

DRAFT



CONSTRUCTION NOISE MANAGEMENT PLAN for the Waitaha Hydro Scheme

Date: 11 July 2025



DRAFT

Project: **WESTPOWER WAITAHA HYDRO SCHEME**

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Attention:



Report No.: **Rp 002 20240063**

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1 INTRODUCTION

- 1.1 This Construction Noise Management Plan (**CNMP**) is intended to assist in managing the effects of noise during the construction of (**Westpower**)’s run-of-the-river hydro-electric power scheme (**Scheme**) on the Waitaha River, approximately 60 km south of Hokitika¹ on the West Coast of the South Island, New Zealand.
- 1.2 This CNMP will be implemented throughout the construction period. It should be considered a ‘living document’ that will be expanded and updated, as required. It is the primary tool for managing the Scheme’s construction noise effects.

2 BRIEF DESCRIPTION OF CONSTRUCTION WORK

- 2.1 Construction of the Scheme can be considered in 4 key stages:

Table 1: Proposed construction methodology

Stage	Description	Estimated period from start
1	Access road and transmission line from Waitaha Road to Power Station Site. Staging Areas 2 and 3. Bridge across Granite Creek.	1-10 months
2	Tunnels and subsurface structures. Early works at the intake. Construction Staging Area 1 and the access track from the access portal to Construction Staging Area 1. Short access track from access portal at the intake to the river.	7-27 months
3	Remaining water tunnel and desander excavations completed. Construction of the intake channel and weir. Construction of Power Station, switchyard and tailrace. Construction of the remaining section of the transmission line from Westpower’s Waitaha Substation near SH6 to Macgregor Creek. Rebuild of Waitaha Substation.	28-33 months
4	Equipment installation and commissioning in Power Station, switchyard and intake.	32-37 months

Contact Details

- 2.2 Contact details for the relevant personnel are listed in Table 2. The Project Manager is responsible for implementing this CNMP.

Table 2: Contacts

Role	Name	Organisation	Phone	Email
Project Manager	TBC	TBC	TBC	TBC
Engagement	TBC	TBC	TBC	TBC
Acoustic Specialist	Aaron Staples	Marshall Day Acoustics	-	

¹ Measured using local roads and tracks to the Power Station.

3 CRITERIA

3.1 Condition 31 of the Scheme resource consent contains the following construction noise criteria:

Construction noise (excluding blasting and helicopter movements)

Table 3: Recommended upper limits for construction noise received in residential zones and dwellings in rural areas (Table 2 from NZS 6803: 1999)

Time of week	Time period	Long-term duration (dBA)	
		L _{eq}	L _{max}
Weekdays	0630-0730	55	75
	0730-1800	70	85
	1800-2000	65	80
	2000-0630	45	75
Saturdays	0630-0730	45	75
	0730-1800	70	85
	1800-2000	45	75
	2000-0630	45	75
Sundays and public holidays	0630-0730	45	75
	0730-1800	55	85
	1800-2000	45	75
	2000-0630	45	75

3.2 The noise limits apply at 1m outside the façades of occupied dwellings. Noisy activities will generally be scheduled between the hours of 0730 and 1800 Monday to Saturday where practicable.

Therefore, the most relevant noise limit is 70 dB L_{Aeq}.

Blasting

3.3 As required by Condition 32, blasting will be controlled to achieve the following limits set out in Australian Standard AS 2187.2-2006 “*Explosives-Storage and use, Part 2: Use of explosives*” (specifically Appendix J) when measured close to a dwelling:

- A maximum airblast overpressure of 115 dB L_{peak}
The level of 115 dB L_{peak} may be exceeded on up to 5% of the total number of blasts over a period of 12 months. However, the level should not exceed 120 dB L_{peak} at any time.

3.4 Table 4 summarises the relevant blasting noise limits and indicates setback distances for a range of typical construction charge weights to comply.

Table 4: Indicative distances to comply with blasting noise limits at 1m from building façades

Criteria	Noise limit (dB L _{peak})	MIC (charge weight) Setback (m) ²			
		1 kg	3 kg	5 kg	10 kg
Avoidance of startle (BS 5228)	120	70	102	120	152
Avoidance of window cracking (AS 2187)	133	20	29	35	44

² Based on regression analysis from AS 2187-2: 2006, Section J7.2 “Airblast overpressure”

Helicopter Movements

- 3.5 As required by Condition 33, Helicopter movements will be managed such that noise emissions achieve the appropriate recommended noise limits contained in NZS 6807:1994 *"Noise management and land use planning for helicopter landing areas"*.
- 3.6 For dwellings in a rural area, a noise limit of 50 dB L_{dn} at the notional boundary is specified in the Standard.
- 3.7 Helicopters should also be flown in accordance with The Helicopter Association International's 'Fly Neighborly' programme to mitigate noise effects as far as practicable.

4 SPECIFIC NOISE MANAGEMENT FOR BLASTING

- 4.1 Prior to blasting, residents within five kilometres of the proposed blast site will be informed of the activity no less than 48 hours prior to blasting commencing.

5 NIGHT-TIME CONSTRUCTION TRAFFIC

- 5.1 Heavy vehicle traffic on Waitaha Road will be avoided as far as practicable during night-time hours.

6 SPECIFIC NOISE MANAGEMENT FOR HELICOPTER MOVEMENTS

- 6.1 The following noise management measures will be adopted to minimise the effects of noise from helicopter movements:
- All helicopter movements will be flown in accordance with The Helicopter Association International's 'Fly Neighborly' programme
 - Flight sectors will be restricted to avoid residential areas, as far as it is practicable to do so. Helicopters will minimise overflights of dwellings below 500 feet above ground level
 - Movements should generally be restricted to 0700-2100 hours Monday to Friday and 0700-1800 hours on Saturdays as per the District Plan daytime hours. However, occasional helicopter movements during daylight hours on Sundays would be acceptable

7 NOISE MANAGEMENT FOR THE PROTECTION OF RECREATIONAL USERS AND WILDLIFE

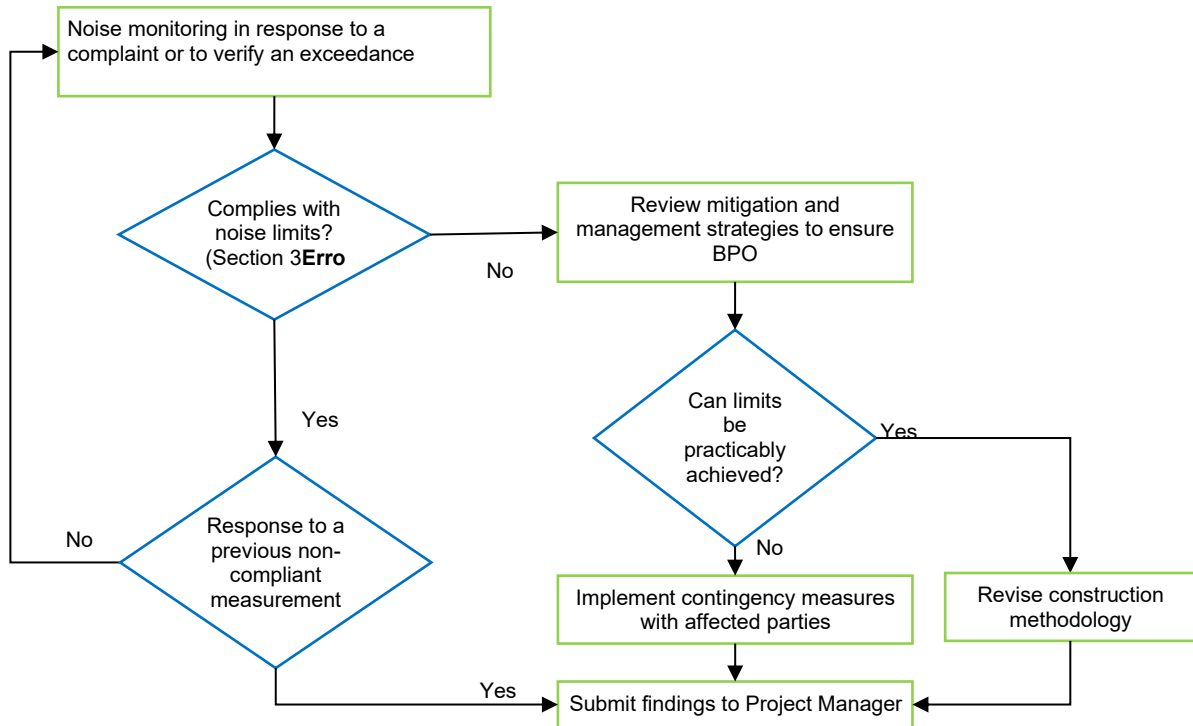
- 7.1 The following noise management measures will be adopted to minimise the effects of construction noise on recreational users and wildlife:
- All sections of walking track within 500 metres of any blasting activity will be temporarily closed during blasting
 - A buffer distance of 500 metres for open air blasting, and 250 metres for piling will be maintained from any livestock

8 NOISE MONITORING

- 8.1 Construction noise will be monitored in response to a reasonable noise complaint (refer to Section 9).
- 8.2 In the event that any noise measurements show non-compliance with the Scheme noise criteria, the following procedures will be implemented. A noise monitoring flowchart is presented in Figure 4.
- Further measurements will be undertaken where necessary, to determine the extent of non-compliance

- A report will be prepared, outlining the non-compliance and, if required, potential mitigation and management measures
- Upon implementation of any additional mitigation measures, further measurements will be undertaken to confirm the effectiveness of those mitigation measures
- The Liaison Officer will liaise with affected receivers and appropriate authorities throughout this process.

Figure 4: Noise Monitoring Flow Chart



9 TRAINING

9.1 All staff will participate in an induction training session before starting work on the construction. The induction will include information on the following aspects of this CNMP:

- Roles and responsibilities for management of Project noise issues (Section 2)
- Noise criteria (Section 3)
- Noise management procedures (Sections 4-7)
- Complaints response procedures (Section 10)

10 COMPLAINT RESPONSE

10.1 Complaints will be acknowledged immediately where practicable and responded to within one day. If a more detailed response is needed, it will be provided within a timeframe agreed with the complainant.

10.2 All construction noise complaints will be recorded in a complaints file that is available to affected parties and Council on request. For each complaint, an investigation will be undertaken as soon as practicable using the following steps:

- Acknowledge receipt of the concern or complaint and record:
 - The name, address and contact details of the complainant (unless they elect not to provide)
 - Time and date the complaint was received and who received it
 - Time and date of the activity that caused the complaint (estimated where not known)
 - The complainant's description of the activity and its resulting effects
 - Any relief sought by the complainant (e.g. scheduling of the activity)
 - Identify the relevant activity and review the activity log to verify the complaint (or otherwise)
- Consider attended noise monitoring
- Review the mitigation and management measures in place to ensure the BPO (Best Practicable Option) has been applied. Review the relief sought by the complainant. Adopt further mitigation and management measures as appropriate.
- Review the potential residual effects if predicted to continue to exceed the relevant performance standards
- Report the findings and recommendations to the Project Manager, implement changes and update this CNMP as appropriate
- Report the outcomes of the investigation to the complainant, identifying where the relief sought by the complainant has been adopted or the reason(s) otherwise.