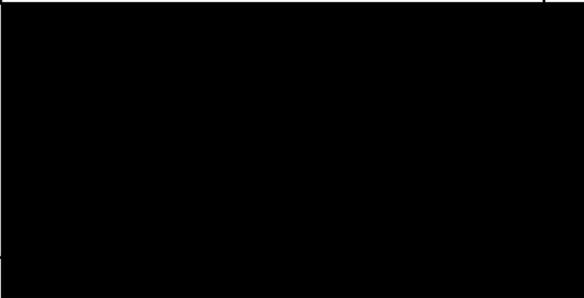


Attachment 10 to Memorandum #7: Statement of Rob Greenaway

Date	21 January 2026
To	Jon Bright, Project Director – Waitaha Hydro Scheme Westpower Ltd
From	Rob Greenaway
Project advice provided for	<i>Waitaha Hydro Scheme</i>
Documents referred to	<i>Waitaha Hydro Scheme Substantive Application Appendix 28 Recreation Report</i>
Experience	Recorded in Appendix 28 Recreation Report
Code of Conduct	Appendix A
Signature	

1. I have reviewed the comments and evidence prepared by the Department of Conservation (DOC) in their appendix Recreation technical report that formed part of their suite of section 51 reports dated 10 December 2025 (**DOC Recreation Report**).
2. I address the material concerns raised as follows:
 - (a) residual significant local effects on the back-country experience; and
 - (b) recommended mitigation.
3. My assessment still stands, and this response aims to further clarify for the Panel some matters addressed in my report given the comments in the DOC Recreation Report.
4. I have also reviewed the comments on the proposal provided by the Department of Conservation (14 January 2026), the West Coast Tai Poutini Conservation Board (no date) and the New Zealand Conservation Authority. My responses below address comments first by the Department of Conservation, which mirrors those of the DOC Recreation Report. Where of value to the Panel, additional matters raised in the other submissions follow.

Residual significant local effect on the backcountry remote experience

5. In respect of temporary and permanent effects on recreation as concluded in paragraphs 6 and 9 of the DOC Recreation Report, I clarify my methodology assessing the effects of recreational opportunities and values which I consider is a more useful framework for the Panel to consider the effects. The core issue considering my and the DOC reports is that we are actually in more agreement than the DOC report author implies – although I disagree with some of the individual DOC findings.

Effect on recreational users including kayakers

6. The DOC Recreation Report appears to have, in its conclusions, missed my distinction between recreation *opportunities* and recreation *values*, but rather uses various ‘Effect Types’ to formulate an analysis.¹ For example, as summarised in my Table 1 (paragraph 4.1), my finding of ‘high’ adverse operational effects relate to recreation *values*, and therefore apply to all recreational visitors to the defined settings, including all white water kayakers.
7. The effects summary table in the DOC Recreation Report (page 5) uses the terms (or ‘Effect Types’) “Loss of Naturalness and visual” or “Visual/Perceptual” (without defining what these are) and “Flow Availability”. The latter is considered in my assessment as a recreation opportunity (the physical ability to undertake an activity). The former – naturalness and visual – are recreation values. The DOC assessment concludes ‘high’ residual effects on “Loss of Naturalness” for kayakers in the “upper Waitaha Gorge and Kiwi Flat reach” (p6), and I find the same level of effect on recreation values for all visitors within the “abstraction reach, Morgan Gorge and Kiwi Flat” (my Table 1).²
8. We differ on our assessments for recreation opportunities for kayakers and effects on recreation values in the catchment above Kiwi Flat.
9. The DOC assessment concludes neutral effects for “Flow Availability” for kayakers who are members of WWNZ, but significant for “international and non WWNZ members” (p6). I find this confusing since the mitigations proposed by Westpower for kayakers in terms of no-take days, weir design and communications are the same for both parties. The no-take days are not

¹ DOC s 51 Recreation Technical Report, para 3.1 and Table 1 and para 4.1: [Appendix-C2-Waitaha-Hydro-Technical-Report-Recreation.pdf](#)

² Nothing beyond one flow monitoring station by Moonbeam Hut is proposed for the Upper Waitaha Gorge.

exclusive to WWNZ members in the proposed conditions. The only difference is the payment of the agreed WWNZ compensation fund. For kayakers who are not members of WWNZ, there is no sensible financial compensation route – although the WWNZ funds are intended to support kayak training and access, which is of benefit to all kayakers. I therefore disagree with the DOC finding of a ‘significant’ adverse effect in this case – which is the only concluded significant effect from the operation of the scheme in the DOC report.

10. Like me, the DOC report author finds that there is a high unavoidable operational effect arising from the scheme. I clarify in my assessment that this effect is at the local level and relating to recreation values only.
11. I discuss Appendix 2 to the DOC report (‘Calculation of loss of recreation value’) later in this response, but note that it relies on a calculated loss of amenity for hikers heading beyond Kiwi Flat to “Moon Beam, Top Waitaha, Ivory Lake, Scamper Torrent Huts” of 5%, noting “Small amount overall reduction carried into other track sections.” This matches my assessment but does not appear to match the body of the DOC report, which concludes ‘moderate’ scale effects for “Trampers (Upstream – Moonbeam Hut, Ivory Lake)” (p6).
12. My opinion remains that the net effect on kayakers at a regional level with mitigation is low. The reasons for that, given the many other, and more easily accessed, whitewater options available, are explained in my Recreation Report, and take into account the agreement between Westpower and WWNZ that the adverse effects on Morgan Gorge kayaking have been effectively mitigated because the Project has retained the opportunity for kayakers within the Morgan Gorge, while reflecting its very low level of use for kayaking.
13. The body of the DOC report does not clarify an assessment of effect at the regional level, but notes that the “Waitaha Valley is recognised as a regionally significant backcountry setting,” (para 24), and I agree. Appendix 2 to the DOC report (‘Calculation of loss of recreation value’) relies on my assessment of low regional-scale effects³, so I assume that here we are in accord.

³ Assumptions include: “The hydro scheme does not reduce the amount of visitation (Greenaway, June 2025, concluded the impact on West Coast recreation will be low).”

Public safety

14. From paragraph 70, the DOC report reviews the potential for impacts on public safety. Four issues are raised, and I respond to each:
15. **Sudden flow changes:** Appendix 31 Downstream Flow Modelling Report reviews the risks of sudden flow changes on recreational visitors to the Waitaha River, and concludes that with the installation of a 10m³/s bypass valve risks are effectively mitigated.⁴ It notes that signs indicating the potential for flow changes in recreation settings below hydro schemes are common in New Zealand and internationally, which is also my experience. Appendix 32 Public River Safety Report considers the safety of people in or near the river. It confirms during normal operation the power station will not affect river safety at all. In respect of sudden flow changes, it mentions that it has the potential to make wading condition difficult or impossible. However, *"the use of a bypass valve removes risk when generation flow is less than 10m³/s, and reduces risk when generations is greater than this. The risk identified is exceedingly small, and warning signage, including at the hot pools, and a warning siren and the power station is recommended"*. I am comfortable the potential safety effects on in-river recreational users are adequately mitigated, because Westpower has proposed conditions to that effect (including the safety plan and adaptive management of the ramping rates).⁵
16. **Weir hazards:** The DOC report notes that I recommend in my report that safe access over the weir is designed in association with WWNZ. This forms part of the Westpower agreement with WWNZ (noting that the proposal is safe portage around and not crossing over) and is provided for in Condition 22(d)(v), Part B Proposed Conditions.⁶
17. **Temporary Construction Phase Risks:** The DOC report concludes that despite recommended safety management that "unavoidable safety risks during construction" will remain. This will clearly not be the case and would contravene basic national work safety requirements. More detail is provided in the construction concession documents (clause 13.9, developed in consultation with DOC, allowing temporary restriction of access to certain

⁴ [Appendix-31-downstream-flow-modelling-report.pdf](#), pg vi: A bypass valve maintains some flow continuity from the power station following load rejection. This reduces the flow deficit downstream, and reduces the flow increase within the bypassed gorge reach. Reducing these rapid flow changes will reduce effects on aquatic fauna and reduce potential safety risks for people on or near the river.

⁵ [Appendix-32-public-river-safety-report.pdf](#), paras 2.1 to 2.6.

⁶ https://www.fasttrack.govt.nz/_data/assets/pdf_file/0016/15631/Westpower-Memorandum-2-Attachment-3.pdf, pg 17.

areas during construction if necessary for health and safety reasons) and in the CEMP⁷ (Appendix 33 to the Application) which requires (at paras 2.5 and 3.3) the contractor to develop a site specific health and safety plan.

18. **Emergency Response Challenges:** This issue is not clear to me. The residual operational risks of the Scheme for recreation are in-river only and managed via flow level management and weir design. With the Scheme in place, the setting remains as remote as it is currently, with the same challenging access – which is a feature of backcountry remote settings. Foot access could be improved by changing the access track standard to something more befitting a less remote setting. I have not encountered a desire to do this. Regardless, helicopter access will remain the basic form of emergency egress from the Valley, and there are no impacts on this option.

Weather stations and lights

19. The DOC assessment considers the effects of weather stations proposed to be located on two tramping huts in the Waitaha Valley. I have not reviewed these in my assessment but consider them very normal elements of a tramping experience. Indeed, NIWA/Earth Sciences NZ has installed a relatively substantial one at Ivory Lake⁸ (photo below) – the most remote part



Ivory Lake weather station. Photo: NIWA

⁸ See: <https://niwa.co.nz/freshwater/snow-and-ice-network/ivory-glacier-compact-weather-station-cws>

of the catchment – which I rate as having nationally significant recreational values for tramping in my assessment (para 2.19(b))) – and I assume with DOC’s permission. I have encountered no information to suggest that this has diminished any backcountry-remote recreation values. I have also never encountered a trumper or kayaker who is not interested in the weather.

20. The location of the weather stations are described in the Application,⁹ and are proposed to be located at the weir, bottom of the Waitaha Gorge, and at Scamper Torrent and Moonbeam Huts.
21. At paragraph 66 the DOC report references the “ongoing effects” of lights on hunters. However, Project Description includes that no lighting is proposed during the operational phase of the Scheme beyond brief non-UV lighting if there is a need to attend the site for maintenance after dark, which may be for an hour or two, two or three times a year.¹⁰

Transmission corridor

22. At paragraph 24 of the DOC Recreation Report the author states:

I also disagree with Mr Greenaway’s assessment that the effect of the single-circuit 66 kV overhead transmission line would be negligible.

23. I do not use the word ‘negligible’ in my report. I state at my paragraph 3.21:

*In the Upper Waitaha Valley, the effect of access road and transmission line (from Macgregor Creek to the Power Station) and the Power Station will delay the experience of entering the backcountry-remote setting of the Waitaha Valley conservation area. Conversely, kayakers exiting the river and walkers returning from Kiwi Flat will exit their remote experience earlier than currently. The Landscape Report indicates that the river in the abstraction reach downstream of Morgan Gorge will retain high natural values. Rerouting the current track alignment will minimise interactions with infrastructure and maintain the scale of effect to a **low to moderate** level.*

24. I have, however, failed to effectively carry this assessment through to my summary Table 1 on my page 21. It would be more appropriate for my

⁹ [Appendix 3 project overview report part1](#), Para 5.18.

¹⁰ [Appendix 3 project overview report part1](#), pg 50: *The only artificial (non-UV) lighting will be at the Power Station/substation and at the intake. These will normally be turned off and only switched on in the unlikely event that someone needs to attend the site for maintenance purposes after dark to check out a problem. The lighting will be designed to maximise the downward light output ratio and avoid any upward light/light scatter. The lighting will likely be turned on for a brief period (an hour or so) maybe two or three times per year, but it’s also possible they might not be used at all in some years depending upon any faults we might experience. Where practicable lighting will be colour rated to 2700k or lower to avoid the emission of blue light.*

definition of the Lower Waitaha River to start at the boundary of the DOC estate at Macgregor Creek rather than at the Power Station for the effects assessment of the operation of the Scheme, where the summary for all operational Scheme infrastructure effects on the backcountry remote experience is 'high' – although in my opinion the effects remain low to moderate for the transmission component leading to the Power Station, as I state above.

Recommended mitigations

25. The DOC Recreation Report (Appendix 2) applies a formula to determine a compensation figure for terrestrial recreation. The DOC report implies that my report recommends a \$25,000 compensation package (in its Appendix 1). This is not correct, and I have not been involved in any financial assessments. I have responded to an oral question by the hearing panel during the Project Overview Conference about what could be achieved by volunteer groups if provided with that package.
26. I note that DOC and I use different estimates for the level of use of the Upper Waitaha Valley for tramping – mine being what I consider a conservative 300 annual trampers and day visitors, with the DOC report relying on 133 annual trampers and visitors. Regardless, while I understand the basis of the DOC financial assessment, I find it generally confusing – with for example a recorded figure of 201 bednights at Kiwi Flat Hut in 2024 and a starting figure of 102 bednights for 2025 in the following table for the cost analysis, relying on an average running back to 2010.
27. I am not familiar with a “Time Valuation Method” and cannot find any relevant academic references online using that exact string of text. I am, however, familiar with the Travel Cost Method, which has been attempted many times in non-market valuations for recreation – but I avoid it since it relies on too many assumptions, and I would not be prepared to defend it in the Environment Court.
28. A key assumption in any Travel Cost Method is the opportunity cost of travel time (not on-site recreation time as used by DOC) as an imputed proxy for the value of the time invested when travelling to a leisure destination. The DOC assessment for its “Time Valuation Method” relies on an opportunity

cost of 100% of the NZ hourly wage at FY24. Amoako-Tuffour and Martinez-Espineira (2008) summarise the problems with this well:¹¹

In practice, most studies estimate time cost as a proportion of the visitor's wage in some way. Cesario and Knetsch (1976) first suggested approximating the opportunity cost (value) of time as some proportion of the wage rate. In relation with this approach, a key question is which proportion of the wage rate should be used as a proxy for the opportunity cost of time. Thirty-three percent has probably been the most often chosen fraction (e. g. Hellerstein, 1993; Englin and Cameron, 1996; Coupal et al., 2001; Bin et al., 2005; Hagerty and Moeltner, 2005). However, lower fractions of the wage rate have also been proposed. For example, Ward and Beal (2000) suggest 0% as appropriate, since individuals travel for leisure and recreation mostly during holidays when they face no loss of income. Parsons et al. (2003) observe that the recreation demand literature has more or less accepted 25% as the lower bound and the full wage as the upper bound, although neither values enjoy full support (Hynes et al., 2004).

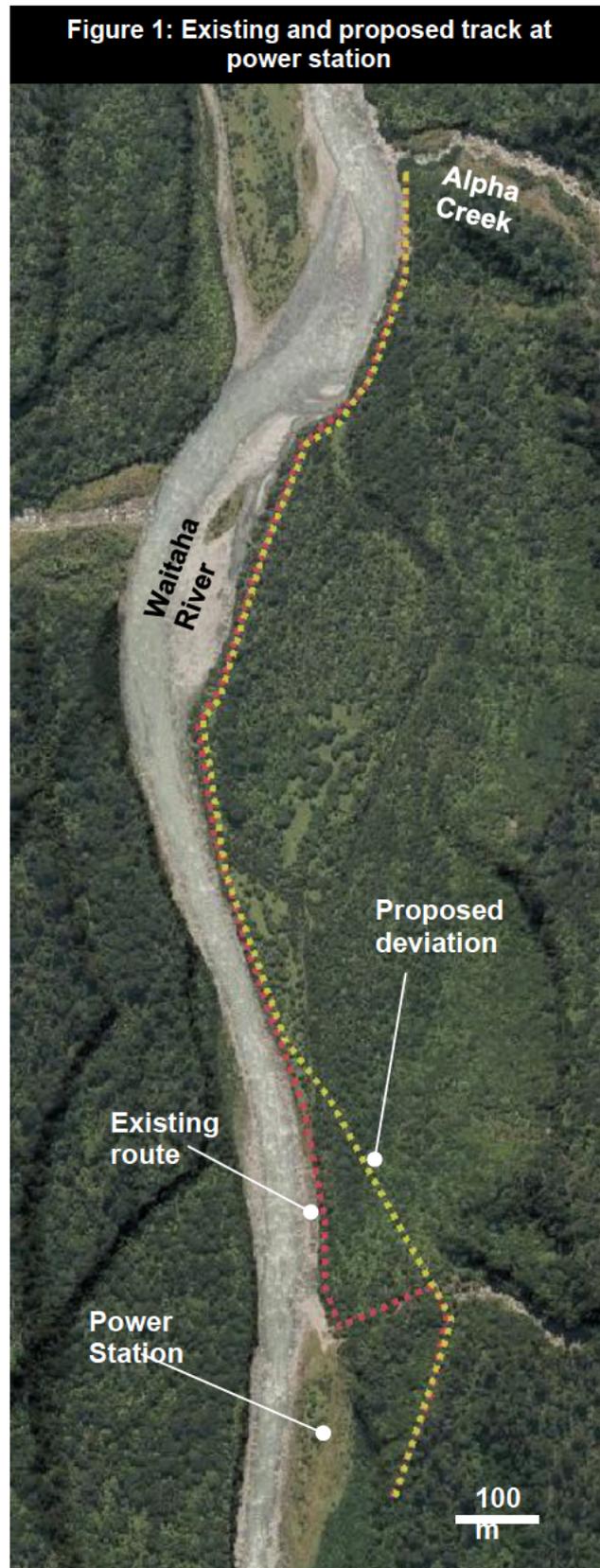
29. Considering this issue (amongst others), a 'time cost method' – which appears to me to be quite novel – carries a high level of uncertainty, and I do not support its application here.

Relocating the access track to minimise views of construction and operational structures

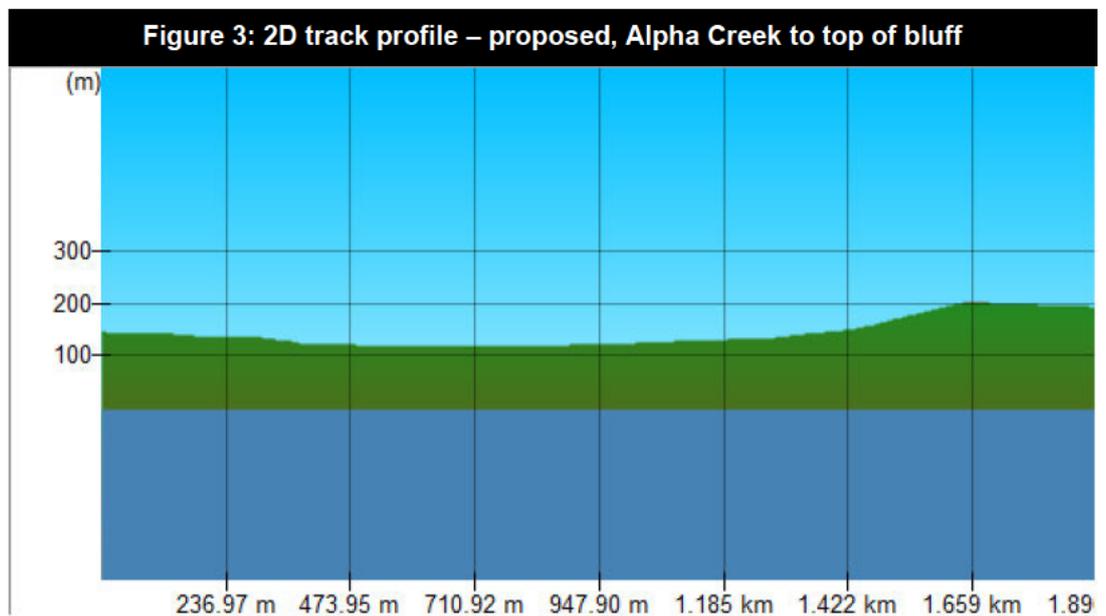
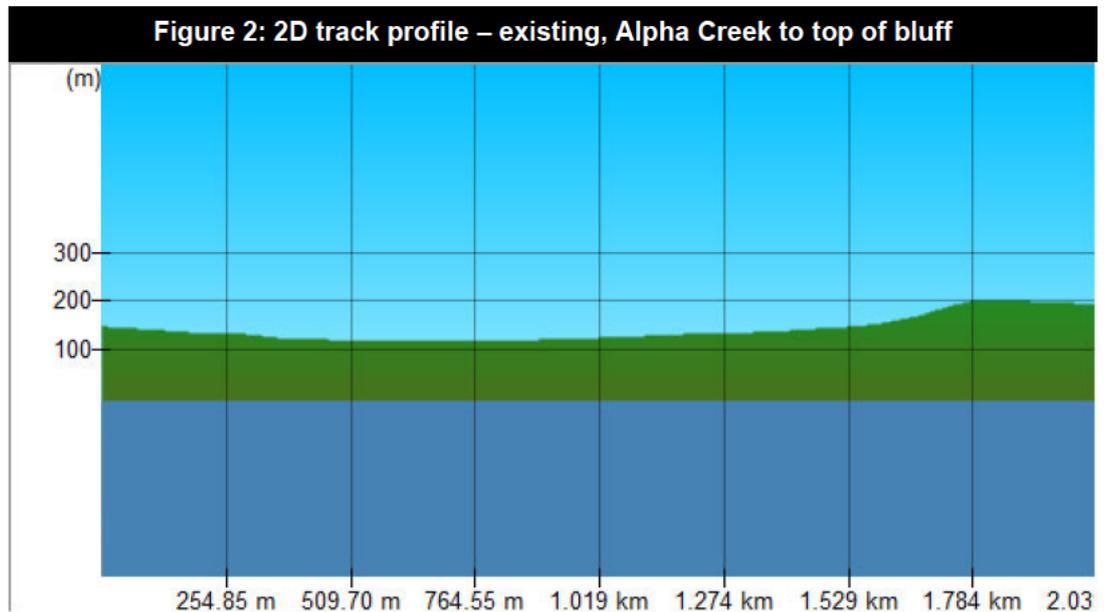
30. In addition to higher compensation, the DOC Recreation Report recommends that Westpower reinstate the track on the true left bank of the Waitaha River because it considers the proposed alternative track (to minimise views of construction) does not effectively reduce exposure to the Power Station site (paragraphs 11 and 47).
31. There appears to be some misunderstanding about the alternative proposed track. The location of the proposed deviation to the access track is shown in Figure 11 of the Boffa Miskell Landscape Assessment (Part A of the Graphic Supplement). I have reproduced this in my Figure 1 below. This shows a

¹¹ Amoako-Tuffour, J. and Martinez-Espineira, R. (2008) (Department of Economics, St Francis Xavier University): Leisure and the Opportunity Cost of Travel Time in Recreation Demand Analysis: A Re-Examination. *In New Economics Papers on Tourism Economics*, May 2008.
With a similar finding by the same authors in the application of the method in: Amoako-Tuffour, J. and Martinez-Espineira, R. (2012) Leisure and the net opportunity cost of travel time in recreation demand analysis: An application to Gros Morne National Park. *In Journal of Applied Economics* Volume XV, Number 1, May 2012

marginal change in total track distance (a reduction of 100m) and no fundamental change in terrain.



32. Figure 2 (existing) and Figure 3 (proposed) compare the altitude profiles of the two track alignments shown in Figure 1. These are virtually identical, which stands to reason considering they rely on the same river-flat to access the same bluff (which I have traversed several times).



33. The proposed alternative alignment will serve to reduce the potential impact of views of the Power Station and has no impact on the total recreation experience or difficulty. Accordingly, I consider the mitigation as proposed by Westpower to be appropriate.
34. Further, the recommendation by the DOC Recreation Report to reinstate and maintain the original track to Kiwi Flat on the true left of the river for the life of would require the construction of an entirely new track (as from walking part

of it I can confirm the old route is well overgrown), with the associated ecological impacts, and the development of a high maintenance bridge (to avoid private land on the true left bank which was used for access until the landowner disallowed it) from which a view of the Power Station is likely (see the figure in the DOC report preceding para 52).

35. I am aware that Permolat has communicated with Westpower that they do not want to see the relocation of the existing bridge above the proposed weir site (I suggested this as an option in my report to avoid the view of the weir). The backcountry remote values of the Upper Waitaha Valley rely on its existing hard-won access and low visitor numbers. Changing access standards will increase patronage and change the experience of visiting the Valley. Changing the experience values of the Valley is not an outcome sought by the CMS.
36. For those reasons, and the nature of the effects of the Project on recreational opportunities and values, my view remains that the alternative track proposed in the Application is a more proportionate response (and better meets the outcomes sought by the CMS).

New Zealand Conservation Authority

37. While the responses above address most matters raised in this submission, a few additional responses relate to the information passed on in this submission on behalf of Federated Mountain Clubs (**FMC**).
38. NZCA says *"it has been advised by [FMC] that there are a number of factual inaccuracies in the Recreation Report – Appendix 28 to the AEE, which we bring to the Panel's attention"*. NZCA doesn't add whether it adopts these views, though possibly it intended to in respect of the updates to my report from 2014, and the inclusion of a reference to a 2014 peer review.
39. The process followed in this report is explained in Appendix C.¹² The peer review of the 2014 report is labelled clearly (in the index and appendix heading as "Attachment 4: Peer Review Statement, 2014"). I do not think it reasonably purports to be a peer review of the 2025 recreation assessment.
40. I respond to the additional matters NZCA was "advised of" as follows:

¹² Appendix C – Scope and approach of Recreation Report.

Foot access and improvements

41. I do not categorise what legal rights apply to the parcels of land.¹³ I assess the existing environment and explain the access of visitors today and why (that is, "*public access was once possible from the road end via the bed and banks of the Waitaha River, but this has washed away and access now relies on the use of private land*" and "*Access was also once possible via Allen Road...*"). I consider my report remains an accurate description of the existing environment.
42. My report addresses the Project as described in the Project Description and Application; "improved foot access" to the Valley is not included or assessed. I remain of the view that the Project does not change the existing access to the Doughboy and Valley (which is not part of, and is unaffected by, the Project), the current access routes remain. There is no effect on recreation around the Doughboy, and the practicality is that existing access is poor. My report does discuss the alternative track to be constructed around the Power Station, also discussed above.
43. To improve access in the Valley, the key issues affect land that is privately owned. I understand Westpower has had past discussions with the landowners which the landowners did not want to continue.

Moving the access track and 'Kiwi Flat' swing bridge

44. I included a recommendation for Westpower to consider of moving the "Morgan Gorge swingbridge to limit or avoid views of the weir" (I assume this is what FMC's advice to the NZCA refers to).¹⁴
45. As I mentioned in the Panel Overview Conference, I continue to see the value in this option as a future method to minimise views of the structures in the river. However, Westpower did not progress this, and it does not form part of this Application. I have not assessed any change in effects of doing so or new effects if moved. This is also addressed above in relation to the comments Westpower received from Permolat.

Attribution of maintenance of huts to Permolat

46. I am aware that Permolat and Backcountry Trust are active in the West Coast; in any event, as below, the report includes references to FMC. A very

¹³ [Waitaha Hydro Westpower - recreation assessment](#), pg 5.

¹⁴ At [5.7], pg 24 and 25.

fulsome history of volunteer track and hut maintenance activities can be found on the Permolat website.¹⁵

FMC as a benefactor of compensation

47. My proposal for compensation options in my technical report included the possible recipients DOC, Permolat, WWNZ, FMC 'or others' (in my summary Table 1). Compensation proposals have been determined by Westpower and FMC is not included in the conditions.

Hut book entries

48. As discussed above, DOC uses a much-reduced figure of 133 annual visitors per year. I consider that a more conservative (higher) figure is appropriate.¹⁶
49. I discuss my rationale for the use of hut book entries in paragraph D.34 of my technical report. While front country hut books are not well-used (and so underrepresent the number of visitors), backcountry hut books are relatively well-used for several reasons, including safety for intrepid recreationalists in remote areas, that visitors are predominately New Zealand domestic users¹⁷ (given tourists less often embark on backcountry experiences), and pride (of the visitor having achieved the destination).

Canyon visitation

50. I considered effects on visitors visiting to canyon, including as they passed through the Scheme to enter Bartrum Creek and Whirling Water. Effects are assessed and incorporated in my report.¹⁸

Summary

51. I have not changed my conclusions having reviewed the DOC Recreation Report and other comments. However, as I state, I could have provided more clarity in my summary Table 1 regarding the effects of the transmission corridor on recreation values in the river section between the Power Station and the northern border of the DOC estate (being **low-moderate** as per my report assessment).

Rob Greenaway

¹⁵ <https://www.remotehuts.co.nz/about-us.html>

¹⁶ [Waitaha Hydro Westpower - recreation assessment](#), pg 12 and 70. Pg 50 also includes the 2014 Peer Review Statement's explanation of use of hut book entries.

¹⁷ 90% domestic visitors for the Kiwi Flat Hut hut book – see paragraph D.38 in my technical report.

¹⁸ Pgs 11 to 13 (and various other references) including the conclusion at pgs 24 and 25.

Appendix A: Code of Conduct

Statement confirming compliance with the Environment Court's Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023

As an expert witness, I have read, and I am familiar with the Environment Court's Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023.

I have prepared my, or provided input into, an assessment of effects for the Waitaha Hydro Scheme in compliance with the Code of Conduct and will continue to comply with it in this Fast-track Approvals Act process. In particular:

- my overriding duty is to assist the decision-maker impartially on matters within my expertise;
- unless I state otherwise, my assessment is within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express; and
- I have not, and will not behave as, an advocate for the Applicants.