Before the Independent Hearing Commissioners
appointed by New Plymouth District Council

Under	the Resource Management Act 1991
In the matter of	hearing on the resource consent application by the New Plymouth Pistol Club Inc for a land use resource consent for the use of a gun range and associated facilities within the General Industrial Zone on the existing site at 228 De Havilland Drive & 1206 Devon Road (LUC24-48583)

Joint Statement of Noise Experts

Date: 18 May 2026

INTRODUCTION

1 This joint witness statement relates to expert conferencing on the topic of noise. The expert conferencing was held in person on Monday 18 May 2025.

2 Attendees at the conference were:

- Jeremy Trevathan (New Plymouth Pistol Club Inc); and
- Damian Ellerton (New Plymouth District Council).

CODE OF CONDUCT

3 This joint statement is prepared in accordance with section 9.4 of the Environment Court Practice Note 2023. We confirm that we have read the Environment Court Practice Note 2023 and agree to abide by it.

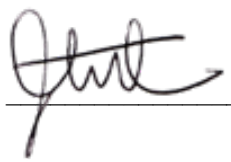
PURPOSE AND SCOPE OF CONFERENCING

4 The purpose of conferencing was to discuss the questions provided in Directions / Panel Minute 2, record our responses and highlight points of agreement and disagreement.

5 All attendees reviewed the noise evidence filed in relation to this proceeding.

6 Annexure A records our responses to each question, and notes agreement or any reservations.

Date: 18 May 2026



Jeremy Trevathan

Damian Ellerton

Iss #	Issue	Ellerton response	Trevathan response	Agree in whole or in part?	Agreed wording/position
1	Is CNR an appropriate compliance metric for shooting noise at the notional boundary of the dwellings at 1222 Devon Road? If yes, will CNR 90 (as proposed) result in an acceptable level of amenity at those dwellings? If not, identify the alternative metric(s) and/or limit(s), and explain why.	Yes, CNR 90 is appropriate at notional boundary of 1222 Devon Rd and FUZ. Other metric could be considered – Mm006.	Yes, if implemented along with the proposed physical mitigation and restrictions in hours of shooting. Yes, this will ensure an acceptable level of amenity that those dwellings.	Y	-
2	Explain how CNR 90 translates in practice to the expected shooting noise levels at 1222 Devon Road, e.g., typical or upper LZpeak and/or LAFmax, and comment on whether CNR 90 can equate to a simple "≈ LAFmax X dB" statement.	CNR "allows" a variety of firearms to occur. Depending on their "loudness" the calculation means if you're firearm is "quiet" you can discharge this many more times than a "loud" firearm. A worked example of this can be found in Mm003.1 – Table 1 and page 4. An analogy of this is the Cuisenaire rods used to teach counting – if the total is 90 and	The major drivers of CNR are the average noise level of shots, and the number of shots in a day. So, CNR 90 does not guarantee any particular noise level of shots. However, for every 10 dB increase in the average noise level of shots, the number of permissible shots decreases by an order of magnitude. The physical mitigation does directly impact the shooting noise levels.	Y	-

Iss #	Issue	Ellerton response	Trevathan response	Agree in whole or in part?	Agreed wording/position
		each colour represents 50 rounds of a different firearm then the variation of firearms used to total 90 can be small or large. A CNR ~ Lmax proxy ***may*** work if a singular firearm and ammunition type was used I,e, commercial shotgun range when number of rounds can be controlled accurately. Because of the variety of firearms used on the application site and variability of rounds discharged the proxy relationship would not hold in this case.			
3	The CNR equation (CNR = (Y – 13) + 10 log10 N + 10 log10 T – 12) depends on Y=sound level, N=number of shots, T=time period. Confirm the definition of Y, N and T. For example, is Y the log-average LZpeak	For compliance I consider Y= the log-average LZpeak level for all shots over the day. N= number of shots T= the proportion of days per annum that shooting occurs	Y was simply defined as "*value of the impulsive noise*" in the 1977 CNR formulation. When implemented in New Zealand, it has commonly been defined as "*the log-average LZpeak level for all shots over the day*". I am now satisfied that that definition is	Y	Y= *the log-average LZpeak level for all shots over the day* ***N=*** is the number of shots over the day

Iss #	Issue	Ellerton response	Trevathan response	Agree in whole or in part?	Agreed wording/position
	level for all shots over the day or the log-average LZpeak level of the 25 loudest shots occurring that day? Is T the proportion of days per annum that shooting occurs or is it the proportion of the 7am–10pm daytime period represented by the time between the first and last shot fired on the day. The experts are to propose clear condition ready wording for Y, N and T.	(set at 0.712 for instance if firearms discharged 5 days a week. Because consent is sought for Monday to Sunday it would be (7/7 = 1) and term =0 What it is not is a proportion of minutes during a single day which could result in unintended consequence .	acceptable in this case. While counting and quantifying quiet shots is an added administrative burden, if they are included in both 'Y' and 'N', the CNR remains unaffected. N is the number of shots over the day. If quiet shots are included in 'Y', they must also be included in 'N'. T was simply referred to as proportion of days per month or year the range was used in the 1977 CNR formulation. In New Zealand it has been defined as "proportion of days per year that shooting occurs", "proportion of days per week that firearms are discharged" and "proportion of hours shooting occurs over day". The difficulties with the longer averages are that, depending on exact definition, knowledge of what has or will occur on many other days is required to		T= *proportion of the permitted shooting period represented by the time between the first and last shot fired on the day.* *Example 1, first shot 9.01am and last 12.01pm is 3 hours of use and 10xLog(3/12)= -6* *Example 2 first shot 9.01 and last shot 4.59pm on Sunday is 8 hours of use and 10xLog(8/8)=0*

Iss #	Issue	Ellerton response	Trevathan response	Agree in whole or in part?	Agreed wording/position
			calculate the CNR for a particular day. There is also no incentive to limit shooting hours on any given day, but there is an incentive to 'take advantage of' any days of no shooting. For those reasons I prefer the definition *"proportion of the 7am–10pm daytime period represented by the time between the first and last shot fired on the day*". Or, if T was to relate to activity over a week, then perhaps "*proportion of the proceeding 6 days that firearms have been discharged*". However, either way this variable only has a minor impact on the CNR calculation.		
4	Confirm how Y, N and T will be determined reliably on the day, and what method(s) will be used to ensure proactive daily compliance with CNR 90, i.e., how exceedances are	Real time monitoring AND calculation is positive. Start with T=0 unless technical non compliance and consider proportion of the day that shooting has occurred and recalculate.	The LZpeak of every shot will be automatically logged by the proposed noise monitoring terminal, enabling a running total of Y and N to be generated, and for the timing of the first and last shot to be determined (to determine T). If some quieter	P	

Iss #	Issue	Ellerton response	Trevathan response	Agree in whole or in part?	Agreed wording/position
	prevented rather than identified after the fact.		shots are not detected as they are below the traffic noise levels, as above this will have negligible effect on the accuracy of the calculation. With regard to being proactive about compliance - for days involving scheduled use, the Club will be able to determine the expected CNR in advance, based on the schedule and catalogue of firearms and their noise levels. For days involving casual use, the person in charge of noise management will monitor the general level of activity (number of people in attendance) and the running total of N, to ensure the number of shots is tracking below the threshold identified in the Noise Management Plan (currently expected to be 2,700). The evidence of Mr O'Sullivan is that typical casual use for		

Iss #	Issue	Ellerton response	Trevathan response	Agree in whole or in part?	Agreed wording/position
			calibres above 0.22 is a few hundred shots - so a day which began tracking abnormally will be readily identified.		
5	Should the conditions provide for different controls by day type (e.g., weekday vs weekend, or "quiet days" vs "busy days") to provide predictable respite? If yes, propose a practicable approach (metrics/limits/hours). If not, explain why such differentiation is not necessary or not workable.	Perhaps, and should be considered in conjunction with submitter opinion and in particular Mr Philips as an existing residential use. The hours sought are very broad which is assumed to allow flexibility for the site to be used as members decide. It may be prudent to consider reduced hours and members would need to adapt as they presumably have over the previous number of months I understand Club night allows members to attend after work – but I am not sure this necessary 7 days per week?	Reduced hours are proposed on Saturdays (with quiet hours between 1700 and 2100 hours), and on Sundays (no shooting after 1700 hours), with quiet hours from 1200 to 1500 hours on weekdays. In the context of the ambient noise environment, expected LAFmax levels with mitigation, and CNR controls, no other controls are necessary to ensure an acceptable level of amenity is maintained	P	The applicants position is they have offered to reintroduce periods through the week of "quiet hours" to minimise noise as well as shorter Sunday hours. We both consider it would be helpful to get Mr Philips' opinion on what days and times are most sensitive for him and whether this aligns with the applicants proposed quiet hours.

Iss #	Issue	Ellerton response	Trevathan response	Agree in whole or in part?	Agreed wording/position
		Similarly, is it necessary to allow use of the site from 9am 7 days per week? A reduction of hours may provide guaranteed respite for Mr Philips and FUZ.			
6	Explain how sensitive CNR is to: firearm/ammunition selection, e.g., louder vs quieter firearms, and the "mix" of firearms over the day - including the potential for compliance to be influenced by many quieter shots.	Note Mm003.1 as above. The CNR does respond to "quieter" firearms if the number of rounds fired is high and that contribution could be as much as less rounds fired of a "noisier" firearm.	I have examined the sensitivity of CNR further, and provided all shots (quiet or loud) are included in both 'Y' and 'N', the CNR is relatively insensitive to quieter shots, and is primarily controlled by the level and number of louder shots.	Y	-
7	Identify the physical mitigation and operational/management measures assumed, and state whether they are likely to improve the existing situation at 1222 Devon Road and why. Identify any additional measures considered necessary, e.g., reduced	Regarding the staged implementation of physical mitigation - I understand the applicant is preparing a revised set of conditions and noise management plan to enhance this.	Physical mitigation as described in my paragraph 45 and section 1.0 (page 3) of 6/12/24 report: - A series of containers in locations around Ranges 1, 4, 5 and 7. - Acoustic fencing to be installed in locations around Ranges 1, 2, 3, 4 and 7.	P	DE – having received the proposed change to conditions after this document was drafted the reference to Lmax is confusing as a proxy compliance metric while also referencing CNR and perhaps 44(a) is surplus. .

Iss #	Issue	Ellerton response	Trevathan response	Agree in whole or in part?	Agreed wording/position
	hours, quiet periods, staged limitations on range use as physical mitigation measures are implemented.		- A new two storey club building, blocking line of site to 1222 Devon Road, including absorption products to be installed in key shooting bays. These measures generally increase barriers to 7 metres or more in height, compared to the existing situation where for some shooting locations there is no acoustically meaningful screening. Managerial measures as described in my paragraph 16 and 17: - CNR 90 limit - Defined shooting hours and quiet hours - A Noise Management Plan These measures are certain to improve the existing situation at 1222 Devon Road. The physical		

Iss #	Issue	Ellerton response	Trevathan response	Agree in whole or in part?	Agreed wording/position
			mitigation will reduce LAFmax levels from the current high levels. The management measures will limit shooting intensity and provide certainty as to when shooting may be expected. No additional measures are considered necessary. The latest updated Conditions (REV1A) provide further developed thinking on the staged implementation of physical mitigation. A key proposed limitation is that ranges which have not been upgraded will only be used for 0.22 calibre rimfire shooting, which will ensure noise levels do not exceed 65 dB LAFmax from the outset.		
8	Provide the expected LAFmax and/or LZpeak at the notional boundary of the 1222 Devon Road dwellings once mitigation	Mm003.1 provides some data. In hindsight it may have been clearer for the predicted degree of mitigation to have been	As per table 3.1 of my 6 December 2024 report:	Y	-

Iss #	Issue	Ellerton response	Trevathan response	Agree in whole or in part?	Agreed wording/position
	and controls are implemented, and compare that to the existing situation.	calculated using L_{peak} parameter so as to be readily transferable to a calculation pf CNR at 1222 Devon Rd and FUZ.	Table 3.1 – Expected Shooting Noise Levels received at the notional boundary of the secondary dwelling at 1222 Devon Road Range / Noise levels without mitigation (dB L_{AFmax}) / Noise levels with mitigation (dB L_{AFmax}) Range 1: 75 / 67 Range 2: 80 / 64 Range 3: 74 / 63 Range 4: 77 / 63 Range 5: 74 / 64 Range 6 – northern shooting positions: 72 / 62 Range 6 – central shooting positions: 74 / 61 Range 6 – southern shooting positions: 73 / 64 Range 7: 72 / 65		
9	If future dwellings are established within the FUZ, what noise effects are likely if shooting noise is approximately 70 dB LAFmax at the notional	The absence of any FUZ development design makes knowing this very difficult for four reasons: 1. Proximity to SH3 will likely require some mitigation	Shooting noise levels of up to approximately 70 dB LAFmax would only be experienced in locations where traffic noise levels are approximately 67 dB LAeq. Some quieter shots will not be heard over the road traffic	Y from each perspect ive	

Iss #	Issue	Ellerton response	Trevathan response	Agree in whole or in part?	Agreed wording/position
	boundaries? Explain how those effects differ from (and interact with) road-traffic noise.	either in the design of buildings and/or use of noise berm/fence on boundary. 2. Whether there are geotechnical or other development constraints is not known at this point in time. 3. The proposed noise mitigation effect toward FUZ is not currently known. 4. The character of firearm noise is completely different to road traffic noise and would be clearly audible.	noise, or will only be heard when a listener is actively listening. Other shots will be readily audible. The primary potential effect of both shooting noise and traffic noise in this context is annoyance. However, as the traffic noise is continuous it will have other direct effects such as making speech difficult outdoors at all times, elimination of potential for quiet enjoyment outdoors at all times and indoors sometimes, and sleep disturbance. In this context, any additional annoyance effect due to the shooting noise is expected to be minor. If mitigation is implemented to reduce traffic noise effects, or dwellings are constructed further away, both traffic noise and		

Iss #	Issue	Ellerton response	Trevathan response	Agree in whole or in part?	Agreed wording/position
			shooting noise effects will be reduced.		
10	Does the pistol club activity (even if compliant with the proposed controls) risk constraining future residential development within the FUZ or creating reverse sensitivity over time?	Unlikely, if proposed CNR 90 is achieved within boundary of likely site development.	Traffic noise is experienced within the FUZ at levels higher than WHO Guidance, persisting at elevated levels (over 57 dB LAeq) for distances of over 100 metres from the State Highway. This noise should either rightly constrain future residential development in this area, or be addressed in the layout and design of any future residential. In both scenarios, any additional constraint, mitigation or risk due to the presence of the shooting noise is expected to be minimal.	Y	-