

**BEFORE THE QUEENSTOWN LAKES DISTRICT COUNCIL**

**IN THE MATTER** of the Resource Management Act 1991

**AND**

**IN THE MATTER** Plan Change 50 (Queenstown Town Centre Zone  
Extension) to the Queenstown Lakes District Plan

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**STATEMENT OF EVIDENCE OF STEPHEN GORDON CHILES**

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## EXECUTIVE SUMMARY

Noise limits are required that enable activities to be established in the plan change area, and also appropriately protect other activities in the plan change area and in adjacent zones from undue noise. To achieve this, I recommend the existing Town Centre zone noise limits be applied in the Lakeview and Isle Street sub-zones. Additional provision should be made for outdoor areas of bars and restaurants operating after 2200h to be assessed on a case-by-case basis. The Beach Street site will be subject to more stringent noise limits which will restrict some activities. The noise limits recommended for the plan change area will control potential noise effects to be acceptable within and around the plan change area.

## 1. INTRODUCTION

- 1.1 My name is Dr Stephen Gordon Chiles. I am an acoustics engineer, self-employed by my company Chiles Ltd. I am separately employed half-time by the NZ Transport Agency as a Principal Environmental Specialist, responsible for noise and vibration. I am a visiting academic in the acoustics research group at the University of Canterbury. I have nineteen years' experience in acoustics and I have previously held positions as a research officer at the University of Bath and as a consultant for the international firms Arup, WSP, and URS, and for the specialist firms Marshall Day Acoustics and Fleming & Barron. I have degrees of Doctor of Philosophy in Acoustics from the University of Bath, and Bachelor of Engineering in Electroacoustics from the University of Salford, UK. I am a Chartered Professional Engineer (NZ), Chartered Engineer (UK) and a Fellow of the UK Institute of Acoustics.
- 1.2 I have made and reviewed noise assessments for various activities in and around the Queenstown town centre over the last 10 years, including for bars and restaurants, visitor accommodation, construction activities, a preschool, a float plane and jet boats. I have assisted the Queenstown Lakes District Council (QLDC) with noise enforcement action relating to bars and restaurants in the town centre, and also provided technical advice for Plan Change 27A, which updated noise standards in the district plan, and proposed Plan Change 42, which was being developed to address noise issues from bars in the town centre but was superseded by the district plan review. I was on the technical committee for the 2008 revisions of the general environmental noise standards NZS 6801 and NZS 6802, and I am an advisor to the Ministry of Business Innovation and Employment with respect to potential changes to Clause G6 of the Building Code.
- 1.3 I became involved in Plan Change 50 ("the plan change") to the Queenstown Lakes District Plan ("the district plan") in August 2014. I am also currently advising the QLDC on potential changes to the Town Centre zone under the district plan review. For Plan Change 50, I have conducted a desk-top review of the proposal and considered how potential noise effects can be controlled inside and outside the plan change area. I have not conducted a specific site visit for this work but I am familiar with the area.
- 1.4 I have read the Code of Conduct for Expert Witnesses in the Environment Court's Consolidated Practice Note and have complied with it in preparing this evidence. I agree to follow the Code when presenting evidence to this hearing. I confirm that the issues addressed in this brief of evidence are within my area of expertise and that I have not omitted to consider material facts known to me that might alter or detract from my opinions.

## **2. SCOPE OF EVIDENCE**

- 2.1 My evidence is based on the noise assessment in my letter dated 21 August 2014, that is attached as Appendix C to the Assessment of Environmental Effects accompanying the notified plan change. Specifically, in preparing my assessment and evidence I have considered:
- a) Appropriate noise rules to enable the range of activities desired in the plan change area,
  - b) Potential effects in the surrounding High Density Residential zone due to noise emissions from activities enabled in the plan change area,
  - c) Potential effects in the High Density Residential zone from noise of consequential pedestrian and vehicular traffic on public roads resulting from the plan change, and
  - d) Potential effects due to noise emissions from activities enabled in the plan change area on other activities enabled in the plan change area, such as effects of noise from commercial activities on residential and visitor accommodation activities.

## **3. THE PLAN CHANGE**

- 3.1 The plan change and site are described in the evidence of Paul Speedy. My evidence and assessment of noise effects is based on the plan change as set out by Mr Speedy. Of particular relevance to my assessment is that the plan change seeks to enable a wide range of commercial, community and residential activities. Some of these activities could generate significant noise, such as bars and restaurants, and other activities could be noise sensitive, such as residential and visitor accommodation.

## **4. KEY FINDINGS**

- 4.1 The district plan sets noise limits as a zone standard for activities in the existing Town Centre zone (rule 10.6.5.2.ii). In my noise assessment I considered typical noise emissions from a range of potential activities in the plan change area. On this basis, in my opinion the existing Town Centre zone noise limits are appropriate for the Town Centre zone extension in the Lakeview and Isle Street sub-zones. These limits will enable most activities envisaged in the plan change area, if there is reasonable building design/layout and standard noise control measures. An exception, which I will discuss shortly, is that activity in outdoor areas of bars and restaurants in the plan change area after 2200h would be unlikely to comply with the noise limits.
- 4.2 For the Beach Street site more stringent noise limits will apply, which will be the same as the limits applying under its existing High Density Residential zoning (rules 7.5.5.3.xii and 7.5.6.3.vii). For comparison, these noise limits are identical to those applying in the existing Town Centre Transition sub-zone beside Man Street, other than a two hour difference in the change-over time between day and night limits. These noise limits will constrain some potential activities in the Beach Street site, to the same extent as in the existing Town Centre Transition sub-zone.

- 4.3 In the existing Town Centre zone, there is a long-standing issue that activity in outdoor areas of bars and restaurants generally cannot comply with the noise limits after 2200h. This conflicts with requirements to provide areas for smokers, and I understand from QLDC planning staff that outdoor areas are desired to contribute to vibrancy in the town centre. Therefore, in the existing Town Centre zone, the district plan review is currently exploring methods to better accommodate night-life. However, this might compromise some visitor accommodation and residential activities.
- 4.4 In the plan change area, visitor accommodation and residential activities are important aspects of the overall proposal. Therefore, in my opinion it is not appropriate to adopt a similar approach as being considered for the existing Town Centre, by providing more permissive noise limits for bars and restaurants everywhere in the plan change area. That could result in unacceptable noise effects on residential and visitor accommodation in the plan change area. As flexibility is required for where bars and restaurants might locate in the plan change area, I recommend that noise effects from individual bars and restaurants operating with outdoor areas after 2200h should be assessed on a case-by-case basis.
- 4.5 The plan change area borders the High Density Residential zone on several sides. The district plan applies the same stringent noise limits on emissions from the Town Centre zone to the High Density Residential zone, as apply within the High Density Residential zone itself. These limits are more stringent than the guideline values provided in NZS 6802, which are designed to provide reasonable residential amenity and protect sleep. I consider that with these noise limits, potential noise effects in the High Density Residential zone arising from the plan change area will be acceptable.
- 4.6 The plan change will result in increased pedestrian and vehicular traffic in the area. From the evidence of Don McKenzie I understand that vehicular traffic will remain within the capacity of the local road network. I consider that any noise effects from vehicular traffic will be consistent with the normal expected function of the local roads. There is the possibility of some noise disturbance in the High Density Residential zone from night-time pedestrian traffic generated by the plan change area, emanating from the gateway area at the corner of Man and Thompson Streets. The extent of this effect will depend on the design and layout of buildings in the affected part of the High Density Residential zone, and if the effect does eventuate it could potentially be mitigated by property owners treating their own buildings.
- 4.7 Within the plan change area, the proposed noise limits for activities will not adequately protect sleep and amenity for visitor accommodation and residential activities. These noise sensitive activities are included in the definition of 'critical listening environments' in the district plan. I recommend that within the plan change area all critical listening environments should be subject to sound insulation requirements to provide protection from sleep disturbance and for amenity. As the sound insulation requirements are likely to result in windows being closed there should also be a requirement to provide mechanical ventilation.

## **5. SUBMISSIONS AND FURTHER SUBMISSIONS**

- 5.1 I have read the 53 submissions made on the plan change and the further submissions, and will now comment on those submissions that raise matters relating to noise effects.

**Reid Investment Trust Ltd (50/03)**

- 5.2 The Reid Investment Trust submits that separate noise limits for the existing Town Centre Transition sub-zone (TCTZ) to the south of Man Street should be deleted. The plan change has not altered these noise limits, but I agree with the submitter that the rezoning of the Isle Street sub-zone removes the rationale for the more stringent noise limits that currently apply in the TCTZ. This matter will be separately addressed as part of the district plan review, which will consider all of the noise rules relating to the TCTZ holistically with the wider Town Centre zone.

**Alan Bunting (50/12)**

- 5.3 Mr Bunting submits that bars and restaurants should be prohibited in the Isle Street sub-zone. Bars and restaurants will be subject to the same noise limits as all other activities in the sub-zone. While bars and restaurants will have a different noise character to other activities, the potential permitted noise effects are broadly comparable. For example, air conditioning plant serving an office building will be permitted to continuously make 60 dB  $L_{Aeq}$  at a neighbouring site in the Isle Street sub-zone during the day, which is also the permitted noise level from people and music associated with a bar or restaurant. Either activity would be clearly audible outside the neighbouring site, but at a level that should not cause undue disturbance when inside buildings. For example, noise at this level should not interfere with normal conversations in neighbouring buildings. I do not consider that bars and restaurants need to be prohibited because of their noise effects as these potential effects can be controlled through appropriate noise limits.

**Christopher Mace and Queenstown Trust (50/17)**

- 5.4 This submitter seeks appropriate rules for activities in the plan change area to protect nearby residential properties and public places. The submission does not propose any specific details for such rules. I have explained in paragraph 4.5 above that all activities in the plan change area have to comply with the existing relatively stringent noise limits in the High Density Residential zone. These limits should result in appropriate residential amenity, and should satisfy the issue raised by the submitter.

**Craig Stobo (50/22)**

- 5.5 In his submission Mr Stobo questions how noise will be managed from activities on land between Hay, Man, Lake and Beach Streets. The daytime and night-time noise limits applying to this land are the same in the plan change as the existing situation, other than the transition from day to night occurring two hours later. Retaining these same limits will appropriately control noise effects at the nearest residential properties.

**John Thompson (50/25)**

- 5.6 Mr Thompson opposes the acoustic insulation requirements for new residential activities and visitor accommodation. He submits that costs and benefits have not been evaluated and the provisions do not apply elsewhere in the Town Centre zone. There are issues in the existing Town Centre zone with residential and visitor accommodation activities being disturbed by noise from other activity such as bars. These issues have been apparent through various resource consent hearings and other matters in the Environment Court.

Plan Change 1 and Plan Change 42 were both initiated in response to these issues, and this matter is now being addressed under the district plan review. The acoustic insulation requirements proposed in Plan Change 50 are the same as those being proposed for the existing Town Centre zone under the district plan review.

- 5.7 In my opinion, it is not feasible to set a noise limit that enables a range of town centre activities in the plan change area, without resulting in potential disturbance in residential and visitor accommodation buildings, if they are constructed without acoustic insulation. Therefore, I consider that acoustic insulation requirements are essential in this mixed use zone. There is a cost associated with acoustic insulation, which, for example, might double the cost of windows and require mechanical ventilation. However, I am not aware of an alternative that would facilitate all the activities desired in the plan change area, without future conflicts as currently occur in the existing Town Centre zone.

#### **IHG Queenstown Ltd and Carter Queenstown Ltd (50/33)**

- 5.8 This submission opposes the noise limits applied in the plan change to the land between Hay, Man, Lake and Beach Streets. These noise limits are the same as those applying to the existing Town Centre Transition sub-zone (TCTZ), which are more stringent than the main Town Centre zone, but are generally the same as the High Density Residential zone. Compared to the main Town Centre zone, the noise limits on this land will restrict the nature of activities that can be undertaken, to provide a transition between the Town Centre zone and the High Density Residential zone. The submitter queries why similar provisions are not included for other fringe areas around the Town Centre zone. I am not familiar with the history as to why the existing TCTZ only exists on one side of the Town Centre zone, but I am aware that more extensive transition areas are being proposed in the district plan review. I consider it appropriate for the plan change to include these noise limits that result in the land between Hay, Man, Lake and Beach Streets providing a transition or buffer between the main Town Centre zone and the High Density Residential zone.

#### **Cath Gilmour (50/49)**

- 5.9 Ms Gilmour submits that noise rules for the plan change area should be consistent with the town centre transition provisions in the district plan review, and should not allow for more extensive late night entertainment operating after 2200h.
- 5.10 Under the district plan review, it is proposed to establish a concentric rules system with an entertainment precinct in the middle of the existing Town Centre zone having more liberal noise limits. This would be surrounded by the main Town Centre zone, and then a transition sub-zone. This responds to the Town Centre zone being surrounded on most sides by the High Density Residential zone. The noise limits proposed for the Lakeview and Isle Street sub-zones are similar to the noise limits proposed for the transition sub-zone in the district plan review, as requested in Ms Gilmour's submission. Differences between provisions in the plan change compared to the plan review are the activity status of licensed premises being restricted discretionary rather than non-complying, when the night-time noise limits are exceeded, and the  $L_{AFmax}$  noise limit being 5 dB more stringent in the plan change.

- 5.11 The reasons why it is desired for bars and restaurants to be facilitated in the plan change area has been discussed by Mr Speedy. However, in terms of potential noise effects, it would be practicable to accommodate bars and restaurants in some places in the plan change area, particularly as it is not encircled by the High Density Residential zone to the same extent as the existing Town Centre zone. As specific areas are not being defined for bars and restaurants in the plan change area, each proposal will need to be assessed on a case-by-case basis considering other nearby activities. For example, if the outdoor area of a bar was proposed to be immediately adjacent to the High Density Residential zone or a hotel in the plan change area then the effects might not be acceptable. Alternatively, if the outdoor area were on the opposite side of the building the effects might be sufficiently mitigated.

## **6. CONCLUSIONS**

- 6.1 For the reasons outlined in my evidence I consider the noise rules I have recommended for the plan change area will enable the activities envisaged, at the same time as providing appropriate protection for noise sensitive activities both within and around the plan change area. With these controls, I consider the noise effects resulting from the plan change will be reasonable and acceptable.
- 6.2 I have read all submissions and have commented on those raising matters relating to noise. None of the submissions include expert acoustics evidence, and my consideration of the issues raised in submissions has not led me to alter my opinions on the appropriate noise rules for the plan change area.

**Dr Stephen Chiles**  
10 November 2014