

File ref: FTAA-2505-1069

12 December 2025

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Tēnā koe

Request for information from Westpower Limited in relation to the Waitaha Hydro application under the Fast-track Approvals Act 2024

The Waitaha Hydro Expert Panel (the Panel) thanks Westpower Limited for its response to further information relating to the Waitaha Hydro application that was received 10 December 2025.

Continuing its review of the Application the Panel has identified further areas where information or clarification is required and has directed the Environmental Protection Authority (EPA) to request further information from you under section 67 of the Fast-track Approvals Act 2024 (the Act).

1. Hydraulic Engineering

The Panel seeks details of the hydraulic analysis undertaken for the structures proposed at the river intake.

While some hydraulic analysis is included in "Appendix-31-downstream-flow-modelling-report", more detail is requested about the flow of water and associated structures through and downstream of the proposed structures.

In particular, hydraulic analysis/design/operating conditions of the following components and more details of the flow as it moves through and downstream of the structure to re-enter the river is requested (flows/velocity/pressure/water levels/hydraulic grade line etc for different intake flow conditions):

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- Main weir
- Sluice
- Environmental flows
- Main intake including screens, intake gates, desander, head gates and tunnel/penstocks

2. Stability and absence of a surge chamber

The proposed scheme does not include a surge facility on the headrace conduit. While inclusion of a bypass valve is noted, please advise what consideration has been given to:

- a) governing stability, especially if the station is periodically required to operate in an islanded grid; and
- b) transient pressure management during normal, unusual and catastrophic load cases.

3. Groundwater inflow to the tunnel

A cumulative groundwater inflow rate of up to 200 l/s is noted in the reports. Please advise:

- a) How was this value estimated?
- b) Is the value for both tunnels?
- c) What testing is proposed within boreholes to confirm initial estimates of inflows?
- d) Is this expected during construction and during operation (i.e., will both tunnels be allowed to continue to drain groundwater during operations?)
- e) Have the associated effects of allowing groundwater drainage been assessed?
- f) What is the anticipated quality of the groundwater, and will it require treatment (noting that construction water is recognized as requiring at least pH adjustment)? :

4. Ramping rates

The Panel requires more information about ramping rates.

- a) Whether Francis turbines have difficulty operating below 40% of design flow?
- b) If so, how these potential operational constraints been factored into the proposed ramping rate regime?
- c) Provide design details for the proposed bypass valve, and further information on its utilisation under operating conditions.

- d) Please provide more detail about the on residual flow regime during abnormal scheme operations including the following:
- i. station shutdown and startup (e.g. before and after routine maintenance);
 - ii. the flood scenario where Waitaha River flows exceed 250 m³/s;
 - iii. days where agreed flows are provided for kayakers; and
 - iv. instances where the Power Station trips (i.e. disconnect).

5. Spoil disposal

Please advise whether the spoil material has been assessed for the potential to generate contaminated groundwater seepage when exposed to rainwater and the atmosphere in the spoil disposal area?

6. Intake construction – temporary gravel bund

Please advise:

- a) Whether the likely permeability of the temporary gravel bund been assessed and the anticipated seepage rates to the construction site been estimated?
- b) How will seepage to the site be managed?
- c) How will the temporary bund stability be maintained through the head of the Gorge to allow the construction of the training wall and weir right abutment?

7. Natural hazards

Granite Creek Crossing

The design indicates an area of cut slope will be required just to the south of the Granite Creek crossing. Please advise:

- a) Whether the design of this cut slope has been assessed and the likely height/slope treatment determined?
- b) Whether the landscape implications have been assessed?

Downstream tunnel rockfall protection works – landscape assessment

Reference is made to downstream tunnel rockfall protection given the slope is susceptible to rock fall/failure. Please advise whether the references on p.51 of the landscape assessment refer to this downstream rockfall protection?

Seismic assessment

While the application mentions seismic risk it is not clear what assessment of that risk has been undertaken. Accordingly, please advise what assessment of seismic risk has been undertaken in respect of the adjacent fault line, and how this has been factored into design?

8. Desander

Please advise whether you are aware of similarly designed desanders having been used successfully in similar conditions for other projects, in New Zealand or other countries?

9. Residual flow state

The Panel is particularly interested in effects during low flows in the Waitaha River. Please advise:

- a) How the residual flow rate of 3.5 m³/s in the abstraction reach will be maintained at less than the 7-day mean annual low flow in the Waitaha River?
- b) When the scheme is operating, are there any circumstances (e.g. power station outages) in which the residual flow downstream of the intake could fall below 3.5 m³/s in the abstraction reach?
- c) Would the inflows from Anson Creek and Glamour Glen in Morgan Gorge (around 0.7 m³/s) ever need to be relied upon to maintain a residual flow in the abstraction reach?

10. Climate change effects

Climate change predictions indicate there will be an increase in the frequency and size of flood flows in the future. What effects are expected during low flows?

11. Flow statistics

Outline the assumptions for, and validation of the synthetic flow data record in the Waitaha River, including uncertainties and limitations related to extending the flow record from 2012 to 2024.

What operational constraints are related to the future use of the Kiwi Flat flow recorder (or other proposed flow monitoring location)?

12. Morgan Gorge effect of constriction

Will the proposal exacerbate ponding/aggradation on Kiwi Flat?

13. Fast Track Amendment Bill

Please advise what implications the Fast Track Amendment Bill will have on the Panel's consideration of this application.

Supply of Information

In accordance with section 67(2) of the Westpower Limited must:

- a) Provide electronic copies of the information or report requested; or
- b) Advise the EPA, with reasons that you decline to provide the information or report requested.

Please provide the further information to the EPA by **16 January 2026**.

If the information requested is not received, the Panel must proceed as if the request for further information has been declined.

Please note, the information will be provided to the Panel, and every person who provided comments on the application. The information will also be made available on the Fast-track website.

If you have any questions, please contact Application Lead, [REDACTED] by email at info@fasttrack.govt.nz

Nāku noa, nā

