

Date	23 February 2026
To	Jon Bright, Project Director – Waitaha Hydro Scheme Westpower Ltd
From	Aaron Staples – Marshall Day Acoustics
Project advice provided for	<i>Waitaha Hydro Scheme</i>
Documents referred to	<i>Waitaha Hydro Scheme Substantive Application Appendix 29: Noise Report¹</i>
Qualifications	<i>Appendix 29: Noise Report</i>
Code of Conduct	<i>Appendix 29: Noise Report</i>
Signature	

1. I have read the statements of Ms Sidley and Mr Head dated 17 Feb 2026.
2. I make the following comments regarding audibility of the proposed 20-tonne excavator required for channel maintenance after large floods during the scheme's operation:
 - (a) A typical 20-tonne excavator produces around 75 dB L_{Aeq} at 10 metres, on average. Beyond this distance, the noise level typically reduces by 6 dB per doubling of distance, e.g. 69 dB L_{Aeq} at 20 metres, 63 dB L_{Aeq} at 40 metres, etc.
 - (b) As noted at Paragraph 2.4 of the Noise Report¹, noise levels within 10 metres of the river were measured to be 65-75 dB L_{Aeq}. This was during relatively low flow conditions. Noise from the river typically reduces by 3 dB per doubling of distance, e.g. 62-72 dB L_{Aeq} at 20 metres, 59-69 dB L_{Aeq} at 40 metres during low flow conditions. River noise is broadband (contains sound across all frequencies), making it ideal for masking other noise.
 - (c) Accordingly, noise from the excavator is likely to be similar to river noise levels within 20-40 metres of the excavator during low flow conditions. During high flow or flood conditions, river noise will be louder than excavator noise. Taking this into consideration, and that the excavator is only anticipated to operate 5-15 days per year, I consider the potential adverse noise effects on recreational users to be negligible.

¹ [Appendix-29-noise-report.pdf](#)