional, national and critical infrastructure is secure, operates efficiently and is integrated with land use and the environment.

Policy INF.3 – Infrastructure protection

Protect regional, national and critical infrastructure from new incompatible land uses and activities under, over or adjacent to the infrastructure.

Issue TRAN.1

Ineffective integration of land use and transport networks can have adverse effects on the safety, efficiency, effectiveness and accessibility of Southland's transport infrastructure.

Issue TRAN.2

Transport corridors and related transport movements can give rise to adverse public health and environmental effects.

Objective TRAN.1 – Transport and land use

Development of transport infrastructure and land use take place in an integrated and planned manner which:

- (a) integrates transport planning with land use;*
- (b) protects the function, safety, efficiency and effectiveness of the transport system;*
- (c) minimises potential for reverse sensitivity issues to arise from changing land uses;*
- (d) provides for positive social, recreational, cultural and economic outcomes;*
- (e) minimises the potential for adverse public health and environmental effects.*

Policy TRAN.4 – Integration of existing and future transport infrastructure

Integrate land use planning with transport infrastructure planning and provide for future transportation requirements.

Policy TRAN.5 – Management of built environment

Avoid, remedy or mitigate the adverse effects of development on transport infrastructure.

Regard has been had to these provisions. The reverse sensitivity and transportation corridors provisions recognise the importance of the District's infrastructure. Adverse effects of noise on the different environments is the key focus of the provisions, with the intention of maintaining and enhancing the amenity values of the different zones.

4.2.5 Regional Plans

In accordance with Section 74 of the RMA, a District Plan must not be inconsistent with a Regional Plan.

The Regional Coastal Plan for Southland includes provisions on noise. These relate to the CMA and are mainly focussed on the internal waters of Fiordland, which adjoins the Southland District. The provisions in the Proposed District Plan are not inconsistent with the Regional Coastal Plan.

4.2.6 Iwi Management Plans

Section 74 of the RMA requires that a local authority must take into account any relevant planning document recognised by an iwi authority and lodged with the territorial authority

Ngai Tahu have lodged an Iwi Management Plan with the Council. The relevant document is the *Ngai Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008 – The Cry of the People - Te Tangi a Taurira*.

Whilst there are no noise specific provisions within the Iwi Management Plan, the policies on subdivision and development focus on encouraging developers to strive to achieve positive community outcomes alongside economic gain.

4.2.7 Management Plans and Strategies Prepared under Other Acts

A District Plan is required to have regard to management plans and strategies prepared under different Acts. For the District Plan review, the Invercargill City Centre Action Plan and The Big Picture (both prepared under the Local Government Act) are considered relevant.

There are various references to noise issues throughout The Big Picture. The spatial plan recognise the relationships between the residential areas and neighbouring enterprises, and seeking the maintenance of what each values about the areas. There are references to managing noise in relation to the Airport, as well as the functionality of the transportation network. All of these issues are addressed in the Proposed District Plan

The City Centre Action Plan refers to a need to encourage a more vibrant city centre with more inner city living. These two elements can at times contradict each other and through the development of an Entertainment Precinct, the noise provisions of the Proposed District Plan seek to address to some degree such conflicts.

4.3 Summary

It is considered that the purpose and principles of the RMA are met by the noise provisions set out in the Proposed District Plan. The proposed provisions fall within the functions of local authorities. The requirements of Section 32 of the Act have been met through the evaluations carried out prior to notification. The various documents required to be considered have been appropriately addressed in the preparation of provisions relating to noise.

5. ANALYSIS OF SUBMISSIONS

This reports addresses about 71 submission points and 60 further submission points on the Noise provisions. The submissions range from comments and support to opposition. Each submission point is addressed individually in the table in **Appendix 1** of this report. In this section the following issues raised through submissions are discussed in more detail:

- Technical submissions
- Notional Boundary
- Transportation Corridors
- Entertainment precinct
- Kennington

5.1 Technical submissions

A number of submissions raised technical issues relating to the terminology used within the provisions. Advice from Stuart Camp, Marshall Day Acoustics, has guided my recommendations on these matters to ensure that the provisions are enforceable, accurate and compatible with the relevant noise standards.

5.2 Notional Boundary

The term “notional boundary” is defined in the notified Proposed District Plan as follows:

Notional Boundary: *Means a line 20 metres from the side of a residence or the legal boundary where the boundary is closer to the building than 20 metres.*

I am recommending that this definition be amended to refer to noise sensitive activities, rather than just to residences, and a minor amendment to clarify that the 20 metres is to be measured from “any” side of a building. However, the definition should largely remain unchanged.

The notional boundary concept deals with noise in rural areas. Notional boundary rules aim to provide appropriate residential amenity around noise sensitive activities, rather than the farmland as a whole. The approach in the Proposed District Plan is to include two separate noise limits in the Rural Zones – a reasonably lenient one at the zone boundary and one consistent with the residential rules at the notional boundary of any noise sensitive activity. This seeks to ensure a reasonable degree of protection for rural sites adjoining noise producing areas, such as areas in the vicinity of the Smelter Zone or the Industrial 3 or 4 Zones.

A number of submissions have questioned the provisions in the rural zones, particularly at the zone interface.

In the Operative District Plan, the notional boundary concept is to be applied at the interface of the Industrial and Industrial A Sub-Areas with any residence located outside the Sub-Area; and at the interface of the Smelter Sub-Area and any residence located outside the Sub-Area.

The drafting of the Proposed District Plan provisions is slightly different and as a result is applied differently. The Zone most affected by this change is the Smelter Zone. Under the Operative and Proposed District Plans, there is no limit for noise within the Smelter Zone. Under the Operative District Plan, the Smelter was only

required to meet the rural noise limits at the notional boundary. Under the Proposed District Plan, the Smelter is to meet the Rural limit of 65dB at the Zone boundary, with a reduction of noise down to 50dB at the notional boundary (daytime). A submission from NZAS (71.54) has sought a return to the rule where noise generated by an activity within the Smelter Zone is not required to comply with the relevant limits of any other zone, except at the notional boundary.

I am recommending to accept in part the NZAS submission, and to apply only the notional boundary rule in the Rural 1 Zone for noise emitted in the Smelter Zone. The Smelter should still be required to meet the Zone noise limits in other areas, such as the residential areas in Bluff. However, in the Rural 1 Zone there is some distance between the Smelter Zone and the nearest noise sensitive activity which provides a larger buffer for noise mitigation.

The provisions at the interface between the Industrial Zones and the Rural 1 Zone have also been questioned in submissions. The provisions allow for the same levels of noise during the day for both the Rural 1 Zone and the Industrial 3 Zone, permitting 65dB limit during the day. This is an increase of 10dB for the Rural 1 Zone than was permitted in the Operative District Plan. The Rural 1 Zone provisions are more restrictive at night-time than the Industrial 3 Zone, but are set at a limit consistent with the Operative District Plan. The notional boundary provisions are 5dB lower in the Proposed District Plan than in the Operative District Plan. Niagara Properties Ltd (submission 94.3 and further submission FS49.2) have opposed the notional boundary provisions seeking that the noise limits for rural land adjoining the Industrial 3 Zone should be the same as the Industrial 3 Zone. Niagara's submission (94.3) received seven further submissions in opposition, most of which come from residents in the Kennington area. The submitter does not state what the intended extent of "land adjoining the Industrial 3 Zone". 65dB is in excess of the World Health Organisation recommend for healthy living environments and it is not considered appropriate to permit such noise levels in living environments within the Proposed District Plan. The notional boundary provisions are designed to allow for a greater level of noise from adjoining industrial activities, but to also protect those living and working within the Rural Areas. The notional boundary is measured 20m from a noise sensitive activity, and provide some protection for these activities from industrial scale noise.

The argument that the noise provisions will constrain industrial activity is also inaccurate. Advice from Marshall Day Acoustics states that if we arbitrarily assume that a noise source is 10 metres from a site boundary, and only just complies with 65dB, and we then assume that the nearest notional boundary is 100 metres beyond the site boundary, the source producing 65dB at 10m will produce 44dB at the notional boundary - easily complying with the 50dB rule. In fact, as long as the nearest notional boundary is at least 50 metres from the site boundary, the proposed rules will generally not represent any additional constraint on industry.

The proposed rules are reasonable and necessary and in most cases will not impose any greater constraint on Industry than the Operative District Plan.

5.3 Transportation Corridors

The provisions within the Proposed District Plan recognise that transportation infrastructure is important for the functioning of our district. However, it is also recognised within the Proposed District Plan that this infrastructure can create a number of adverse environmental effects, such as noise. To support the operation, maintenance and development of this infrastructure, provisions have been included

within the Proposed District Plan to protect the infrastructure from reverse sensitivity complaints. A number of Noise provisions in the Proposed District Plan require that noise sensitive activities that locate near transportation corridors are designed, located and constructed to prevent issues of reverse sensitivity arising. Submissions are supportive of the principles behind these provisions but raise a number of concerns about the detail. The issues raised in these submissions are discussed in greater detail below.

I am recommending a number of changes. However, to address the potential effects of noise generated by all significant transportation networks, I believe a Method of Implementation should be included within the Transportation section of the Plan to ensure that information on the location of significant transportation infrastructure is shared with land owners and occupiers. This will at least ensure that those people living close to these noise generating activities are aware of the potential effects. With this knowledge, land owners can decide whether they wish to insulate or strengthen their buildings.

5.3.1 Kiwirail

In 2012, during the consultation phase of the development of the Proposed District Plan, advice was received from KiwiRail staff on what type of provisions they sought in district plans around the country. The notified provisions were developed based on this advice. However, KiwiRail have submitted seeking additional details and controls that go above and beyond that earlier advice. The KiwiRail submission seeks changes to the noise provisions and also an additional provision addressing vibration.

5.3.1.1 Noise

The operation and maintenance of railways can create noise, that has the potential to affect the amenity values of areas within the vicinity of the rail corridors. For this reason, the Proposed District Plan includes a District Wide provision requiring any noise sensitive activity within 40 metres of a railway line to be designed, located and constructed to meet certain internal noise levels. Kiwirail opposed this rule (79.32) preferring an alternative rule. Apart from the concerns on the relief sought set out in the Marshall Day Acoustics letter, appended to this report as **Appendix 3**, there are a number of reasons I do not agree with the relief sought.

One of the key changes that the submitter is seeking is that they would like noise attenuation for noise sensitive activities up to 100m away from the railway, as opposed to 40m which is required in the Proposed District Plan. The submitter is also seeking noise attenuation for outdoor areas up to 60m away. When making a change to a District Plan provision, the Committee will be required to undertake a section 32 assessment addressing the costs and benefits of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions (including effects on employment and economic growth). As such, the benefits of such a proposal must be balanced against the potential costs.

100 metres extends over a block deep in some residential areas, and in some areas about five properties deep, whereas 40m extends only one or two properties deep. The cost of this requirement will vary depending on the level of noise that a particular noise sensitive activity is exposed to and the types of noise reduction methods that will be needed to achieve suitable internal noise levels to protect sleep and indoor amenity. The scale of the effect of this requirement is difficult to determine because the overlay will apply to many existing residential uses which will not be affected by these rules unless new habitable rooms are constructed. However, the increase in

the depth of the buffer zone will impact on significantly more properties than the notified plan.

In response to queries on the frequency of rail movements through the Invercargill City district KiwiRail¹ has provided the following details:

Total Annual Train Numbers

Line / Section	2012	2013	2014
Bluff Branch	853	932	969
Main South Line (MSL) – Gore to Invercargill Section	2731	2632	2680
Ohai Line – Invercargill to Makarewa Section	1043	1054	1003

Total Daily / Weekly Train Numbers (as at March 2015):

Branch	Mon	Tues	Weds	Thurs	Fr	Sat	Sun	Total
Ohai Branch	2	2	2	2	2	2	0	12
Bluff Branch	4	4	4	4	4	0	0	20
MSL (Gore to Invercargill)	9	11	10	10	10	7	4	61

The numbers of trains is variable and dependant on freight demand. However, increased demand may result in longer trains rather than more train movements. As such long term projections are difficult to make. The number of rail movements is not large and it is difficult in my opinion to justify imposing the sound attenuation requirements on the wider public. The 40m buffer will ensure that those properties directly adjoining the railway lines are protected. Given the intermittency of the noise created on the railway and the relatively low frequency of rail traffic, I question whether all of the changes sought by KiwiRail can be justified.

The Bluff Industrial Line adjoins the Hospital, Residential 1, Residential 1A and Residential 2 Zones where noise sensitive activities are anticipated. Should the acoustic attenuation requirements apply up to 100m, from the railway line, instead of 40m, a significant number of properties will be required to meet the noise standard. A 40m buffer would not affect the Residential 1A Zone due to the separation of the railways and the residential properties by the Bluff Highway. However, any development in the Residential 1A Zone is discretionary and if there is potential for reverse sensitivity effects to arise from the operation railway this could be considered through that consenting process. Due to the low frequency of railway movements along this line, the 40m buffer is appropriate along the Bluff Industrial Line for requiring a reverse sensitivity standard.

The Ohai Industrial Line passes through the Business 1 and Residential 1 Zones where noise sensitive activities are anticipated. I believe that the 40m buffer is appropriate along this line as well, due to the even lower frequency of railway movements. This buffer will protect the operation of the railway network but in a manner that is appropriate in the context of the Invercargill City District.

The Main South Line adjoins or passes through the Business 1, Residential 1, and Residential 1A Zones where noise sensitive activities are anticipated. A large part of the residentially zoned land along the line is used for reserves, and the Invercargill Public Swimming Pool. The areas of residentially developed land affected by the

¹ 2015 03 10 Email received from R Beals, KiwiRail

railway corridor are a block of land bound by Tyne, Ythan, Ness, and Eye Street, which has been zoned Residential 1A; and properties along West and Eldon Streets. The Main South Line is busier than the other two railway lines, however, I do not consider that the effects are that great that it justifies additional noise attenuation requirements for the increased number of properties.

There are objectives and policies in the Proposed District Plan that support the protection of the maintenance and operation of transportation infrastructure from adverse effects of subdivision, use and development. At the time of subdivision, any increase in density of residential development along the rail corridor should include assessment of effects on the transportation network, including reverse sensitivity effects. The railway lines are shown on the Planning Maps and on Infogram 1 within the Proposed District Plan as a significant transportation network.

I believe the internal noise levels included in Rule 3.13.9 are consistent with those sought in the submission. A change to acknowledge teaching spaces as well as bedrooms is recommended. The provisions will ensure that high levels of land transport noise do not adversely affect teaching in poorly designed classrooms.

I consider that there is merit in including a note alongside the rule indicating what is required from the developer to show compliance with the noise standard.

I also believe that an additional assessment matter should be included in 3.13.14. The matters listed are currently focussed on consents for activities that create noise and do not acknowledge that the Noise rule also applies to activities within transportation corridors where noise attenuation may be required.

5.3.1.2 Vibration

As set out in section 2 of the RMA, “noise” includes vibration. As such all policies that address effects of noise, also address the effects of vibration. There are no specific rules addressing vibration in the proposed District Plan. The reasons for this was due to the number of variances that can make assessing vibration a complex task. KiwiRail Holdings Ltd (79.32) have, however, submitted seeking a rule requiring buildings for noise sensitive activities to be developed to address reverse sensitivity effects related to vibration from the rail network. KiwiRail have sought that the vibration standard should apply to noise sensitive activities within 60m of the railway designation boundary. The standard proposed addresses both annoyance and building damage.

Should a vibration rule be included in the Proposed District Plan, it will be important to ensure that the costs and benefits of such a provision are carefully weighed up.

It is my understanding that predicting ground-borne vibration can be difficult to predict due to variances in surrounding ground conditions and the effects of the rail activity. As a result it is normally necessary to undertake measurements of actual vibration at each site as part of any assessment to determine whether the development meets the standard sought. The Norwegian standard referenced in the relief sought requires that measurements be undertaken on at least 15 train movements at each position of interest. Given the low number of train movements through the District, such an evaluation could involve quite significant time and cost. The costs of such an evaluation would need to be proportional to the value of the outcome.

There are a number of residences and noise sensitive activities located within 40m of the railway lines in the Invercargill City District. This is similar to other New Zealand

centres. Advice from Marshall Day Acoustics is that while noise and vibration may exceed accepted guidelines at these locations, rail vibration tends to be tolerated in detached residential dwellings. Residents in new multi-storey residential developments in close proximity to a rail line are unlikely to be as tolerant. The costs of an assessment for vibration effects on new multi-storey developments would be the same as for a single-storey stand-alone development and in the context of the overall project costs would be proportional the value gained.

Should a vibration standard be included in the Proposed District Plan, I am recommending that it apply to new multi-storey developments used for noise sensitive activities. "Multi-storey" meaning developments over two storeys. The standard could also apply to any additions to multi-storey developments, in excess of 25m². It is also recommended that this standard apply to the same corridor as for noise standards, being 40m from the nearest rail line.

5.3.2 State Highways

It is noted that NZTA (53.73) supports Rule 3.13.9. They have also sought additional matters to be included within the list of matters to be considered at the time of resource consent. As stated in response to KiwiRail's submission 79.32, I agree that the matters of consideration should include acknowledgement of consents required under Rules 3.13.9 and 3.13.13.

5.3.3 Airport

To provide for the operation and maintenance of the Invercargill Airport, a rule has been included within the Proposed District Plan requiring acoustic insulation for new and altered noise sensitive activities within the SESEB and the OCB. This requirement applied only to the SESEB in the Operative District Plan. Invercargill Airport Limited (submission 103.64) have submitted opposing the notified rule seeking an even more stringent rule framework.

Maps showing the location of the SESEB and OCB in relation to the different Zones are attached to this report as **Appendix 4**.

In developing the Proposed District Plan, through the consultation phase, a number of meetings were held with representatives from Invercargill Airport Ltd. To assist the Council, Invercargill Airport Ltd provided a discussion document in April 2013 outlining the provisions as they considered appropriate for the Proposed District Plan. This discussion document was thoroughly considered. However, for a number of reasons the provisions in the Proposed District Plan did not mirror those sought by the Invercargill Airport Ltd. The relief sought in submission 103.64 is also not consistent with the discussion document and seeks prohibited activity status for activities that they had, in consultation, sought non-complying activity status for.

It is important that the provisions placed in the Proposed District Plan are relevant to the context of the Invercargill Airport. In 2010 the Invercargill Airport released its Airport Master Plan 2030. This Master Plan provides for growth. It is my understanding that the growth projections inform the location of the air noise contours and that the provisions sought by Invercargill Airport Limited seek to ensure that development around the airport does not inhibit this growth.

The submission refers to the activity status of "noise sensitive activities" which is defined in the Proposed District Plan as follows:

“Noise Sensitive Activities: Means buildings or parts of buildings used for, or able to be used for the following purposes:

- (A) Residential activity;
- (B) Visitor accommodation;
- (C) Residential care activity;
- (D) Education activity, except training related to airport and aircraft operations;
- (E) Hospital activity;
- (F) Healthcare activity;
- (G) Child Daycare activity; and
- (H) Marae activity.’

5.3.3.1 Single Event Sound Exposure Boundary (SESEB)

It is acknowledged that within the SESEB the noise generated by airport activities has the potential to be significant and not conducive to a healthy living environment. This boundary provides for noise created by night-time flights recognising the potential effects of these activities on sleep. The SESEB sits over areas zoned Rural 1, Otatara, Industrial 1, Industrial 2, Business 3 and Residential 1. It should be noted that the Invercargill Prison is located in the Business 3 Zone within the SESEB boundary but is a designated site. In the Proposed District Plan as notified, noise sensitive activities that do not meet the acoustic insulation requirements are considered to be non-complying.

The submission wrongly asserts that the Proposed Plan seeks to allow noise sensitive activities in all zones affected by the noise contours subject only to acoustic insulation requirements. The Zone specific provisions deem noise sensitive activities to be non-complying activities in the Industrial 1 and 2 and the Business 3 Zones. Noise generating activities are not anticipated to locate within these areas, and any potential noise sensitive activities wanting to locate within these zones will need to address a range of effects, not just the noise emitted from the operation of the airport. The noise rule requiring insulation in these zones is an additional reminder to developers that insulation will be a minimum requirement should they gain resource consent.

The definition of “noise sensitive activities” includes educational activities. There may be occasions where these activities are appropriate within the Industrial and Business Zones, such as workplace education schemes. Prohibited activity status will mean that these types of activities cannot be considered. Taking a stringent approach to noise sensitive activities within the SESEB in these zones is appropriate, but prohibited activity status is overly restrictive in the context of the Proposed District Plan.

The areas within the Rural 1 Zone that are encompassed by the SESEB are largely within ownership of the Invercargill Airport, apart from a portion of land at 161 Curran Road, 220 Marama Avenue North and 222 Marama Avenue North. These areas of land do not appear to be developed for noise sensitive activities. Whilst noise sensitive activities are otherwise permitted within the Rural 1 Zone, taking a stringent approach to noise sensitive activities within the SESEB is appropriate.

Residential development and other noise sensitive activities are permitted within the Residential 1 and Otatara zones. In these Zones, I am in agreement with the submitter that the establishment of new noise sensitive activities, or alteration to any existing noise sensitive activity, should be permitted subject to noise insulation requirements. However, I do not agree with the submission that activities that do not comply with these standards should be prohibited. Non-complying activity status was sought by the submitter in its 2013 discussion document for noise sensitive activities,

whether they were insulated or not. I believe that this activity status should be pursued for non-insulated noise sensitive activities, in preference to prohibited activity status. Strengthening up the matters of consideration will ensure that the Invercargill Airport is involved in any application and full consideration of noise effects will be required. There are also policies included within the Proposed District Plan that should be addressed for these applications.

5.3.3.1.1 Recommendation

It is recommended that Rule 3.13.13 be amended to reflect the following activity status:

Within the SESEB in the Business 3, Industrial 1, Industrial 3, and Rural 1 Zones

New Noise Sensitive Activities – Non-complying

Alterations or additions to existing Noise Sensitive Activities – without noise attenuation – non-complying

Within the SESEB in the Residential 1 and Otatara Zones

New Noise Sensitive activities and alterations and additions to existing noise sensitive activities– without noise attenuation - non-complying

5.3.3.2 Outer Control Boundary (OCB)

The OCB is the boundary based on the projected L_{dn} 55 contour, where the Airnoise Boundary is based on the projected L_{dn} 65 contour. The OCB covers a much wider area than the SESEB and Airnoise Boundary. Land covered by this contour falls within the same zones as the SESEB, as well as small part of the Business 1 Zone.

The Invercargill Airport's submission and their April 2013 discussion document take quite different stances in relation to the activity status for noise sensitive activities within the OCB. The submission applies the NZS6805 literally, seeking to prohibit noise sensitive activities in Zones where these activities are not otherwise permitted. They have also sought to prohibit noise sensitive activities within the Rural 1 Zone.

Noise sensitive activities are permitted within the Rural 1 Zone. The Invercargill Airport itself owns a number of the properties within this area. However, there are at least ten properties within this area that are owned by other parties. While the majority of the rural area within the OCB is currently used for grazing, there are residential dwellings on at least 6 properties. The properties on Curran Road, Otatara Road and Marama Avenue North within the OCB range from 1.34ha to just over 4ha. Any new residential development on those properties under 4ha would require resource consent. I believe prohibiting noise sensitive activities within the OCB in the Rural 1 Zone is not appropriate, but that requiring them to be insulated is.

Within the Business 3, Industrial 1 and Industrial 2 Zones, noise sensitive activities are not otherwise permitted. These types of activities are non-complying in the Proposed District Plan and I believe that this is the appropriate activity status. This was the suggested activity status in the Invercargill Airport's 2013 discussion document, although the submitter is now seeking prohibited activity status. Where there are existing noise sensitive activities, I believe that any alterations, or additions should be considered non-complying activities if the noise attenuation requirements are not met. These activities are not generally anticipated within these Zones and there are a number of policies throughout the Proposed District Plan that would need to be addressed as part of any such proposal.

Within the Residential and Otatara Zones noise sensitive activities are permitted. Requiring these types of activities to include noise attenuation is important and should be a requirement of the proposed District Plan. However, I consider that non-complying activity status where this attenuation is not provided is appropriate.

5.3.3.2.1 Recommendation

Within the OCB in the Business 3, Industrial 1, Industrial 2 Zones

New noise sensitive activities – non-complying

Alterations or additions to existing noise sensitive activities– without noise attenuation – non-complying

Within the OCB in the Business 1, Rural 1, Residential 1 and Otatara Zones

New, alterations or additions to existing noise sensitive activities- without noise attenuation – non-complying

5.4 Entertainment Precinct

The Proposed District Plan seeks to encourage mixed use development within the Business 1 (Central Business District) Zone. However, mixed use development can result in amenity conflicts between occupants and users of the area. For example, there are benefits in encouraging residential use of properties within the City Centre. However, people living, or staying, within the City Centre can be living within an environment alongside activities, such as restaurants, bars and nightclubs, which can generate noise.

The Inner City Action Plan notes that

“Rules around city centre living and the associated amenity outcomes should be carefully considered. The challenge is to encourage city centre living (for the well-known advantages including vibrancy, security, travel savings etc.) and at the same time address issues such as reverse sensitivity related to surrounding businesses and negative amenity outcomes that harmfully taint the image of city centre living. The necessity and nature of requirements such as noise limits, outdoor living space, car parking etc. should be considered.(page 20)”

The Entertainment Precinct was developed to identify a particular area in the City Centre where night-time entertainment activities could co-locate. Within this area, noise sensitive activities would be permitted, but would be required to be designed and developed to ensure that the living environment inside was developed to protect occupants from disruptive noise generated elsewhere.

This concept has been the subject of a number of submissions. Recommendations on the individual submissions are detailed in **Appendix 1** of this report.

The technical drafting of the rule is flawed, as pointed out in submission 65.98. In order to determine the internal noise levels, it is necessary to have base noise levels for which to design against. Both ICC Environmental and Planning Services (65.98) and the Southern District Health Board (FS30.9) have suggested approaches. The approach suggested by ICC Environmental and Planning Services is preferred on the grounds that it provides greater flexibility, although some amendments are recommended to address amplified music.

5.5 Kennington

There is a history of rural servicing and processing industry at Kennington. Alongside this industry, there is a cluster of historical residential properties on sections of around 1000m². This interface has resulted in a long history of complaints emanating from the noise created by industrial activities in Kennington, especially at night. Monitoring of the noise in Kennington has found that the noise limits in the Operative District Plan are not being met at the Industrial/Rural interface. Enforcement action has been taken against Niagara Sawmilling Ltd who have responsibility to take action to regularise their operations.

Niagara Properties Limited ("Niagara") have submitted against the noise provisions as they relate to the Industrial 3 Zone and its interface with the Rural Zone. A number of submissions and further submissions have been received in opposition to the Niagara submissions.

The provisions in the Proposed District Plan are consistent with noise provisions in district plans around the country and with the relevant New Zealand standards.

The amenity values of the Rural 1 Zone are such that low levels of ambient noise are anticipated. Although some other noise is anticipated in relation to agricultural and transportation activities, it is not anticipated that the rural area will be subject to Industrial noise.

Whilst the noise provisions enable a reasonable level of noise to be generated within the Industrial 3 Zone, it is acknowledged that noise limits can mean that certain activities within parts of the zone will be constrained, particularly at the Zone boundary.

The noise provisions seek to maintain a reasonable and healthy living environment for those residing in the rural area, but allow for a higher level of noise at the Zone boundary. The Proposed District Plan outlines the Issues that are relevant to the Industrial 3 Zone, in 2.32.2. These identify that a lack of controls on effects of activities in the zone may result in an inappropriate level of amenity within the zone itself as well as adversely affecting other zones nearby. This is a valid resource management issue, as set out in section 4 of this report. 2.40.2 Objective 2 seeks to maintain and enhance the amenity values of the Rural 1 Zone. This is appropriate in terms of the Part II of the RMA. The noise policy in the Industrial 3 Zone gives effect to the Objectives, by recognising that the adjacent zone may have lower ambient noise expectations. I believe the rules are an effective and efficient means of meeting the Objectives and Policies and in addressing the resource management issues. The provisions provide for moderate levels of noise in the rural areas up to the notional boundary, which provides a buffer to some degree for noise created by adjoining Industrial activity.

6. DISCUSSION OF SECTION 32 MATTERS

Section 32 of the RMA establishes the framework for assessing objectives, policies and rules proposed in a Plan. This requires the preparation of an Evaluation Report. This Section of the RMA was recently amended (since the notification of the proposed District Plan) and the following summarises the current requirements of this section.

The first step of Section 32 requires that objectives are assessed to determine whether they are the most appropriate way to achieve the purpose of the RMA (as defined in Section 5).

The second step is for policies and rules to be examined to determine whether they are the most appropriate way to achieve the objectives. In this instance, the objectives are those proposed by the District Plan. This assessment includes requirements to:

- Identify the costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions (including effects on employment and economic growth)
- identify other reasonably practicable options for achieving the objectives; and
- assess the efficiency and effectiveness of the provisions in achieving the objectives.

An Evaluation Report was released at the time of notification of the Proposed Plan.

Section 32AA of the RMA requires a further evaluation to be released with decisions outlining the costs and benefits of any amendments made after the Proposed Plan was notified. Noise is considered in the Amenity section of the s32 Report. No amendments to the objectives, policies or rules are recommended and therefore further evaluation under Section 32AA is not required.

6.1 Relevant Section 32AA Matters

Listed below are the matters considered relevant for further evaluation under Section 32AA of the RMA.

- Reverse sensitivity issues associated with network corridors
- Exemptions from the Noise limits
- Construction noise provision
- New rule addressing Shooting Ranges
- Limitations on Temporary Activities
- Changes in relation to the Entertainment precinct provision

Technical and minor wording changes have been recommended in this report and in the interpretation of the Plan to correct inaccuracies. These are not addressed in this evaluation.

6.2 Section 32AA Further Evaluation

The Transportation and Amenity Sections, as well as the Zone specific sections of the original Section 32 report are relevant to this report. The detail of the recommended changes to which this evaluation refers are set out in **Appendix 2**.

6.2.1 Reverse sensitivity

I have recommended amendments to policies and rules that relate to the potential for reverse sensitivity issues related to the operation of the transportation network. The use of roads, railways and the airport within the Invercargill City District can create noise, which the operators of these facilities are concerned may lead to noise complaints from noise sensitive activities.

Changes to the Zone specific policies are consistent with policies in the Transportation section and should improve awareness of these potential issues.

Changes to the activity status for noise sensitive activities within the OCB and SESEB will provide some protection for the airport and any future growth. However, in a number of the Zones where the activity status is changed to non-complying, regardless of insulation, noise sensitive activities are not anticipated anyway and this change is consistent with the objectives and policies of these Zones and the activity rules. The area of the Business 1 Zone affected is relatively small. It also adjoins a railway line. Any noise sensitive activity wanting to establish in this part of the Business 1 Zone would need to be carefully considered, particularly to protect any residents using the land from potential noise issues. This area is on the outskirts of the Business 1 Zone and this provision should not have significant adversely affect the potential for “vibrancy” sought by Council policies which otherwise encourage residential use of the Business 1 Zone.

The introduction of a vibration rule around the railway lines is consistent with the Transportation and Zone specific policies. The main adverse effect of this new rule is the potential added costs for developers of multi-storey buildings within the railway corridor. Residents and users of these types of developments will benefit from a reduction in vibration. KiwiRail will also benefit from the security offered by this provision from potential vibration complaints.

Including a baseline model to use in the assessment of noise attenuation for activities close to the railway and the state highways will aid Plan Users. It is not anticipated that this change will have any significant negative effects.

6.2.2 Exemptions from Noise limits

6.2.2.1 Smelter Zone

The recommendations include an exemption for noise generated in the Smelter Zone from needing to meet the Rural 1 Zone noise levels, and only applying the notional boundary rules in the Rural 1 Zone. This is consistent with the approach used in the Operative District Plan and is essentially the status quo option. The Proposed District Plan provision, as notified, introduced an additional noise limit for Smelter Zone activities, requiring them to meet the Rural 1 zone noise limits, as well as other Zone limits, at and within the other Zone boundaries. The proposed change will retain protection for residences in Bluff, but will provide some leniency for the smelter activities to create noise exceeding the levels required in the Rural 1 Zone. As noise sensitive activities are separated by quite some distance from the Smelter Zone, it is

anticipated that the effects of this change on the Smelter will not be great. Noise sensitive activities will remain protected from potential noise effects.

6.2.2.2 Livestock

The recommendations include an exemption for noise from livestock kept as part of agriculture. There are certain times of the year and different agricultural activities that can result in livestock making noise. This exemption will protect land owners and occupiers in rural carrying out agricultural activities from potential noise related complaints. This is consistent with the rural Objectives and Policies which permit agriculture and anticipate that livestock could potentially be involved through the definition of agriculture.

The recommended wording is preferred over the alternative suggested by Federated Farmers, which had the potential to result in extending the exemption out to a range of noise sources, other than just animals. This exemption would have allowed noise limits to have been exceeded with the potential for impacts on permitted residential and other noise sensitive activities within the areas.

6.2.2.3 Trains

I am recommending that the exemption for noise from trains be restricted only to those trains on designated land. This will mean that trains on private sidings, for example, will be required to meet the noise limits. This amendment may restrict some property owners and occupiers who wish to utilise trains on undesignated land. Without the restriction, new sidings may be able to be developed close to existing noise sensitive activities with no assessment of noise effects. The restriction will protect these noise sensitive activities from potential noise effects, or at the very least require the consideration of noise effects. This exemption is consistent with the Transportation Objectives and Policies.

6.2.3 Construction Noise standards

The Proposed District Plan as notified required compliance with the New Zealand Construction Noise standard, which has been found not to constitute a measurable standard against which compliance can be assessed. The alternative recommended is consistent with the NZS and will ensure that the noise from construction can be assessed. The effects of this amendment are minor, but the recommended provision will be more effective in terms of determining compliance.

6.2.4 New Rule addressing Shooting Ranges

The Proposed District Plan exempted noise from shooting ranges from the noise limits, but did not otherwise provide for them. The nature of the noise created by these types of activities is difficult to regulate and making shooting ranges discretionary will enable the effects of these activities to be considered, and noise can be address in a resource consent application on a case by case basis. This will mean that people wishing to set up a shooting range will be required to go through the resource consent process. However, the community will benefit through involvement in the process where they are affected and through reassurance that the noise effects of these types of activities will be considered.

6.2.5 Limitations on Temporary Activities

The Proposed District Plan provides increased noise limitations for up to six temporary activities to be carried out within a calendar year. In response to submissions, it is recommended that these activities are not to be carried out for more than three consecutive days at a time. This is to protect the amenity values for those living and working in the adjoining areas. While this may restrict the scale of some events, or result in them having to gain resource consent, the community benefits from the additional protection.

6.2.6 Changes in relation to the Entertainment Precinct

The Entertainment Precinct noise provision set internal noise requirements, but did not stipulate the background noise levels that these internal noise levels were to be assessed against. The recommendation seeks to make a more efficient and effective provision that can be readily utilised.

Recommendations to alter the boundary of the Entertainment Precinct over 10 Dee Street more accurately reflect the activity types being carried out on the property. The part of the property utilised for Visitor Accommodation will not be within the Entertainment Precinct and as such the internal noise requirements will not apply. This is a relatively minor change but will benefit the landowner in terms of potential insulation requirements. .

7. CONCLUDING COMMENTS

In addressing noise, the Proposed District Plan provisions need to find a balance between enabling certain activities to generate noise, whilst ensuring that that the noise is reasonable and acceptable in the different environments. Despite the fact that a number of amendments are recommended in this report, the overall approach to noise issues is supported. The amendments recommended will tidy up any technical oversights or inaccuracies and result in provisions that are more readily enforceable. The amendments also provide stronger protection for transportation network operators from reverse sensitivity issues.

It is my opinion that the recommendations made in response to the submissions, will result in well-balanced provisions that are effective and enforceable. While noise issues will never completely go away due to its highly subjective nature, the provisions within the Proposed District Plan as recommended in this report will provide the noise generator and the noise receiver with some measurable provisions to work with.

APPENDIX 1: RECOMMENDATIONS IN RESPONSE TO SUBMISSIONS

Submitter	Plan Provision / Submission	Recommendation
GENERAL		
<p>94.2 Niagara Properties Ltd</p>	<p>The submitter is concerned that the limits on the adjoining rural land are more stringent than the Industrial 3 Zone and that changes to the noise provisions could limit their ability to undertake permitted activities under the Industrial 3 Zone.</p> <p>The submitter also considers that there has been inadequate assessment of the noise provisions in the s32 report</p> <p>RELIEF SOUGHT: To provide an assessment of the alternatives, benefits and costs of the noise provisions, and more specifically the change in the manner in which noise is measured and assessed.</p> <p>FS3.1 Quenton Stephens <i>Oppose submission 94.2</i></p> <p>FS15.2 Shanan De Garnham <i>Oppose submission 94.2</i></p> <p>FS16.2 Dean Evans <i>Oppose submission 94.2</i></p> <p>FS17.2 Leona Evans <i>Oppose submission 94.2</i></p> <p>FS18.2 Michael and Michelle Grantham <i>Oppose submission 94.2</i></p> <p>FS30.12 Southern District Health Board <i>Oppose Submission 94.2</i> <i>The further submitter considers that that submission lacks specificity required for a submission according to case law, especially in relation to submissions about any change to the way in which noise is measured and assessed.</i></p>	<p>Reject</p> <p>It is accepted that the standards may limit the ability to undertake permitted activities within the Industrial 3 Zone to a certain degree. The provisions seek to enable industrial activities to be carried out but to ensure that they are carried out in such a way that noise sensitive activities permitted in surrounding zones are not adversely affected. This is acknowledged as a specific Issue in the Industrial 3 Zone (see 2.32.1 Issue 2 of the Proposed District Plan). Enhancing and maintaining amenity values is a matter that the Council is to have regard to under the RMA. The noise provisions address a significant resource management issue.</p> <p>The levels of noise permitted within the Industrial 3 Zone in the Proposed District Plan have not significantly changed from the noise levels permitted in the Industrial Sub-Area in the Operative District Plan. The biggest change is to the notional boundary provisions, which set a lower noise limit in the Rural Zones. Overall, however, the proposed rules are generally slightly more lenient than the Operative District Plan, with the exception of the small number of dwellings to the east. It is accepted that these dwellings are almost surrounded by industrial activity, and therefore may not enjoy the same residential amenity as other rural dwellings. However, the proposed rules are appropriate.</p>

Submitter	Plan Provision / Submission	Recommendation										
	<p>FS36.3 Jeanett Bullock <i>Oppose submission 94.2</i></p> <p>FS41.2 William Fraser <i>Oppose submission 94.2</i></p>											
<p>65.95 ICC Environmental and Planning Services</p>	<p>The submitter notes that the terminology needs to be tidied up to ensure that the references are enforceable, consistent, accurate and compatible with the relevant noise standard</p> <p>RELIEF SOUGHT: Amend wording. For example, any reference to "...dBA L_{eq}" (or L_{dn}) should be amended to "...dB L_{Aeq}" (or L_{Adn}). At 3.13.8(B)(b)(1), there is an L_{eq} term where the "eq" has not been subscripted.</p> <p>FS20.1 Bruce Maher <i>Support submission 65.69</i> The further submitter believes that the noise levels need to be clearly stated so that it can be enforced</p> <p>FS30.6 Southern District Health Board <i>Support in part submission 65.95</i> Amendments necessary for consistency with standards for measurement and assessment stated in plan, however the example includes an error where L_{dn} is proposed to be amended to L_{Adn} which is contrary to convention, international and New Zealand usage.</p> <p>RELIEF SOUGHT: Accept relief sought, except reference to L_{Adn} which is not considered the correct convention</p>	<p>Accept in part</p> <p>It is accepted that there is a need to amend some of the acoustic terminology used within the Plan to ensure that the provisions are consistent with international terminology and the updated New Zealand Standards reference in the rules.</p> <p>The further submission should be accepted, in that the term L_{dn} should remain as it is by definition A-weighted and does not change to L_{Adn}</p> <p>RECOMMENDATION:</p> <p>That the use of the following acoustic terminology be deleted and replaced as follows:</p> <table border="1" data-bbox="1301 938 2040 1098"> <thead> <tr> <th>As notified</th> <th>Replace with</th> </tr> </thead> <tbody> <tr> <td>dBA</td> <td>dB</td> </tr> <tr> <td>L_{eq}</td> <td>L_{Aeq}</td> </tr> <tr> <td>L_{max}</td> <td>L_{Amax}</td> </tr> <tr> <td>L_{dn}</td> <td>L_{dn}</td> </tr> </tbody> </table>	As notified	Replace with	dBA	dB	L _{eq}	L _{Aeq}	L _{max}	L _{Amax}	L _{dn}	L _{dn}
As notified	Replace with											
dBA	dB											
L _{eq}	L _{Aeq}											
L _{max}	L _{Amax}											
L _{dn}	L _{dn}											
<p>105.8 ICC Environmental Health and Compliance Services</p>	<p>The submitter notes that conflicts arise where industrial activity interfaces with noise-sensitive activities and seeks the development of buffers.</p> <p>RELIEF SOUGHT: For new Industrial subdivision or noise generating activities the submitter recommends that:</p>	<p>Noted</p> <p>The Proposed District Plan does not include any physical buffer provisions.</p>										

Submitter	Plan Provision / Submission	Recommendation
	<p>a. An appropriate buffer zone is determined to protect the existing nearby residential properties.</p> <p>b. Buffer zones to be included to protect the future residents of Residential Subdivisions near any Industrial Zones.</p>	<p>The introduction of the Industrial 1 (Light) Zone was an attempt to ensure that heavy industry is physically separated from residential areas. The provisions as proposed for the Industrial 1 Zone include limited lower noise limits for night-time noise limits which seek to protect noise sensitive activities.</p> <p>The matters of consideration for consents for activities in breach of the noise provisions include proposals by the applicant to reduce noise. These may well include buffers.</p> <p>Buffers have also been introduced into the Proposed District Plan through provisions relating to transportation corridors requiring setbacks from the noise generating transportation activities, residential density standards and insulation requirements .</p> <p>The concept of notional boundaries also forms a buffer to protect noise sensitive activities.</p>
<p>105.9 ICC Environmental Health and Compliance Services</p>	<p>The submitter notes that conflicts arise in relation to noise in mixed-use urban environments. The submitter supports the exclusion of noise generating activities from residential areas</p> <p>RELIEF SOUGHT: The submitter recommends that the Plan includes a provision to mitigate or reduce the effects where noise-generating activities seek to establish in noise-sensitive environments</p>	<p>Noted</p> <p>One of the considerations involved in determining the activity status for activities within the different zones was the potential effects that each type of activity may create. As such, the effects of noise generated by different types of activities on noise sensitive activities was a consideration when drafting the Proposed District Plan to ensure that compatible activities are grouped together.</p> <p>Where activities are proposed that are not permitted, the effects of noise should be included through the resource consent process.</p>
<p>117.24 Southern District Health Board</p>	<p>The submitter supports the Proposed Plan in general insofar as it incorporates amendments to rules to avoid, mitigate and reduce adverse effects of noise on environmental health, and to promote the health of the people and communities in the District in a sustainable manner.</p> <p>RELIEF SOUGHT: Supports, subject to amendments detailed in the submitter's other submissions</p>	<p>Accept in part</p> <p>It is recommended that the overall approach to noise issues be retained as notified, subject to recommendations on other submissions</p>

Submitter	Plan Provision / Submission	Recommendation
	<p>FS34.5 ICC - Environmental Health and Compliance Services Support submission 117.24 The further submitter also supports the use of NZS6801:2008 and NZS6802:2008 as a basis for measurement and assessment of environmental noise.</p> <p>The further submitter also considers that the noise provisions in the Proposed Plan should be designed to avoid, mitigate and reduce adverse effects of noise on environmental health and to promote the health of the people and communities in the District.</p>	
SECTION 2 ISSUES, OBJECTIVES AND POLICIES		
<p>117.55 Southern District Health Board</p>	<p>The submitter supports the Zone specific issues, objectives, and policies set out in 2.21-2.43.</p> <p>The submitter states that references to noise in these sections are important as they recognise potential for reverse sensitivity problems, and the need for avoidance of adverse effects to other activities within the zones and in adjoining zones while permitting Zone objectives consistent with policies.</p> <p>RELIEF SOUGHT: Retain</p> <p>FS3.4 Quenton Stephens Support submission 117.55 The further submitter supports the need for the avoidance of adverse effects to other activities within zones and in adjoining zones</p>	<p>Accept in part</p> <p>Recommendations in response to submissions on the noise policies in the Business 3, Industrial 1, Otatara, Residential 1, Rural 1 and Rural 2 Zones are addressed in the table below. These recommendations include amendments that seek to strengthen the way reverse sensitivity effects are addressed.</p> <p>Recommendations within this report do not affect Issues and Objectives.</p>
BUSINESS 3 ZONE		
<p>103.54 Invercargill Airport Ltd</p>	<p>Oppose 2.24.3 Policy 5 Noise in part.</p> <p>The submitter believes that there should be provisions relating specifically to the management of noise sensitive activities affected by the airport noise contours</p> <p>RELIEF SOUGHT: Insert additional policies for areas affected by the airport noise contours that:</p> <ol style="list-style-type: none"> a. set out to prohibit noise sensitive activities; and b. to require existing buildings containing noise sensitive activities in these 	<p>Reject in part</p> <p>As stated in response to submission 103.56 below, the District Wide Transportation Policies acknowledge the need to avoid, remedy or mitigate adverse effects including reverse sensitivity effects on the transportation network. 2.24.3 Policy 5(C) acknowledges the existence of the transportation network in the Business 3 Zone. However, given the location of parts of the Zone in relation to the SESEB and OCB , State Highways and the railway, this policy could be strengthened.</p>

Submitter	Plan Provision / Submission	Recommendation
	<p>areas to be appropriately designed to mitigate the effects of aircraft noise.</p>	<p>It is my opinion that the policy should be focussed on avoiding or mitigating the effects, rather than narrowing the policy down to the activity status of certain types of activity.</p> <p>RECOMMENDATION:</p> <p>Delete 2.24.3 Policy 5(C)</p> <p>Amend the Explanation to 2.24.3 Policy 5 as follows: <i>'Explanation: The character of the zone is such that reasonable levels of daytime noise should be both permitted and tolerated. Night time noise should not be objectionable in nearby residential areas. The airport, the State Highways and the railway all have operational requirements involving generation of varying levels of noise and it is important that the operation of these essential utilities is not compromised by reverse sensitivity issues.'</i></p> <p>Include a new Policy</p> <p><u>"To recognise that some parts of the Zone are subject to higher levels of noise generated by the transportation network and to avoid, or mitigate reverse sensitivity effects associated with those activities.</u></p> <p><u><i>Explanation: The airport, the State Highways and the railway all have operational requirements involving generation of varying levels of noise and it is important the functioning of this infrastructure is not compromised by reverse sensitivity issues involving noise. The location, design and operation of noise sensitive activities should involve the consideration of these existing noise sources."</i></u></p>

Submitter	Plan Provision / Submission	Recommendation
INDUSTRIAL 1 ZONE		
<p>103.56 Invercargill Airport Ltd</p>	<p>Oppose 2.29.3 Policy 2 Noise in part.</p> <p>The submitter believes that there should be provisions relating specifically to the management of noise sensitive activities affected by the airport noise contours</p> <p>RELIEF SOUGHT: Insert additional policies for areas affected by the airport noise contours that:</p> <ol style="list-style-type: none"> a. set out to prohibit noise sensitive activities; and b. to require existing buildings containing noise sensitive activities in these areas to be appropriately designed to mitigate the effects of aircraft noise. 	<p>Reject in part</p> <p>2.29.3 Policy 1 and 2 make it clear that this is an environment where noise is acceptable during the day. However, there is no Zone specific proposed policy that addresses reverse sensitivity issues relating to the transportation infrastructure.</p> <p>The Transportation section of the Proposed District Plan includes a policy to manage subdivision, use and development adjacent to transport infrastructure in such a way as to avoid, remedy or mitigate adverse effects, including reverse sensitivity effects on transportation infrastructure. This is a District Wide policy that covers all Zones and it is not considered necessary to repeat it for each Zone (see 2.17.3 Policy 5.) This policy should be considered as part of any subdivision, use or development.</p> <p>However, given the that the SESEB and the OCB both sit over parts of the Industrial 1 Zone, and that there are areas of this Zone close to railways and state highways, it would be appropriate to include a policy similar to that in other zones acknowledging the existence of the noise generated by this infrastructure.</p> <p>I believe the policy should focus on avoiding, or mitigating the adverse effects, rather than on prohibiting the activities. This is consistent with my recommendation in response to submission 103.64 below relating to the activity status of noise sensitive activities.</p> <p>RECOMMENDATION: To add an additional policy to 2.29.3</p> <p><u>"To recognise that some parts of the Zone are subject to higher levels of noise generated by the transportation network and to avoid, or mitigate reverse sensitivity effects associated with those activities.</u></p>

Submitter	Plan Provision / Submission	Recommendation
		<p><u>Explanation:</u> <i>The airport, the State Highways and the railway all have operational requirements involving generation of varying levels of noise and it is important the functioning of this infrastructure is not compromised by reverse sensitivity issues involving noise. The location, design and operation of noise sensitive activities should involve the consideration of these existing noise sources.'</i></p>
OTATARA ZONE		
<p>103.57 Invercargill Airport Ltd</p>	<p>Oppose 2.34.3 Policy 4 Noise in part.</p> <p>The submitter believes that there should be provisions relating specifically to the management of noise sensitive activities affected by the airport noise contours</p>	<p>Reject in part</p> <p>2.34.3 Policy 4 refers to the higher levels of noise generated by transportation activities in parts of the Otatara Zone. This, along with the District Wide Transportation policies, addresses reverse sensitivity effects associated with transportation activities. However, the policy could be further strengthened.</p> <p>RECOMMENDATION:</p> <p>Amend 2.34.3 Policy 4 as follows:</p> <p>'To maintain low daytime ambient noise levels and lower night time ambient noise levels consistent with residential use of the area, recognising that some parts of the zone are subject to higher levels of noise generated by agricultural and transportation activities.</p> <p><i>Explanation:</i> <i>"Peace and tranquillity" are important dimensions to the amenity of Otatara, as are the opportunities for rural activities such as agriculture. Excess noise, especially if it occurs repeatedly, can engender a reaction of increased intolerance. However, it is important to recognise the existence of rural activities within the Otatara Zone and ensure they are not compromised by reverse sensitivity issues involving noise.</i></p>

Submitter	Plan Provision / Submission	Recommendation
		<p>The “peace and tranquillity” of Otatara is also affected by major transportation infrastructure, in particular the airport. However, it is important that the functioning of this essential infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this.’</p> <p>Include a new Policy</p> <p><u>“To recognise that some parts of the Zone are subject to higher levels of noise generated by the transportation network and to avoid, or mitigate reverse sensitivity effects associated with those activities.</u></p> <p><i>Explanation:</i> <u>“Peace and tranquillity” can be affected by major transportation infrastructure, in particular the airport. However, it is important that the functioning of this infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this. The location, design and operation of noise sensitive activities should involve the consideration of these existing noise sources.”</u></p>
RESIDENTIAL 1 ZONE		
<p>103.59 Invercargill Airport Ltd</p>	<p>Oppose 2.36.3 Policy 9 Noise in part.</p> <p>The submitter believes that there should be provisions relating specifically to the management of noise sensitive activities affected by the airport noise contours</p>	<p>Reject in part</p> <p>2.36.3 Policy 9 recognises the potential for higher levels of noise generated by transportation activities in parts of the Residential 1 Zone. This, along with the District Wide Transportation policies, addresses reverse sensitivity effects. However, the policy could be further strengthened.</p> <p>RECOMMENDATION: Amend 2.36.3 Policy 9 as follows: “To maintain low daytime ambient noise levels and lower night time ambient noise levels consistent with residential use of the area, recognising that some parts of the Residential Zone are subject to higher levels of noise generated by transportation activities.</p>

Submitter	Plan Provision / Submission	Recommendation
		<p>Explanation: <i>The residential areas of the city have the lowest tolerance to noise of any of the city environments. "Peace and tranquillity" are important dimensions to residential amenity for most people. Excess noise, especially if it occurs repeatedly, can engender a reaction of increased intolerance. Noise is the most common issue in neighbourhood disputes in which the Council has to become involved.</i></p> <p><i>Residential "peace and tranquillity" is affected by major transportation infrastructure, in particular the State Highways, the railway and the airport. However, it is important that the functioning of this essential infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this.</i></p> <p>Include a new Policy</p> <p><u>"To recognise that some parts of the Zone are subject to higher levels of noise generated by the transportation network and to avoid, or mitigate reverse sensitivity effects associated with those activities."</u></p> <p>Explanation: <u><i>Residential "peace and tranquillity" can be affected by major transportation infrastructure, in particular the State Highways, the railway and the airport. However, it is important that the functioning of this infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this. The location, design and operation of noise sensitive activities should involve the consideration of these existing noise sources."</i></u></p>

Submitter	Plan Provision / Submission	Recommendation
RURAL 1 ZONE		
53.65 NZ Transport Agency	Support 2.40.3 Policy 8 Noise RELIEF SOUGHT: Retain Policy 8 as proposed.	Accept in part Recommended changes in response to submission 103.61 below will strengthen the policies by recognising reverse sensitivity issues.
90.18 H W Richardson Group Ltd	Support 2.40.3 Policy 8 Noise. The submitter considers it appropriate to recognise that some parts of the rural zone are subject to higher levels of noise and should not be compromised by reverse sensitivity issues. RELIEF SOUGHT: Retain Policy 8	Accept in part Recommended changes in response to submission 103.61 below will strengthen the policies by recognising reverse sensitivity issues.
94.5 Niagara Properties Ltd	Oppose 2.40.3 Policy 8 Noise. The policy does not recognise that parts of the rural area are adjacent to industrial activities. The submitter objects to the use of the term “peace and tranquillity” in the explanation as the zone is a working environment and subject to noise associated with rural activities along with other permitted activities such as industry in adjoining zones RELIEF SOUGHT: Amend wording to recognise noise levels in parts of the Rural Zone are influenced by existing industrial activities and adjoining industrial zones. FS3.6 Quenton Stephens Oppose Submission 94.5 The further submitter considers that the policy should recognise the “peace and tranquillity” that rural zones can have. RELIEF SOUGHT: Retain Policy 8 as notified	Reject The Rural Zone should not be subjected to industrial scale noise. The noise generated from other zones should meet the rural noise limits at the zone boundary and the notional boundary. 2.40.3 Policy 8 acknowledges that the Rural zone is a working environment, by recognising the noise created by agricultural activities. The policies seek to address future management of the zones and to set out the direction for management of the zones going forward. If an activity is operating outside the existing use rights and the Proposed District Plan provisions, it is not appropriate to provide for them in the provisions of the Plan

Submitter	Plan Provision / Submission	Recommendation
	<p>FS9.5 Ballance Agri-Nutrients Ltd Support submission 94.5 The further submitter notes that it has a service centre within an Industrial Zone adjoining the Rural 1 Zone. The further submitter is concerned that the policy does not acknowledge the need for the ongoing functioning of adjoining industrial areas to be protected from reverse sensitivity</p>	
<p>103.61 Invercargill Airport Ltd</p>	<p>Oppose 2.40.3 Policy 8 Noise in part.</p> <p>The submitter believes that there should be provisions relating specifically to the management of noise sensitive activities affected by the airport noise contours</p> <p>RELIEF SOUGHT: Insert additional policies for areas affected by the airport noise contours that:</p> <ol style="list-style-type: none"> a. set out to prohibit noise sensitive activities; and b. to require existing buildings containing noise sensitive activities in these areas to be appropriately designed to mitigate the effects of aircraft noise. 	<p>Accept in part</p> <p>2.40.3 Policy 8 refers to the higher levels of noise generated by transportation activities in parts of the Rural 1 Zone. This, along with the District Wide Transportation policies, addresses reverse sensitivity effects associated with transportation activities. However, the policy could be further strengthened.</p> <p>RECOMMENDATION:</p> <p>Amend 2.40.3 Policy 8 as follows:</p> <p>“Noise: To maintain low daytime ambient noise levels and lower night time ambient noise levels whilst allowing agricultural activities, and <u>to recognise</u> recognising that some parts of the zone are subject to higher levels of noise generated by transportation activities and farm activities.</p> <p>Explanation: <i>Low ambient noise levels, particularly at night, are an important dimension to the amenity of the Rural 1 Zone. However, it is important to recognise that the Rural 1 Zone is a working environment and rural activities such as agriculture, horticulture and forestry need to be provided for to ensure they are not compromised by reverse sensitivity issues involving noise.</i></p> <p>The “peace and tranquillity” of the Rural 1 Zone is also affected by major transportation infrastructure, in particular the State Highways, the railway and the airport. However, it is important that the functioning of this essential infrastructure is not compromised by reverse sensitivity issues involving noise.</p>

Submitter	Plan Provision / Submission	Recommendation
		<p>AND</p> <p>Include a new Policy</p> <p><u>“To recognise that some parts of the Rural 1 Zone are subject to higher levels of noise generated by the transportation network and to avoid, or mitigate reverse sensitivity effects associated with those activities.</u></p> <p><u>Explanation:</u> <i>“Peace and tranquillity” can be affected by major transportation infrastructure, in particular the railways, state highways and the airport. However, it is important that the functioning of this infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this. The location, design and operation of noise sensitive activities should involve the consideration of these existing noise sources.”</i></p>
RURAL 2 ZONE		
<p>90.22 H W Richardson Group Ltd</p>	<p>Support Policy 7 – Noise</p> <p>The submitter considers it appropriate to recognise that some parts of the rural zone are subject to higher levels of noise and should not be compromised by reverse sensitivity issues</p> <p>RELIEF SOUGHT: Retain Policy 7</p>	<p>Accept in part</p> <p>In order to be consistent with the policies in the Rural 1 zone, it is considered appropriate to amend the policies as they relate to transportation noise.</p> <p>RECOMMENDATION: Amend 3.39.3 Policy 7 as follows:</p> <p>Policy 7 Noise: To maintain low daytime ambient noise levels and lower night time ambient noise levels whilst allowing agricultural activities, and recognising to recognise that some parts of the zone are subject to higher levels of noise generated by transportation activities and farm activities.</p> <p>Explanation: <i>Low ambient noise levels, particularly at night, are an important dimension to the amenity of the Rural 2 Zone. However, it is important to recognise that the Rural 2 Zone is a</i></p>

Submitter	Plan Provision / Submission	Recommendation
		<p><i>working environment and rural activities such as agriculture, horticulture and forestry need to be provided for to ensure they are not compromised by reverse sensitivity issues involving noise.</i></p> <p><i>The “peace and tranquillity” of the Rural 2 Zone is also affected by major transportation infrastructure, in particular the State Highways and the railway. However, it is important that the functioning of this essential infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this.</i></p> <p>AND</p> <p>Include a new Policy</p> <p><u>“To recognise that some parts of the Rural 1 Zone are subject to higher levels of noise generated by the transportation network and to avoid, or mitigate reverse sensitivity effects associated with those activities.</u></p> <p><u>Explanation:</u> <u>“Peace and tranquillity” can be affected by major transportation infrastructure, in particular the railways, state highways and the airport. However, it is important that the functioning of this infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this. The location, design and operation of noise sensitive activities should involve the consideration of these existing noise sources.”</u></p>

Submitter	Plan Provision / Submission	Recommendation
SECTION 3.13 RULES		
<p>79.33 KiwiRail Holdings Ltd</p>	<p>The submitter suggests a new rule and assessment criteria on vibration.</p> <p>The submitter considers that vibration should be addressed in the Plan, in particular the potential for reverse sensitivity issues on the operation of the rail network arising from vibration. The submitter suggests a standard that they believe should be applied to noise sensitive activities within 60m of the railway designation boundary.</p> <p>RELIEF SOUGHT: Add a further rule to Section 3.13 to address “Ground-borne Noise” or vibration (as detailed in submission) AND Add new assessment criteria for vibration in order to consider the size, nature and location of the building, any special topographical, building features or ground conditions which may mitigate vibration effects and any characteristics of the proposed use that make compliance with the standard unnecessary.</p> <p>FS30.18 Southern District Health Board Support submission 79.33 The further submitter considers that the relief sought provides rules to allowing objective assessment of vibration</p> <p>FS34.7 ICC - Environmental Health and Compliance Services Support submission 79.33 The further submitter considers that vibration should be addressed in the Plan and there should be a distance restriction for noise sensitive activities</p>	<p>Accept in part</p> <p>The concept of rail vibration criteria is accepted. However, it is recommended that the relief sought by the submitter be amended.</p> <p>See section 5 of this report for further discussion.</p> <p>Given the advice received from Marshall Day Acoustics and the relatively small number of train movements on the rail lines through the Invercargill City District, it is considered that a rule addressing reverse sensitivity effects of vibration be included in the Proposed District Plan, but that rule should be scaled back from the relief sought by the submitter. It is recommended that the rule be scaled back from the relief sought to apply only to new multi-storey residential developments exceeding two storeys, or additions to existing multi-storey residential developments in excess of 25m², which should be required to meet the vibration standards, up to 40m from the rail line.</p> <p>Informing property owners, and/or prospective property owners of the existence of nearby rail lines and the potential for rail noise and vibration through the LIM or PIM process may be an additional useful non-regulatory method of addressing potential reverse sensitivity effects, particularly for single occupancy dwellings.</p> <p>RECOMMENDATION:</p> <p>A new rule be included as follows:</p> <p><u>“3.13.# Vibration in Rail Network Corridor</u></p> <p><u>Any new building exceeding two storeys, or additions in excess of 25m² to an existing building exceeding two storeys, used for a noise sensitive activity that is within 40 metres of the closest</u></p>

Submitter	Plan Provision / Submission	Recommendation				
		<p>railway track shall be designed constructed to ensure that the following levels of vibration from trains shall not be exceeded based on the procedures set out in the <u>Norwegian Standard NZ 8176E: 2nd edition September 2005 Vibration and Shock Measurement of Vibration in Buildings from Land Based Transport and Guidance to Evaluation of its Effects on Human Beings.</u></p> <table border="1" data-bbox="1379 443 2040 600"> <thead> <tr> <th data-bbox="1379 443 1771 507"><u>Receiving Environment (New relocated or altered)</u></th> <th data-bbox="1771 443 2040 568"><u>Class C criterion: Maximum Weighted Velocity, Vw,95</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="1379 568 1771 600">Noise Sensitive activities</td> <td data-bbox="1771 568 2040 600">0.3mm/s</td> </tr> </tbody> </table> <p>Compliance with this rule shall be demonstrated by providing the <u>Council and KiwiRail Holdings Limited with a design report a design certificate prepared by an experienced and qualified acoustic/vibration specialist</u>"</p> <p>AND</p> <p>Amend 3.13.14(B) by including the following matters of consideration:</p> <p><u>"(i) For consents under Rule 3.13.#,</u></p> <ul style="list-style-type: none"> <li data-bbox="1379 943 2018 1031">(i) <u>any special topographical, building features or ground conditions which will mitigate vibration effects</u> <li data-bbox="1379 1031 2040 1094">(ii) <u>The size, nature, and location for the building on the site"</u> <p>AND</p> <p>Amend 2.17.4 Transportation Methods of Implementation by adding the following:</p> <p><u>"Method 12 Share information with land owners and occupiers on the effects of existing transportation networks, such as noise and vibration."</u></p>	<u>Receiving Environment (New relocated or altered)</u>	<u>Class C criterion: Maximum Weighted Velocity, Vw,95</u>	Noise Sensitive activities	0.3mm/s
<u>Receiving Environment (New relocated or altered)</u>	<u>Class C criterion: Maximum Weighted Velocity, Vw,95</u>					
Noise Sensitive activities	0.3mm/s					

Submitter	Plan Provision / Submission	Recommendation
105.7 ICC Environmental Health and Compliance Services	<p>The submitter supports the use of NZS6801:2008 and NZS 6802:2008 as basis for measurement and assessment</p> <p>RELIEF SOUGHT: Retain reference to NZS6801:2008 and NZS 6802:2008</p>	<p>Accept</p> <p>These are the most important and up-to-date New Zealand Standards dealing with environmental noise. They are used consistently through the country in other District Plans and are used as best practice for enforcement of Plan provisions.</p>
117.25 Southern District Health Board	<p>The submitter supports the use of NZS6801:2008 and NZS 6802:2008 as basis for measurement and assessment except where otherwise stated.</p> <p>The submitter considers that the heading should be amended to clarify the scope of the provision.</p> <p>RELIEF SOUGHT: Allow provision subject to amendments: Add to heading after word “measurement” the words “and assessment.”</p> <p>FS34.6 ICC - Environmental Health and Compliance Services Support submission 117.25</p> <p>The further submitter also supports the use of NZS6801:2008 and NZS6802:2008 as a basis for measurement and assessment of environmental noise.</p> <p>The further submitter also considers that the noise provisions in the Proposed Plan should be designed to avoid, mitigate and reduce adverse effects of noise on environmental health and to promote the health of the people and communities in the District.</p>	<p>Accept</p> <p>The suggested amendment makes sense and more accurately clarifies the scope of the provision.</p> <p>RECOMMENDATION:</p> <p>Amend the heading of 3.13.1 as follows:</p> <p>“Noise measurement <u>and assessment:...</u>”</p>
28.7 Harvey Norman Properties (NZ) Ltd and Harvey Norman Stores (NZ) Pty Ltd	<p>Support 3.13.2</p> <p>The submitter considers this provision allows for an increased noise level to reflect the type of activities anticipated in the proposed Business 3 Zone.</p>	<p>Accept</p> <p>Subject to amendments made in response to other submissions</p>

Submitter	Plan Provision / Submission	Recommendation
<p>59.3 Quenton Stephens</p>	<p>Oppose 3.13.2 in part</p> <p>The submitter opposes some of the changes to noise limits for the Rural 1 and Industrial 3 zones and is concerned that the proposed changes to noise limits for the Industrial and Rural zones will legitimise the emissions of noise that are already having a detrimental effect on the amenity of neighbours. The submitter is unsure why the changes appear to be creating a more permissive level of noise where the Rural 1 Zone meets the Industrial 3 Zone when there is a history of noise issues in Kennington.</p> <p>The submitter opposes the introduction of a range of noise limits (LAeq and LAmax) for daytime and night time which appears to provide more scope for increased noise effects from industrial land uses at Kennington.</p> <p>RELIEF SOUGHT:</p> <ol style="list-style-type: none"> 1. The noise provisions in the Plan need to effectively address the potential for conflict between rural residential and industrial land uses at Kennington. Introduce noise limits into the Plan that will avoid, remedy or mitigate the emission of noise from industrial activities in the Industrial 3 Zone. 2. Retain Rule 3.13.2(1) as proposed. 3. Retain lower noise LAmax limit of the existing District Plan (70dB LAmax) for the Rural 1 Zone in Rule 3.13.2 instead of 80dB LAmax 4. Retain the 50dB LAeq noise limit for daytime noise in the Rural 1 Zone as proposed. 5. Change the LAmax of 80dB for the Rural 1 Zone in the daytime and retain a LAmax of 65dB for both daytime and night time. 6. If the existing 65dB for both daytime and night time is not retained and the limits stay as amended, retain the night time limits of 40dB LAeq and 65dB LAmax for the Rural Zone 7. Retain existing Plan approach whereby the noise limits of the adjoining zone apply for the Industrial zones when measured at or beyond the Zone boundary. 8. Retain the existing maximum noise limit that applies to industrial activity in Kennington of 70dBA Lmax for the Industrial 3 Zone where it adjoins another zone. 	<p>Accept in part</p> <p>The noise limits apply within the different zones. However, as stated within 3.13.2(A)(1), at the boundary of the zones, measurement of the noise emissions will be based on the zoning of the site affected by the noise, not the site emitting the noise. Therefore, any noise created within the Industrial 3 Zone needs to meet the Rural 1 Zone levels at the Zone boundary.</p> <p>The provisions are consistent with levels stipulated and enforced elsewhere in NZ and provide protection for activities both within the Industrial 3 and the Rural zones.</p> <p>The notional boundary requirements to some degree offer some protection for noise sensitive activities in the areas around the Industrial 3 Zone, with an allowance of up to 65dB up to the notional boundary during the day in the Rural zones, which is consistent with the daytime noise limits for the Industrial 3 zone. The notional boundary limits set lower levels of noise than the remainder of the Rural 1 Zone to offer increased protection for those living there than had previously been provided for in the Operative District Plan (50dB as opposed to 55dB).</p> <p>The LAmax limits in the Operative District Plan only applied to night-time. If this level was to be applied to day-time as well, this would be significantly more stringent than any other daytime rules in New Zealand. The 70 LAmax is to be retained for the Rural Zones at night-time, as per the Operative District Plan.</p> <p>The policies accept noise generated in rural areas by agricultural activities. The exemptions also allow for operation equipment, mobile during its normal use and which is associated with primary production. The noise standards recognise that there are people living in these environments and that a balance between the working and living environment should be made. The proposed noise provisions are consistent with these policies.</p> <p>It is considered that the proposed rule will not affect the airport as</p>

Submitter	Plan Provision / Submission	Recommendation
	<p>FS2.38 NZAS Ltd <i>Oppose in part submission 59.3</i> Although no noise limit is applied in the Smelter Zone, the further submitters operations need to meet the noise levels of the adjoining zones. The further submitter therefore supports the higher noise limits currently included in the Proposed Plan for the Rural 1 Zone</p> <p>RELIEF SOUGHT: Retain the noise limits set in rule 3.13.2 as notified</p> <p>FS4.31 Federated Farmers <i>Oppose submission 59.3</i> The further submitter considers that it is inconsistent and inappropriate to require farming to operate at lower noise levels than other businesses and industries. The further submitter believes that noise is a necessary by-product of agricultural activities</p> <p>FS5.26 Invercargill Airport Ltd <i>Oppose in part submission 59.3</i> The further submitter considers that any amendments to the noise standards should not adversely impact on the operational requirements of the airport and should be consistent with the relevant standards for the OCB ANB and SESEB</p> <p>FS14.2 Shanah De Garnham <i>Support submission 59.3</i> The further submitter considers that there has been noise pollution due to the expansion of the Niagara Sawmill for 10 years. The further submitter considers that in supporting the submission the Council would be made aware that the issue needs to be dealt with within the RMA. The further submitter also considers that any change to increase noise limits on Industrial 3 Zone, where it adjoins another zone will exacerbate the continued noise that those on Kennington Road are dealing with.</p> <p>FS19.1 Michael and Michelle Grantham <i>Support submission 59.3</i></p>	<p>noise from aircraft operations is not covered in this rule.</p> <p>It is recommended that the daytime L_{Amax} limits be retained. In most situations the L_{eq} is sufficient in but the added control of the L_{Amax} is considered useful in some situations.</p> <p>RECOMMENDATION: Retain 3.13.2(1) as notified subject to recommendations on other submissions.</p>

Submitter	Plan Provision / Submission	Recommendation
	<p>FS30.20 Southern District Health Board <i>Oppose in part submission 59.3</i> The further submitter opposes the relief sought in Bullet Point 5 which seeks to change the the LMax. The further submitter considers that part seeking daytime Lmax noise limits is opposed as unjustified in s.32 analysis, unnecessary for reasonable protection of peoples' health, contrary to assessment standard NZS6802:2008 cited in the plan and likely to prevent realisation of zone objectives.</p> <p>RELIEF SOUGHT:</p> <p>Reject in part relief sought in bullet point 5.</p> <p>FS30.21 Southern District Health Board <i>Support in part submission 59.3</i> The further submitter supports relief sought in bullet point 6.</p> <p>The further submitter considers existing noise limits necessary to afford protection to residents. A new performance standard will mean there are two noise limits making enforcement more difficult or impossible, and decrease protection to residents.</p> <p>RELIEF SOUGHT:</p> <p>Accept relief sought in bullet point 6.</p> <p>FS30.22 Southern District Health Board <i>Support in part submission 59.3</i> The further submitter supports relief sought in bullet point 8.</p> <p>The further submitter considers existing noise limits are necessary to afford protection to residents. A new performance standard will mean there are two noise limits making enforcement more difficult or impossible, and decrease protection to resident.</p> <p>RELIEF SOUGHT:</p> <p>Accept relief sought in bullet point 8.</p>	

Submitter	Plan Provision / Submission	Recommendation
	<p>FS34.8 ICC - Environmental Health and Compliance Services Support in part submission 59.3 The further submitter supports that the noise provisions in the Plan need to address potential and existing conflicts between rural residential and industrial land uses, such as the current situation in Kennington.</p> <p>The further submitter suggests that new industrial subdivision or noise generating activities:</p> <ul style="list-style-type: none"> • An appropriate buffer zone is determined to protect the existing nearby residential properties • Buffer zone to protect future residential subdivisions near any Industrial zones <p>FS49.2 Niagara Properties Ltd Oppose submission 59.3 The further submitter considers that the rules are in line with industrial noise limits in other District Plans and that noise within the Industrial 3 zone should not be required to comply with the noise limits of any other zone, other than at the notional boundary of any noise sensitive activity within the other zone.</p> <p>RELIEF SOUGHT: Retain noise limits as set out in Rule 3.13.2(A)</p> <p>Remove the requirement of Rule 3.13.2 that noise from any site within the Industrial 3 Zone must comply with the relevant limits of all surrounding sites</p>	
<p>71.54 NZAS Ltd</p>	<p>Oppose 3.13.2 in part.</p> <p>The submitter considers that noise generated within the Smelter Zone should only be required to comply with the noise limits of the Rural Zone at the notional boundary of any residence located outside the Smelter Zone.</p> <p>The submitter also notes some confusion in the use of the term “site” and “sites” within the rule, but understands that it is intended that the zone standards of the surrounding sites apply</p>	<p>Accept in part</p> <p>In the Operative District Plan, the Smelter was able to generate any amount of noise, up to the notional boundary of any residence.</p> <p>The proposed rules, as notified, require activities within the Smelter Zone to comply with the noise limits at the Zone boundary, as well as the notional boundary requirements for the Rural Zone. There is no notional boundary requirement for residential zones.</p>

Submitter	Plan Provision / Submission	Recommendation
	<p>RELIEF SOUGHT: That the “no limit” reference be retained in relation to noise in the Smelter Zone. AND Amend 3.13.2(1) as follows: “(1) For clarity, noise from any site <u>(except for any site located within the Smelter Zone)</u> shall comply with the relevant <u>zone</u> limits for all surrounding sites. Hence, at the boundaries of zones, measurements of noise emissions will be based on the zoning of the site affected by the noise, not of the site generating the noise. <u>(1A) Noise generated by any activity within the Smelter Zone is not required to comply with the relevant limits of any other zone except at the notional boundary of any residence within the other zone.</u>”</p> <p>FS30.23 Southern District Health Board Support in part submission 71.54 The further submitter considers the submission in part clarifies the scope of the rule but that alternative wording in relation to the notional boundary is preferred per Southern District Health Board’s submission</p>	<p>It is accepted that there are merits with the Operative District Plan approach as it relates to the Smelter Zone, given the separation distances between the zone and any residential property. Noise generated on the Smelter Zone should meet the noise limits for the Zones in the Bluff township. However, it is appropriate that the noise limits be allowed to exceed the Rural Zone levels up to the notional boundary.</p> <p>RECOMMENDATION:</p> <p>Amend 3.13.2 by adding the following:</p> <p><u>“(2) Noise generated in the Smelter Zone need not comply with the Rural 1 Zone boundary noise limits set out in 3.13.2(A) above on any property within the Rural 1 Zone, but shall comply with the notional boundary limits.”</u></p>
<p>75.19 McDonalds Restaurants (NZ) Ltd</p>	<p>The submitter supports the noise limits as being generally consistent with similar zones throughout the country</p> <p>RELIEF SOUGHT: Retain the noise limits</p>	<p>Accept</p>
<p>94.3 Niagara Properties Ltd</p>	<p>The submitter opposes the provisions as they relate to the notional boundary of any noise sensitive activity within a zone.</p> <p>The submitter considers that the noise limits on the rural land adjoining the Industrial 3 zone should be the same as those for the Industrial 3 area.</p> <p>RELIEF SOUGHT: Amend 3.13.2 (A) to remove limits on noise “when measured at the notional boundary of any noise sensitive activity within a zone”.</p> <p>FS2.39 NZAS Ltd Oppose submission 94.3 The submitter supports the measurement of noise at the notional boundary.</p>	<p>Reject</p> <p>Residential activity is permitted within the rural zones and the provisions should provide some protection to these activities by allowing lower noise levels at the notional boundary. The notional boundary provision seeks to aid the noise generator, in that there is a degree of lenience for noise emissions up to the notional boundary.</p> <p>RECOMMENDATION Retain the notional boundary provisions as they relate to the Rural 1 Zone, subject to recommended amendments in response to submission 71.54 above..</p>

Submitter	Plan Provision / Submission	Recommendation
	<p>Removing the notional boundary requirement would result in the further submitter having to meet the lower Rural 1 noise limit at the Zone boundary. This would not be a sensible option and could result in the smelter operations being curtailed when an adverse effect was not actually occurring (as no one would hear the noise being generated)</p> <p>RELIEF SOUGHT: Retain Rule 3.13.2(A) as notified</p> <p>FS3.2 Quenton Stephens <i>Oppose submission 94.3</i> The further submitter considers that rural areas should have a lower noise limit than industrial areas</p> <p>FS15.3 Shanan De Garnham <i>Oppose submission 94.3</i></p> <p>FS16.3 Dean Evans <i>Oppose submission 94.3</i></p> <p>FS18.3 Michael and Michelle Grantham <i>Oppose submission 94.3</i></p> <p>FS36.4 Jeanette Bullock <i>Oppose submission 94.3</i></p> <p>FS41.3 William Fraser <i>Oppose submission 94.3</i></p>	
<p>94.3 Niagara Properties Ltd</p>	<p>Support 3.13.2 (A) Table.</p> <p>The submitter supports the change to the daytime L_{Amax} for the Industrial 3 zone, and the night-time noise limit for the Rural 1 Zone</p> <p>RELIEF SOUGHT: Retain:</p> <ol style="list-style-type: none"> a. the night-time noise limit for the Rural 1 Zone b. the daytime L_{Amax} for the Industrial 3 zone 	<p>Accept</p> <p>The provisions will allow for an increase in the level of noise permitted within the Rural 1 Zone at night. However, this higher level only applies at the zone boundary. The noise sensitive activities carried out within the Rural 1 Zone will be protected through the notional boundary standards which are lower.</p>

Submitter	Plan Provision / Submission	Recommendation
	<p>FS3.3 Quenton Stephens <i>Oppose submission 94.3</i> The further submitter is concerned that the submission may result in the ability to increase noise levels adjacent to industrial areas</p> <p>FS15.4 Shanana De Garnham <i>Oppose submission 94.3</i></p> <p>FS16.4 Dean Evans <i>Oppose submission 94.3</i></p> <p>FS18.4 Michael and Michelle Grantham <i>Oppose submission 94.3</i></p> <p>FS30.24 Southern District Health Board <i>Oppose in part submission 94.3</i> The further submitter considers that limits on noise are essential and at any point within notional boundary is appropriate and sustainable assessment location in rural area.</p> <p>FS30.25 Southern District Health Board <i>Support in part submission 94.3</i> The further submitter supports bullet point (b) of the relief sought.</p> <p>The further submitter considers daytime L_{AFmax} limits are unnecessary, unjustified and contrary to the assessment standard cited for assessment</p> <p>FS36.2 Jeanette Bullock <i>Oppose submission 94.3</i> The further submitter considers the Council has an obligation to protect the health and wellbeing of its residents.</p> <p>FS41.4 William Fraser <i>Oppose submission 94.3</i></p>	<p>As discussed in response to submission 59.3 above, the L_{Amax} limits in the Operative District Plan only applied to night-time. If this level was to be applied to day-time as well, this would be significantly more stringent than any other daytime rules in New Zealand. The addition of a daytime L_{Amax} is not increasing an existing level, but adding a new provision.</p> <p>Whilst there is no requirement in the New Zealand standards to include a day-time L_{Amax}, as stated in response to submission 59.3, it is considered that these levels will be useful on occasion.</p> <p>RECOMMENDATION: Retain:</p> <ol style="list-style-type: none"> a. the night-time noise limit for the Rural 1 Zone b. the daytime L_{Amax} for the Industrial 3 zone

Submitter	Plan Provision / Submission	Recommendation
<p>117.26 Southern District Health Board</p>	<p>Support 3.13.2 (A) Table in part.</p> <p>The submitter supports the proposal with amendments to ensure terminology in the heading is consistent with the terminology used in the measurement and assessment standards cited and with words in (A)</p> <p>RELIEF SOUGHT: Allow provision subject to amendments: Replace heading “noise levels from” with “Noise limits for”</p>	<p>Reject</p> <p>The proposed heading is identical to the heading used in the Operative District Plan. It is not considered that there is any need to amend the title.</p> <p>RECOMMENDATION: Retain the heading of 3.13.2 as notified</p>
<p>117.27 Southern District Health Board</p>	<p>Support 3.13.2 (A) Table in part.</p> <p>The submitter supports the proposal with amendments.</p> <ul style="list-style-type: none"> – The submitter supports the time frames for day and night. – The submitter suggests amendments to the descriptors to ensure they are consistent with the measurement and assessment standards cited. – The submitter supports L_{AFmax} limits at less stringent Zones with amenity values tolerating less stringent noise limits, particularly at night-time to avoid sleep disturbance in more sensitive Zones. However, the submitter raises concerns that the proposed reduction in night-time noise limits in some of the Zones will lead to confusion, particularly for enforcement of existing activities compared to new activities. The submitter also believes these proposed night-time noise limits are contrary to the objectives and policies within the Business 1 Zone which seek to “reinvigorate” the Invercargill CBD. <p>RELIEF SOUGHT: Allow the provision in part and amend as follows</p> <ol style="list-style-type: none"> a. Replace both instances of “L_{Aeq}” as column headings with “$L_{Aeq(15min)}$” b. Replace both instances of “L_{Amax}” as column headings with “L_{AFmax}” c. Reconsider changes to Operative Plan L_{AFmax} noise limits during night time <p>FS3.5 Quenton Stephens Support submission 117.27 The further submitter supports the concept and need for appropriate limits for industrial activities located adjacent rural and residential areas, particularly at night-time to avoid sleep disturbance in more sensitive zones</p>	<p>Accept in part</p> <p>The review of the Operative District Plan resulted in the creation of a number of new Zones and some changes in the types of activities permitted in these areas. These changes meant that in a number of cases there was a need to address the noise limits considered acceptable. For example, the night-time noise limits have been reduced in the Business 1 Zone in a bid to encourage mixed use of the area, including the potential for residential activities. This is specifically spelt out within 2.22.3 Policy 5. To give effect to these policies, there was a need to address the night-time noise levels.</p> <p>The noise limits have been reduced in the Industrial 1 (Light) Zone in recognition that the areas within this Zone are located close to residential areas, where there is an expectation of lower levels of noise at night.</p> <p>It is acknowledged that there will be difficulties where existing use rights allow for greater levels of noise, however, this is always the case for any change in zoning in relation to a number of provisions. This is not justification in itself to revert back to the standard in the Operative District Plan.</p> <p>It is not considered necessary to amend the acoustic terminology on the grounds of simplicity. In relation to the request for the addition of a “15min” notation to the term L_{Aeq}, the New Zealand Standard NZS6802 makes it clear that the standardised</p>

Submitter	Plan Provision / Submission	Recommendation
		<p>measurement time is 15 minutes and all assessments stem from this. Therefore, L_{Aeq} alone is adequate. Where the measurement time is to be different from 15 minutes, then should be expressly stated, as has been done in relation to transportation noise. The standards also allow L_{Amax} as an acceptable alternative to L_{AFmax}.</p> <p>RECOMMENDATION: Retain the timeframes and descriptors as notified, subject to recommendations made in response to other submissions.</p> <p>AND Retain the night-time L_{Amax} levels as notified.</p>
<p>117.28 Southern District Health Board</p>	<p>Oppose 3.13.2 (A) Table in part The submitter opposes certain provisions and believes they should be disallowed except to the extent an amendment may rectify the defect.</p> <p>A. Opposes measurement location expressed as “at or within” being an expression subject of adverse comment in the Environment Court and implying two measurement locations.</p> <p>B. Opposes row 11 heading phrase “measured at the notional boundary.” The word “at” implies close proximity to a lot boundary that may be impractical to access for numerous reasons e.g. ditches, hedges.</p> <p>C. Opposes row 13 heading phrase “measured at any site” The word “at” implies close proximity to a lot boundary that may be impractical to access for same reasons in paragraph B.</p> <p>D. Opposes in second to last row phrase “at or within” for same reasons in paragraph A.</p> <p>E. Opposes in last row phrase “at the notional boundary” for same reasons in paragraph B and should apply to a noise sensitive activity not just a dwelling.</p> <p>F. Opposes the addition of a daytime L_{AFmax} limit in all zones as an unprecedented provision that lacks justification, will complicate enforcement of noise control and is unnecessary for the reasonable protection of public health or the amenity values of any zone during the daytime.</p> <p>G. Opposes row 6 (Business 1-5 Zone) night-time noise limits being made more stringent than the operative District Plan because the submitter believes that this lacks justification, will complicate enforcement of</p>	<p>Accept in part</p> <p>It is agreed that changes to wording within the table at 3.13.2 will clarify the intent of the rules and address the potential difficulty that can arise in measuring precisely “at” a boundary.</p> <p>The night-time noise limits in the Business 1-5 zones are considered appropriate as notified. Where residential and noise sensitive activities are provided for in the Business Zones, it is necessary to ensure that the night-time noise levels are appropriate. To be vibrant a business area does not necessarily have to be noisy. The approach in the Proposed District Plan, and the City Centre Action Plan, includes encouraging mixed uses into the City Centre, including residential and visitor accommodation. The proposed noise rules better provide for the desired mix of uses in these areas.</p> <p>[See over for recommendation]</p>

Submitter	Plan Provision / Submission	Recommendation															
	<p>noise control and is unnecessary for the reasonable protection of public health or the amenity values of these Business zones. The submitter states that having regard to the effect of 3.13.2 (A) sub-clause (1) (under the table) to apply the more stringent noise limit for an adjoining site zoning, the proposed night time $L_{Aeq(15min)}$ noise limit will frustrate the proposed Objectives and Policies for all the Business Zones .particularly Business 1 CBD Zone Policy 5.</p> <p>RELIEF SOUGHT:</p> <p>Allow the provision in part and amend as follows</p> <ol style="list-style-type: none"> Replace third row instance of “at or within” with the words, “at any point within” Replace in Row 11 heading “measured at” with “measured at any point within” Replace in Row 13 heading “measured at” with “measured at any point” Replace in the second to last row the phrase “at or within the boundary of any site” with the words, “On any site.” Replace in the last row the phrase “at the notional boundary” with “At any point within the notional boundary of any noise sensitive activity.” Reconsider changes to Operative Plan $L_{Aeq(15min)}$ night time noise limits. 	<p>RECOMMENDATION:</p> <table border="1" data-bbox="1301 288 2047 724"> <thead> <tr> <th data-bbox="1301 288 1469 347">Table Row</th> <th data-bbox="1469 288 1771 347">Existing wording</th> <th data-bbox="1771 288 2047 347">Recommended wording</th> </tr> </thead> <tbody> <tr> <td data-bbox="1301 347 1469 443">3</td> <td data-bbox="1469 347 1771 443">“.. at or within the boundary...”</td> <td data-bbox="1771 347 2047 443">“... at any point within the boundary...”</td> </tr> <tr> <td data-bbox="1301 443 1469 571">11</td> <td data-bbox="1469 443 1771 571">“... measured at the notional boundary...”</td> <td data-bbox="1771 443 2047 571">“... measured at any point within the notional boundary...”</td> </tr> <tr> <td data-bbox="1301 571 1469 635">13</td> <td data-bbox="1469 571 1771 635">“...measured at any site...”</td> <td data-bbox="1771 571 2047 635">“...measured at any point...”</td> </tr> <tr> <td data-bbox="1301 635 1469 724">14</td> <td data-bbox="1469 635 1771 724">“...at or within the boundary of any site...”</td> <td data-bbox="1771 635 2047 724">“... on any site..”</td> </tr> </tbody> </table>	Table Row	Existing wording	Recommended wording	3	“.. at or within the boundary...”	“... at any point within the boundary...”	11	“... measured at the notional boundary...”	“... measured at any point within the notional boundary...”	13	“...measured at any site...”	“...measured at any point...”	14	“...at or within the boundary of any site...”	“... on any site..”
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14	“...at or within the boundary of any site...”	“... on any site..”															
<p>117.29 Southern District Health Board</p>	<p>The submitter supports 3.13.2 (A) Noise Levels from Activities sub-clauses (1)-(5) in part.</p> <ol style="list-style-type: none"> Opposes words used in 3.13.2 (A) sub-clause (1). The submitter believes the words “For clarity,” implies something needs to be made clear but there is nothing in the table above the sub-clause to imply the intent of the sub-clause. The submitter believes this is poor drafting given the attitude of the Courts to “notes” after tables and rules. The intent is in fact a critical component of noise rules replacing a section with plain meaning found in the Operative Plan rules (4.34.3). The submitter believes the provision’s intent needs re-drafting to avoid uncertainty of application Opposes sub-clause (2) on the grounds that the submitter believes it contradicts section 6.1 of NZS 6802:2008 and may not be an 	<p>Accept in part</p> <p>It is important for the provisions in the plan to be concise and user-friendly. 3.13.2(1) is intended to read a part of the rule itself, rather than as a note. Reformatting of the provisions in response to submissions addressed in the Section 42A Report 14 – General Issues – Formatting should aid in clarifying which parts of the provisions are notes and which are parts of the Rules. However, removing the term “for clarity” will aid in making it even clearer that this clause is more than just a note. The amendment suggested by the submitter is not considered necessary.</p> <p>It is not considered necessary to delete sub-clause 2. This sub-clause is important as it provides for situations where sites are</p>															

Submitter	Plan Provision / Submission	Recommendation
	<p>appropriate location for measurement of noise because of other technical reasons explained in the standard. The submitter states that the use of the term “façade” is problematic due to connotations of frontage. Further, the submitter states that the effect of the clause will in some circumstances compel a measurement to be made in a completely irrelevant location when an appropriate location may in fact exist.</p> <p>C. Supports sub-clauses (3) and (4) except for word “intended for outdoor living” in (3) which are problematic due to the uncertainties of “intent” and possible exclusion of “Juliet balconies” from the scope of the sub-clause.</p> <p>D. The submitter believes that the words in (5) “fence or other noise control structure” are problematic as it implies all fences have a noise control function which many do not to any extent whatsoever. The sub-clause adds nothing to the rule which is not already expressed addressed in NZS 6801:2008 and NZS6802:2008 when making an assessment, without the uncertainty of the poor drafting in the proposed sub-clause</p> <p>RELIEF SOUGHT: Allow the provision in part and amend as follows:</p> <ol style="list-style-type: none"> a. Insert in sub-clause (1) before the words “for clarity...” a new sentence, “Sound received on any site must comply with the noise limit in the above table for the Zoning of that site.” and consequentially renumber others. b. Delete sub-clause (2) c. In (3) delete “intended for outdoor living.” d. Delete sub-clause (5) <p>FS2.40 NZAS Ltd <i>Oppose in part submission 117.29</i> The further submitter believes that the noise generated within the Smelter Zone should only be required to comply with the noise limits of the surrounding zones at the notional boundary. Therefore the further submitter does not oppose the relief sought by submission 117.29(a)</p>	<p>developed right up to the boundary.</p> <p>It is recommended that sub-clause 3 be retained as notified. The term “intended for outdoor living” is not sufficiently problematic that it should be deleted. It is meant to include “Juliet Balconies”, where people cannot access the outside area. These architectural features do not protrude out from the building to enable people to exit the indoors.</p> <p>Sub-clause 5 has been drafted in recognition that different fences or noise control structures will have varying noise reduction abilities. The sub-clause simply directs the “effects of such feature” is taken into account.</p> <p>RECOMMENDATION: Delete the words “For clarity” from 3.13.2(1)</p>

Submitter	Plan Provision / Submission	Recommendation
	<p>RELIEF SOUGHT: Rule 3.13.2 be amended as sought in submission 71.54 i.e. that noise generated within the Smelter Zone not be required to comply with the relevant limits of other Zones, except at the notional boundary of any residence within the other zones</p>	
<p>65.96 ICC Environmental and Planning Services</p>	<p>Support 3.13.3(B)(a) in part.</p> <p>The submitter considers that the activity status for shooting ranges should be made clearer to ensure that comprehensive assessment of noise effects is undertaken on a case-by-case basis, given the absence of a relevant NZ Standard for assessing shooting noise</p> <p>RELIEF SOUGHT: Review the definition of commercial recreation activities and ensure the status of those activities reflects this concern OR Include shooting ranges in the activity status lists for each zone OR Include restrictions on shooting ranges in the noise rule</p> <p>FS30.7 Southern District Health Board Support submission 65.96 The further submitter considers the suggested relief is consistent with assessment standards cited for noise and case-by-case assessment has always proved necessary for shooting ranges</p>	<p>Accept</p> <p>The noise rule specifically excludes shooting ranges from the noise levels. However, there are no other provisions within the Proposed District Plan that relate to shooting ranges and as such the status of these activities is unclear. I agree that the activity status for “shooting ranges” needs to be clarified within the Proposed District Plan.</p> <p>Shooting ranges could fall within the definition of recreational activity or commercial recreational activity. The activity status of these general types of activities should be set out within the different Zone provisions. The noise effects created by shooting ranges should however, be assessed on a case-by-case basis regardless of its commercial or public nature. There are some Zones where these activities are permitted and in these cases, shooting ranges would not be able to be considered.</p> <p>Restrictions on shooting ranges through the District Wide Noise rule would support the Zone provisions and ensure that the effects of these types of activities are considered in all Zones.</p> <p>RECOMMENDATION: including the following provision:</p> <p>3.13.? Shooting ranges <u>Shooting ranges, including but not restricted to those involving the use of rifles, shotguns and handguns, shall be a discretionary activity.</u></p> <p>And subsequent renumbering.</p>

Submitter	Plan Provision / Submission	Recommendation
53.72 NZ Transport Agency	Support 3.13.3(B)(b) RELIEF SOUGHT: Retain Rule 3.13.3(B)(b) as proposed	Accept
88.85 Federated Farmers	Support 3.13.3 in part. The submitter considers an extra category should be included to account for the noise generated by livestock within the rural zones, particularly around weaning time and other seasonal activities. RELIEF SOUGHT: Adopt the rule but include an additional exemption clause as follows: (B) Within the Rural 1 and 2 zones, the keeping of livestock as part of normal farming activities is exempt from the noise limits detailed in Rule 3.13.2 above.	Accept It is agreed that noise from livestock kept as part of agricultural activities should be exempt from the noise limits. Agriculture is permitted in a number of Zones, alongside the Rural 1 and Rural 2 Zones. This exemption should also apply to these zones. It is important that this exemption be limited to the noise created by the livestock itself, so as to avoid the potential for other stationary farm equipment to fall within this exemption. There is also no definition of what “normal farming activities” means and this term may be contentious. It is considered better practice to refer to agriculture which is defined in the Proposed District Plan. RECOMMENDATION: Insert the following into 3.13.3 <u>“(B) Within the Airport Protection, Industrial 3, Industrial 4, Otatara, Residential 3, Rural 1 and 2 zones, noise from livestock kept as part of agriculture is exempt from the noise limits detailed in Rule 3.13.2 above.”</u>
117.30 Southern District Health Board	Support 3.13.3 in part A. The exemption for trains and warning devices is unnecessary for land designated for rail purposes. The submitter believes that trains on private sidings should not be exempted from general rules. B. The submitter believes there should be additional activities added to the list of exemptions: i. Warning devices used by emergency services	Accept in part The exemption for trains is unnecessary for designated land, however, trains on private sidings should not be exempted, because this would allow a new siding to be established close to existing residential areas with no assessment of noise effects. Rewording the exemption to clarify this is considered appropriate. The exemption from all noise limits for sound from warning devices used by emergency services is stated in Rule 3.13.11(B). This could be further highlighted by including it in this sub-clause and cross-referencing to the rule. However, it should be noted

Submitter	Plan Provision / Submission	Recommendation
	<p>ii. In residential areas, activities of a normal domestic nature including recreational activities, such as sporting events, that do not involve powered motorsport, powered aviation, gunfire or amplified music.</p> <p>iii. Where any residential activity exists on the same site as a noise source being assessed</p> <p>RELIEF SOUGHT: Allow the provision in part and amend as follows: a. Delete sub-clause (B) (c) b. Add to sub-clause (B) the following “In any Residential Zone to activities of a normal domestic nature including recreational activities, such as sporting events, that do not involve powered motorsport, powered aviation, gunfire or amplified music.”</p>	<p>that alarms can be a nuisance and objectionable where they continue for prolonged periods and a best practice, common sense use of these alarms should be used. (Refer to recommendation in response to submission 101.9 below, for recommendations on 3.13.11(B))</p> <p>While “normal residential” activities are at times exempted from general noise rules around the country, I do not recommend adopting such an approach. Activities, such as night-time workshop activity and/or heat pump units, could result in adverse noise effects and should therefore comply with noise rules. Without this exemption the Council will have the ability to use the rules to aid the mitigation or control of noise, if/when noise issues arise.</p> <p>I do not agree that there should be an exemption from noise limits where any residential activity exists on the same site as a noise source being assessed. Just because someone lives on the site, does not mean that activities on the site should be able to emit noise that exceeds the limits and causes issues for other people in the community.</p> <p>RECOMMENDATION: Amend 3.13.3(B) as follows:</p> <p>(B) The noise limits detailed in Rule 3.13.2 above do not apply to noise from the following sources:</p> <p>(a) Shooting ranges</p> <p>(b) Vehicles on a public road.</p> <p>(c) <u>Trains on land designated for railway purposes</u> (including at railway yards, railway sidings or stations) and level crossing warning devices.</p> <p>(d) <u>Warning devices used by emergency services, as set out in Rule 3.13.14</u></p>

Submitter	Plan Provision / Submission	Recommendation
		<p>(d)(e) Any noise source specifically listed in Rules 3.13.4 – 3.13.16 below, below as being assessed in accordance with another New Zealand Standard.</p>
<p>65.97 ICC Environmental and Planning Services</p>	<p>Support 3.13.4 in part.</p> <p>The submitter considers that the wording of this provision is misleading and inaccurate in that construction noise standard is more than a set of noise limits to be complied with.</p> <p>RELIEF SOUGHT: Amend 3.13.4 by replacing the wording “...is to comply with...” with “... <u>shall be measured and assessed in accordance with...</u>”</p> <p>FS30.8 Southern District Health Board Support in part submission 65.97 The further submitter supports the submission to the extent similar to its submission 117.31</p>	<p>Accept in part</p> <p>The construction standard is more than a set of noise limits. It includes assessment criteria and suggested alternatives. 3.13.4 and the alternative suggested by the submitter do not constitute a measureable standard against which compliance can be assessed or complied with.</p> <p>NZS 6803:1999 <i>Acoustics Construction Noise</i> includes noise levels and times certain activities can be undertaken. Generally the standard provides for work starting between 7am and 7.30am Monday to Saturday and finishing at 6pm subject to noise levels in living zones.</p> <p>It is recommended that the long duration noise standards provided for within the New Zealand Standard be included as the limit for construction. Assessment matters include consideration of relevant New Zealand and or International Standards, which will enable developers to consider alternatives provided for within NZS6803:1999.</p> <p>It is also recommended that 3.13.3(B)(d) should be amended as a consequence.</p> <p>RECOMMENDATION: It is recommended that Rule 3.13.4 be amended as follows:</p> <p>“Construction noise is to comply with NZS 6803:1999 Acoustics Construction Noise the following noise limits:</p>

Submitter	Plan Provision / Submission	Recommendation							
		<table border="1"> <thead> <tr> <th data-bbox="1285 256 1688 288">Days and Times</th> <th data-bbox="1688 256 2092 288">Noise Limit</th> </tr> </thead> <tbody> <tr> <td data-bbox="1285 288 1688 352">Monday to Saturday 0730 – 1800</td> <td data-bbox="1688 288 2092 352">70dB L_{Aeq} and 85 L_{Amax}</td> </tr> <tr> <td data-bbox="1285 352 1688 384">All other times</td> <td data-bbox="1688 352 2092 384">45dB L_{Aeq} and 75 dB L_{Amax}</td> </tr> </tbody> </table>	Days and Times	Noise Limit	Monday to Saturday 0730 – 1800	70dB L _{Aeq} and 85 L _{Amax}	All other times	45dB L _{Aeq} and 75 dB L _{Amax}	<p>“ AND Rule 3.13.3(B)(d) be amended as follows: “(d) Any noise source specifically listed in Rules 3.13.4 – 3.13.15 below. below as being assessed in accordance with another New Zealand Standard”</p>
Days and Times	Noise Limit								
Monday to Saturday 0730 – 1800	70dB L _{Aeq} and 85 L _{Amax}								
All other times	45dB L _{Aeq} and 75 dB L _{Amax}								
<p>71.55 NZAS Ltd</p>	<p>Support 3.13.4 in part</p> <p>The submitter considers a minor amendment is required to make it clear that construction noise complying with the standard is permitted</p> <p>RELIEF SOUGHT: Amend 3.13.4 as follows: “Construction noise that complies is to comply with NZS 6803:1999 Acoustics Construction Noise <u>is a permitted activity.</u>”</p>	<p>Reject</p>	<p>Rule 3.13.14(A) (as notified) states that where an activity does not meet the relevant noise standards set out in the noise rule then the activity is a discretionary activity. The statement sought by the submitter is therefore not required.</p>						
<p>117.31 Southern District Health Board</p>	<p>Support 3.13.4</p> <p>The submitter supports this provision as the appropriate standard for construction noise assessment</p> <p>RELIEF SOUGHT: Allow the provision</p>	<p>Accept in part</p>	<p>See recommendations in response to submissions 65.97 and 71.55 above</p>						
<p>117.32 Southern District Health Board</p>	<p>Support 3.13.5 in part</p> <p>The submitter notes that the title to the standard for the assessment of helicopter landing area noise needs amended</p> <p>RELIEF SOUGHT: Supports but with amendment: Replace “Pads” with “Areas”</p>	<p>Accept</p>	<p>It is acknowledged that there was an error in the name of the New Zealand Standard which should be corrected.</p> <p>RECOMMENDATION: Amend 3.13.5 as follows:</p>						

Submitter	Plan Provision / Submission	Recommendation																								
		‘Noise from any helicopter landing pad is to comply with NZS6807:1994 <i>Noise Management and Land Use Planning for Helicopter Landing Pads Areas</i> .’																								
88.86 Federated Farmers	Support 3.13.6	Accept RECOMMENDATION: Retain 3.13.6 as notified																								
117.33 Southern District Health Board	Support 3.13.6 The submitter supports this provision as the appropriate standard for the assessment of wind farm noise	Accept RECOMMENDATION: Retain 3.13.6 as notified																								
65.98 ICC Environmental and Planning Services	Support 3.13.7 Business 1 Zone – Entertainment Precinct in part. The submitter considers that this rule needs to clearly specify what the external noise source is, in order for an applicant to design to achieve a specified internal noise level. RELIEF SOUGHT: Add the following to the end of the 3.13.7(A)(a): “...based on an incident external noise level as follows:” with the following table added: <table border="1" data-bbox="365 1002 1211 1254"> <thead> <tr> <th></th> <th colspan="7">Octave Band Centre Frequency (Hz)</th> </tr> <tr> <th></th> <th>63</th> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> </tr> </thead> <tbody> <tr> <td>Design sound pressure level incident on building façade (dB re 2 x 10⁻⁵ Pa</td> <td>62</td> <td>56</td> <td>52</td> <td>56</td> <td>57</td> <td>53</td> <td>45</td> </tr> </tbody> </table>		Octave Band Centre Frequency (Hz)								63	125	250	500	1000	2000	4000	Design sound pressure level incident on building façade (dB re 2 x 10 ⁻⁵ Pa	62	56	52	56	57	53	45	Accept in part The submission proposes to add a design external noise level to provide clarification to the rule requiring compliance with an internal noise level in Rule 3.13.7. The proposed spectrum does not adequately consider amplified music in the entertainment precinct. It is recommended that the approach be amended. The alternative amendment suggested by the Southern District Health Board is simpler, but is less flexible. RECOMMENDATION: Add the following to the end of the 3.13.7(A)(a): “...based on an incident external noise level as follows:”
	Octave Band Centre Frequency (Hz)																									
	63	125	250	500	1000	2000	4000																			
Design sound pressure level incident on building façade (dB re 2 x 10 ⁻⁵ Pa	62	56	52	56	57	53	45																			

Submitter	Plan Provision / Submission	Recommendation																								
	<p>FS30.9 Southern District Health Board Support in part submission 65.98 The further submitter considers that the submitter is partly correct but that an alternative approach may be better using D2m, Nt+Ctr and ISO 717-1:2013</p>	<table border="1"> <thead> <tr> <th data-bbox="1296 225 1485 256"></th> <th colspan="7" data-bbox="1485 225 2092 256">Octave Band Centre Frequency (Hz)</th> </tr> <tr> <th data-bbox="1296 256 1485 288"></th> <th data-bbox="1485 256 1563 288">63</th> <th data-bbox="1563 256 1641 288">125</th> <th data-bbox="1641 256 1720 288">250</th> <th data-bbox="1720 256 1798 288">500</th> <th data-bbox="1798 256 1877 288">1000</th> <th data-bbox="1877 256 1955 288">2000</th> <th data-bbox="1955 256 2092 288">4000</th> </tr> </thead> <tbody> <tr> <td data-bbox="1296 288 1485 539">Design incident sound pressure level incident on at building façade (dB re 2 x 10⁻⁵ Pa</td> <td data-bbox="1485 288 1563 539">71</td> <td data-bbox="1563 288 1641 539">61</td> <td data-bbox="1641 288 1720 539">54</td> <td data-bbox="1720 288 1798 539">48</td> <td data-bbox="1798 288 1877 539">45</td> <td data-bbox="1877 288 1955 539">44</td> <td data-bbox="1955 288 2092 539">44</td> </tr> </tbody> </table>		Octave Band Centre Frequency (Hz)								63	125	250	500	1000	2000	4000	Design incident sound pressure level incident on at building façade (dB re 2 x 10 ⁻⁵ Pa	71	61	54	48	45	44	44
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<p>75.20 McDonalds Restaurants (NZ) Ltd</p>	<p>Support 3.13.7 in part</p> <p>The submitter considers that the reverse sensitivity issues that may arise in the Entertainment Precinct may also arise where residential activities are established elsewhere and that it is appropriate to extend this rule to apply all noise sensitive activities within all the Business Zones</p> <p>RELIEF SOUGHT: Amend 3.13.7 as follows: “Noise sensitive activities in Business 1-5 zones Business 1 Zone – Entertainment Precinct (A) All new noise sensitive activities and additions to existing noise sensitive activities within the Business 1 Zone – Entertainment Precinct <u>Business 1 – 5 zones</u> shall:...”</p>	<p>Reject</p> <p>The intention is that in the Entertainment Precinct the owner of properties used for noise sensitive activities is responsible for the insulation to reduce noise effects, rather than solely requiring the building owners and tenants to control the noise escaping the premises. This requires joint responsibility for both the noise generator and noise receiver.</p> <p>This provision seeks to encourage vibrancy within the City Centre by encouraging activities that generate greater levels of noise throughout the day and night to co-locate within a particular area.</p> <p>Should this provision apply to all Business Zones, as sought by the submitter, it would create a barrier to mixed use development and discourage residential activity from locating within these Zones.</p> <p>RECOMMENDATION:</p> <p>Retain the reference to the Business 1 Zone Entertainment Precinct within Rule 3.13.7</p>																								
<p>117.34 Southern District Health Board</p>	<p>Support 3.13.7</p> <p>The submitter believes that the provisions address potential reverse sensitivity problems and to enable Objectives and Policies for Zone to be</p>	<p>Accept</p> <p>See recommendations in response to submission 65.98 above</p>																								

Submitter	Plan Provision / Submission	Recommendation
	complemented by necessary rules for internal design levels.	
118.2 Bruce Maher	<p>Comment on 3.13.7</p> <p>The submitter would like the Council to address the level of noise tolerance within the entertainment precinct</p> <p>RELIEF SOUGHT: Not specified</p>	<p>Noted</p> <p>The purpose of the provision is to enable noise generating activities, compatible with the city centre, to be carried out, particularly in the evening and night-time.</p> <p>It is my understanding that the submitter is concerned about the implications of these provisions on visitor accommodation activities set up within the Entertainment Precinct. These concerns are discussed in greater detail in response to submission 118.1 in the table below (under the Heading of Entertainment Precinct)</p>
24.63 South Port NZ Ltd	<p>Support 3.13.8.</p> <p>The submitter considers the noise limit proposed to be consistent with best practice management of Port noise and should be retained.</p> <p>RELIEF SOUGHT: Retain 3.13.8 as notified</p>	<p>Accept in part</p> <p>See submission 117.35 below for recommended minor amendment to this provision.</p>
117.35 Southern District Health Board	<p>Support 3.13.8 in part</p> <p>The submitter supports the provision subject to a minor amendment. The submitter states that the provisions referred to are appropriate for the special needs of a port and are consistent with settlements of appeals.</p> <p>RELIEF SOUGHT: Support subject to a minor amendment:</p> <p>Delete the colon between the words “Noise” and “Management” in the title of the NZS 6809:1999</p>	<p>Accept</p> <p>It is acknowledged that there was an error in the reference to the New Zealand Standard that should be corrected.</p> <p>RECOMMENDATION:</p> <p>Amend 3.13.8(B)(b)(2) as follows:</p> <p>“(2) Sound will be measured and assessed in accordance with the provisions of NZS6809:1999 Acoustics – Port Noise: Management and Land Use Planning.”</p>
53.73 NZ Transport Agency	<p>Support 3.13.9 Activities Near Transport Corridors.</p> <p>RELIEF SOUGHT:</p>	<p>Accept</p> <p>The provisions seek to ensure that reverse sensitivity issues are</p>

Submitter	Plan Provision / Submission	Recommendation
	Retain Rule 3.13.9 as proposed.	<p>addressed to protect strategic infrastructure from incompatible developments located in close proximity to transportation corridors. This rule gives effect to a number of policies, including those within the Transportation section of the Proposed District Plan.</p> <p>It is recommended that this provision be retained subject to recommendations in response to submissions 79.32, 90.24 and 117.36 in the table below.</p>
<p>79.32 KiwiRail Holdings Ltd</p>	<p>Oppose 3.13.9 Activities Near Transport Corridors.</p> <p>The submitter seeks the insertion of the acoustic performance standard into all zones in the Plan or in a location in the Plan which will apply district-wide</p> <p>The submitter considers that noise sensitive activities raise similar reverse sensitivity issues regardless of where they are located and that a performance standard addressing these adverse effects should be a district-wide rule.</p> <p>The submitter suggests a standard that encourages the internalisation of effects to achieve a reasonable level of internal acoustic amenity through building and section layout and design.</p> <p>RELIEF SOUGHT:</p> <p>Delete Rule 3.13.9 as it applies to the railway corridor and replace with a new rule (detailed in submission) AND Add new assessment criteria for noise sensitive activities in all zones to consider the degree of noise attenuation proposed and the effects of reverse sensitivity on the operation of the rail network.</p> <p>FS30.17 Southern District Health Board Support in part submission 79.32 The further submitter considers that the relief sought seeks to ensure reverse sensitivity issues addressed to protect strategic infrastructure from incompatible developments in close proximity which are sensitive to noise</p>	<p>Reject in part</p> <p>This submission is discussed in more detail in Section 5 of this report and in the Marshall Day Acoustics letter appended to this report. It is recommended that the detailed provision sought by the submitter be rejected for a number of reasons.</p> <p>There are a number of points in the provision that are not clear and the proposal is very complex. The provision sought would add significant compliance costs for little benefit.</p> <p>This is a district wide rule. The noise provisions apply district wide and it is not considered necessary to repeat this provision for each of the different Zones. It would apply for all noise sensitive activities within a defined distance from the state highways and railways.</p> <p>There are some aspects from the submission that could be incorporated within the proposed rule, with amendments. Change to require teaching spaces to meet the same internal noise levels as other habitable spaces would recognize that these types of activities are considered noise sensitive</p> <p>The low frequency of railway traffic is such that it is difficult to justify the need to impose stringent requirements on noise sensitive activities up to 100m away from the railway lines.</p>

Submitter	Plan Provision / Submission	Recommendation
	<p>and vibration from transportation corridors, by imposition of rules which will afford reasonable protection for noise sensitive activities while allowing operation of transportation network, add appropriate assessment criteria.</p> <p>The further submitter notes however that classification of what is noise sensitive may need amendment so is partly supported.</p>	<p>I believe that the proposed standard recognises that there are methods, other than just insulation, that may be used to mitigate the noise reaching the internal areas. If the site is developed with appropriate fencing, or is designed to be orientated away from the noise then the internal noise levels may be reduced without the need for additional acoustic insulation.</p> <p>Appendix VI of the Proposed District Plan includes detailed ventilation requirements for the Outer Control Boundary and the Single Event Sound Exposure Boundary. These standards are very similar to those sought to be included in the noise provisions by the submitter. However, the same will be achieved with a simple statement that the internal noise levels should be achieved with any building code ventilation requirements.</p> <p>The submission has also highlighted the need for a calculation method within the existing rules.</p> <p>RECOMMENDATION</p> <p>Amend 3.13.9 as follows:</p> <p>Activities Near Transport Corridors: Any noise sensitive activity located within:</p> <p>(A) Forty metres of the closest railway track.</p> <p>(B) Eighty metres of the seal edge of a State Highway and arterial road where the speed limit is more than 70 kph.</p> <p>Is to be designed, sited and constructed to ensure that the following internal noise <u>design</u> levels are not exceeded:</p> <p>(a) 35 dB $L_{Aeq(1\ hour)}$ (one hour) inside bedrooms or 40 dB $L_{Aeq(1\ hour)}$ (one hour) inside <u>teaching spaces and other habitable spaces</u>.</p> <p>(b) <u>Compliance with this rule must be achieved concurrently</u></p>

Submitter	Plan Provision / Submission	Recommendation
		<p>(c) <u>with any building code ventilation requirements. For the purposes of compliance with these limits, road traffic noise shall be calculated using a recognised prediction model and based on existing traffic flow data plus 3 dB to allow for future growth. Train noise shall be deemed to be 70 dB L_{Aeq(1 hour)} at 12 metres from the closest rail track. This level shall be deemed to vary at a rate of 3 dB per doubling of distance up to 30 metres and 6 dB per doubling beyond 30 metres.</u></p> <p><u>Note: Compliance with Rule 3.13.9 shall be demonstrated by providing the Council with a design report and a design certificate prepared by an experienced and qualified acoustic specialist and an experienced and qualified mechanical engineer with respect to the ventilation system”</u></p>
<p>90.24 H W Richardson Group Ltd</p>	<p>Support 3.13.9 Activities Near Transport Corridors.</p> <p>The submitter considers that noise sensitive activities that locate near transport corridors should be designed, sited and constructed to prevent issues of reverse sensitivity arising</p> <p>RELIEF SOUGHT: Retain Rule 3.13.9</p> <p>FS28.17 NZ Transport Agency Support submission 90.24 The further submitter agrees that noise sensitive activities locating in close proximity to transport corridors should be designed, sited and constructed to prevent potential reverse sensitivity issues.</p>	<p>Accept</p> <p>See recommendation in response to submission 79.32 above</p>

Submitter	Plan Provision / Submission	Recommendation
<p>117.36 Southern District Health Board</p>	<p>Support 3.13.9 in part.</p> <p>The submitter believes that provisions fail to include orientation and possible use of barriers against sound propagation which are likely to be more cost-effective than acoustical treatment of the building envelope. Further, the submitter states that the words “internal noise levels” are imprecise when the intention is to set indoor design levels without complementary verification methods.</p> <p>Sub-clause (a) requires qualification to require its performance standard is met with doors and windows required for ventilation shut, as is provided in Appendix VI – Noise Sensitive Insulation Requirements.</p> <p>RELIEF SOUGHT: Support subject to amendment:</p> <ul style="list-style-type: none"> a. In (B) replace “ noise levels” with “design levels” b. In (B) after the word “exceeded” add “having regard to any noise barriers:” c. Add a new sub-clause “(b) Where (a) applies, if design sound levels must be met with doors and windows required for ventilation closed, ventilation in bedrooms and other habitable areas shall comply with Appendix VI table 2 and its accompanying clauses as if the site was within the Outer Control Boundary (OCB) and Single Event Sound Exposure Boundary (SESEB) as shown on the District Planning maps.” <p>FS28.18 NZ Transport Agency <i>Oppose in part submission 117.36</i></p> <p>The further submitter considers that the submitter’s suggested amendment (b) is not necessary. They comment that there is a number of noise mitigation tools available to developers and that it does not matter what mitigation measures are used. What is important is for buildings to achieve the required internal noise environment, as is specified by Rule 3.13.9.</p> <p>RELIEF SOUGHT: Disallow amendment (b).</p>	<p>Accept in part</p> <p>See response to submission 79.32 in relation to additional clause on ventilation requirements.</p> <p>The noise levels specific in this rule will only be used during the design of a new project. As there is no requirement for post-construction measurements, it is appropriate to replace the term “noise levels” with “design levels”.</p> <p>The wording suggested to be added to 3.13.9 “having regard to any noise barriers” is not necessary. The rule allows for any method of noise control to be used, including noise barriers.</p> <p>RECOMMENDATION:</p> <p>Amend 3.13.9 as set out in response to submission 79.32 above.</p>

Submitter	Plan Provision / Submission	Recommendation
<p>26.3 NZ Defence Force</p>	<p>Oppose 3.13.10 in part</p> <p>The submitter wishes to ensure that the noise standards included in the Proposed District Plan are up-to-date, appropriate for the type of noise generated and relatively simple to understand and assess compliance with. In doing so the submitter has developed revised noise control standards to control noise effects from Temporary Military Training Activities that it is seeking to have included in District Plans nationwide. The replacement noise standards proposed by the submitter are attached to the submission and focus on compliance at dwellings, residentially zoned sites and buildings used for residential, education or healthcare purposes.</p> <p>RELIEF SOUGHT: That the noise standards attached to this submission be included for Temporary Military Training Activities in all zones.</p> <p>FS30.26 Southern District Health Board Support submission 26.3</p> <p>The further submitter considers that the new rules are consistent with approach nationwide and necessary for nationally important activities while affording reasonable protection to the health and amenity of people and communities in the vicinity of such temporary activities.</p>	<p>Reject</p> <p>It is considered necessary to include provisions that control the potentially adverse effects arising from Temporary Military Training Activities, in particular those noise created by firing of weapons and the use of equipment. The provisions need to balance this control while acknowledging the role of these types of activities.</p> <p>It is important that the noise standards are relatively simple and the notified rule is considered to be more user friendly than the relief sought by the submitter. Advice received also indicates a number of flaws in the relief sought by the submitter that will make enforcement of the provision difficult.</p> <p>RECOMMENDATION:</p> <p>Retain Rule 3.13.10 as notified, subject to amendments recommended in response to submission 117.37 below</p>
<p>117.37 Southern District Health Board</p>	<p>Support 3.13.10 in part</p> <p>The submitter believes that the provisions need to be amended to ensure that they utilise the correct terminology to be consistent with the rest of the Plan and the measurement and assessment standards cited.</p> <p>The submitter states that description of the explosives noise metric frequency is inaccurate and contradictory stating that there is no frequency weighting</p> <p>RELIEF SOUGHT:</p> <p>Support subject to amendment:</p> <p>a. In (B) Replace “noise levels shall not exceed” with “sound levels within any other Zone or at any point within the notional boundary of</p>	<p>Accept in part</p> <p>See recommendations in response to submission 26.3 in the table above.</p> <p>It is acknowledged that the notified provision does not specify where the noise limits apply, and it is agreed that the noise levels should be measured at any point within the notional boundary of noise sensitive activities.</p> <p>To keep the noise provisions consistent and accurate, it is agreed that the reference to L10 and dBC(peak) be altered.</p>

Submitter	Plan Provision / Submission	Recommendation												
	<p>any noise sensitive activity on another site, shall not exceed”</p> <p>b. Replace L10 with “L_{Aeq(15min)}” in the table</p> <p>c. In the proviso under the table delete the phrase “non-frequency weighted”</p>	<p>RECOMMENDATION: Amend 3.13.10 as follows:“ ...</p> <p>(B) For the use of firearms or explosives, noise levels shall not exceed sound levels at any point within the notional boundary of any noise sensitive activity shall not exceed:</p> <table border="1" data-bbox="1361 443 2074 571"> <thead> <tr> <th>Time on any day</th> <th>L₄₀ L_{eq} dB</th> <th>L_{Amax} dB</th> </tr> </thead> <tbody> <tr> <td>0730 – 1800</td> <td>75</td> <td>90</td> </tr> <tr> <td>1800 – 2000</td> <td>70</td> <td>85</td> </tr> <tr> <td>2000 – 0730 the following day</td> <td>55</td> <td>75</td> </tr> </tbody> </table> <p>Provided the limits for impulsive noise arising from any use of explosives ammunition, or pyrotechnics at any time, shall not exceed a peak non-frequency weighted sound pressure level of 122 dBC (peak) dB L_{Cpeak}.”</p>	Time on any day	L ₄₀ L _{eq} dB	L _{Amax} dB	0730 – 1800	75	90	1800 – 2000	70	85	2000 – 0730 the following day	55	75
Time on any day	L ₄₀ L _{eq} dB	L _{Amax} dB												
0730 – 1800	75	90												
1800 – 2000	70	85												
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<p>101.9 NZ Fire Service Commission</p>	<p>Oppose 3.13.11 in part</p> <p>The submitter believes that the exemption in (B) should be extended to include warning devices associated with emergency service training activities to allow for the drills and training activities it carries out on its sites</p> <p>RELIEF SOUGHT: Amend 3.13.11 to read: (B) Sound from warning devices used by emergency services are exempt from all noise limits, <u>this includes warning devices associated with emergency service training activities</u>”</p> <p>FS2.41 NZAS Ltd Support submission 101.9 The further submitter supports the amendment sought to exempt warning devices associated with emergency service training activities from the noise limits</p> <p>FS30.27 Southern District Health Board Support submission 101.9</p>	<p>Accept</p> <p>The suggested addition clarifies the scope of the exception.</p> <p>See also the recommendation in response to submission 117.30 above.</p> <p>RECOMMENDATION: Amend 3.13.11(B) as follows:</p> <p>(B) Sound from warning devices used by emergency services are exempt from all noise limits, <u>this includes warning devices associated with emergency service training activities</u>”</p>												

Submitter	Plan Provision / Submission	Recommendation
	The further submitter considers that an appropriate amendment enabling the safety of the community should be promoted	
103.63 Invercargill Airport Ltd	Support 3.13.11. The submitter considers it appropriate to permit aircraft operations for use during emergencies RELIEF SOUGHT: Retain 3.13.11 as notified	Accept in part It is considered that amendments made in response to submission 101.9 above will not affect the overall intention of the provision or the ability to utilise and land aircraft for emergencies. RECOMMENDATION: See recommendation in response to submission 101.9 above
117.38 Southern District Health Board	Support 3.13.11 The submitter supports the provisions as this is essential for the health and safety of people and communities and notes that emergency landing of aircraft are outside the scope of the RMA being within CAA jurisdiction RELIEF SOUGHT: Retain 3.13.11 as notified	Accept in part See recommendation in response to submission 101.9 above RECOMMENDATION: Retain 3.13.11(A) as notified Amend 3.13.11(B) as set out under submission 101.9 above
117.39 Southern District Health Board	Support 3.13.12 Temporary Activities/Events in part The submitter raises concern that the possibility of contiguous activity at one location over six days may not be sustainable if there are noise sensitive activities nearby, so intermittency on one site should be limited. The submitter notes that the intermittency frequency is a matter for local governance. RELIEF SOUGHT: Support subject to amendment similar to: Add to (C) "provided no single event shall exceed 3 days on the site and no further event shall occur on the same site within 3 weeks."	Accept The submitter's concerns are noted in terms of intermittency of events. However, I believe a three week set down between events may be too inhibitive. This may be an issue, for example, if there was a Summer market or series of events set up that wanted to operate for a small number of hours over a period of days, particularly if the events are only held once a week for 6 weeks for example. RECOMMENDATION: Amend 3.13.12(C) as follows: <u>"There are no more than six events (days) on the site in any one calendar year provided no single event shall exceed three consecutive days on the site."</u>

Submitter	Plan Provision / Submission	Recommendation
<p>65.99 ICC Environmental and Planning Services</p>	<p>Support 3.13.13 in part.</p> <p>The submitter considers that it needs to be clarified that this rule was drafted to apply to the Invercargill Airport, as it could unintentionally be applied to applications for other airfields, for example.</p> <p>RELIEF SOUGHT: Include a rule either before or after 3.13.5 “Noise from aircraft operations is to be measured and assessed in accordance with NZS6805:1992 Airport Noise Management and Land Use Planning”</p> <p>Amend Rule 3.13.13 to clarify the fact that the provisions apply only to operations that are the subject of designations by Invercargill Airport Limited.</p> <p>FS5.27 Invercargill Airport Ltd Support submission 65.99 The further submitter agrees that clarity in this regard would be appropriate</p> <p>FS30.10 Southern District Health Board Supports submission 65.99 The further submitter considers that the relief sought clarifies ambiguity of application and scope of the rule.</p>	<p>Accept</p> <p>It is considered that the relief sought better clarifies any ambiguity of application and scope of the proposed rule.</p> <p>However, it also should be noted that this provision does not just relate to the aircraft using the Invercargill Airport but also to development carried out within the Single Event Sound Exposure Boundary and the Outer Control Boundary. Changing the title would make it clearer to the Plan User what the provision covers.</p> <p>RECOMMENDATION:</p> <p>Include an additional provision either before or after 3.13.5 as follows:</p> <p><u>‘Noise from aircraft operations is to be measured and assessed in accordance with NZS6805:1992 Airport Noise Management and Land Use Planning.’</u></p> <p>with subsequent renumbering</p> <p>Amend the title for 3.13.13 as follows:</p> <p><u>“Aircraft Invercargill Airport Operations”</u></p>
<p>103.64 Invercargill Airport Ltd</p>	<p>Oppose 3.13.13 in part.</p> <p>The submitter considers (B) to be superfluous as it repeats requirements inherent in the designation.</p> <p>The submitter does not consider the rules relating to noise sensitive activities are appropriate.</p> <p>RELIEF SOUGHT: Retain 3.13.13(A)</p>	<p>Reject in part</p> <p>This submission is discussed in more detail in Section 5 of this report.</p> <p>3.13.13(B) is a repetition of a condition on the Airnoise Boundary Designation. However, the provision requires the airport to comply with the noise contour. This rule confirms the noise levels in the designation, so that any activity that the airport may want to do outside the confines of the designation triggers a resource consent. Other parts of the rule require new noise sensitive activities to be treated to control aircraft noise. It is therefore</p>

Submitter	Plan Provision / Submission	Recommendation
	<p>Delete 3.13.13(B)</p> <p>Delete 3.13.13 (C) and replace with rules detailing different activity statuses and design requirements within the Outer Control Boundary and the Single Event Sound Exposure Boundary</p>	<p>appropriate to be consistent and require the airport to limit their noise emissions to comply with the same noise contours.</p> <p>The approach taken in the Proposed District Plan as notified involved the strengthening of the Objectives and Policies, and the imposition of non-complying activity status for un-insulated noise sensitive activities within the SESEB and OCB.</p> <p>It is acknowledged that there are weaknesses in the rule, however it is not considered that prohibited activity status is necessary. In the Business 3 and Industrial 1 Zones, activities that involve sleeping during the night-time are generally not anticipated. In the Industrial 1 Zone noise sensitive activities are non-complying and in the Business 3 Zone, the only permitted noise sensitive activities are child care activities and health care activities. The provisions of the Proposed District Plan acknowledge that moderate levels of noise will be anticipated during the day-time in these zones. Noise sensitive activities proposing to set up within these Zones will need to address reverse sensitivity effects, such as noise within any resource consent application, and to address the policies, and they would be undertaking any development in the knowledge that the noise limits within those Zones is 65dB during the day.</p> <p>There are a number of properties within the Rural 1 Zone that are also within the SESEB or OCB. Those that would be most affected by the provisions restricting noise sensitive activities are located at the Otatara end of the airport. These properties are around 4ha or less, with existing residential activities. Provisions prohibiting any noise sensitive activities, or extensions to existing noise sensitive activities would have significant impacts on these properties. Under the provisions as proposed, in the Rural 1 Zone, the subdivision of these properties would be non-complying as they would not meet the minimum lot size requirements.</p> <p>3.13.13(C)(a) is misleading. This provision allows activities that may not otherwise be permitted within the Zone and should be deleted. In the Industrial Zone, for example, noise sensitive</p>

Submitter	Plan Provision / Submission	Recommendation
		<p>activities in general are non-complying. The statement in this provision however deems them to be permitted if they are insulated.</p> <p>RECOMMENDATION:</p> <p>Amend 3.13.13 as follows:</p> <p>“(A) Noise from aircraft operations, including take offs and landings, flight operations, routine engine testing or ground running, and the running of auxiliary power units (being the subject of designations by Invercargill Airport Limited) are exempt from the noise limits detailed in Rule 3.13.2 above.</p> <p>(B) Notwithstanding Rule 3.13.2 above, the maximum levels of noise generated from aircraft operations are as follows:</p> <p>(1) Airnoise Boundary: 65Ldn dBA <u>65 dB L_{dn}</u> at or outside the Airnoise Boundary as detailed in the District Planning Maps. Noise will be measured in accordance with New Zealand Standard NZS6805:1992 <i>Airport Noise Management and Land Use Planning</i>.</p> <p>(C) Acoustic insulation – Within those areas identified on the District Planning Maps as being within the Single Event Sound Exposure Boundary and/or the Outer Control Boundary:</p> <p>(a) New Noise Sensitive Activities and/or alterations and additions to existing buildings containing Noise Sensitive Activity, which comply with the specification contained in Appendix VI Noise Sensitive Insulation Requirements, are a permitted activity.</p> <p><u>(a) New Noise Sensitive Activities and/or alterations and additions to existing buildings</u></p>

Submitter	Plan Provision / Submission	Recommendation
		<p><u>containing Noise Sensitive Activity in the Business 1, Business 3, Industrial 1 and Industrial 2 Zones are a non-complying activity</u></p> <p>(b) New Noise Sensitive Activities and/or alterations and additions to existing buildings containing Noise Sensitive Activity <u>in the Rural 1, Otatara and Residential 1 Zones</u>, which do not comply with the specifications contained in Appendix VI Noise Sensitive Insulation Requirements, are a non-complying activity.”</p>
<p>117.40 Southern District Health Board</p>	<p>Support 3.13.13</p> <p>The submitter supports the provision as they state it is consistent with designation conditions and necessary for sustainable management of a physical resource of the district and protection of people and communities from unreasonable noise</p> <p>RELIEF SOUGHT: Retain 3.13.13 as notified</p>	<p>Accept in part</p> <p>Recommended amendments to this provision in response to submission 103.64 and 65.99 retain the general purpose of the provisions and retain consistency with the designations.</p>
<p>117.41 Southern District Health Board</p>	<p>Support 3.13.14 in part</p> <p>The submitter supports the list of topics to be taken into account but suggests amendment of terminology to ensure consistency with standards cited.</p> <p>RELIEF SOUGHT:</p> <p>Support subject to amendments:</p> <p>a. In (a), insert after “nature” the word “,timing”</p> <p>b. In (d), replace “ambient noise levels” with “ambient sound.”</p>	<p>Accept</p> <p>It is considered that the amendments sought by the submitter are appropriate.</p> <p>RECOMMENDATION: Amend 3.13.14 as follows:</p> <p>“3.13.14 (B) (a) the maximum level of noise likely to be generated, its nature, <u>timing</u>, character and frequency and the disturbance this may cause to people in the vicinity”</p> <p>“3.13.14 (B) (d) Existing ambient noise levels <u>sound</u>”</p>

Submitter	Plan Provision / Submission	Recommendation
53.74 NZ Transport Agency	<p>Support 3.13.14(A).</p> <p>RELIEF SOUGHT: Retain Rule 3.13.14(A) as proposed.</p>	<p>Accept</p>
53.75 NZ Transport Agency	<p>Support 3.13.14(B) in part</p> <p>The submitter considers that it would be appropriate that the written approval of the NZTA as a requiring authority be included as a matter for the discretion of Council.</p> <p>RELIEF SOUGHT:</p> <p>Amend Rule 3.13.14 (B) by inserting an additional matter, as follows: (h) <i>Whether the written approval of the NZ Transport Agency has been obtained.</i></p>	<p>Accept in part</p> <p>It is acknowledged that the matters for consideration are mainly focussed on the noise generating activity, and do not include consideration of the reverse sensitivity issues that are also addressed within the Noise Rule. Including matters of consideration similar to that sought by the submitter would ensure that these issues are considered through the consent process.</p> <p>The submission focusses on reverse sensitivity effects on the roading network, however the rules addresses reverse sensitivity effects in relation to the railway and the airport as well. Amending the provision to be more encompassing to acknowledge these other parties would ensure these parties are all included in the process.</p> <p>Whether the written approval has been received or not is a matter considered when determining notification rather than a matter for determination of consent. The wording of this type of provision should be focussed more on the results of consultation with these infrastructural providers.</p> <p>RECOMMENDATION:</p> <p>Include an additional clauses under 3.13.14(B) as follows:</p> <p>“(j) <u>The nature of the environment, including any existing noise generating activities that may give rise to reverse sensitivity effects and methods to</u> (i) <u>the degree of noise attenuation achieved by the noise sensitive activity</u>”</p>

Submitter	Plan Provision / Submission	Recommendation
		<p>(ii) <u>The effects of reverse sensitivity on the operation of the transportation network and the ability and suitability of mitigation measures to enable the continued and uninterrupted operation of the transportation network</u></p> <p>(iii) <u>The nature of the environment including the scale of noise generated by the transportation network</u></p> <p>(iv) <u>Evidence of consultation with operators of the transportation network</u></p>
DEFINITIONS		
<p>117.52 Southern District Health Board</p>	<p>Definitions to add: Acoustic terminology</p> <p>The submitter seeks the inclusion of new definitions relating to acoustic terminology. The submitter believes that this would allow the ordinary reader to understand the key terminology without reference to an external document.</p> <p>RELIEF SOUGHT: Add the following new definitions: Acoustic terms shall have the same meaning as in NZS 6801:2008 Acoustics – Measurement of environmental sound and NZS 6802:2008 Acoustics –Environmental noise. <u>L_{dn}: Means the day/night time average level, or night-weighted sound exposure level which is the A-frequency weighted time-average sound level, in decibels (dB), over a 24-hour period obtained after the addition of 10 decibels to the sound levels measured during the night (2200 to 0700 hours).</u> <u>L_{Aeq}(15 min):Means the A-frequency-weighted time-average sound level over 15 minutes, in decibels (dB).</u> <u>L_{AFmax}: means the maximum A-frequency-weighted fast-time-weighted sound level, in decibels (dB), recorded in a given measuring period.</u> <u>Noise Limit: Means a L_{Aeq}(t) or L_{AFmax} sound level in decibels that is not to be exceeded.”</u></p>	<p>Accept in part</p> <p>Acoustic terminology is inherently technical whilst the definitions suggested by the submitter are technically correct it is important that they can be understood by the lay person in order to aid in the technical interpretation of the noise provisions.</p> <p>It is not considered necessary to define the term “noise limit” or to state that all acoustic terms shall have the meaning given in NZS6801 and NZS6802.</p> <p>RECOMMENDATION: Include the following definitions: <u>“L_{Aeq}: Means the equivalent continuous (time-averaged) A-weighted sound level. This is commonly referred to as the average noise level.</u> <u>L_{Amax}: means the A-frequency-weighted maximum noise level. The highest noise level whih occurs during a measurement period.</u> <u>L_{dn}: Means the day/night noise level, which is a 24 hour L_{Aeq} with a 10dB penalty applied to the night-time (2200 – 0700 hours)</u></p>

Submitter	Plan Provision / Submission	Recommendation
<p>65.116 ICC Environmental and Planning Services</p>	<p>Oppose in part - Definition of "Airnoise Boundary" The submitter notes a drafting error, where the definition is inconsistent with terminology of the relevant NZS</p> <p>RELIEF SOUGHT:</p> <p>Amend reference from 65dB Ldn to 65 dB L_{Adn}</p> <p>FS30.11 Southern District Health Board Support submission in part The further submitter considers amendments are necessary for consistency with standards for measurement and assessment ie NZS6805 and NZS 6801 stated in the Proposed District Plan, however the submission includes an error where L_{dn} is proposed to be amended to L_{Adn} which is contrary to convention, international and New Zealand usage.</p>	<p>Reject</p> <p>See discussion under submission 65.95.</p> <p>L_{dn} is the correct terminology, not L_{Adn}.</p>
<p>15.39 Ballance Agri-Nutrients Ltd</p>	<p>Support in part definition of Noise Sensitive Activity</p> <p>The submitter supports the list of activities included within the definition and agrees that they are sensitive to noise emissions. The submitter also considers that 'recreational activities' as defined within the Proposed Invercargill City District Plan should be included within the definition due to the inherent sensitivity to noise that these activities have.</p> <p>The submitter considers it to be of vital importance that the listed activities be excluded from the Industrial Zones unless it can be demonstrated, through the resource consent process, that any reverse sensitivity effects associated with noise emissions can be fully mitigated</p> <p>RELIEF SOUGHT: That Section 3 – Definitions 'Noise Sensitive Activities' be amended and adopted as follows: 'Noise Sensitive Activities: Means buildings or parts of buildings <u>or land</u> used for or able to be used for the following purposes: (A) Residential Activity; (B) Visitor accommodation; (C) Residential care activity; (D) Education activity, except training related to airport and aircraft operations;</p>	<p>Reject</p> <p>Recreational activities are not all noise sensitive. The activities listed as noise sensitive tend to have a residential/sleeping component to them or are activities that require quiet. Not all recreational activities will fall within this category, such as rugby, jet boating, or motorbiking. Recreational activities are not sufficiently sensitive enough to be included within this definition.</p> <p>It should also be noted that s42A Report No 29 General Issues recommends that the term 'recreational activity' be removed from the District Plan on the grounds that these types of activities fall within other definitions.</p>

Submitter	Plan Provision / Submission	Recommendation
	(E) Hospital activity; (F) Healthcare activity; (G) Child Daycare activity; and (H) Marae Activity; and (I) Recreational Activity.	
79.37 KiwiRail Holdings Ltd	<p>Support definition of Noise Sensitive Activity</p> <p>The submitter considers the definition is comprehensive and addresses the full range of noise sensitive activities</p> <p>RELIEF SOUGHT: Retain definition</p> <p>FS30.19 Southern District Health Board Support in part submission 79.37 The further submitter supports an appropriate definition but considers it may need amendment</p>	<p>Accept</p> <p>RECOMMENDATION: Retain definition of 'Noise Sensitive Activity' as notified</p>
103.74 Invercargill Airport Ltd	<p>Support definition of "Noise Sensitive Activity"</p> <p>The submitter considers the definition captures those activities sensitive to aircraft noise, and supports the exemption of training related to airport or aircraft operations</p> <p>RELIEF SOUGHT: Retain definition as notified</p>	<p>Accept</p> <p>RECOMMENDATION: Retain definition of "Noise Sensitive Activity" as notified</p>
117.51 Southern District Health Board	<p>Support definition of "notional boundary" in part</p> <p>The submitter agrees with the intention of the definition however, believes it should be aligned with the definition for "noise sensitive activities" by replacing the reference to residence with "building used for a noise sensitive activity in any Residential 1A, or 3 or Rural Zone"</p> <p>RELIEF SOUGHT: Amend the definition of notional boundary as suggested: "Notional Boundary: Means a line 20 metres from the side of residence</p>	<p>Accept in part</p> <p>The definition could be improved by including reference to noise sensitive activities rather than just to residences. The wording within the Rule 3.13.2(A) itself refers to the measurement of the notional boundary in relation to noise sensitive activities. Amending the definition would avoid any confusion.</p> <p>I do not believe that there should be any reference to which Zones this term relates to within the Definitions. Where the notional</p>

Submitter	Plan Provision / Submission	Recommendation								
	<p>building used for a noise sensitive activity in any Residential 1A, or 3 or Rural Zone or the legal boundary where the boundary is closer to the building than 20 metres.”</p>	<p>boundary is relevant and is to be applied this will be determined within the Rule, rather than the definition.</p> <p>RECOMMENDATION:</p> <p>Amend definition of “Notional boundary” as follows: “Notional Boundary: Means a line 20 metres from the <u>any</u> side of residence <u>building used for a noise sensitive activity</u> or the legal boundary where the boundary is closer to the building than 20 metres.”</p>								
APPENDIX VI – NOISE SENSITIVE INSULATION REQUIREMENTS										
<p>103.73 Invercargill Airport Ltd</p>	<p>Support.</p> <p>The Airport considers the standards are consistent with current best practice.</p> <p>RELIEF SOUGHT: Retain Appendix VI as notified</p>	<p>Accept</p> <p>RECOMMENDATION:</p> <p>Retain Appendix VI as notified, subject to minor amendments recommended in response to submission 117.50 below</p>								
<p>117.50 Southern District Health Board</p>	<p>The submitter supports Appendix VI subject to amendments.</p> <p>The submitter believes that provisions are practical and enabling noise sensitive activities indoors without reasonable noise while sustainably managing nearby airport physical resources of the District, however notes typographical errors.</p> <p>RELIEF SOUGHT:</p> <p>Support provisions, subject to amendments: a. After heading “OCB” amend “40dB” to “40 dBA” b. After heading “SESEB” amend “65Db” to “65 dB” and amend “40Db” to “40 dBA”</p>	<p>Accept in part</p> <p>It is recommended that the terminology be amended to be consistent with terminology used elsewhere in the Proposed Plan.</p> <p>RECOMMENDATION:</p> <p>Amend the acoustic terminology used in Appendix VI as follows:</p> <table border="1" data-bbox="1301 1094 2080 1222"> <thead> <tr> <th data-bbox="1301 1094 1688 1121">Notified Terminology</th> <th data-bbox="1688 1094 2080 1121">Recommended Terminology</th> </tr> </thead> <tbody> <tr> <td data-bbox="1301 1121 1688 1149">40 dB L_{dn}</td> <td data-bbox="1688 1121 2080 1149">No change required</td> </tr> <tr> <td data-bbox="1301 1149 1688 1176">65 Db L_{AE}</td> <td data-bbox="1688 1149 2080 1176">65 dB L_{AE}</td> </tr> <tr> <td data-bbox="1301 1176 1688 1203">40Db L_{dn}</td> <td data-bbox="1688 1176 2080 1203">40 dB L_{dn}</td> </tr> </tbody> </table>	Notified Terminology	Recommended Terminology	40 dB L _{dn}	No change required	65 Db L _{AE}	65 dB L _{AE}	40Db L _{dn}	40 dB L _{dn}
Notified Terminology	Recommended Terminology									
40 dB L _{dn}	No change required									
65 Db L _{AE}	65 dB L _{AE}									
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Submitter	Plan Provision / Submission	Recommendation
ENTERTAINMENT PRECINCT		
118.1 Bruce Maher	<p>Oppose Zoning of Entertainment precinct</p> <p>The submitter is concerned about the zoning of part of his property within the Entertainment Precinct due to the higher level of ambient noise allowed for within the Entertainment Precinct</p> <p>RELIEF SOUGHT: Remove Entertainment Precinct zoning from the part of the submitters property at 8-10 Dee Street</p>	<p>Reject</p> <p>The Entertainment Precinct sits over about 620m² of the submitter's property. Of this, buildings cover just over 400m². At the time of drafting this report, it is my understanding that this part of the site is currently used by Subway and Hell's Pizza. See aerial map in Appendix 5 of this report</p> <p>Whilst I believe that some minor tweaking to ensure that the part of the building currently used for other purposes, including visitor accommodation, is not within the Entertainment Precinct, I believe there is merit in retaining the overlay over part of this property. This will encourage a range of activities to be carried out within and around Wachner Place.</p> <p>RECOMMENDATION: Amend Planning Map 9 by moving the boundary of the Entertainment Precinct north as it sits across 10 Dee Street. See blue dotted line on map in Appendix 5.</p>
100.1 Vibrant Invercargill	<p>Comment on Entertainment Precinct</p> <p>The submitter considers placing the Central Business District into the District Plan is important for the future, assisting investors such as property owners, businesses, for those that live and work within the CBD area and along with cultural and community activity.</p> <p>The submitter has provided a report on the "Proposed Entertainment District" which offers a number of suggestions:</p> <ol style="list-style-type: none"> a. The scope of the Entertainment Precinct should be for mixed use b. The boundaries of the Precinct are too tight c. Residential accommodation on upper floors should not be excluded d. One or more new hotels should be accommodated within the precinct e. There is a need for more restaurants and licensed cafes f. More investment by the private sector is necessary and desirable g. Consideration should be made of the scale, hours of operation, street frontages, noise and location of licensed premises 	<p>Noted</p> <p>The concept behind the Entertainment Precinct is to highlight a specific area of the Central Business District where activities generating noise are not restricted by reverse sensitivity complaints from noise sensitive activities.</p> <p>Mixed use development is encouraged within the Business 1 Zone, where residential and noise sensitive activities are permitted. However, the Proposed Plan sets aside a part of the Business 1 Zone to encourage the co-location of cafes and restaurants and activities operating into the evening and night to create a 'hub'.</p> <p>Having residential and noise sensitive activities located within the vicinity of noise generating entertainment-type activities can cause conflict and the issue of noise needs to be addressed. Within the</p>

Submitter	Plan Provision / Submission	Recommendation
	<p>h. Under-awning lighting should be improved in Tay and Dee Sts</p> <p>i. There is an urgent need to address the issues of earthquake prone buildings</p> <p>j. The mix of evening uses should be varied</p> <p>FS20.2 Bruce Maher Support in part submission 101.1 The further submitter supports suggestion 11 as it relates to noise in the entertainment precinct. The further submitter considers that it makes more sense to require the building owners and tenants to control the noise escaping the premises, rather than all the surrounding premises upgrading their sound proofing at cost to the owners.</p> <p>The further submitter specifically refers to potential effects of noise from nightclubs affecting nearby visitor accommodation businesses</p> <p>FS35.3 Vibrant Invercargill Support submission 100.1 The further submitter would like to amend the original submission, specifically change the title of section 6 of John Montgomery's report from "Suggestions' to 'Needs"</p>	<p>Entertainment Precinct, the noise sensitive activities retain their permitted activity status, but within this area the owners of the noise sensitive activity are responsible for noise attenuation and acoustic insulation and providing a habitable environment.</p> <p>The egress of noise and especially loud music from licensed premises' will continue to be governed by the reasonable and offensive noise provisions of the RMA, however, within the Entertainment, and will also be subject to the general Zone noise limits.</p> <p>Hotels are not excluded from operating within the Entertainment precinct, however should they be located in this precinct they need to be aware of the noise requirements.</p> <p>Pedestrian friendly frontages, lighting, activity status, private sector investment and the implications of earthquake legislation are not matters that are addressed in this report, which is focussing on the noise implications.</p>
<p>105.11 ICC Environmental Health and Compliance Services</p>	<p>Support Entertainment precinct in concept</p> <p>The submitter supports the concept of the Entertainment precinct, pending the outcome of any Local Alcohol Policy that the council may adopt under the Sale and Supply of Alcohol Act 2012</p>	<p>Reject</p> <p>While the Entertainment Precinct is seeking to encourage the co-location of activities, such as licensed premises, it is not just focussed on activities involving alcohol. The provisions in the Proposed District Plan do not prevent licensed premises locating outside of the Entertainment Precinct either.</p> <p>The Provisional Local Alcohol Policy 2014 and the Proposed District Plan provisions overlap, but they are addressing different issues and I do not believe that they need to mirror each other.</p> <p>The Appendices of the Provisional Local Alcohol Policy include a map of an area referred to as the 'Invercargill Late Night Closing Area'. This area reflects the Business 1 Zone boundaries and is much larger than the Entertainment Precinct in the Proposed District Plan. Increasing the area of the Entertainment Precinct is</p>

Submitter	Plan Provision / Submission	Recommendation
		<p>not considered appropriate. Such a change would adversely affect a number of properties with residential and visitor accommodation activities in terms of noise attenuation and may discourage mixed use development in the City Centre.</p> <p>It should also be noted that the Provisional Local Alcohol Policy 2014 is subject to appeal and has not yet been deemed operative.</p>
<p>106.1 Trevor Thayer</p>	<p>The submitter notes that the area does not allow inner city living to co-exist, and questions whether it would be possible to overlap the uses</p>	<p>Noted</p> <p>Inner city living can co-exist within the Entertainment precinct of the Business 1 Zone. Residential activities and other noise sensitive activities are permitted activities. The Entertainment Precinct involves a change in focus relating to noise, as set out in response to submissions above.</p>

APPENDIX 2 - RECOMMENDED CHANGES TO THE PROPOSED DISTRICT PLAN

(underline indicates recommended additions, strikethrough indicate recommended deletions).

SECTION 2

ISSUES, OBJECTIVES AND POLICIES

2.17 TRANSPORTATION

Policy 2 Noise: No change.

2.17.4 Methods of Implementation

Method 12 Share information with land owners and occupiers on the effects of existing transportation networks, such as noise and vibration.

ZONE SPECIFIC

2.19 AIRPORT OPERATIONS ZONE

2.19.3 Policies

Policy 3 Noise Limits: No change.

Policy 4 Noise Sensitive Activities: No change

2.19.4 Methods of Implementation

Method 2 No change

2.20 AIRPORT PROTECTION ZONE

2.20.2 Objectives

Objective 1: No change.

2.20.3 Policies

Policy 2 Noise Limits: No change.

Policy 3 Noise Sensitive Activities: No change

2.20.4 Methods of Implementation

Method 2 No change.

2.22 BUSINESS 1 (CENTRAL BUSINESS DISTRICT) ZONE

2.22.3 Policies

Policy 2 Precincts: No change

Policy 5 Noise: No change

2.23 BUSINESS 2 (SUBURBAN SHOPPING AND BUSINESS) ZONE

2.23.3 Policies

Policy 3 Noise: No change

2.24 BUSINESS 3 (SPECIALIST COMMERCIAL) ZONE

2.24.3 Policies

Policy 5 Noise:

- (A) To provide within the Business 3 Zone for a reasonable level of noise associated with a range of business, commercial and service oriented industrial activities.
- (B) To maintain low ambient noise levels at night at the boundary of the Residential Zone.
- (C) To acknowledge and accommodate the operational requirements of the airport, the State Highways and the railway.

Explanation: *The character of the zone is such that reasonable levels of daytime noise should be both permitted and tolerated. Night time noise should not be objectionable in nearby residential areas. ~~The airport, the State Highways and the railway all have operational requirements involving generation of varying levels of noise and it is important that the operation of these essential utilities is not compromised by reverse sensitivity issues.~~*

Policy # Noise

To recognise that some parts of the Zone are subject to higher levels of noise generated by the transportation network and to avoid, or mitigate reverse sensitivity effects associated with those activities.

Explanation: *The airport, the State Highways and the railway all have operational requirements involving generation of varying levels of noise and it is important the functioning of this infrastructure is not compromised by reverse sensitivity issues involving noise. The location, design and operation of noise sensitive activities should involve the consideration of these existing noise sources.*

2.25 BUSINESS 4 (NEIGHBOURHOOD SHOP) ZONE

2.25.3 Policies

Policy 2 Noise: No change

2.26 BUSINESS 5 (RURAL SERVICE) ZONE

2.26.3 Policies

Policy 2 Noise: No change

2.27 HOSPITAL ZONE

2.27.3 Policies

Policy 2 Noise: No change

2.29 INDUSTRIAL 1 (LIGHT) ZONE

2.29.3 Policies

Policy 1 Industrial 1 (Light) Zone: No change

Policy 2 Noise: No change

Policy 3 Noise: No change.

Policy # To recognise that some parts of the Zone are subject to higher levels of noise generated by the transportation network and to avoid, or mitigate reverse sensitivity effects associated with those activities.

Explanation: The airport, the State Highways and the railway all have operational requirements involving generation of varying levels of noise and it is important the functioning of this infrastructure is not compromised by reverse sensitivity issues involving noise. The location, design and operation of noise sensitive activities should involve the consideration of these existing noise sources.'

2.31 INDUSTRIAL 2 (URBAN) ZONE

2.31.3 Policies

Policy 2 Noise: No change

2.32 INDUSTRIAL 3 (LARGE) ZONE

2.32.3 Policies

Policy 2 Noise: No change

2.33 INDUSTRIAL 4 (AWARUA) ZONE

2.33.3 Policies

NO NOISE SPECIFIC POLICY

2.34 OTATARA ZONE

2.34.3 Policies

Policy 4 Noise: To maintain low daytime ambient noise levels and lower night time ambient noise levels consistent with residential use of the area, recognising that some parts of the zone are subject to higher levels of noise generated by agricultural and transportation activities.

***Explanation:** “Peace and tranquillity” are important dimensions to the amenity of Otatara, as are the opportunities for rural activities such as agriculture. Excess noise, especially if it occurs repeatedly, can engender a reaction of increased intolerance. However, it is important to recognise the existence of rural activities within the Otatara Zone and ensure they are not compromised by reverse sensitivity issues involving noise.*

~~*The “peace and tranquillity” of Otatara is also affected by major transportation infrastructure, in particular the airport. However, it is important that the functioning of this essential infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this.*~~

Policy # Noise

To recognise that some parts of the Zone are subject to higher levels of noise generated by the transportation network and to avoid, or mitigate reverse sensitivity effects associated with those activities.

***Explanation:** “Peace and tranquillity” can be affected by major transportation infrastructure, in particular the airport. However, it is important that the functioning of this infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this. The location, design and operation of noise sensitive activities should involve the consideration of these existing noise sources.’*

2.36 RESIDENTIAL 1 ZONE

2.36.3 Policies

Policy 9 Noise: To maintain low daytime ambient noise levels and lower night time ambient noise levels consistent with residential use of the area, ~~recognising that some parts of the Residential Zone are subject to higher levels of noise generated by transportation activities.~~

***Explanation:** The residential areas of the city have the lowest tolerance to noise of any of the city environments. “Peace and tranquillity” are important dimensions to residential amenity for most people. Excess noise, especially if it occurs repeatedly, can engender a reaction of increased intolerance. Noise is the most common issue in neighbourhood disputes in which the Council has to become involved.*

~~*Residential “peace and tranquillity” is affected by major transportation infrastructure, in particular the State Highways, the railway and the airport. However, it is important that the functioning of this essential infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this.*~~

Policy # Noise

To recognise that some parts of the Zone are subject to higher levels of noise generated by the transportation network and to avoid, or mitigate reverse sensitivity effects associated with those activities.

***Explanation:** Residential “peace and tranquillity” can be affected by major transportation infrastructure, in particular the State Highways, the railway and the airport. However, it is important that the functioning of this infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this. The location, design and operation of noise sensitive activities should involve the consideration of these existing noise sources.*

2.37 RESIDENTIAL 1A (MEDIUM DENSITY) ZONE

Policy 2 Urban Design: No change.

2.38 RESIDENTIAL 2 (BLUFF AND OMAUI) ZONE

2.38.3 Policies: No change

2.39 RESIDENTIAL 3 (LARGE LOT) ZONE

2.39.3 Policies

Policy 9 Noise: No change

2.40 RURAL 1 ZONE

Policy 8 **Noise:** To maintain low daytime ambient noise levels and lower night time ambient noise levels whilst allowing agricultural activities, and to recognise ~~recognising~~ that some parts of the zone are subject to higher levels of noise generated by ~~transportation activities and~~ farm activities.

Explanation: *Low ambient noise levels, particularly at night, are an important dimension to the amenity of the Rural 1 Zone. However, it is important to recognise that the Rural 1 Zone is a working environment and rural activities such as agriculture, horticulture and forestry need to be provided for to ensure they are not compromised by reverse sensitivity issues involving noise.*

~~The “peace and tranquillity” of the Rural 1 Zone is also affected by major transportation infrastructure, in particular the State Highways, the railway and the airport. However, it is important that the functioning of this essential infrastructure is not compromised by reverse sensitivity issues involving noise.~~

Policy # **Noise:** To recognise that some parts of the Rural 1 Zone are subject to higher levels of noise generated by the transportation network and to avoid, or mitigate reverse sensitivity effects associated with those activities.

Explanation: “Peace and tranquillity” can be affected by major transportation infrastructure, in particular the railways, state highways and the airport. However, it is important that the functioning of this infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this. The location, design and operation of noise sensitive activities should involve the consideration of these existing noise sources.

2.41 RURAL 2 (RURAL TRANSITION) ZONE

2.41.3 Policies

Policy 7 **Noise:** To maintain low daytime ambient noise levels and lower night time ambient noise levels whilst allowing agricultural activities, and ~~recognising~~ to recognise that some parts of the zone are subject to higher levels of noise generated by ~~transportation activities and~~ farm activities.

Explanation: *Low ambient noise levels, particularly at night, are an important dimension to the amenity of the Rural 2 Zone. However, it is important to recognise that the Rural 2 Zone is a working environment and rural activities such as agriculture, horticulture and forestry need to be provided for to ensure they are not compromised by reverse sensitivity issues involving noise.*

~~The “peace and tranquillity” of the Rural 2 Zone is also affected by major transportation infrastructure, in particular the State Highways and the railway. However, it is important that the functioning of this essential infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this.~~

Policy # **Noise:** To recognise that some parts of the Rural 1 Zone are subject to higher levels of noise generated by the transportation network and to avoid, or mitigate reverse sensitivity effects associated with those activities.

Explanation: *“Peace and tranquillity” can be affected by major transportation infrastructure, in particular the railways, state highways and the airport. However, it is important that the functioning of this infrastructure is not compromised by reverse sensitivity issues involving noise, and provisions in the District Plan are necessary to achieve this. The location, design and operation of noise sensitive activities should involve the consideration of these existing noise sources.*

2.42 SEAPORT ZONE

2.42.3 Policies

Policy 2 Noise: No change.

2.43 SMELTER ZONE

2.43.3 Policies

Policy 2 Noise: No change.

**SECTION THREE
RULES**

3.13 NOISE

3.13.1 Noise Measurement and assessment: Sound levels are to be measured in accordance with the provisions of NZS 6801 2008: Acoustics - Measurement of Environmental Sound and assessed in accordance with the provisions of NZS 6802:2008: Acoustics Environmental Noise, except where expressly provided elsewhere in the Plan.

3.13.2 Noise Levels from Activities

(A) All activities are to be designed and operated so that the following noise limits are not exceeded:

	Day time 0700 - 2200		Night time 2200 - 0700	
	L _{Aeq}	L _{Amax}	L _{Aeq}	L _{Amax}
When measured at or <u>any point</u> within the boundary of any other site within a zone:				
Residential 1, 1A, 2, 3 Otatara	55dB	80dB	40dB	70dB
Rural 1, 2	65dB	85dB	45dB	70dB
Business 1, 2, 3, 4, 5	65dB	85dB	50dB	75dB
Hospital Airport Protection	55dB	80dB	45dB	75dB

	Day time 0700 - 2200		Night time 2200 - 0700	
Industrial 1, 1A	65dB	85dB	40dB	70dB
Industrial 2, 3, 4	65dB	85dB	65dB	85dB
Smelter	No limit		No limit	
When measured at the any point within the notional boundary of any noise sensitive activity on a site within a zone:				
Rural 1	50dB	80dB	40dB	65dB
When measured at any site point not within Invercargill City:				
At or within the boundary of any site <u>On any site</u>	65dB	85dB	45dB	70dB
At the notional boundary of any dwelling	50dB	80dB	40dB	65dB

In applying this rule:

- (1) ~~For clarity, noise~~ Noise from any site shall comply with the relevant limits for all surrounding sites. Hence, at the boundaries of zones, measurements of noise emissions will be based on the zoning of the site affected by the noise, not of the site generating the noise.
- (2) Noise generated in the Smelter Zone need not comply with the Rural 1 Zone boundary noise limits set out in 3.13.2(A) above on any property within the Rural 1 Zone, but shall comply with the notional boundary limits."
- (23) Where there are buildings within one metre of a site boundary, compliance with the noise limits will be assessed one metre from the façade of those buildings.
- (34) Day time noise limits are intended to provide amenity for outdoor activities. Assessment of compliance at upper levels of multi-storey buildings shall therefore be confined to balconies intended for outdoor living.
- (45) Night time noise limits are intended to allow for sleep amenity. Assessment of compliance at upper levels of multi-storey buildings shall therefore include locations immediately outside bedrooms.
- (56) Where a fence or other noise control structure is erected on a site boundary, compliance assessment shall consider the effect of such structure.

3.13.3 Exemptions:

- (A) Within the Rural 1, Rural 2, Airport Protection and Otatara Zones, any operational equipment which is mobile during its normal use and which is associated with primary production (e.g. tractors, harvesters and farm

vehicles) is exempt from the noise limits detailed in Rule 3.13.2 above. This includes items such as motorbikes and chainsaws used as part of primary production activity but does not include recreational motorbike tracks or long term sawmilling. This exemption does not include fixed motors or equipment, forestry operations between 2200 and 0700 the following day, factory farming, bird scaring devices and frost fans.

(B) Within the Airport Protection, Industrial 3, Industrial 4, Otatara, Residential 3, Rural 1 and 2 zones, noise from livestock kept as part of agriculture is exempt from the noise limits detailed in Rule 3.13.2 above.

(BC) The noise limits detailed in Rule 3.13.2 above do not apply to noise from the following sources:

- (a) Shooting ranges
- (b) Vehicles on a public road.
- (c) Trains on land designated for railway purposes (including at railway yards, railway sidings or stations) and level crossing warning devices.
- (d) Warning devices used by emergency services, as set out in Rule 3.13.14
- (d) Any noise source specifically listed in Rules 3.13.4 – 3.13.15 below, ~~below as being assessed in accordance with another New Zealand Standard~~

3.13.4 Construction noise is to comply with ~~NZS 6803:1999 Acoustics Construction Noise~~ the following noise limits:

<u>Days and Times</u>	<u>Noise Limit</u>
<u>Monday to Saturday 0730 – 1800</u>	<u>70dB L_{Aeq} and 85 L_{Amax}</u>
<u>All other times</u>	<u>45dB L_{Aeq} and 75 dB L_{Amax}</u>

3.13.5 Noise from any helicopter landing pad is to comply with NZS6807:1994 *Noise Management and Land Use Planning for Helicopter Landing Pads Areas*.

3.13.6 Noise from aircraft operations is to be measured and assessed in accordance with NZS6805:1992 Airport Noise Management and Land Use Planning.

3.13.67 Noise from wind farms is to comply with NZS6808:2010 *Acoustics – The Assessment and Measurement of Sound from Wind Turbine Generators*.

3.13.8 **Shooting ranges**
Shooting ranges, including but not restricted to those involving the use of rifles, shotguns and handguns, shall be a discretionary activity.

3.13.97 Business 1 Zone – Entertainment Precinct

(A) All new noise sensitive activities and additions to existing noise sensitive activities within the Business 1 Zone – Entertainment Precinct shall:

(a) Be designed, constructed and maintained to meet the “satisfactory” internal design sound levels in AS/NZS2107:2000 *Recommended design sound levels and reverberation times for building interiors based on an incident external noise level as follows:*” with the following table added:

	Octave Band Centre Frequency (Hz)						
	63	125	250	500	1000	2000	4000
<u>Design incident sound pressure level incident on at building façade (dB re 2 x 10⁻⁵ Pa</u>	71	61	54	48	45	44	44

(B) Prior to the operation of any noise sensitive activities on the site, an acoustic design certificate from a suitably qualified acoustic engineer is to be provided to the Council demonstrating that the above internal sound levels will be achieved.

3.13.108 Seaport Zone

(A) Long Term Noise Limit - The night-weighted sound exposure from activities undertaken in the Seaport Zone shall not exceed:

- (a) An average sound level of 65dBA L_{dn} beyond the Inner Control Boundary calculated over five consecutive days.
- (b) An average sound level of 68dBA L_{dn} beyond the Inner Control Boundary calculated over any continuous 24 hour period.

(B) Short Term Noise Limits - Sound from activities undertaken shall not exceed the following noise limits at any point beyond the Inner Control Boundary:

- (a) 2200 to 0700 the following day 60 dBA L_{Aeq(9hr)} provided that:
 - (1) No single 15 minute sound measurement shall exceed 65dBA L_{Aeq}.
 - (2) No single sound measurement shall exceed 85dBA L_{Amax}.
- (b) For the purpose of this rule:

- (1) Sound will be measured using a representative 15 minute L_{Aeq} value when calculating the L_{dn} or nine hour L_{Aeq} values.
- (2) Sound will be measured and assessed in accordance with the provisions of NZS6809:1999 Acoustics – Port Noise: Management and Land Use Planning.

3.13.119 Activities Near Transport Corridors: Any noise sensitive activity located within:

- (A) Forty metres of the closest railway track.
- (B) Eighty metres of the seal edge of a State Highway and arterial road where the speed limit is more than 70 kph.

Is to be designed, sited and constructed to ensure that the following internal noise design levels are not exceeded:

- (a) 35 dB $L_{Aeq(1\ hour)}$ ~~(one hour)~~ inside bedrooms or 40 dB $L_{Aeq(1\ hour)}$ ~~(one hour)~~ inside teaching spaces and other habitable spaces.
- (b) Compliance with this rule must be achieved concurrently with any building code ventilation requirements.
- (c) For the purposes of compliance with these limits, road traffic noise shall be calculated using a recognised prediction model and based on existing traffic flow data plus 3 dB to allow for future growth. Train noise shall be deemed to be 70 dB $L_{Aeq(1\ hour)}$ at 12 metres from the closest rail track. This level shall be deemed to vary at a rate of 3 dB per doubling of distance up to 30 metres and 6 dB per doubling beyond 30 metres.

Note: Compliance with Rule 3.13.9 shall be demonstrated by providing the Council with a design report and a design certificate prepared by an experienced and qualified acoustic specialist and an experienced and qualified mechanical engineer with respect to the ventilation system

3.13.12 Vibration in Rail Network Corridor

Any new building exceeding two storeys, or additions in excess of 25m² to an existing building exceeding two storeys, used for a noise sensitive activity that is within 40 metres of the closest railway track that is shall be designed and constructed to ensure that the following levels of vibration from trains shall not be exceeded based on the procedures set out in the Norwegian Standard NZ 8176E: 2nd edition September 2005 *Vibration and Shock Measurement of Vibration in Buildings from Land Based Transport and Guidance to Evaluation of its Effects on Human Beings.*

<u>Receiving Environment (New relocated or altered)</u>	<u>Class C criterion: Maximum Weighted Velocity, $V_w,95$</u>
Noise Sensitive activities	0.3mm/s

Compliance with this rule shall be demonstrated by providing the Council and KiwiRail Holdings Limited with a design report a design certificate prepared by an experienced and qualified acoustic/vibration specialist”

3.13.1310 Temporary Military Training

- (A) Other than for the use of firearms or explosives, noise levels as a result of temporary military training activities are not to exceed the noise levels set out in the noise standards above (Rule 3.13.2) for the surrounding zone(s).
- (B) For the use of firearms or explosives, noise levels sound levels at any point within the notional boundary of any noise sensitive activity shall not exceed:

Time on any day	L ₁₀ dB	L _{Amax} dB
0730 – 1800	75	90
1800 – 2000	70	85
2000 – 0730 the following day	55	75

Provided the limits for impulsive noise arising from any use of explosives ammunition, or pyrotechnics at any time, shall not exceed a peak non-frequency weighted sound pressure level of 122 dBC (peak) dB L_{Cpeak}.”

3.13.14 44 Emergencies

- (A) Aircraft operations for defence purposes, civil defence, search and rescue, medical emergency or during any emergency landing of any aircraft, are exempt from all noise limits.
- (B) Sound from warning devices used by emergency services are exempt from all noise limits this includes warning devices associated with emergency service training activities.

3.13.1512 Temporary Activities/Events: Except where otherwise provided for, noise from temporary activities held outdoors in a public place is exempt from the above rules provided:

- (A) It meets a noise limit of 70 dB L_{Aeq(1hr)} measured at the boundary of a site containing a dwelling; and
- (B) All activities creating a noise level greater than permitted for the zone in which activity is located, cease by 2200; and
- (C) There are no more than six events (days) on the site in any one calendar year provided no single event shall exceed three consecutive days on the site.

3.13.16 13 Aircraft ~~Invercargill~~ Airport Operations

- (A) Noise from aircraft operations, including take offs and landings, flight operations, routine engine testing or ground running, and the running of auxiliary power units (being the subject of designations by Invercargill Airport Limited) are exempt from the noise limits detailed in Rule 3.13.2 above.

- (B) Notwithstanding Rule 3.13.2 above, the maximum levels of noise generated from aircraft operations are as follows:
- (1) Airnoise Boundary: ~~65Ldn dBA~~ 65 dB L_{dn} at or outside the Airnoise Boundary as detailed in the District Planning Maps. Noise will be measured in accordance with New Zealand Standard NZS6805:1992 *Airport Noise Management and Land Use Planning*.
- (C) Acoustic insulation – Within those areas identified on the District Planning Maps as being within the Single Event Sound Exposure Boundary and/or the Outer Control Boundary:
- (a) ~~New Noise Sensitive Activities and/or alterations and additions to existing buildings containing Noise Sensitive Activity, which comply with the specification contained in Appendix VI Noise Sensitive Insulation Requirements, are a permitted activity.~~
- (a) New Noise Sensitive Activities and/or alterations and additions to existing buildings containing Noise Sensitive Activity in the Business 1, Business 3, Industrial 1 and Industrial 2 Zones are a non-complying activity
- (b) New Noise Sensitive Activities and/or alterations and additions to existing buildings containing Noise Sensitive Activity in the Rural 1, Otatara and Residential 1 Zones, which do not comply with the specifications contained in Appendix VI Noise Sensitive Insulation Requirements, are a non-complying activity

3.13.1814 Activity Status and Matters of Consideration

- (A) Where an activity does not meet the relevant zone noise standards set out in Rules 3.13.1 - 3.13.16(B)~~13~~ above, the activity is a discretionary activity.
- (B) Applications under Rule 3.13.14(A) above shall address the following matters, which will be among those taken into account by the Council:
- (a) The maximum level of noise likely to be generated, its nature, timing, character and frequency and the disturbance this may cause to people in the vicinity.
- (b) The nature of the zone within which the noise generating activity is located and the compatibility of the proposal with the expected environmental results for that zone.
- (c) The nature of any adjoining zone(s), and the compatibility of the noise generating activity with the expected environmental results for those adjoining zone(s).
- (d) Existing ambient sound noise levels.
- (e) The potential for cumulative noise effects to result in an adverse outcome for receivers of noise.

- (f) The proposals made by the applicant to reduce noise generation. This may include guidance provided by a suitably qualified and experienced acoustic consultant.
- (g) Any other standards, codes of practice or assessment methods based on robust acoustic principles.
- (h) Noise insulation for noise sensitive activities
 - (i) the degree of noise attenuation achieved by the noise sensitive activity
 - (ii) The effects of reverse sensitivity on the operation of the transportation network and the ability and suitability of mitigation measures to enable the continued and uninterrupted operation of the transportation network
 - (iii) The nature of the environment including the scale of noise generated by the transportation network
 - (iv) Evidence of consultation with operators of the transportation network”
- “(i) For consents under Rule 3.13.11,
 - (iii) any special topographical, building features or ground conditions which will mitigate vibration effects
 - (iv) The size, nature, and location for the building on the site.
- (i) The nature of the environment, including any existing noise generating activities that may give rise to reverse sensitivity effects and methods to
 - (iii) the degree of noise attenuation achieved by the noise sensitive activity
 - (iv) The effects of reverse sensitivity on the operation of the transportation network and the ability and suitability of mitigation measures to enable the continued and uninterrupted operation of the transportation network
 - (iii) The nature of the environment including the scale of noise generated by the transportation network
 - (iv) Evidence of consultation with operators of the transportation network

SECTION FOUR

DEFINITIONS

Airnoise Boundary: No change.

Commercial Recreation Activity: No change

Inner Control Boundary: No change.

L_{Aeq}: Means the equivalent continuous (time-averaged) A-weighted sound level. This is commonly referred to as the average noise level.

L_{Amax}: means the A-frequency-weighted maximum noise level. The highest noise level which occurs during a measurement period.

L_{dn}: Means the day/night noise level, which is a 24 hour L_{Aeq} with a 10dB penalty applied to the night-time (2200 – 0700 hours)

Noise Sensitive Activities: No change.

Notional Boundary: Means a line 20 metres from the any side of residence a building used for a noise sensitive activity or the legal boundary where the boundary is closer to the building than 20 metres.”

Outer Control Boundary: No change.

Single Event Sound Exposure Boundary: No change.

SECTION FIVE – APPENDICES

APPENDIX VI – NOISE SENSITIVE INSULATION REQUIREMENTS

All applications for new noise sensitive activities and additions to existing noise sensitive activities within the Single Event Sound Exposure Boundary (SESEB) or Outer Control Boundary (OCB) as shown on the District Planning Maps, shall be insulated from aircraft noise so that the internal noise environment shall not exceed:

OCB

All habitable Rooms 40dB L_{dn}

SESEB

Bedrooms: 65dB dB L_{AE}

All Habitable Rooms (including bedrooms) 40dB dB L_{dn}

The following guidelines for insulation have been developed to achieve the required internal noise environment:

TABLE 1: SOUND INSULATION REQUIREMENTS – ACCEPTABLE CONSTRUCTIONS – BEDROOMS INSIDE SESEB

BUILDING ELEMENT	MINIMUM CONSTRUCTION	
External Walls	Exterior Lining	Brick or concrete block or concrete, or 20mm timber or 6mm fibre cement
	Insulation	75mm thermal insulation blanket/batts
	Frame	Two layers of 9mm gypsum or plasterboard (or an equivalent combination of exterior and interior wall mass)

BUILDING ELEMENT	MINIMUM CONSTRUCTION		
Windows/Glazed Doors	6mm glazing with effective compression seals or for double glazing 8mm-12mm airgap-6mm		
Pitched roof	Cladding	0.5mm profiled steel or masonry tiles or 6mm corrugated fibre cement	
	Insulation	100mm thermal insulation blanket/batts	
	Ceiling	2 layers 9mm gypsum or plasterboard	
Skillion Roof		Skillion Roof Option 1	Skillion Roof Option 2
	Cladding	0.5mm profiled steel or 6mm fibre cement	0.5mm profiled steel or 6mm fibre cement
	Sarking	200mm particle board or plywood	None Required
	Insulation	100mm thermal insulation blanket/batts	100mm thermal insulation blanket/batts
	Ceiling	1 layer 9mm gypsum or plasterboard	2 layers 9mm gypsum or plasterboard
External Door	Solid Core door (min 24kg/m ²) with weather seals		

Note: The specified constructions in this table are the minimum required to meet the acoustic standards. Alternatives with greater mass or larger thicknesses of insulation will be acceptable. Any additional construction requirements to meet other applicable standards not covered by this rule (e.g. fire, Building Code etc) would also need to be implemented.

TABLE 2: VENTILATION REQUIREMENT

All noise sensitive activity applications within the Outer Control Boundary (OCB) and Single Event Sound Exposure Boundary (SESEB) as shown on the District Planning maps

Room Type Outdoor Air Ventilation Rate (Air Changes per Hour, ac/hr)

	Low Setting	High Setting
Bedrooms	1-2ac/h	Min 5ac/hr
Other habitable areas	1-2 ac/hr	Min 15ac/hr

Noise from ventilation systems shall not exceed 35dB $L_{Aeq(1min)}$ on High Setting and 30 dB $L_{Aeq(1min)}$ on Low Setting. Noise levels shall be measured at a distance of 1m to 2m from any diffuser.

Each system must be able to be individually switched on and off and when on, be controlled across the range of ventilation rates by the occupant with a minimum of 3 stages.

Each system providing the low setting flow rates if to be provided with a heating system which, at any time required by the occupant, is able to provide the incoming air with an 18 °C heat rise when the airflow is set to the low setting. Each heating system is to have a minimum of 3 equal heating stages.

If air conditioning is provided to any space then the high setting ventilation requirements for that space is not required.

PLANNING MAPS

Amend Planning Map 9 by shifting the location of the Entertainment Precinct over 8-10 Dee Street.

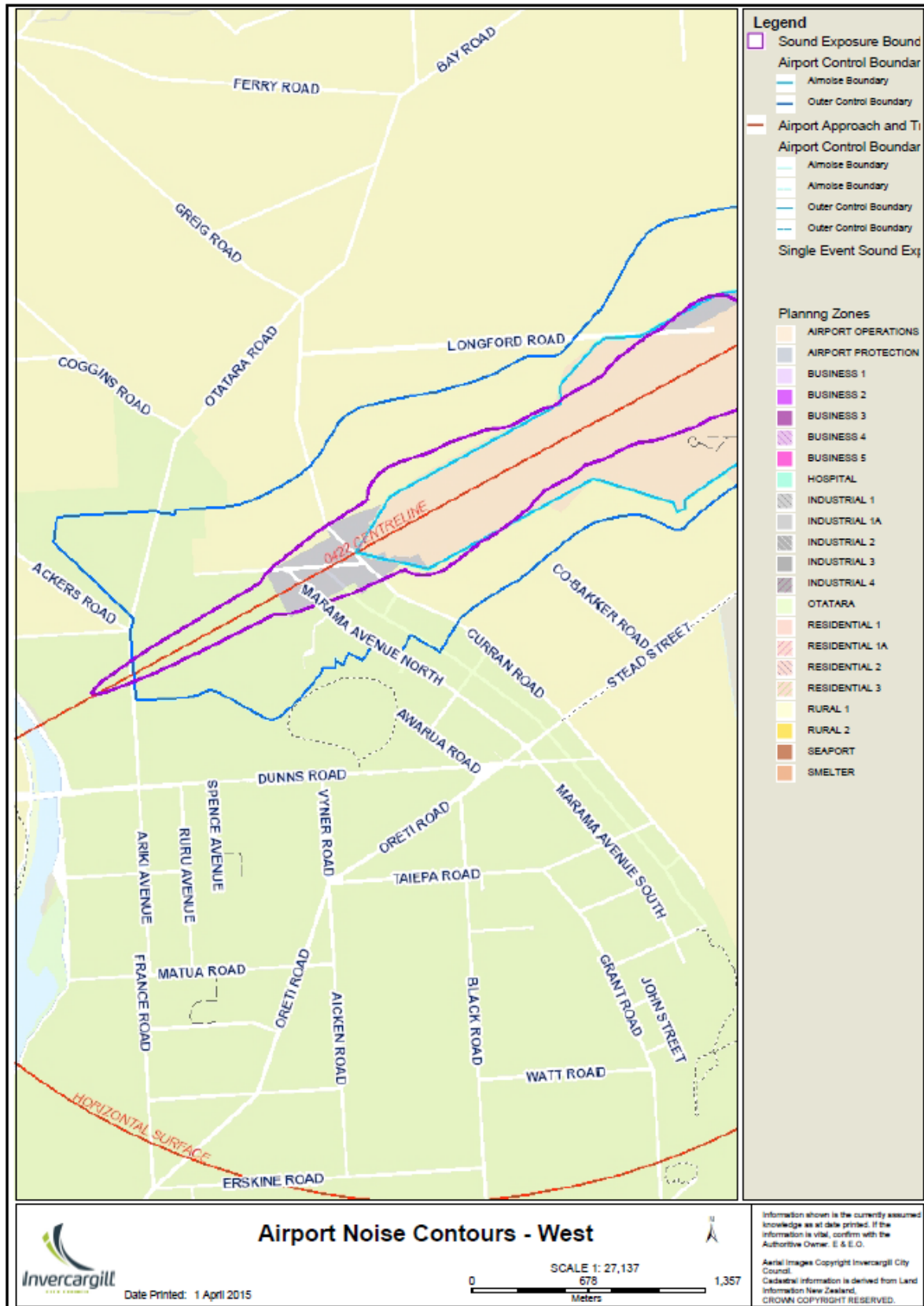
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APPENDIX 3

Letter from Stuart Camp, Marshall Day Acoustics, dated 25 March 2015

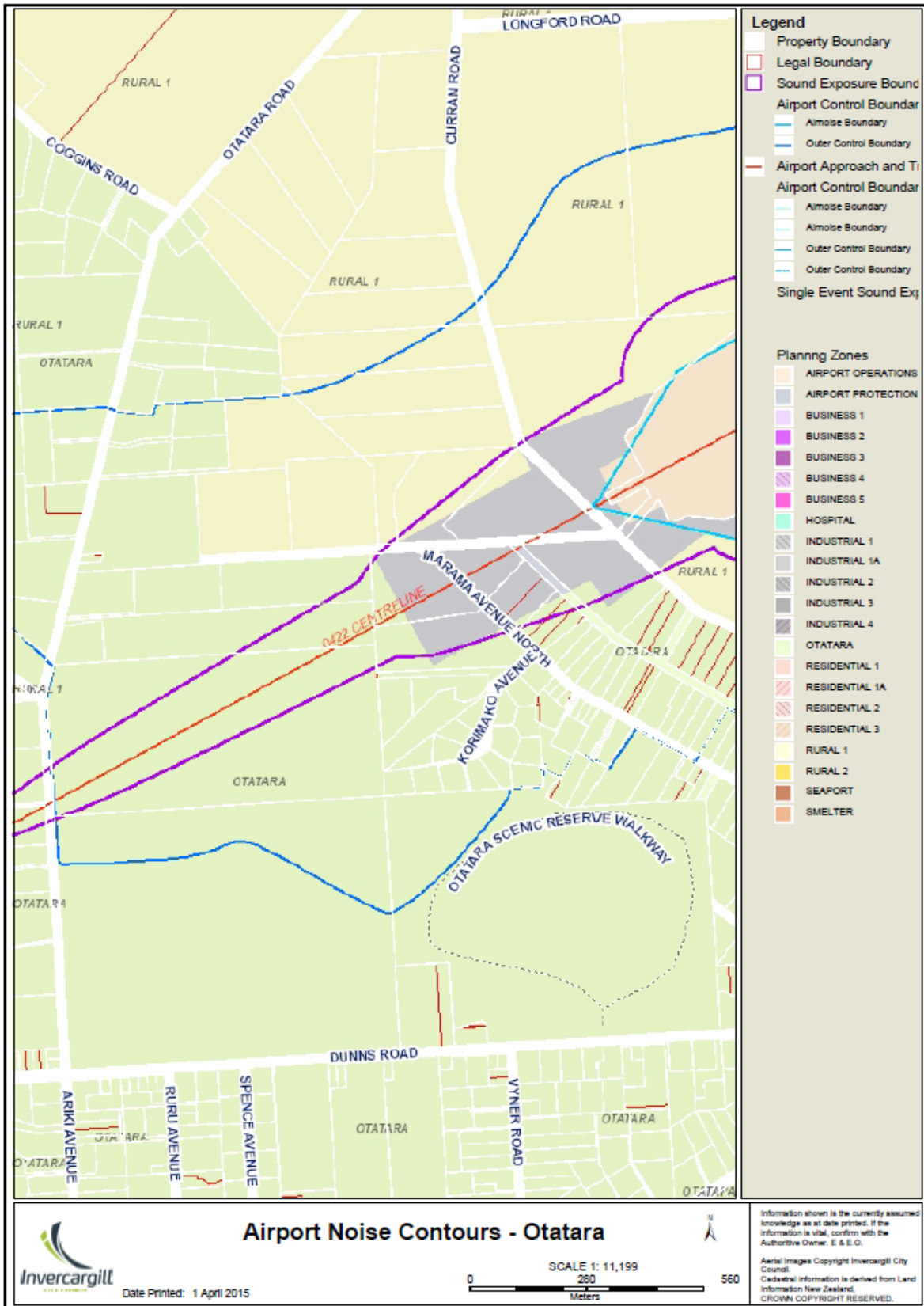
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APPENDIX 4 – AIRPORT NOISE CONTOURS



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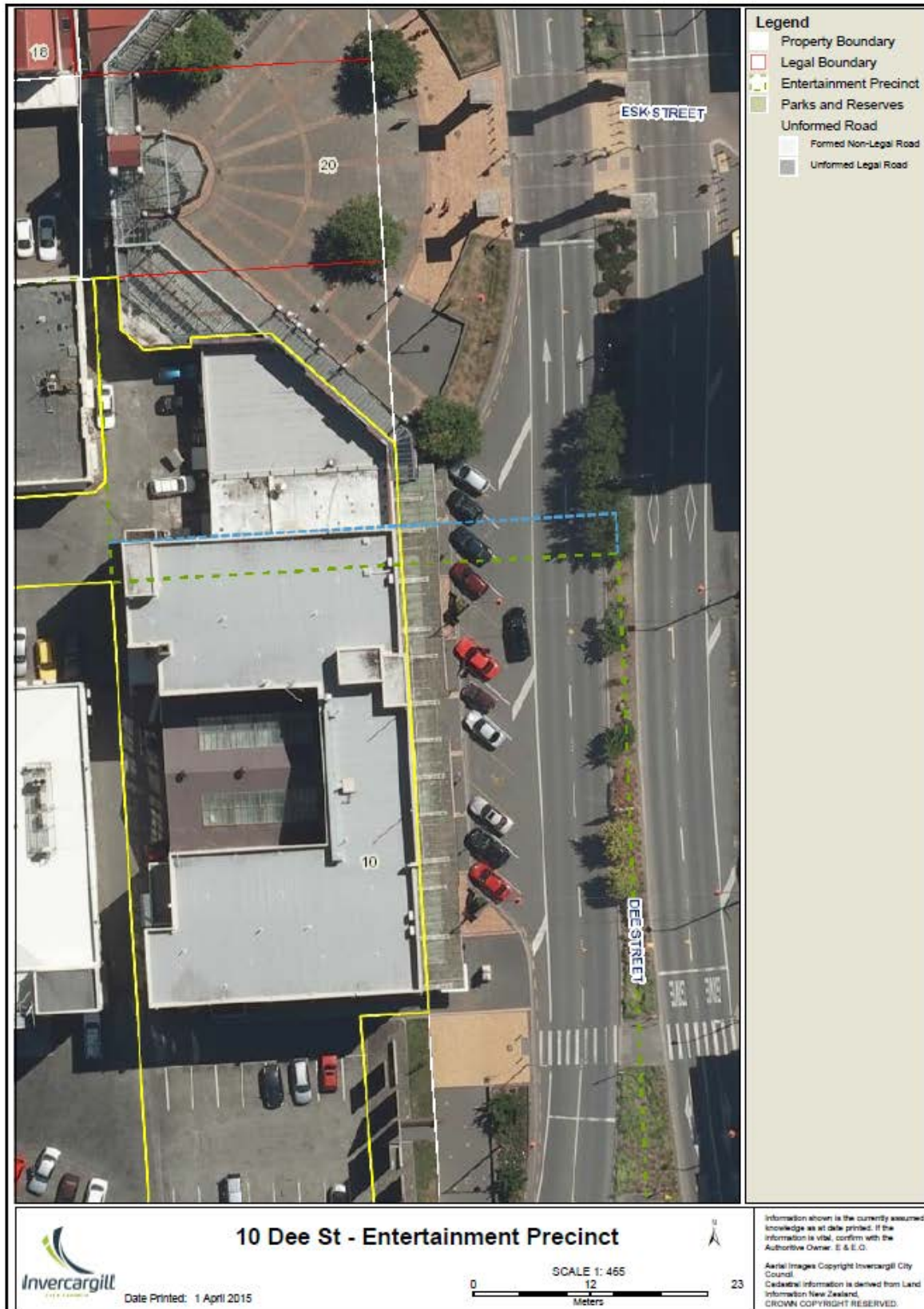
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APPENDIX 5 - MAP OF 10 DEE STREET, INVERCARGILL

Light blue dashed line indicates recommended amendment to the boundary of the Entertainment Precinct. The Green dashed line indicates the boundary of the Entertainment Precinct as notified.



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