

PLAN CHANGE 27A

UPDATING NOISE MEASUREMENT AND ASSESSMENT STANDARDS

SECTION 32 REPORT

APRIL 2009

EXECUTIVE SUMMARY

The overall purpose of this Plan Change is

To clarify, replace or update references to acoustic standards incorporated by reference in the Plan and revise provisions relating to noise to ensure they are consistent and clear, and reflect industry best practice.

The Plan Change (the 'Plan') incorporates acoustic standards by reference in accordance with the First Schedule (Part 3) of the Resource Management Act 1991 (The 'Act'). The main acoustic standards currently referenced throughout the Plan are the 1991 versions of NZS 6801 and NZS 6802 relating to the procedures for the measurement and assessment of environmental noise respectively. Although the 1991 standards were relevant at the time the Plan was notified, there has been significant work in the field of acoustics and both NZS 6801 and NZS 6802 were updated in 1999 and again in 2008. The 1991 versions of these standards include a number of ambiguities and are inefficient in the consideration and assessment of individual resource consent applications. In order to update these to the most current versions of these standards, a Plan Change is necessary.

It is also considered necessary to refer to other relevant acoustic standards which are not currently directly referred to within the Plan. In addition, minor changes are suggested to the current wording of acoustic provisions in order to ensure they are clear, enforceable and consistent with best practice.

Following a detailed assessment of alternatives, this Section 32 analysis finds that in order to achieve the purpose of the Act, the most appropriate option is to undertake the Plan Change to amend the Plan as outlined in Table 1.

1 - INTRODUCTION

1.1 SECTION 32

This report has been prepared in respect of Plan Change 27A – References: Noise to fulfil the requirements of Section 32 of the Act.

Section 32 of the Act requires that an evaluation be undertaken that examines:

- the extent to which each objective is the most appropriate way to achieve the purpose of the Act; and
- whether, having regard to their efficiency and effectiveness, the policies, rules or other methods are the most appropriate for achieving the objective.

For the purpose of the above examination, the evaluation must take into account:

- the benefits and costs of policies, rules or other methods; and
- the risk of acting or not acting if there is insufficient information about the subject matter of the policies, rules or other methods.

In order to meet the requirements of the Act, this report has been structured into four different parts:

1.2 PURPOSE OF THE PLAN CHANGE

The purpose of the Plan Change (the objective) is as follows:

To clarify, replace or update references to acoustic standards incorporated by reference in the Plan and revise provisions relating to noise to ensure they are consistent and clear, and reflect industry best practice.

2 - THE CONTEXT FOR THE PLAN CHANGE

2.1 BACKGROUND

Acoustic standards are incorporated into the Plan by reference in accordance with the First Schedule of the RMA.

The two acoustic standards currently referred to in the Plan are:

- NZS 6801: 1991 Measurement of sound; and
- NZS 6802: 1991 Assessment of environmental sound.

In addition rules in the Plan relating to noise refer to 'other relevant New Zealand standards' however no other specific standards are referenced. This can cause uncertainty and is not consistent with the requirements of the First Schedule of the Act.

Since 1991 when the acoustic standards referenced by the Plan were published, there has been significant progress made in the field of acoustics and both NZS 6801 and NZS

6802 were revised in 1999 and again in 2008. At a national level, there is now experience in the way acoustics is assessed under the RMA and internationally, the science of acoustics continues to grow. It is therefore necessary to update the Plan to refer to the 2008 versions of these standards and ensure all references are up to date and consistent with best practice.

As well as updating references to these acoustic standards, a review of acoustic provisions has highlighted a number of other simple changes that are required in order to improve the clarity of acoustic requirements, whilst ensuring these are enforceable, consistent and efficient.

3 - STATUTORY CONSIDERATIONS

It is considered that this plan change aligns with the statutory context, including the Resource Management Act 1991, the Regional Policy Statement for Otago and the objectives and policies of the Queenstown Lakes Partially Operative District Plan.

The need for noise standards was considered and justified at the time the District Plan was notified and adopted. The noise standards referred to reflected best practice at the time. In updating these to reflect best practice and to ensure that they are clear and consistent, a detailed record of the statutory context would seem unnecessary, and in the interests of keeping this report succinct, this has been avoided.

It is however worth noting Schedule 1 – Part 3 of the RMA which sets out the requirements for the incorporation of documents by reference in plans. It states that all material incorporated by reference in a plan has legal effect as part of that plan. Information included by reference that expires or is revoked only ceases to have legal effect if the Plan is changed in accordance with Part 1 of Schedule 1. This means that even if the standards referred to in the Plan are superseded by new standards, a plan change would be required to require the use of the new standards in resource consent applications.

Schedule 1 – Part 3 also establishes the requirements around authenticating copies of documents incorporated by reference and making them available to the public. This process is to be carried out in conjunction with the adoption of this plan change for notification.

4 - CONSIDERATION OF KEY OPTIONS FOR THE PLAN CHANGE

The following provides an assessment of the options available to Council for the proposed amendments outlined in Table 1. Each option is assessed in terms of its effectiveness in achieving the objective for the Plan Change, its costs and benefits and appropriateness.

Option 1 Maintain the Status Quo

(i) Explanation

Under this option the Council would not undertake a Plan Change and the existing provisions of the Plan relating to acoustics would be retained.

(ii) Effectiveness

The option of maintaining the existing provisions of the Plan is not considered effective for the following reasons:

- a. The main acoustic Standards referenced by the Plan are the 1991 versions of NZS 6801 and NZS 6802. These Standards detail procedures for the measurement and assessment of environmental noise. The 1991 versions of the standards are now out of date and no longer reflect best practice in the field of acoustics.
- b. The 1991 versions of NZS 6801 and NZS 6802 contain numerous ambiguities with respect to issues such as meteorological conditions and excluded sound sources. Under this option, these ambiguities are likely to continue to cause inefficiencies as issues are debated in relation to individual resource consent applications.
- c. The Plan makes an indirect reference to the New Zealand construction noise Standard but does not include the actual reference. This does not comply with the requirements of Schedule 1 Part 3 of the Act.
- d. Noise limits are not dealt with consistently throughout the different zones in the Plan. Firstly, the basic wording, formatting and references vary throughout the Plan. Secondly, there is inconsistent provision for noise limits applying between different zones. Many activities are inadvertently exempt from the appropriate noise limits at nearby dwellings. For example there are no noise limits for sound originating in town centre or residential zones received at dwellings in rural zones. These anomalies are considered to be oversights in the drafting of the Plan.
- e. There are typographical errors in the Plan with respect to noise limits, as well as wording and formatting issues. Two examples are:
 - Rule 5.7.5.2.iii refers to a noise limit in terms of the “L100” which is not a valid acoustic parameter.
 - Rule 10.6.5.2.ii has the night period finishing at 0800 and the daytime period starting at 0900, leaving one hour with no noise limits.
- f. For night-time noise limits the Plan has L_{10} “and” L_{max} noise limits. The use of the word “and” in this context is problematic as it could be interpreted as limits not being breached unless both L_{10} and L_{max} values are exceeded. It is understood that this was not the intent of the rules when drafted.
- g. For the Penrith Park and Bendemeer Zones there is a complex rule for maximum noise levels including the implicit requirement to determine the background sound level plus 30 dB at the time of a noise event. This requirement would be complex and difficult to enforce.
- h. The provision for noise from motorised craft on rivers and lakes in Appendix 2 refers to Standards written in 1975, 1979 and 1985. The main Standard

referenced (ISO 2922) was revised in 2000 and also relies on a separate 2008 Standard (ISO 14509-1) for powered recreational craft. The Plan specifies measurements using “fast” time-weighting whereas these Standards use the “slow” time-weighting.

The issues and ineffectiveness associated with Option 1 are discussed above addressed by Option 2 below.

(iii) Costs and Benefits

Costs

- The 1991 versions of NZS 6801 and NZS 6802 have both been superseded and including references to these standards within the Plan is inconsistent with best practice.
- Ambiguities, inconsistencies and unnecessary complexities (outlined in (a)-(i) above) within the Plan make the acoustic requirements unclear and difficult to enforce in some instances.

Benefits

- No monetary or procedural costs involved due to not undertaking a Plan Change.

(iv) Appropriateness

Option 1 would be inconsistent with best practice and current New Zealand acoustic standards and is therefore considered to be inappropriate and is rejected as a viable option.

Option 2 Undertake a Plan Change to update acoustic references and ensure consistency between noise provisions within the Plan

(i) Explanation

Under Option 2, the Council would undertake a Plan Change to update acoustic references and make minor amendments to provisions of the Plan relating to noise limits and specifications.

(ii) Effectiveness

The option of updating acoustic references and revising noise rules and provisions within the Plan is considered effective for the following reasons:

- a. Updating references in the Plan to the most recent acoustic standards will address a number of deficiencies of the existing acoustic provisions identified above under Option 1. In particular, noise rules in all zones should refer to:
 - NZS 6801:2008 Acoustics – Measurement of environmental sound

- NZS 6802:2008 Acoustics – Environmental noise
- NZS 6803:1999 Acoustics – Construction noise

Other relevant standards for sound outside the scope of NZS 6802:2008 and NZS 6803:1999 which should also be included within the rules are:

- NZS 6805:1992 Airport noise management and land use planning
- NZS 6807:1994 Noise management and land use planning for helicopter landing areas
- NZS 6808:1998 Acoustics - The assessment and measurement of sound from wind turbine generators

- b. Listing the standards that are being incorporated by reference will ensure compliance with Schedule 1 part 3 of the Act.
- c. Updating these references removes significant ambiguities and clarifies the appropriate procedures for measuring and assessing noise. While the clarifications in the new versions of the Standards are considered important, there is however no fundamental change to the basic methodology so the update is not considered to alter the intent of the Plan.
- d. It is proposed in this Option that all noise rules throughout the Plan would be revised to follow the same consistent format and wording, for example removing the word “and” in night-time limits. Having consistent wording is considered to benefit all users of the Plan.
- e. In the 1999 (and 2008) versions of NZS 6801 and NZS 6802 the main parameter used to measure sound was changed to L_{eq} , from L_{10} which had been used in the 1991 versions. The L_{eq} is used internationally, is better supported by research, and can be used to combine, separate or average sound from different sources. Use of the L_{eq} in accordance with NZS 6802 is considered beneficial as it avoids problems associated with the choice of L_{10} measurement time intervals.

(iii) Effects of the change

- a. Changing the Plan noise limits from L_{10} to L_{eq} creates a slight difference between the two values. For a steady sound such as building services plant, there will be negligible difference between the measured L_{eq} and L_{10} values. However, for a varying sound the L_{10} will be slightly higher than the L_{eq} , typically by around 3 dB. It is not possible to change the noise limits so that a new L_{eq} limit exactly equates to the existing L_{10} limit for all sound sources. Therefore, under this Option it is proposed that the same numerical noise limits should be retained in the Plan but the parameter changed from L_{10} to L_{eq} . This means that for some sound sources the limits would become marginally more lenient. However, the removal of ambiguity throughout the assessment process by using the new Standards makes the noise limits more robust and enforceable and is considered to offset any slight change from L_{10} to L_{eq} .

- b. In accordance with the new Standards it is proposed that noise limits are L_{eq} values assessed over 15 minutes. Also, the terminology has been updated to move the “A” from “ dB_A ” to “ L_{Aeq} ” so that limits are written in the format “40 dB $L_{Aeq(15\ min)}$ ”. Likewise, maximum noise limits are now in the form “70 dB L_{AFmax} ”. The “F” is included to make it explicit that “fast” time-weighting applies. This should avoid ambiguities in applying the rules.
- c. The Definition of “noise” in the Plan will be updated in this Option to be consistent with the 2008 Standards.
- d. Other minor issues which are considered to be anomalies have been addressed in this Option as follows:
 - L_{100} in rule 5.7.5.2.iii has been changed to L_{max} ;
 - Daytime now starts from 0800 in rule 10.6.5.2.ii; and
 - Penrith Park and Bendemeer Zones now have a fixed L_{max} limit.
- e. Appendix 2 contains specific rules for noise based on the test methodology in ISO 2922:1975. It is proposed that this reference be updated to the 2000 version and a reference be added to ISO 14509-1, which applies to powered recreational craft. As both of these Standards use “slow” time-weighting the noise limit for this specific source has been changed from “fast” to “slow”. This represents a slightly more lenient noise limit, but provides better repeatability. In addition to Standards specifying the test methodology, Appendix 2 refers to IEC Standards specifying the test instrumentation. These Standards have been updated to IEC 61672-1:2002 and IEC 60942:2003.

(iv) Costs and Benefits

Costs

- It is likely that the acoustic standards will be updated in the future, and additional ones added, which would require another Plan Change.
- Cost of Plan Change in terms of time, resources and money.
- As outlined in (e) and (j) above, changing the Plan noise limits from L_{10} to L_{eq} creates a slight difference between the two values and in some (albeit few) instances, the noise limits would become marginally more lenient.

Benefits

- Provisions of the Plan will be updated to align them with current acoustic standards and best practice without changing the intent of the provisions.
- The proposed amendments will remove uncertainty and ambiguities relating to the measurement and assessment of noise advocated by the Plan.
- Ensuring wording that was previously inconsistent between different zones has been standardised where appropriate is considered to be helpful to users of the Plan.
- Refers to relevant New Zealand standards that are accurate and current in a manner consistent with the Act.
- Problems with enforcing the rules should be reduced.

(iv) Appropriateness

This option would ensure that the Plan is consistent with relevant acoustic standards as well as best practice. Furthermore, the minor revisions required to make each of the noise rules for the various zones in the Plan consistent and remove ambiguities will result in clear, efficient and enforceable provisions.

5 - Conclusion

Undertaking a Plan Change (Option B) is considered the most appropriate option. The changes proposed are set out in table 1 below. Appendix 1 also shows the changes in underline strikeout format.

TABLE 1: PROPOSED AMENDMENTS TO NOISE PROVISIONS OF PARTIALLY OPERATIVE PLAN

Page(s)	Section(s)	Existing PODP text	Proposed PODP text
5-20	5.3.5.2.iv	(a) Motorised craft on the surface of lakes and rivers shall be operated and conducted such that a maximum noise level (L _{max}) of 77dBA is not exceeded, when measured and assessed in accordance with Appendix 2.	(a) Motorised craft on the surfaces of lakes and rivers shall be operated and conducted such that a maximum sound level of 77 dB L_{ASmax} is not exceeded, when measured and assessed in accordance with Appendix 2.
5-20	5.3.5.2.v	<p>Non-residential activities shall be conducted such that the following noise levels are not exceeded, neither at, nor within, the notional boundary of any residential unit, other than residential units on the same site as the activity:</p> <p>(a) during daytime (0800 to 2000 hrs) L10 50dBA. (b) during night time (2000 to 0800 hrs) L10 40dBA and L_{max} 70dBA.</p> <p>except:</p> <p>(i) When associated with farming and forestry activities, this standard shall only apply to noise from stationary motors and stationary equipment. (ii) Noise from aircraft operations at Queenstown Airport is exempt from the above standards.</p> <p>Construction noise shall comply with and be measured and assessed in accordance with the relevant New Zealand Standard.</p>	<p>(a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within the notional boundary of any residential unit, other than residential units on the same site as the activity:</p> <p>(i) daytime (0800 to 2000 hrs) 50 dB L_{Aeq(15 min)} (ii) night-time (2000 to 0800 hrs) 40 dB L_{Aeq(15 min)} (iii) night-time (2000 to 0800 hrs) 70 dB L_{AFmax}</p> <p>(b) Sound from non-residential activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>

Page(s)	Section(s)	Existing PODP text	Proposed PODP text
			<p>(e) When associated with farming and forestry activities, the noise limits in (a) shall only apply to sound from stationary motors and stationary equipment.</p> <p>(f) The noise limits in (a) shall not apply to sound from aircraft operations at Queenstown Airport.</p>
5-52	5.7.5.2.iii	<p>Non-residential activities shall be conducted such that the following noise levels are not exceeded, neither at, nor within, the notional boundary of any residential unit, other than residential units on the same site as the activity:</p> <p style="padding-left: 40px;">(a) during daytime L₁₀ 50dBA</p> <p style="padding-left: 40px;">(b) during night time L₁₀ 40dBA and L_{max} 70dBA</p> <p>except:</p> <p>(i) Nothing in this rule applies to the use of agricultural vehicles, machinery or mobile portable agricultural machinery, wind machines and frost fighting devices whether stationary or not, operated in accordance with the manufacturer's specifications. This rule shall also not apply to the use of bird scaring devices which rely upon the generation of noise for the efficiency of the device.</p> <p>Provided that:</p> <p>No single event of noise (L100) shall exceed 85 dBA measured at the notional boundary 20m from a dwelling house on an adjacent</p>	<p>(a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within the notional boundary of any residential unit, other than residential units on the same site as the activity:</p> <p style="padding-left: 40px;">(i) daytime (0800 to 2000 hrs) 50 dB LAeq(15 min)</p> <p style="padding-left: 40px;">(ii) night-time (2000 to 0800 hrs) 40 dB LAeq(15 min)</p> <p style="padding-left: 40px;">(iii) night-time (2000 to 0800 hrs) 70 dB LAfmax</p> <p>(b) Sound from non-residential activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p> <p>(e) The noise limits in (a) shall not apply to sound from bird scaring devices, agricultural vehicles, machinery or mobile portable agricultural</p>

Page(s)	Section(s)	Existing PODP text	Proposed PODP text
		<p>site.</p> <p>Construction noise shall comply with and be measured and assessed in accordance with the relevant New Zealand Standard.</p>	<p>machinery, wind machines and frost fighting devices whether stationary or not, operated in accordance with the manufacturer’s specifications. Sound from these sources measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed 85 dB L_{AFmax} at any point within the notional boundary of any residential unit, other than residential units on the same site as the activity.</p>
6-5	6.2.5.2.iv	<p>On any site, activities shall be conducted such that the following noise levels are not exceeded at any Residential Zone boundary or at any boundary of Activity Areas 1, 3, 4, 6 and 7 of the Remarkables Park Zone:</p> <ul style="list-style-type: none"> • 0800 – 2000 hrs 55dBAL₁₀ to Saturday • 2000 – 0800 hrs 45dBAL₁₀ and 70dBA L_{max} 	<p>(a) Sound from activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any Residential Zone or at any point within Activity Areas 1, 3, 4, 6 and 7 of the Remarkables Park Zone:</p> <ul style="list-style-type: none"> (i) daytime (0800 to 2000 hrs) 55 dB L_{Aeq(15 min)} (ii) night-time (2000 to 0800 hrs) 45 dB L_{Aeq(15 min)} (iii) night-time (2000 to 0800 hrs) 70 dB L_{AFmax} <p>(b) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(c) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>
7-23	7.5.5.2.xi	<p>Visitor Accommodation activities shall be so conducted that the following noise limits are not exceeded at any point within the boundary of any other site within this zone:</p>	<p>(a) Sound from visitor accommodation activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within</p>

Page(s)	Section(s)	Existing PODP text	Proposed PODP text
		<p>Daytime 0800- 2000 hours 50dBA L10 Night-time 2000- 0800 hours 40dBA L10 and 70dBALmax</p> <p>Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS6082:1991.</p> <p>(a) Visitor accommodation activities conducted within the Residential Zone shall not exceed adjoining zone noise limits at any point within the boundary of any site within that adjoining zone.</p> <p>(b) Activities conducted in adjoining zones shall not exceed Residential Zone noise limits at any point within the boundary of any site within the Residential Zone.</p>	<p>any other site in this zone:</p> <p>(i) daytime (0800 to 2000 hrs) 50 dB LAeq(15 min) (ii) night-time (2000 to 0800 hrs) 40 dB LAeq(15 min) (iii) night-time (2000 to 0800 hrs) 70 dB LAFmax</p> <p>(b) Sound from visitor accommodation activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>
7-30	7.5.6.2.vii	<p>(a) Non-residential activities shall be so conducted that the following noise limits are not exceeded at any point within the boundary of any other site within this zone:</p> <p>Daytime 0800 - 2000 hours 50dBA L10 Night-time 2000 - 0800 hours 40dBA L10 and Lmax 70dBA</p> <p>Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991.</p> <p>(b) Noise from aircraft operations at Queenstown Airport is exempt from the above standards.</p>	<p>(a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in this zone:</p> <p>(i) daytime (0800 to 2000 hrs) 50 dB LAeq(15 min) (ii) night-time (2000 to 0800 hrs) 40 dB LAeq(15 min) (iii) night-time (2000 to 0800 hrs) 70 dB LAFmax</p> <p>(b) Sound from non-residential activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p>

Page(s)	Section(s)	Existing PODP text	Proposed PODP text
		<p>(c) Construction noise shall comply with and be measured and assessed in accordance with the relevant New Zealand Standard.</p> <p>(d) Activities conducted in adjoining zones shall not exceed Residential Zone noise limits at any point within the boundary of any site within the Residential Zone.</p>	<p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p> <p>(e) The noise limits in (a) shall not apply to sound from aircraft operations at Queenstown Airport.</p>
7-38	7.6.6.2.vi	<p>(a) Non-residential activities shall be so conducted that the following noise limits are not exceeded at any point within the boundary of any other site within this zone:</p> <p style="padding-left: 40px;">Daytime 0800 - 2000 hours 50dBA L10 Night-time 2000 - 0800 hours 40dBA L10</p> <p>and Lmax 70dBA</p> <p>Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991.</p> <p>(b) Construction noise shall comply with and be measured and assessed in accordance with the relevant New Zealand Standard.</p> <p>(c) Activities conducted in adjoining zones shall not exceed Residential Zone noise limits at any point within the boundary of any site within the Residential Zone.</p>	<p>(a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in this zone:</p> <p style="padding-left: 40px;">(i) daytime (0800 to 2000 hrs) 50 dB LAeq(15 min) (ii) night-time (2000 to 0800 hrs) 40 dB LAeq(15 min) (iii) night-time (2000 to 0800 hrs) 70 dB LAfmax</p> <p>(b) Sound from non-residential activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS</p>

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			6805:1992, NZS 6807:1994 or NZS 6808:1998.
8-11	8.2.4.2.iii	<p>(a) Non-residential activities shall be so conducted that the following noise limits are not exceeded at any point within the boundary of any other site within this zone:</p> <p style="padding-left: 40px;">Daytime 0800 - 2000 hours 50dBA L₁₀ Night-time 2000 - 0800 hours 40dBA L₁₀ and L_{max} 70dBA</p> <p>Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991.</p> <p>(b) Construction noise shall comply with and be measured and assessed in accordance with the relevant New Zealand Standard.</p>	<p>(a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in this zone:</p> <p style="padding-left: 40px;">(i) daytime (0800 to 2000 hrs) 50 dB L_{Aeq(15 min)} (ii) night-time (2000 to 0800 hrs) 40 dB L_{Aeq(15 min)} (iii) night-time (2000 to 0800 hrs) 70 dB L_{AFmax}</p> <p>(b) Sound from non-residential activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>
9-16	9.2.5.2.vi	<p>Non-residential activities shall be conducted so that the following noise limits are not exceeded at any point within the boundary of any other site in this zone:</p> <p style="padding-left: 40px;">Daytime 0800 - 2000 hours L₁₀ 50dBA Night time 2000 - 0800 hours L₁₀ 40dBA and L_{max} 70dBA</p>	<p>(a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in this zone:</p> <p style="padding-left: 40px;">(i) daytime (0800 to 2000 hrs) 50 dB L_{Aeq(15 min)} (ii) night-time (2000 to 0800 hrs) 40 dB L_{Aeq(15 min)} (iii) night-time (2000 to 0800 hrs) 70 dB L_{AFmax}</p>

Page(s)	Section(s)	Existing PODP text	Proposed PODP text
		<p>Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991.</p> <p>Construction noise shall comply with and be measured and assessed in accordance with the relevant New Zealand Standard.</p>	<p>(b) Sound from non-residential activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>
10-36	10.6.5.2.ii	<p>(a) Activities shall be so conducted that the following noise limits are not exceeded at any point within the boundary of any other site within this zone:</p> <p style="padding-left: 40px;">daytime (0800 - 2200 hrs) 60dBA L₁₀ night time (2200 - 0800 hrs) 50dBA L₁₀ and 70dBA L_{max}</p> <p>Except that in the Town Centre Transition sub-zone activities shall be so conducted that the following noise limits are not exceeded at any point within the boundary of any other site within this zone:</p> <p style="padding-left: 40px;">daytime (0900 - 2200 hrs) 50dBA L₁₀ night time (2200 - 0800 hrs) 40dBA L₁₀ and 70dBA L_{max}</p> <p>(b) Construction noise shall be measured and assessed in accordance with the relevant New Zealand Standard.</p>	<p>(a) Sound from activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in this zone:</p> <p style="padding-left: 40px;">(i) daytime (0800 to 2200 hrs) 60 dB L_{Aeq(15 min)} (ii) night-time (2200 to 0800 hrs) 50 dB L_{Aeq(15 min)} (iii) night-time (2200 to 0800 hrs) 70 dB L_{AFmax}</p> <p>(b) Sound from activities in the Town Centre Transition sub-zone measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in this zone:</p> <p style="padding-left: 40px;">(i) daytime (0800 to 2200 hrs) 50 dB L_{Aeq(15 min)} (ii) night-time (2200 to 0800 hrs) 40 dB L_{Aeq(15 min)} (iii) night-time (2200 to 0800 hrs) 70 dB L_{AFmax}</p> <p>(c) Sound from activities which is received in another</p>

Page(s)	Section(s)	Existing PODP text	Proposed PODP text
		<ul style="list-style-type: none"> • Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991 • Note: Refer also to the zone standards for the Residential and Remarkables Park Zones for noise limits on activities in adjoining zones. 	<p>zone shall comply with the noise limits set in the zone standards for that zone.</p> <p>(d) The noise limits in (a) and (b) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(e) The noise limits in (a) and (b) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>
10-41	10.7.5.2.ii	<p>(a) Activities shall be so conducted that the following noise limits are not exceeded at any point within the boundary of any other site in this zone:</p> <ul style="list-style-type: none"> - daytime (0800 - 2200 hrs) 60dBA L₁₀ - night time (2200 - 0800 hrs) 50dBA L₁₀ and 70dBA L_{max} <p>(b) Construction noise shall be measured and assessed in accordance with the relevant New Zealand Standard.</p> <p>(1) Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991</p> <p>(2) Note: Refer also to the zone standards for the Residential and Remarkables Park Zones for noise limits on activities in adjoining zones.</p>	<p>(a) Sound from activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in this zone:</p> <ul style="list-style-type: none"> (i) daytime (0800 to 2200 hrs) 60 dB L_{Aeq(15 min)} (ii) night-time (2200 to 0800 hrs) 50 dB L_{Aeq(15 min)} (iii) night-time (2200 to 0800 hrs) 70 dB L_{AFmax} <p>(b) Sound from activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS</p>

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			6805:1992, NZS 6807:1994 or NZS 6808:1998.
10-46	10.8.5.2.ii	<p>(a) Activities shall be so conducted that the following noise limits are not exceeded at any point within the boundary of any other site in this zone:</p> <ul style="list-style-type: none"> • daytime (0800 - 2200 hrs) 60dBA L₁₀ • night time (2200 - 0800 hrs)50dBA L₁₀ and 70dBA L_{max} <p>(b) Construction noise shall be measured and assessed in accordance with the relevant New Zealand Standard.</p> <p>(1) Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991</p> <p>(2) Note: Refer also to the zone standards for the Residential and Remarkables Park Zones for noise limits on activities in adjoining zones.</p>	<p>(a) Sound from activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in this zone:</p> <ul style="list-style-type: none"> (i) daytime (0800 to 2200 hrs) 60 dB LAeq(15 min) (ii) night-time (2200 to 0800 hrs) 50 dB LAeq(15 min) (iii) night-time (2200 to 0800 hrs) 70 dB LAFmax <p>(b) Sound from activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>
10-50	10.9.5.2.ii	<p>(a) Activities shall be so conducted that the following noise limits are not exceeded at any point within the boundary of any other site in this zone:</p> <ul style="list-style-type: none"> • daytime (0800 - 2200 hrs) 60dBA L₁₀ • night time (2200 - 0800 hrs)50dBA L₁₀ and 70dBA L_{max} <p>Noise from aircraft operations at Queenstown Airport is exempt from the above standards.</p>	<p>(a) Sound from activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in this zone:</p> <ul style="list-style-type: none"> (i) daytime (0800 to 2200 hrs) 60 dB LAeq(15 min) (ii) night-time (2200 to 0800 hrs) 50 dB LAeq(15 min) (iii) night-time (2200 to 0800 hrs) 70 dB LAFmax <p>(b) Sound from activities which is received in another zone shall comply with the noise limits set in the zone</p>

Page(s)	Section(s)	Existing PODP text	Proposed PODP text
		<p>(b) Construction noise shall be measured and assessed in accordance with the relevant New Zealand Standard.</p> <p>(1) Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991</p> <p>(2) Note: Refer also to the zone standards for the Residential and Remarkables Park Zones for noise limits on activities in adjoining zones.</p>	<p>standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p> <p>(e) The noise limits in (a) shall not apply to sound from aircraft operations at Queenstown Airport.</p>
11-9	11.2.5.2.ii	<p>Non-residential activities shall be conducted so that the following noise limits are not exceeded at the boundary of this zone.</p> <p>- 0800 - 2000 hrs 60dBA L₁₀ - 2000 - 0800 hrs 50dBA L₁₀ and 70 dBA L_{max}</p> <p>(1) Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991</p> <p>(2) Note: Refer also to the zone standards for the Residential and Remarkables Park zones for noise limits on activities in adjoining zones.</p>	<p>(a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any site outside this zone:</p> <p>(i) daytime (0800 to 2000 hrs) 60 dB L_{Aeq(15 min)} (ii) night-time (2000 to 0800 hrs) 50 dB L_{Aeq(15 min)} (iii) night-time (2000 to 0800 hrs) 70 dB L_{AFmax}</p> <p>(b) Sound from non-residential activities which is received in another zone shall also comply with the noise limits set in the zone standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound</p>

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			<p>from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>
11-12	11.3.5.2.i	<p>Non-residential activities shall be conducted so that the following noise limits are not exceeded at the boundary of the zone.</p> <ul style="list-style-type: none"> • 0800 - 2000 hrs L₁₀ 60dBA • 2000 - 0800 hrs L₁₀ 50dBA and 70 dBA L_{max} <p>Noise from aircraft operations at Queenstown Airport is exempt from the above standards.</p> <p>* (1) Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991</p> <p>* (2) Note: Refer also to the zone standards for the Residential and Remarkables Park Zones for noise limits on activities in adjoining zones.</p>	<p>(a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any site outside this zone:</p> <ul style="list-style-type: none"> (i) daytime (0800 to 2000 hrs) 60 dB L_{Aeq(15 min)} (ii) night-time (2000 to 0800 hrs) 50 dB L_{Aeq(15 min)} (iii) night-time (2000 to 0800 hrs) 70 dB L_{AFmax} <p>(b) Sound from non-residential activities which is received in another zone shall also comply with the noise limits set in the zone standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p> <p>(e) The noise limits in (a) shall not apply to sound from aircraft operations at Queenstown Airport.</p>
12-22	12.2.5.2.ix	<p>(a) In the Millbrook Resort and Jacks Point Zones non-residential activities shall be conducted so the following noise limits are not exceeded at any point within the boundary of the</p>	<p>(a) In the Millbrook Resort and Jacks Point Zones sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed</p>

Page(s)	Section(s)	Existing PODP text	Proposed PODP text
		<p>Residencies Activities Area shown on Figure 1 and the Structure Plans.</p> <ul style="list-style-type: none"> - Daytime 0800 - 2000 hours 50dBA L₁₀ - Night time 2000 - 0800 hours 40dBA L₁₀ and 70dBA L_{max} <p>(b) In the Waterfall Park Zone non-residential activities, shall be conducted so the following noise levels are not exceeded at any point within the boundary of the zone:</p> <ul style="list-style-type: none"> - Daytime 0800 - 2000 hours 50dBA L₁₀ - Night time 2000 - 0800 hours 40dBAL₁₀ and L_{max}70dBA <p>(c) Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991. Construction noise shall comply with and be measured and assessed in accordance with the relevant New Zealand Standard.</p>	<p>the following noise limits at any point within the Residencies Activities Areas shown on Figure 1 and the Structure Plans:</p> <ul style="list-style-type: none"> (i) daytime (0800 to 2000 hrs) 50 dB L_{Aeq(15 min)} (ii) night-time (2000 to 0800 hrs) 40 dB L_{Aeq(15 min)} (iii) night-time (2000 to 0800 hrs) 70 dB L_{AFmax} <p>(b) In the Waterfall Park Zone sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within this zone:</p> <ul style="list-style-type: none"> (i) daytime (0800 to 2000 hrs) 50 dB L_{Aeq(15 min)} (ii) night-time (2000 to 0800 hrs) 40 dB L_{Aeq(15 min)} (iii) night-time (2000 to 0800 hrs) 70 dB L_{AFmax} <p>(c) Sound from non-residential activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p> <p>(d) The noise limits in (a) and (b) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(e) The noise limits in (a) and (b) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>
12-37	12.4.5.2.iii	(a) Non-residential activities shall be conducted so the following noise limits are not exceeded	(a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in

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		<p>at any point within the boundary of the zone.</p> <ul style="list-style-type: none"> - Daytime 0800 - 2000 hours 50dBA L₁₀ - Night time 2000 - 0800 hours 40dBA L₁₀ and 70dBA L_{max} <p>(b) Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991.</p> <p>(c) Construction noise shall comply with and be measured and assessed in accordance with the relevant New Zealand Standard.</p>	<p>accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within this zone:</p> <ul style="list-style-type: none"> (i) daytime (0800 to 2000 hrs) 50 dB L_{Aeq(15 min)} (ii) night-time (2000 to 0800 hrs) 40 dB L_{Aeq(15 min)} (iii) night-time (2000 to 0800 hrs) 70 dB L_{AFmax} <p>(b) Sound from non-residential activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>
12-52	12.7.5.2.ii	<p>All activities in the Zone shall be conducted such that the following noise levels are not exceeded at the boundary of any other site in the zone:</p> <ul style="list-style-type: none"> - Daytime (0800 - 2000 hours) 55dBA L₁₀ - Night time (2000 - 0800 hours) 45dBA L₁₀ - and L_{max} of the Lower 75 dBA or the background sound level plus 30 dBA <p>Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991.</p>	<p>(a) Sound from activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in this zone:</p> <ul style="list-style-type: none"> (i) daytime (0800 to 2000 hrs) 55 dB L_{Aeq(15 min)} (ii) night-time (2000 to 0800 hrs) 45 dB L_{Aeq(15 min)} (iii) night-time (2000 to 0800 hrs) 75 dB L_{AFmax} <p>(b) Sound from activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p>

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		Construction noise shall comply with and be measured and assessed in accordance with the relevant New Zealand Standard.	<p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>
12-61	12.9.5.2.v	<p>(a) All activities in the Zone shall be conducted so the following noise levels are not exceeded at the boundary of any other site in the zone:</p> <ul style="list-style-type: none"> - Daytime (0800 - 2000 hours) 55dBA L₁₀ - Night time (2000 - 0800 hours) 45dBA L₁₀ - and L_{max} of the Lower 75 dBA or the background sound level plus 30 dBA <p>(b) Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991.</p>	<p>(a) Sound from activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in this zone:</p> <ul style="list-style-type: none"> (i) daytime (0800 to 2000 hrs) 55 dB L_{Aeq(15 min)} (ii) night-time (2000 to 0800 hrs) 45 dB L_{Aeq(15 min)} (iii) night-time (2000 to 0800 hrs) 75 dB L_{AFmax} <p>(b) Sound from activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>
12.82	12.11.5.2.iii	(a) In all Activity Areas non-residential activities shall be so conducted that the following noise limits are not exceeded at any point within	(a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed

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		<p>the boundary of any other site:</p> <ul style="list-style-type: none"> - Day-time 0700-2200 hours 55dBA L₁₀ - Night-time 2200-0700 hours 45dBA L₁₀ and 70dBA L_{max} <p>Except: In Activity Areas 3, 4, 5, and 7, non-residential activities may be conducted within the following noise limits so long as they are not exceeded at any point within the boundary of any other site within Activity Areas 3, 4, 5, and 7:</p> <ul style="list-style-type: none"> - Day-time 0700-2200 hours 60dBA L₁₀ - Night time 2200-0700 hours 50dBA L₁₀ and 70dBA L_{max} <p>Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991.</p> <ul style="list-style-type: none"> (b) Activities conducted in adjoining zones shall not exceed Remarkables Park Zone noise limits at any point within the boundary of any site within the Remarkables Park Zone. (c) Construction noise shall comply with and be measured and assessed in accordance with the relevant New Zealand Standard. (d) Noise from aircraft operations at Queenstown Airport is exempt from the above standards. 	<p>the following noise limits at any point within any other site in this zone:</p> <ul style="list-style-type: none"> (i) daytime (0700 to 2200 hrs) 55 dB LAeq(15 min) (ii) night-time (2200 to 0700 hrs) 45 dB LAeq(15 min) (iii) night-time (2200 to 0700 hrs) 70 dB LAfmax <ul style="list-style-type: none"> (b) The noise limits in (a) shall not apply to sound received within Activity Areas 3, 4, 5 and 7. Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in Activity Areas 3, 4, 5 and 7: <ul style="list-style-type: none"> (i) daytime (0700 to 2200 hrs) 60 dB LAeq(15 min) (ii) night-time (2200 to 0700 hrs) 50 dB LAeq(15 min) (iii) night-time (2200 to 0700 hrs) 70 dB LAfmax (c) Sound from non-residential activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone. (d) The noise limits in (a) and (b) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999. (e) The noise limits in (a) and (b) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998. (f) The noise limits in (a) and (b) shall not apply to

Page(s)	Section(s)	Existing PODP text	Proposed PODP text
			sound from aircraft operations at Queenstown Airport.
12-109	12.15.5.2.vii	<p>Non-residential activities shall be conducted so the following noise levels are not exceeded at the boundary of the zone:</p> <p style="text-align: center;">Daytime 0800 - 2000 hours 50 dBA L₁₀</p> <p style="text-align: center;">Night-time 2000 - 0800 hours 40 dBA L₁₀ and 70 dBA L_{max}</p> <p>Noise levels shall be measured and assessed in accordance with NZS 6081:1991 and NZS 6802:1992. Construction noise shall comply with and be measured and assessed in accordance with the relevant NZ Standard.</p>	<p>(a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any site outside this zone:</p> <p style="margin-left: 40px;">(i) daytime (0800 to 2000 hrs) 50 dB LAeq(15 min)</p> <p style="margin-left: 40px;">(ii) night-time (2000 to 0800 hrs) 40 dB LAeq(15 min)</p> <p style="margin-left: 40px;">(iii) night-time (2000 to 0800 hrs) 70 dB LA_{Fmax}</p> <p>(b) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(c) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>
12-124	12.17.5.2.xi	<p>All activities in the Zone, other than residential activities, shall be conducted such that the following noise levels are not exceeded at the boundary of the zone:</p> <p>- At the boundaries of any site sound noise level shall not exceed the following levels:</p> <p style="text-align: center;">Daytime 0800 - 2000 hours 50dBA L₁₀</p> <p style="text-align: center;">Night time 2000 - 0800 hours 40dBA L₁₀</p>	<p>(a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site:</p> <p style="margin-left: 40px;">(i) daytime (0800 to 2000 hrs) 50 dB LAeq(15 min)</p> <p style="margin-left: 40px;">(ii) night-time (2000 to 0800 hrs) 40 dB LAeq(15 min)</p> <p>(b) Sound from non-residential activities which is received in another zone shall also comply with the noise limits set in the zone standards for that zone.</p>

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		<p>Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991.</p>	<p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p>
12-131	12.18.5.2.ii	<p>Activities shall be so conducted that the following noise limits are not exceeded at any point within the boundary of any other site within the zone:</p> <ul style="list-style-type: none"> • Daytime (0800-2200 hours) 60dBa L₁₀ • Night time (2200-0800 hours) 50dBa L₁₀ and 70dBa L_{max} <p>Construction noise shall comply with and be measured and assessed in accordance with the relevant New Zealand Standard.</p> <ul style="list-style-type: none"> • Noise from aircraft operations at Queenstown Airport is exempt from the above standards. • Noise levels shall be measured and assessed in accordance with NZS 6801:1991 and NZS 6802:1991. 	<p>(a) Sound from activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within any other site in this zone:</p> <ul style="list-style-type: none"> (i) daytime (0800 to 2200 hrs) 60 dB LAeq(15 min) (ii) night-time (2200 to 0800 hrs) 50 dB LAeq(15 min) (iii) night-time (2200 to 0800 hrs) 70 dB LAfmax <p>(b) Sound from activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.</p> <p>(c) The noise limits in (a) shall not apply to construction sound which shall be assessed in accordance with NZS 6803:1999.</p> <p>(d) The noise limits in (a) shall not apply to sound from sources outside the scope of NZS 6802:2008. Sound from these sources shall be assessed in accordance with the relevant New Zealand Standard, either NZS 6805:1992, NZS 6807:1994 or NZS 6808:1998.</p> <p>(e) The noise limits in (a) shall not apply to sound from aircraft operations at Queenstown Airport.</p>

Page(s)	Section(s)	Existing PODP text	Proposed PODP text
D-6	Noise	<p>dB(A): means the sound level obtained when using a sound level meter having its frequency response A weighted and is measured in accordance with New Zealand Standard NZS 6801:1991 (Measurement of Sound) and NZS 6802:1991 (Assessment of Environmental Sound).</p> <p>L_{dn}: means the day/night noise level which is calculated from the 24 hr Leq with a 10 dB(A) penalty applied to the night time (2200 to 0700 hours) Leq.</p> <p>L10: means the level of sound allowed to be generated continuously for 90% of the time during the day or night. For 10% of the time this may be exceeded up to any L_{max} stated.</p> <p>L_{max}: means the maximum sound level recorded in a given measuring period.</p> <p>Noise Limit: means a L10 or L_{max} sound level in A-frequency-weighted decibels that is not to be exceeded.</p>	<p>Acoustic terms shall have the same meaning as in NZS 6801:2008 Acoustics – Measurement of environmental sound and NZS 6802:2008 Acoustics – Environmental noise.</p> <p>L_{dn}: Means the day/night 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).</p> <p>L_{Aeq(15 min)}: Means the A-frequency-weighted time-average sound level over 15 minutes, in decibels (dB).</p> <p>L_{AFmax}: means the maximum A-frequency-weighted fast-time-weighted sound level, in decibels (dB), recorded in a given measuring period.</p> <p>Noise Limit: Means a L_{Aeq(15 min)} or L_{AFmax} sound level in decibels that is not to be exceeded.</p>
A2-1	Appendix 2	<p>REFERENCES: IEC 651:1979, IEC 804:1985, ISO 2922:1975(E)</p> <p>...</p> <p>The measured sound pressure level shall not exceed a maximum A weighted level:</p>	<p>REFERENCES: IEC 61672-1:2002, IEC 60942:2003, ISO 2922:2000, ISO 14509-1:2008</p> <p>...</p> <p>The measured sound pressure level shall not exceed a maximum A weighted level of:</p>

Page(s)	Section(s)	Existing PODP text	Proposed PODP text
		<p>(L max) of 77dBA for vessels to be operated between the hours of 0800 to 2000; or</p> <p>(L max) of 67dBA for vessels to be operated between the hours of 2000 to 0800</p> <p>...</p> <p>TEST CONDITIONS</p> <p>The following instrument shall be used:</p> <p>(i) A Type 1 Precision sound level meter and an acceptable wind screen.</p> <p>...</p> <p>Measured Quantities -"A" weighted, fast response sound level, expressed in decibels (dB).</p>	<p>a) 77 dB L_{ASmax} for vessels to be operated between the hours of 0800 to 2000;</p> <p>b) 67 dB L_{ASmax} for vessels to be operated between the hours of 2000 to 0800.</p> <p>...</p> <p>TEST CONDITIONS</p> <p>The following instrument shall be used:</p> <p>(i) A class 1 sound level meter and an acceptable wind screen.</p> <p>...</p> <p>Measured Quantities - "A" weighted, slow response sound level, expressed in decibels (dB).</p>
A2-3	Appendix 2	<p>All craft may not be able to be recorded according to the above method and any deviation shall be in compliance with ISO 2922:1975(E). Other statistical and accumulated sound levels may also be recorded and retained for evaluation.</p>	<p>All craft may not be able to be recorded according to the above method and any deviation shall be in compliance with ISO 2922:2000 or ISO 14509-1:2008. Other statistical and accumulated sound levels may also be recorded and retained for evaluation.</p>

PLAN CHANGE 27A – REFERENCES: NOISE – Section 32 Report as adopted for notification April 2009