

BEFORE AN EXPERT CONSENTING PANEL

IN THE MATTER of the Fast-track Approvals Act 2024 (the **FTAA**)

AND

IN THE MATTER of Ashbourne (FTAA-2507-1087)

**STATEMENT OF EVIDENCE OF NEIL GEORGE SAVORY ON BEHALF OF THE
MATAMATA-PIAKO DISTRICT COUNCIL**

NOISE ASSESSMENT – PEER REVIEW

Dated: 11 November 2025

1. SUMMARY OF EVIDENCE

1.1 I have peer reviewed the noise assessments made by the applicant and I am in general agreement with the findings.

1.2 I make the following recommendations:

(a) Resource consents should reference current noise standards, not the superseded standards in the Operative District Plan.

(b) Owing to the proximity of the North Solar Farm operation noise predictions to the daytime noise limit at 164 Station Road, I recommend that a post construction operational noise commissioning report be prepared by the applicant.

2. INTRODUCTION

2.1 My name is Neil George Savory. I am an acoustic consultant and hold a Bachelor of Mechanical Engineering with Honours from Auckland University. I have practised as an acoustic engineer/consultant for 37 years. I am the Principal of Savory Acoustics. I am a current member of the Acoustical Society of New Zealand.

2.2 From 1987 to 1994 I worked as an acoustic consultant for Marshall Day Associates. In this time, I prepared environmental impact reports, carried out noise modelling of traffic routes and airports and designed attenuation measures for numerous office buildings. From 1994 to 2022 I worked at NCS Acoustics as an acoustic engineer and became the owner and Managing Director. In this role I was responsible for the design, manufacture and testing of acoustic treatments for several large-scale industrial projects, numerous commercial buildings and many power generating plants. This work involved detailed design calculation and modelling of noise emissions from a variety of noise sources. My current role is Principal Acoustic Consultant at Savory Acoustics.

2.3 I have provided expert evidence in acoustics at Council Hearings.

2.4 In preparing this evidence, I have reviewed:

(a) Construction Noise and Vibration Assessment, Residential Subdivision, 127 Station Road Matamata, by Styles Group 4 June 2025 (footnote 3 in Appendix 1)

- (b) Assessment of Construction and Operational Noise Effects, Ashbourne Solar Farm, Station Road Matamata, by Styles Group 26 May 2025 (footnote 1 in Appendix 1)
- (c) Construction Noise and Vibration Assessment, Ashbourne Retirement Village, Station Road Matamata, by Styles Group 4 June 2025 (footnote 2 in Appendix 1)
- (d) Construction Noise and Vibration Management Plans prepared by Styles Group for the North Solar Farm and South Solar Farm dated 28 May 2025 and the Residential subdivision and Retirement village dated 5 June 2025 (footnotes 4-7 in Appendix 1).

3. CODE OF CONDUCT

- 3.1 Although this matter is not before the Environment Court, I confirm that I have read the Code of Conduct for Expert Witnesses outlined in the Environment Court's Practice Note (2023) and have complied with it in preparing this statement of evidence. If a hearing is held, I also agree to follow the Code when presenting evidence to the Panel.
- 3.2 I confirm that the issues addressed in this brief of evidence are within my area of expertise, except where I state that I rely upon the evidence of other expert witnesses. I also confirm that I have not omitted to consider material facts known to me that might alter or detract from my opinions.

4. EVIDENCE

- 4.1 Please refer to my report in **Appendix 1**, which addresses the following matters:

- (a) Solar farms – operational noise
- (b) Solar farms – construction noise
- (c) Retirement village and Residential Subdivision – construction noise
- (d) Construction noise – cumulative effects

5. CONCLUSION

- 5.1 I am in general agreement with the noise assessment of operational noise and construction noise made by Styles Group. I make the following comments.
- 5.2 The operational noise and construction noise assessments have been carried out to the noise standards in the Operative District Plan (ODP). This is understandable. However, these noise standards have been superseded, thus I recommend that Resource Consents reference the current versions of these standards. The main change is that the L_{A10} descriptor is updated to the L_{Aeq} descriptor. This change may assist with some areas of minor non-compliance.
- 5.3 The operational noise model of the solar farms shows compliance with the ODP. However daytime noise predictions at 164 Station Road indicate compliance is close to the ODP noise rule. No allowance has been included for special audible characteristics in noise predictions. Considering both these points, I recommend that a post construction (of the North Solar Farm) operational noise commissioning report be prepared by the applicant.
- 5.4 I agree that the Construction Noise and Vibration Management Plans represent appropriate management of construction noise, apply 'Best Practical Option' in mitigating construction noise and are in line with industry standards and guidelines.
- 5.5 I agree with the Style Group reply to the question of cumulative construction noise effects.

NEIL GEORGE SAVORY

11 NOVEMBER 2025

APPENDIX 1: NOISE ASSESSMENT PEER REVIEW REPORT



11 November 2025

Marius Rademeyer
c/o Matamata Piako District Council
PO Box 266
Te Aroha 3342

Dear Marius

**Re: Ashbourne Solar Farms, Retirement Village &
Residential Subdivision
Noise Assessment – Peer Review**

1. Introduction

As part of the Ashbourne application for consent under the Fast-track Approvals Act 2024, three noise assessment reports have been prepared by Styles Group for two proposed solar farms¹, a retirement village² and a residential subdivision³. I have been engaged by MPDC to peer review these noise assessment reports and associated documentation. Below are my comments.

2. General

The assessment of operational noise and construction noise has been done to the New Zealand Standards referenced in the current Operative District Plan (ODP). These standards have been superseded and MPDC is in the process of updating the District Plan to reference these updated standards and National Planning Standards. The main difference in these updated standards is a change from a L_{A10} descriptor to a L_{Aeq} descriptor for the rating of environmental noise.

¹ Assessment of Construction and Operational Noise Effects, Ashbourne Solar Farm, Station Road Matamata, by Styles Group 26 May 2025

² Construction Noise and Vibration Assessment, Ashbourne Retirement Village, Station Road Matamata, by Styles Group 4 June 2025

³ Construction Noise and Vibration Assessment, Residential Subdivision, 127 Station Road Matamata, by Styles Group 4 June 2025

It is understandable that the Applicant's noise assessment reports reference the current standards in the ODP, given these are presently in force and there is no date provided for the update to the ODP.

I am advised that the consenting of this proposal is to be done via a Resource Consent. I am advised that Resource Consent conditions override the ODP and future changes to the ODP. Therefore, my recommendation is that all conditions in the Resource Consent should ideally reference the updated standards (NZS6801:2008, NZS6802:2008 and NZS6803:1999).

This will change the L_{A10} descriptor in the proposed resource consent conditions to a L_{AEQ} descriptor. This may assist with areas of minor construction noise exceedances which I address below.

3. Solar Farms – Operational Noise

There are two solar farms proposed to the north and south of Station Road. The noise assessment report¹ outlines noise emissions from two types of plant, MVPS and inverters located around both sites. A noise model has been calculated and noise contours for this plant are attached to the report.

The noise model shows daytime noise levels of L_{A10} 47dB at the worst effected notional boundary of 164 Station Road. The noise rule in the ODP is L_{A10} 50dB at this location.

The noise model shows nighttime noise levels of L_{A10} 36dB at the worst affected notional boundary of 164 Station Road. The noise rule in the ODP is L_{A10} 40dB at this location.

Thus, the noise assessment report is predicting compliance with day and night noise limits in the ODP.

Comments:

There is a discrepancy in the MVPS noise data presented. Table 3 has MVPS at 65dBA at 10m, this equates to L_{WA} 93dB. Table 4 has spectrum L_w data and an overall level of L_{WA} 88dB. I am advised that the L_{WA} 88dB level is correct and this has been used in the noise model.

My calculations of noise emissions at 164 Station Road's notional boundary yields a predicted daytime level of L_{A10} 50dB based on the same input data as detailed in Table 3 in the report¹. This is 3dB higher than in the report but still compliant with the daytime limit.

The change to L_{AEQ} descriptor in the current NZ standards may slightly reduce these predicted levels.

No adjust has been made for Special Audible Characteristics (SAC), in this case tonality. The octave band data supplied in the report is not detailed enough to assess the likelihood of emissions being tonal and triggering a SAC correction at the receiver location. I do not have specific knowledge or measurements of the proposed plant so cannot comment on the likelihood of SAC being triggered. However, some electrical equipment can be tonal. Should SAC be triggered this would be a 5dB penalty – rendering the daytime noise non-compliant and the nighttime noise 1dB non-compliant at 164 Station Road's notional boundary.

Considering the proximity of the predicted level to the noise rule and the risk of SAC being triggered I suggest that the applicant include a post construction operational noise commissioning report. This is to be made at the boundaries/notional boundaries of worst affected sites around the solar farms. Should non-compliance be identified then mitigation such as a suitable designed noise wall(s) could be installed around the offending plant or at the site boundaries as appropriate.

The report¹ identified some noise spill onto vacant land at the north solar farm. I agree that the likelihood of a dwelling being located here is very low. Should the unlikely occur then a noise wall on the boundary would mitigate this noise spill.

4. Construction Noise

There is a degree of commonality between the assessments of construction noise from the three developments. The assessment of the construction noise from the residential and retirement home developments are very similar.

The acoustic assessments recommend a construction noise and vibration monitoring plan (CNVMP) for all three proposals. I agree with this approach as this puts a framework around construction noise process where duration, process, mitigation, hours of operation, monitoring and complaints etc can be managed and communicated with affected parties. These CNVMPs should be 'living' documents and updated through the stages of the construction. Given the proximity of the predicted construction noise to the required limits at some dwellings, noise monitoring should form an important part of the CNVMP. This is mentioned in the Maven Construction Management Plan (section 3.6 and 3.7).

Styles Group have prepared draft CNVMPs for the north solar farm⁴, south solar farm⁵, the residential subdivision⁶ and the retirement village⁷. These plans postdate the acoustic assessment reports, so I have regarded these draft CNVMPs as superseding the construction noise and vibration assessments in these earlier reports.

Comments:

The draft CNVMPs are detailed and thorough and address proposed construction equipment, likely compliance, mitigation and complaint/monitoring processes. The draft CNVMPs provide minimum separation distances for the various equipment/processes for compliance. This provides a practical guide for construction project managers and contractors.

Solar Farms

One of the main differences in the construction of the solar farms is the piling process that is required. The dwelling at 164 Station Road is the site most affected by the piling, where a small noise exceedance of 2dB over the L_{A10} limit of 70dB is predicted. This is a small excess and likely a barely perceptible increase over the limit of L_{A10} 70dB. This approach is in line with the Guideline for interpreting and applying NZS6803:1999⁸. A change to the current construction

⁴ North solar farm CNVMP 28 May 2025

⁵ South solar farm CNVMP 28 May 2025

⁶ Residential subdivision CNVMP 5 June 2025

⁷ Retirement village CNVMP 5 June 2025

⁸ Association of Australian Acoustical Consultants, Guideline for interpreting and applying NZS 6803:1999 Version 1.0

noise standard L_{Aeq} metric may lower the predicted piling noise level, as depending on the source, the L_{A10} metric is typically 0-2dB higher than the L_{Aeq} metric.

Future updates of the CNVMPs could explore alternative piling methods in proximity to dwellings to address the minor exceedance.

Retirement Village and Residential Subdivision

The draft CNVMPs for these two sites are very similar with the same process and plant being proposed and assessed.

The draft CNVMP for the residential development shows a 2-3dB exceedance at a few locations during tree work activities and one location during earthworks. As mentioned above, the change to L_{Aeq} metric in the current standard may lower the predicted noise levels at these locations by 0-2dB, aiding in compliance.

As per the solar farm construction, these minor exceedances are addressed by proposed BPO mitigation, along with CNVMPs being in line with the Guideline for interpreting and applying NZS6803:1999⁴.

Cumulative Effects

Minute 2 of the Expert Panel (13 October 2025)⁹ requested clarification of the cumulative effects of construction. The cumulative effect of noise and vibration has been addressed in section 2.11 of the B&A response¹⁰. This details either, any significant cumulative noise effects to be unlikely owing to the activity separation distances or, where cumulative effects occur, these remain below noise limits owing to separation distance to the receiver. Based on the layout of the sites and the information in draft CNVMPs I agree with this reply.

I trust this report provides the required peer review of the Applicant's Noise Assessments. If you have queries, please contact me.

Yours sincerely

Savory Acoustics Limited



Neil Savory BE(Hons) MASNZ
Principal

⁹ Minute-2-of-the-Expert-Panel-Request-for-Information

¹⁰ Ashbourne-Minute-2_Planning-Memo_Final