

**BEFORE THE COMMISSIONERS APPOINTED BY
THE MACKENZIE DISTRICT COUNCIL**

UNDER

the Resource Management Act 1991

IN THE MATTER

of RM230149 an application for land use consent to establish and operate a commercial tree-climb ropes course and picnic facilities at Lakeside Drive, Takapō/Lake Tekapo

BETWEEN

**QUEENSTOWN COMMERCIAL
PARAPENTERS LIMITED**

Applicant

STATEMENT OF EVIDENCE OF ROB LACHLAN HAY

Dated: 13 August 2025

Statement of evidence of Rob Lachlan Hay

Introduction

- [1] My name is Rob Lachlan Hay.
- [2] I am an Associate at, and currently a Director of, the international acoustical consulting firm of Marshall Day Acoustics (**MDA**). I hold Bachelor and Master of Science degrees from the University of Canterbury, majoring in Chemistry.
- [3] I have worked in the field of acoustics for over 20 years. I joined MDA in 2006, and I have been involved in many significant building, industrial, and environmental acoustics projects throughout New Zealand. Of relevance to the matter at hand, I have worked on the assessment and consenting of numerous recreational and entertainment venues. I have undertaken this work on behalf of applicants, residents, and as council peer reviewer.
- [4] I have undertaken work with several district councils on the topic of noise policy and rules surrounding major entertainment and infrastructure facilities, with a particular focus on consideration of noise effects to the local community. This work has included waste and drinking water facilities, airports, roads, neighbourhood recreational facilities, and stadia/arenas. On behalf of councils, I have also undertaken noise assessments and peer reviews of proposals to redevelop mixed use town centres and the creation or change of use of suburban parks and recreation facilities.

Code of Conduct for Expert Witnesses

- [5] While this is not an Environment Court hearing, I have read and agree to comply with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2023. This evidence is within my area of expertise, except where I state that I am relying on material produced by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Scope of Evidence

- [6] I have been asked to provide acoustic evidence for a proposal to operate a rope climbing course at Lakeside Drive, Tekapo/Takapō.
- [7] My evidence will deal with the following:
- (a) the receiving environment;
 - (b) the noise assessment;
 - (c) comments on submissions;
 - (d) comments on the Officer's Report; and
 - (e) noise related conditions.
- [8] This evidence updates and highlights key points from the Marshall Day Acoustics report dated 21 February 2025, prepared by my colleague Mr Juan Gaviria under the technical supervision and review of myself and another senior colleague, Mr Gary Walton. In giving my evidence, I refer to that report and, except where modified or clarified below, adopt it as part of my evidence.
- [9] I am familiar with the site from personal visits to Tekapo over many years. I also undertook a specific visit to the application site prior to the hearing commencing.

Executive Summary

- [10] I understand that the Mackenzie District Plan has been undergoing a rolling review since the application was first notified. I understand that while PC29, which changes the zoning of the application site and updates the noise rules, has legal effect, it is not fully operative.
- [11] On the basis that the Commissioner may require assessment of the activity as either non-complying (under the operative district plan, or restricted discretionary (under PC29), I have assessed noise effects under both frameworks.

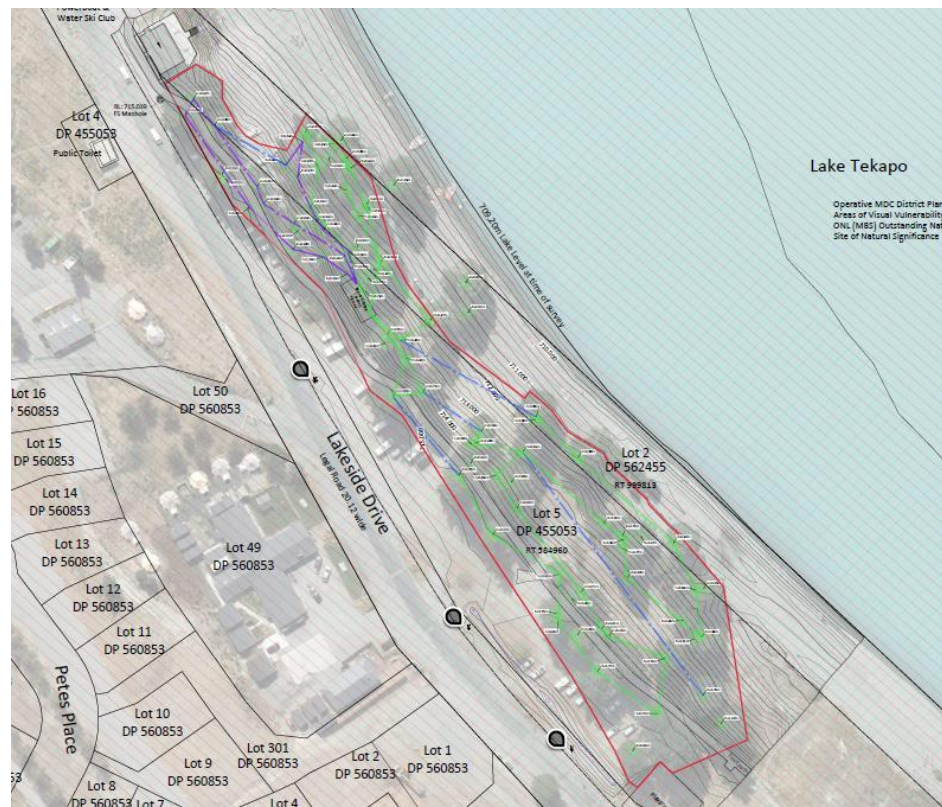
- [12] The activity will be undertaken only during the district plan daytime. As an outdoor activity in a holiday destination, the intensity of the activity will vary significantly with peak times during summer school holidays primarily, but also other school holidays and long weekends. Lower levels of activity are anticipated at other times, with little or no activity during periods of cold or otherwise inclement weather.
- [13] The existing ambient (residual) noise environment around the site during the late summer has been measured and demonstrates a moderately noisy environment dominated by local and distant traffic noise, informal play and motorised watercraft. I consider this representative of a busy and dynamic peak activity environment.
- [14] Outside peak periods I expect the ambient (residual) noise level to drop by up to 6 dB. I expect that the activity noise would also drop similarly, meaning that the nature of the noise effect will not become greater during quieter periods.
- [15] The predicted noise level from the activity will comply with both the proposed noise conditions and the permitted activity noise limits applying to the activity under PC29 (these are identical).
- [16] The dominant character of noise generated by the activity assessed on a conservative basis is traffic noise and vocalisation. Both of these have character that are identical or very similar to the existing traffic noise, parking, and informal play that occurs in the area. While the zip lines do have a character that differs from existing noise levels, this noise is not predicted to be intrusive or dominating and I do not expect it to change the level of amenity for other users of the space.
- [17] When assessed as a non-complying activity, I consider the noise effects of the proposal to be minor at worst, and often less than minor. When assessed as a restricted discretionary activity under PC29, I consider that the effects are acceptable in the receiving environment and will not materially alter or degrade the existing amenity afforded by the ambient environment. Further, I consider that the level and character of noise arising from the proposal will not be unreasonable in terms of s16 of the RMA.

- [18] I agree with Mr Boyes' opinion that the proposed conditions related to noise are sufficient to avoid, remedy or mitigate noise from the activity, and I have provided an amended noise condition to clarify that the applicant's proposed condition and the noise limits under PC29 are identical.

Existing Environment

- [19] The application site has been described in detail in the evidence of Mr Geddes (the applicant's planner). In summary the application site¹² is located on Lakeside drive and the shoreline of Lake Tekapo at the western end of the township as shown in the figure below. The site is generally covered with large established pine trees over ground sloping northeast towards the lake.

Figure 1: Site location



¹ Lot 2 DP562455 and Lot 5 DP455053.

- [20] A concrete path runs along the southern side of the site connecting the town centre to accommodation and other commercial activities (including hot tubs an ice rink, and mini golf), the boat club, and open space ground to the west of the site.
- [21] Opposite the site to the south there is a backpackers and a campground, with a residential subdivision further south again.

Proposed Development

- [22] The applicant seeks to establish a ropes course. This will include a base station building beneath the trees, along with structures, ropes, and other equipment within the tree canopy zone. I understand that no parking or toilet facilities are proposed as part of the proposed activity. Instead, customers and staff will use public parking and facilities in the area.

The District Plan and Activity Status

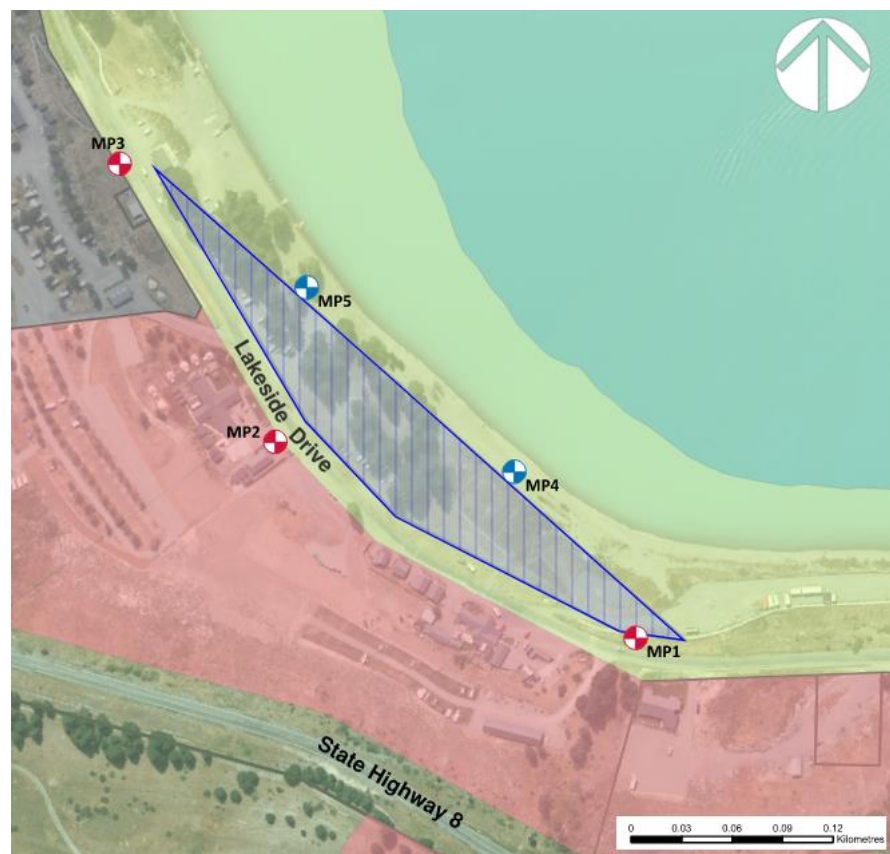
- [23] When MDA began work on this project the operative Mackenzie District Plan (**OMDP**) was in effect. Over the time that the proposal has been under assessment, and since lodging the application in December 2023, the OMDP has been under review and a number of plan changes have been made.
- [24] I understand from Mr Geddes' evidence that the overall activity status is non-complying as a result of the application proposing a building and structures within the Passive Recreation Zone (rule 4.7.4).
- [25] I also understand from Mr Geddes that PC29 changes the site zoning to Open Space Zone, and that under PC29 the activity status would be restricted discretionary.
- [26] PC29 also recommends changes to the noise limits in the District Plan from 50 dB L_{A10} daytime and 40 dB L_{A10} night-time (with an additional 70 dB L_{AFmax} limit that depending on the receiving zone may be night-time only or at any time) to 50 dB $L_{Aeq(15\ min)}$ (daytime), 40 dB $L_{Aeq(15\ min)}$ (night-time) and 70 dB L_{AFmax} at any time. The daytime is defined as being from 07:00am to 10:00pm daily. The activity therefore relates only to the daytime period.

- [27] PC29 also updates NZS 6801 and 6802 – the noise measurement and assessment standards respectively – to the latest 2008 versions of these standards and consistency with the NPS.
- [28] The PC29 noise rules, although not yet in effect, represent current best practice in terms of the parameters and standards used. The numerical noise limits remain unchanged.
- [29] I note that the result is that the PC29 noise limit that applies is identical to that proposed in the report.

The Receiving Environment is Dominated by Vehicle Traffic and Active Recreation Noise

- [30] My colleague Mr Gaviria conducted a survey of the ambient (residual) noise in the area on 2 February 2025 towards the end of the summer school holidays. Measurement locations (see **Error! Reference source not found.**) were selected to capture representative noise levels for the receivers nearest to the proposed activity.

Figure 2: Ambient noise measurement locations



- [31] These measurements (summarised in Error! Reference source not found.) demonstrate that at locations closest to Lakeside Drive the noise level and character is dominated by movements related to the access to Tekapo Springs and the Lake Edge Holiday Park. Activity in the public car park including campervans, 4WDs, cars, and pedestrians also contributed to the overall noise level.
- [32] At locations closer to the waterfront, noise levels were dominated by typical recreational activities such as picknickers, walkers, and motorised watercraft (boats and jet skis).

Table 1: Measured ambient (residual) noise levels

Time	Measured noise levels			Comments
(hh:mm)	dB LAeq	dB LA10	dB LAFmax	
MP1				
12:05	57	60	73	Vehicle movements along Lakeside Drive to Tekapo Springs, the campground, and Lake Edge Lodge dominate, with occasional distant traffic from State Highway 8 and car park door slams.
16:55	58	62	78	
MP2				
12:20	57	60	78	As above
17:14	56	59	73	
MP3				
12:41	52	55	72	As above
15:31	54	57	71	
MP4				
12:16	53	52	85	People at the waterfront, boat and jet ski movements dominate. People talking and children swimming at lake, and distant traffic contribute. Minimal activity: no boats or jet skis, with birds and distant traffic as the main contributors.
17:00	51	53	70	
MP5				
12:31	51	51	80	Waterfront activity with 2 boat and jet ski movements dominates, alongside people talking and children swimming. Less activity overall, with birds and distant traffic contribute. Less activity and people. Birds and distant traffic contribute.
17:16	49	51	75	

- [33] This noise level is typical of the late summer period. Peak summer noise levels may be 1-2 dB greater than this at times, largely controlled by fluctuations in vehicle traffic on both Lakeside Drive and SH8.
- [34] These measurements indicate that for sites to the south side of Lakeside Drive nearest to the proposed ropes course, the existing ambient noise levels are 52 to 58 dB L_{Aeq} (15 min) and 71 to 78 dB L_{AFmax} . This is greater than the proposed District Plan noise limits of 50 dB L_{Aeq} and 70 dB L_{AFmax} .
- [35] I note from the evidence of Mr Leckie (at 19) that the traffic volume on Lakeside Drive varies from approximately 2,500 vehicle movements per day in summer, to 600-700 vehicle movements per day in winter. On this basis the ambient noise level at MP1 - MP3 could be expected to decrease to between 46 to 52 dB L_{Aeq} (15 min), although the L_{AFmax} noise level would not change. There will also be a contribution from nearby SH8.
- [36] For the waterfront locations the noise level was dominated by outdoor play, swimming, and occasional boat or jet ski movements. Mr Gavaria's notes describe the area as a "dynamic environment with the expected character for this location."
- [37] During winter months I would expect activity on the waterfront to be reduced and generally more passive in nature. I consider it likely that the noise environment on the waterfront in winter would be dominated by traffic noise rather than recreational noise and that it would likely be at the lower end of the summer range for positions MP1 to MP3 during the winter (para 25).

Predicted Noise Levels are Compliant with the PC29 / Proposed Noise Limits and Will Generate Acceptable Effects

- [38] The MDA report considered noise produced by users of the ropes course, the ziplines within the course, and traffic associated with the activity within the public car park.
- [39] Based on experience and information available when the report was prepared, the report concluded that most participants in the activity

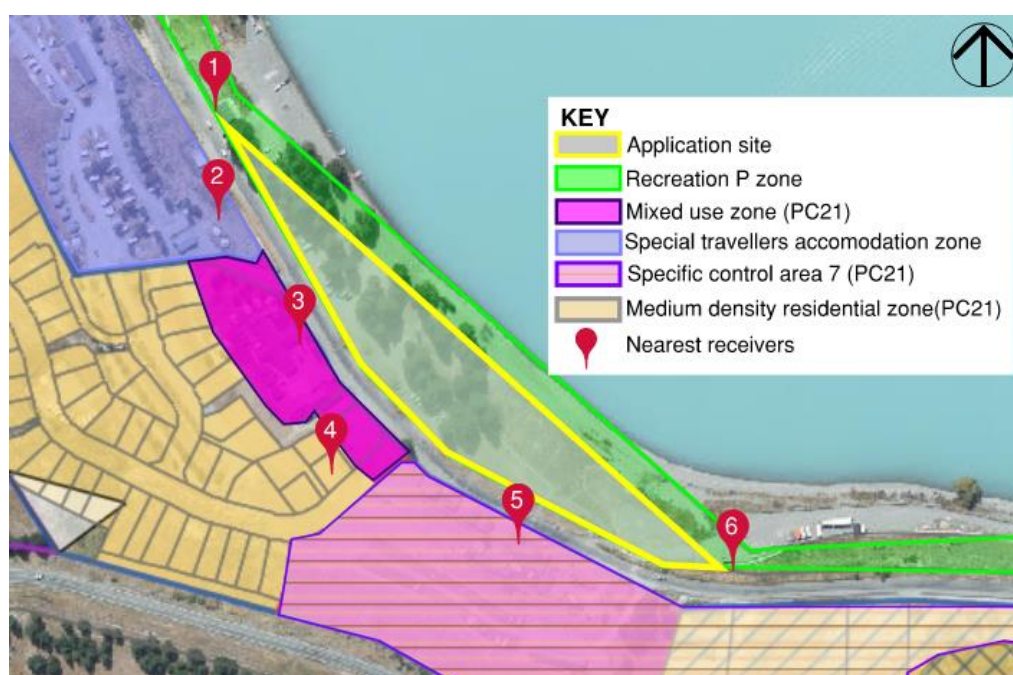
would be generally quiet. However, allowance was made for enhanced vocalisations such as screams, whoops, or shouts.

- [40] I note that Ms Strong has subsequently visited a number of ropes course activities in New Zealand and overseas and confirms that in her experience such courses demonstrably co-exist with passive and recreation (para 123). Based on both the experience of both my MDA colleagues and Ms Strong, I am of the opinion that this aspect of our assessment has been appropriately conservative.
- [41] The report predicted noise from zip lines and associated equipment based off measurements of similar ropes courses in New Zealand. The ropes course was modelled as an elevated line source with no screening to receivers. I consider this an appropriate method for prediction of noise from this source.
- [42] The car park is an existing public facility. The report considered only traffic noise associated with the ropes course. The assumption made is that all vehicles associated with the ropes course are new additional movements, rather than a percentage of such movements also being associated with other activities or destinations within the area, or patrons arriving on foot from the nearby town centre car park. I regard this prediction assumption as very conservative.
- [43] Overall, it is my opinion that the predicted noise levels summarised in **Error! Reference source not found.** below represent the maximum likely noise generated by the activity during a peak event such as summer holidays, or school holidays/long weekends at other times of year. I consider that the predictions are likely conservative (i.e. high).
- [44] The prediction locations are shown on the **Error! Reference source not found.** below. Note that this figure, from the assessment report, shows the OMDP zones, rather than any zones that have become active or are proposed under various plan changes since.

Table 2: Predicted activity noise levels at representative receivers

Pos	Assessment location	Predicted daytime noise level	Daytime noise limit	Complies Daytime?
		dB LAeq (15 min)	dB LAeq (15 min)	
1	Northwest boundary Recreation P zone	49	50	Yes
2	Traveller's accommodation area	49	50	Yes
3	Lake Edge Lodge	48	50	Yes
4	Station Bay Lodges	45	50	Yes
5	Lake Edge Holiday Park	46	50	Yes
6	Southeast boundary Recreation P zone	47	50	Yes

Figure 3: Ambient noise measurement locations



[45] I note that compliance with the proposed PC29 noise limits is predicted. These also match the proposed noise limits that were recommended in the noise assessment report.

[46] In my opinion the noise generated by the activity during peak periods is likely to comply with the proposed noise limits and will be acceptable given the nature of the receiving environment. During periods of peak activity, the receiving noise environment is dominated by local and

distant traffic noise, with local noise closer to the waterfront from general play and recreation and motorised watercraft.

- [47] The site and surrounds are busy during peak seasons and used for a variety of purposes creating a dynamic and moderately noisy environment.
- [48] The most prominent character of noise generated by the activity will be traffic noise from the public car park and occasional voices. Both of these noise sources are of the same character as the existing traffic using Lakeside Drive and the public car park and noise from informal active play amongst the trees and on the waterfront. These two primary components of the activity noise will therefore blend with the ambient (residual) noise of the same character, which is also typically 7 to 9 dB louder. Zipline noise will be locally noticeable in the vicinity of the trees but will be significantly below the permitted daytime noise standard at receiving boundaries and will not add to cumulative noise level.
- [49] During non-peak periods of the year, generally during school terms and not including long weekends, the expected activity intensity will be reduced and the noise generated along with it. In cold or inclement weather little or no activity or noise generation will occur. Similarly, although the application seeks operating hours of 09:00am to 07:00pm all year, in reality during the winter months when it is dark shortly after 05:00pm, activity will be curtailed.
- [50] I therefore consider that the noise generated by the activity will likely scale with the general busyness of the area throughout the year.
- [51] For the reasons above, assessed as a non-complying activity under the OMDP Passive Recreation Zone, it is my opinion that the proposal will generate noise effects that are minor at worst, and often less than minor.
- [52] When assessed under the provisions of PC29 as a restricted discretionary activity within the Open Space Zone, I consider that any adverse noise effects will be acceptable in the receiving environment and will not materially alter or degrade the existing amenity afforded by the ambient environment.

- [53] I consider that the noise level and character will not be unreasonable in terms of s16 of the RMA. I consider that the proposed conditions related to noise are consistent with the applicant's obligations under s17 of the Act.

Response to Submissions

- [54] I have reviewed the public submissions on the application. A small number of these submissions make generalised comments around amenity or busyness that could be interpreted as including noise or activities that generate noise.
- [55] No matters were raised that are not addressed in the assessment report or in my evidence above.
- [56] One submission (TL and GL) referred to agreeing with comments on noise made by Ms Faulkner in her peer review of the landscape assessment.
- [57] I will address Ms Faulkner's peer review in conjunction with the s42A report below.

Response to s42A Report

- [58] I have reviewed those parts of the s42A report prepared by Mr Boyes that are relevant to noise, along with those portions of Ms Faulkner's landscape assessment peer review in which she discusses noise effects.
- [59] Ms Faulkner comments on noise matters in section C, paragraphs 9 to 10 of her review. She is of the view that the activity noise will have a negative impact on the amenity of the area, particularly beneath the trees. Ms Faulkner considers the predicted (complying) noise level and character will impact the 'existing informal and calm amenity of the site.' She describes the area under the trees as natural and quiet in character.
- [60] This view is in contrast to the measured noise levels I discuss above and the field observations of my colleague Mr Gaviria, who describes a dynamic environment dominated by traffic noise, but including informal play, voices and motorised water sports. My own personal experience in

the area during the summer accords with Mr Gaviria's notes and measurements.

- [61] As I discuss above (paras 39 to 40), during non-peak and off-peak periods, the activity noise will reduce, in keeping with the general busyness of the environment.
- [62] I note that at Page 18 of the s95 notification report, Ms Royce, while discussing Ms Faulkner's review, acknowledges that there is an existing playground in the area that Council is upgrading. Play, and its associated noise in the area, is therefore not unexpected and the site is also adjacent to a boat ramp.
- [63] I agree with Mr Boyes' discussion in paras 122 to 126 of the s42A report, and in particular his opinion that the proposed conditions related to noise are sufficient to avoid, remedy or mitigate noise from the activity.
- [64] I agree with Mr Boyes' paras 126 and 181 that a minor amendment is required to the proposed noise limits in the condition to ensure consistency with the PC29 noise limits. I will address this below.

Condition Amendment

- [65] To clarify the proposed noise limit applying to the activity, the relevant condition should read:
- (a) Following the commencement of the activity, noise levels shall not exceed the following noise levels at any point within the boundary of another site:
- (i) 50 dB $L_{Aeq(15\text{ min})}$ between 0700 and 2200.
- (ii) 40 dB $L_{Aeq(15\text{ min})}$ between 2200 and 0700.
- (iii) 70 dB L_{AFmax} at any time.

Noise shall be measured in accordance with NZS 6801:2008 *Acoustics – Measurement of Environmental Sound* and assessed in accordance with NZS 6802:2008 *Acoustics – Environmental Noise*.

Dated: 13 August 2025

Rob Lachlan Hay