

**Before the Hearings Panel
At Palmerston North City Council**

Under Schedule 1 of the Resource Management Act 1991

In the matter of Plan Change E for the Roxburgh Crescent Residential Area

**Statement of evidence of Sean Louis Syman on behalf of Palmerston North
City Council (Noise)**

Date: 9 April 2025

QUALIFICATIONS AND EXPERIENCE

- 1 My full name is Sean Louis Syman.
- 2 I am an Associate Acoustic Consultant in the Wellington office of SLR Consulting Limited, an environmental consultancy with offices across New Zealand and internationally.
- 3 I hold a Bachelor of Engineering with Honours (Mechanical) from the University of Canterbury, gained in 2014.
- 4 I have worked as a professional consultant in acoustics and vibration for 9 years. I began my current position with SLR Consulting Limited in April 2023. Prior to this, I was employed by Aercoustics Engineering Ltd, an acoustics and vibration consultancy based in Toronto, Canada, for 5 years as a Senior Project Manager and the Residential Acoustics sector lead. I was previously employed from 2015 – 2018 by Marshall Day Acoustics working as an acoustic consultant in Wellington.
- 5 I am a Member of the Acoustical Society of New Zealand.

CODE OF CONDUCT

- 6 I have read the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct in preparing my evidence and will continue to comply with it while giving oral evidence before the Council. My qualifications as an expert are set out above. Except where I state I rely on the evidence of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

INTRODUCTION:

- 7 I have prepared this statement of acoustic evidence on behalf of the Palmerston North City Council (Council) in respect of technical noise related matters arising from the submissions and further submissions on the Proposed Plan Change E (PCE) for the Roxburgh Residential Area (RRA).
- 8 I am authorised to provide this evidence on behalf of the Council.

METHODOLOGY

- 9 I have reviewed and considered the following:
 - Section 32A report for Proposed Plan Change E: Roxburgh Residential Area prepared by Council
 - Noise Assessment prepared by Acousafe dated 18 January 2024
 - Submissions regarding noise issues:
 - S19.0012 - Rosemary Watson
 - S16.012 - Te Ao Turoa Environmental Centre on behalf of Rangitāne o Manawatū (Rangitāne)
 - Further Submissions regarding noise issues:
 - FS 2 - Frances Holding Limited
 - FS 3 - Rosemary Watson
- 10 I attended prehearing consultation meetings held by Council with Rosemary Watson and Rangitāne.
- 11 I attended a site visit with the Council planning team to the proposed Roxburgh Residential Area on 22 January 2025 to review the existing uses and activities in the industrial area and surrounding residential area.
- 12 To assist in determining the existing ambient noise environment of the Roxburgh Industrial Area, I carried out unattended noise monitoring with an Type 1 SVAN 957 sound level meter (serial number 20670) over a 6-day period between 26 February 2024 and 4 March 2024 at the location marked on **Figure 1**.



Figure 1 Noise Monitoring Location

- 13 Field calibration of the sound level meter was undertaken before and after measurements with a Bruel & Kjaer 4230 calibrator (Serial no.: 2412472) with no significant drift in calibration observed.
- 14 Weather conditions at times on 26 February and 4 March exceeded the precipitation levels suitable for noise measurement per NZS 6801:2008: *Measurement of Sound*. Noise measurement data has been discarded for these periods.

- 15 The results of the ambient noise monitoring undertaken between 26 February 2024 and 4 March 2024 are displayed in Table 1 and graphically in Appendix 1 of this report.

Table 1 Noise Monitoring Results (26 Feb – 4 March)

Time Period		L _{aeq} (15 min) (dB)		L _{max} (dB)	
		Average	Range	Average	Range
Weekday	Daytime 7:00am – 7:00pm	53	40 - 65	N/A	N/A
	Evening 7:00pm – 10:00pm	41	31 - 62	N/A	N/A
	Night-time 7:00pm – 7:00am	39	24 - 63	57	33 - 85
Weekend	Daytime 7:00am – 7:00pm	45	34 - 64	N/A	N/A
	Evening 7:00pm – 10:00pm	39	32 - 55	N/A	N/A
	Night-time 7:00pm – 7:00am	37	27 - 54	55	38 - 79

FINDINGS

Acousafe Noise Assessment

- 16 I agree with the findings and recommendations of the Acousafe Noise Assessment.

Submissions S19.0012 and FS 3

- 17 I do not support submission points S19.0012 and FS 3 with regards to noise.
- 18 In the submission, relief is sought for specific inclusion into PCE for controls of construction noise in the Residential Roxburgh Area. I consider that the District Plan already provides adequate and appropriate protection for residential activities through R6.2.6.2.g:

Sounds generated by construction, maintenance and demolition activities, and, additionally, sounds generated by soil conservation and river control works carried out or supervised by the Manawatu-Wanganui Regional Council in the Flood Protection Zone, shall be assessed, predicted, measured, managed and controlled by reference to NZS6803:1999 Acoustics – Construction Noise.

- 19 Per the District Plan Rules, construction activities must comply with the noise limits within Table 2 and Table 3 of NZS6803:1999 Acoustics – Construction Noise. A construction noise assessment and/or

management plan is typically required to support a resource consent application to demonstrate how compliance is to be achieved with NZS6803:1991 and noise effects are to be managed.

- 20 In further submission FS 3, Mrs. Watson opposes the submission S16.012 from Rangitāne regarding proposed noise mitigation controls and policies. Mrs. Watson supports reasonable measures to protect people living near loud sources, however states that in the RRA noise may be generated by industrial activities with existing use rights and noise mitigation controls should not disadvantage those businesses. Mrs. Watson draws attention to noise related to site construction and suggests that existing residents should also be included in any proposed noise mitigation standards.
- 21 I consider the existing residents are sufficiently protected from industrial activity noise by the existing noise rules within the District Plan, specifically R12.8.1(a) which limits the amount of noise from an industrial site as measured within a residential site, and from construction noise through R6.2.6.2.g as above.

Submission S16.012

- 22 Submission S16.012 from Rangitāne draws attention to potential noise issues that may arise from the period when new residential activities are being established within the Roxburgh Residential Area in close proximity to industrial uses with existing use rights. The submission draws attention to advice from the Acousafe Noise Assessment identifying that noise insulation and ventilation for new dwellings may need to be considered if the RRA is to be developed on a “piecemeal” basis, with existing industrial uses alongside new residential uses.
- 23 I note that the Acousafe Report also identifies that further investigation of the noise emissions in the area is recommended to determine whether the noise effects from existing industrial activities on new residential developments would require control through noise insulation and ventilation, and that such noise monitoring would assist in determining the existing use rights of the established industrial activities in the area.
- 24 In their submission, Rangitāne proposes the following policies and matters of discretion;

- a new policy is inserted in Section 10 under proposed new objective 16, that addresses the need to manage the noise effects from existing and lawfully established industrial activities on new residential dwellings within the plan change area, for example through orientation of buildings, internal insulation and mechanical ventilation etc,
- a performance standard requiring assessment and consideration of the need for noise mitigation measures within new dwellings is inserted in Rule R10.6.1.8, and
- the noise effects from existing and lawfully established industrial activities is inserted as a matter of discretion in Rule R10.6.3.3(j).

25 I discuss the above in more detail in paragraphs 29 - 33.

Submission FS 2

26 In their further submission, Frances Holding Limited responds to S19.0012 from Ms. Watson in which it is sought to apply additional noise standards for construction noise standards to PCE. Frances Holding Limited is opposed to S19.0012 as construction noise standards are typically imposed as a consent condition at the time of subdivision consent.

27 I agree that the District Plan already applies appropriate construction noise standards as conditions of consent for subdivision consent and for other resource consent applications that involve construction, earthworks and demolition activities.

28 I do not recommend any change to the proposed noise provisions as a result of this provision.

DISCUSSION

Submission S16.012

29 I consider that as the area transitions from an industrial area to residential area, the existing use rights of the legally established industrial activities

should permit these businesses to maintain the noise emission rules for the industrial to residential zone. Given that these noise emission limits are 10 dB higher during daytime hours and 5 dB higher during evening and night-time hours than what would be typically expected from a residential to residential zone boundary, I agree that it is appropriate to consider noise effects on new dwellings from existing and lawfully established industrial activities as a matter of discretion.

- 30 With regards to noise emissions, the existing use rights of existing industrial business premises should apply to the scale or intensity of activity at the time of the plan change. I consider that any change of operations at existing industrial uses that increases the scale or intensity of activity should require a consent.
- 31 Ambient noise monitoring results as shown in Table 1 and Appendix A indicate that the existing noise levels within the area at the time of monitoring generally meet the noise limits for industrial activities as received in residential zoned land, from R12.8.1:

R12.8.1 Noise

- (a) *Noise from any activity shall not exceed the following limits at any point within any residential, institutional, fringe business or rural zoned land:*

7:00am – 7:00pm 55 dB LAeq (15 mins)

7:00pm – 10:00pm 50 dB LAeq (15 mins)

10:00pm – 7:00am 45 dB LAeq (15 mins)

Night-time Lmax 10:00pm – 7:00am 75 dBA Lmax

- 32 Some exceedances of these noise limits can be seen, but we expect these are generally from local traffic movements on Roxburgh Crescent (which are not subject to the noise limits). It is noted that noisy activity appears to begin within the local area at around 6:00am, still within the night-time assessment period. This may likely be due to vehicle movements to and from businesses on Roxburgh Crescent used as site offices and storage facilities. However, the noise levels measured are generally at an acceptable range for residential activities to be established within the area without the need for specific building design or mitigation. With a reasonable assumption of a 15 dB inside-to-outside

noise reduction with windows ajar, residential dwellings could expect a worst case indoor noise level of 40 dBA daytime, and 30 dBA nighttime, which are acceptable internal noise levels per AS/NZ2107:2016 – Acoustics - Recommended design sound levels and reverberation times for building interiors .

- 33 I therefore do not agree with the submission that any policy or standards requiring noise mitigation for new dwellings should be implemented in the RRA, and recommend that no change be made to the proposed provisions.

CONCLUSION AND RECOMMENDATIONS

Acousafe Noise Assessment

- 34 I agree with the Acousafe Report that existing lawfully established industrial uses should be able to continue to operate. The existing use rights of existing industrial uses should apply to the scale and intensity of activity at the time of the plan change, and any increase to the scale and intensity of the activity should require a consent. I consider that noise from existing lawfully established industrial uses should be considered as a matter of discretion for where a new residential dwelling is proposed next to an existing lawfully established industrial use. The matters of discretion should include internal and external noise levels.

S19.0012 and FS 3

- 35 I do not support Ms. Watson's submission to include specific Construction Noise standards within PCE, as the District Plan already provides adequate controls for construction noise through existing noise rules.

FS 2 Frances Holding Limited

- 36 I support the submission from Francis Holding Limited regarding construction noise, as the as the District Plan already provides adequate controls for construction noise through existing noise rules.

S16.012 – Rangitāne

37 I do not support the submission from Rangitāne to include noise insulation and ventilation controls to protect new residential dwellings from reverse sensitivity effects from existing industrial uses with existing use rights within the RRA. This is as noise monitoring has shown the existing noise environment is within an acceptable range where additional controls will not be required to provide suitable external and internal noise levels for new dwellings.

38 I consider that noise from existing lawfully established industrial uses should be considered as a matter of discretion for where a new residential dwelling is proposed next to an existing lawfully established industrial use. The matters of discretion should include internal and external noise levels.

Date: 9/05/2024



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APPENDIX A – NOISE MONITORING 26 FEB – 4 MAR

Logger results, logger step = 15 m, pixels per sample = 3

