

## Before the Fast-track Panel

Under: The Fast-track Approvals Act 2024  
In the matter of: FTAA-2505-1069 WAITAHA HYDRO PROJECT

### Statement of advice

Steven Kerr

Role: provide commercial, economic and financial analytical advice

DOC employee

27 March 2026



Department of  
Conservation  
*Te Papa Atawhai*

**Te Kāwanatanga  
o Aotearoa**  
New Zealand Government

## **Introduction**

1. My full name is Steven Rex Kerr.

### **1. Instruction**

2. I have been requested to provide further expert advice to inform the Department of Conservation's (DOC) comments to the expert panel on draft conditions on approvals for the Waitaha Valley Power Project – Fast-track application. This relates specifically to draft conditions 125 and 126 of the concession (lease-licence) conditions set out as Appendix D.1 to the expert panel's draft decision, and the panel's reasons for including those draft conditions as set out in paragraphs 712 to 731 of the draft decision.

### **2. Qualification and Experience**

3. I am a Principal Commercial and Revenue Advisor with DOC, based in Wellington. I have worked for DOC since 2018.
4. I have a Bachelor of Business, Diploma in Economics and a Bachelor of Regional Planning, all from Massey University.
5. The last 15 years of my career have focused on economic and financial analysis for a range of projects and resource allocation decisions involving capital, operating cost, and calculating revenue streams, and value generation where revenue streams do not exist. These projects have included roading, bridges, marinas, small scale electricity generation, and recreation/tourism products/experiences such as hiking (e.g. DOC's Great Walks), and accommodation such as campsites, lodges and so forth.
6. My work for DOC also includes pricing of DOC's recreation facilities and calculating their revenue streams. In addition, I have priced crown royalties for businesses operating on public conservation land (such as guiding, telecommunications, small scale hydro-generation, transport, accommodation, and aircraft landings). This work has involved non-market valuation techniques to estimate value and benefit streams. This is because prices, or value in monetary terms, are not always observable in the market and in many cases the market is not competitive as DOC can be the dominant supplier of its recreation/tourism experiences, or a monopoly supplier of locations for tourism/recreation businesses to operate, on public conservation land. In addition, for many cases it involves working in a data limited environment.

### **Code of conduct**

7. Whilst it is acknowledged this is not an Environment Court Proceeding, I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023. I have complied with the Code of Conduct in the preparation of this advice, which I have prepared to assist the expert panel. Unless I state otherwise, this 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.

## Scope of advice and expert opinion

8. My expert advice will address the following matters, responding to Statements by Michael Copeland and Rob Greenaway, as referred to in the Panel's draft decision at paragraphs 682 and 725:
- i. The purpose of the compensation relating to method chosen
  - ii. The method to calculate the potential level of compensation for the loss of recreational value
  - iii. The discount rate used
  - iv. The visitor numbers used
  - v. The national average salary figure used.

## Sources

9. In preparing this advice I have reviewed:
- i. WESTPOWER LTD PROPOSED WAITAHA HYDRO SCHEME. ASSESSMENT OF ENVIRONMENTAL EFFECTS. RECREATION. Rob Greenaway, R&R Consulting (NZ) Ltd. June 2025.
  - ii. Recreation Assessment Peer Review: Appendix 28, Waitaha Hydro, by Paul Wilson of Xyst Ltd, 27 January 2026
  - iii. Decisions of the Expert Panel Ngā Whakataunga a Te Paewhiri Whakawā (Draft 13 March)
  - iv. Appendix D.1 to draft decision - draft concession conditions
  - v. Attachment 11 to Memorandum #7: Statement of Michael Copeland.
  - vi. Attachment 10 to Memorandum #7: Statement of Rob Greenaway.

## Key Issues

10. Ms Sidley's report (Appendix 2 Calculation of loss of recreation value) sets out a high-level summary of the analysis I undertook, and I will not repeat this.
11. My statement responds to the Panel's draft decision relating to compensation and to criticisms, by both Mr Copeland and Mr Greenaway of the method I used to estimate a potential compensation figure for recreation effects, as set out in their Memorandum #7 Attachments 10 and 11 statements.
12. The criticisms focus on four areas:
- method applied (value of time)
  - discount rate used
  - visitor numbers estimated
  - use of 100% of the average national wage rate.
13. No other areas of model are criticised. I will address the four areas below.

### **General: clarification of application information on the calculation of recreation compensation.**

14. Messrs Copeland's and Greenaway's criticisms of the methodology I used to estimate a potential financial compensation figure are of a nature not uncommon across all types of economic analysis. Notwithstanding this, these methods are still used to help decision

making. I will respond to specific criticisms later in this statement which I consider are relevant to the amount of compensation for recreation effects that the panel has included in the draft concession conditions - this is the amount proposed by Westpower as part of its "compensation package".

15. To produce an estimate, I required a working definition of what compensation means in this case. The definition I used is:

*A monetary value that reflects the residual loss of hiking experience in the valley resulting from the construction and operation of the hydro scheme. Because the full recreational value cannot be restored within the valley itself<sup>1</sup>, this compensation is intended to be applied elsewhere on the conservation estate to offset that loss so and help return overall national recreational welfare to its prior level.*

16. I disagree with Mr Copeland's statement at para 9(b) that a monetary amount in this case cannot be calculated in a sound way. I was originally asked to estimate what would be reasonable compensation for the lost value for recreation use from the residual impact of the hydro-scheme to provide some perspective on Westpower's compensation offer of \$25,000 for recreation and its offer to White Water New Zealand of \$525,000 (\$15,000 per year for 35 years). This estimate would guide DOC in exploring whether an agreed position could be reached between it and Westpower on what reasonable compensation might look like. This was on the basis that an agreed amount of compensation might lie somewhere between the parties' willingness to pay (Westpower) and willingness to accept (DOC). This process is not dissimilar to how businesses are valued and purchases negotiated for 'compensation', although different valuation methods would be employed.
17. I purposefully took a straightforward and conservative perspective, using the value of time hiking, and employed sensitivity testing to provide a potential range for a compensation figure to take account of assumptions used and the inherent uncertainties. The analysis shows that Westpower's compensation offer is well short of something that could be considered reasonable, in that it would only cover less than two days potential value loss; yet the proposed hydro scheme would have long-term impacts, incurred every time someone visited the area.

**The method to calculate the potential level of compensation for the loss of recreational value**

18. I disagree with Mr Copeland's opinion in paras 8 and 10 of his statement that the time value method<sup>2</sup> is arbitrary and unreasonable and should be disregarded. I also disagree with Mr Greenaway's comment at para 29 that the method I have used is novel. Mr Greenaway also makes several comments in paras 27 & 28 of his statement:

- he was not familiar with the method I used

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<sup>1</sup> The Panel decision at para 727 further supports the working definition of compensation and the model used. That is, it recognises for example that the ongoing effects on recreational values of the Scheme will be significant around the Headworks/Morgan Gorge due to the nature of the infrastructure and changes to the river impacting on people's remote recreational experience.

<sup>2</sup> The approach and method used was tested internally with other qualified staff such as DOC's Senior Environmental Economist.

- he could not find any academic references for time value method and that it should be disregarded
  - he would not defend it in the Environment Court and questions the use of 100% of the New Zealand hourly wage.
19. Using the value of time is neither arbitrary nor unreasonable; but is a credible method for the rationale and reasons I outline below.
20. Mr Copeland at para 9 of his statement implies that compensation should effectively be based on refunding incurred costs. Even so, in para 9(b) he states that compensation should be on net reduced satisfaction. The use of the value of time estimates the value to visitors and the model estimates value loss (and thus as a proxy for decreased satisfaction) due to the residual impacts. The residual effects are described in Westpower’s updated compensation table as “effects on recreational visitors”, and this is way the Panel has described it in its draft decision at para 725.
21. The value of time, focusing on time at site only, was selected because it was the best and most straightforward way given the limited information available to recognise visitor value, where visitors do not directly pay (a fee) for their experiences. Value of time is in fact a subset of the travel cost method referred to by Mr Greenaway. The travel cost method includes the value of time travelling to the site, the expense incurred in travelling to the site and can include time at the site as well (depending upon the circumstances). The value of time is a recognised non-market valuation technique commonly used in recreation and transport economics<sup>3</sup>. It is a proxy for willingness to pay (opportunity cost of time), reflects real behaviour and is a straightforward method to measure and quantify with information DOC collects. Like all such methods, it has strengths and weaknesses. Some weaknesses are that assumptions about value of leisure time can be controversial, and that different people value time differently and uncertainties do remain. As such I agree it is challenging (Mr Copeland’s statement, para 10) to monetarise the value of the loss of recreational values. This method, like all types of economic analyses, uses assumptions that are accepted where the influence of those assumptions is understood, and they are tested through sensitivity analysis.
22. The use of the time value at site is valid and appropriate in this situation. The potential compensation figure produced (i.e. in the order of \$300,000) is reasonable, consistent with the scale and size of the residual impacts on recreation<sup>4</sup> and not out of proportion to the capital investment for the project (i.e. 0.03% of the ~\$100 million project cost) and the compensation offered to White Water New Zealand.

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<sup>3</sup> Some examples include, Estimation of the Value of Travel Time & Time Reliability (Kato et al., 2020–2021), Victoria Transport Policy Institute (VTPI) — Transport Cost & Benefit Analysis, Texas A&M Transportation Institute — Value of Travel Time Research, Kenneth Small — “Valuation of Travel Time” (2012, Economics of Transportation), and NZTA – Waka Kotahi, Economic Evaluation Manual, for congestion savings.

<sup>4</sup> As noted in Ms Sidley’s statement, examples of residual impacts include even after mitigation, the placement of structures and the potential for unpredictable excavator activity (including noise and visible disturbance) would materially erode Kiwi Flat’s backcountry-remote character and reduce visitors’ sense of naturalness and thus reduce their enjoyment of the Valley’s landscape.

23. I now turn to criticisms by Messrs Copeland and Greenaway on the discount rate and full use of the national average wage and visitor numbers. The last two of these matters along with the limited information available and that my analysis was related to estimating a potential compensation figure are all connected to the rationale for choosing the time value approach. Ultimately, in my opinion, it comes down to balancing the 'unders-and-overs' in the estimate that would result from using different variables.

#### The discount rate used

24. I do not accept Mr Copeland's comment in para 9(c) of his statement that "...*Treasury's 8% discount rate should be applied as this is set for all public sector projects....*". Treasury's guidance on discount rates is clear and states that their use should be applied differently to different situations. That is, non-commercial proposals use 2% for years 1 to 30, beyond which a lower discount rate is to be used. As noted at footnote 14 in Appendix 2 to Ms Sidley's recreation report (attached to DOC's section 51 report) which sets out my workings, it is not appropriate to apply an 8% discount rate which is intended for commercial proposals.
25. As noted in footnote 14 in Appendix 2 to Ms Sidley's recreation report, I applied a 2% discount rate, based on recreation in the Valley being non-commercial, and the work was not for the commercial project Benefit Cost Analysis (BCA). Two percent is the rate DOC uses for its non-commercial recreation capital projects (e.g. tracks and structures for self-guided tramping) as recommended in the Treasury guidance.
26. If the purpose was to estimate the economic benefits and costs for a commercial project (rather than valuing a potential amount of compensation) then I would agree that 8% should be applied along with other refinements to the valuation model. However, that is not what is being valued here.

#### The visitor numbers used

27. Mr Greenaway in paras 26 and 48 of his statement expresses confusion at my use of 102 visitors for Kiwi Flat Hut and 133 overall (includes day walkers)<sup>5</sup> and a "*more conservative (higher) figure is more appropriate*". He indicated his number is conservative. However, given the annual volatility and quality of the data from hut logbooks, it cannot be assumed as Mr Greenaway appears to, that there will be year-on-year growth in hut visits. This is why I used an average of the last 15 years as a starting point (to reflect a longer-term use pattern) as the start point for a 20 year forward forecast of use and all in conjunction with a sensitivity analysis. My approach to visitor numbers is therefore conservative, compared to the numbers used by Mr Greenaway. Using Mr Greenaway's 300 visitors instead of my more conservative figure of 133, the compensation value would be assessed at **~\$638,000**).
28. An average of the last 5 years could be used instead representing the more recent increased use of the hut. This would lessen the conservatism in my estimate and increase

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<sup>5</sup> This does not include hunters (annual numbers estimated at 50), as the value relates to 'aesthetics' and it is assumed hunters' primary interest is not appearance of naturalness, but abundance of game.

the starting point for Kiwi Flat hut numbers to 144 (FY2025). Adding in *daywalkers* would bring the total number of hikers at Kiwi Flat hut to 175. The real challenge is how to count total visitor numbers beyond that hut, as in practice the actual numbers would be expected to reduce as hikers went beyond it<sup>6</sup>. The compensation model used the huts further up the valley to reflect decreasing hiker numbers, while those hikers in fact increased their amount of time hiking.

29. If the 5-year average is used (still less than Mr Greenaway's figure of 300), then the compensation estimate would increase to **~\$426,000** (from \$315,000).

**The national average salary figure used**

30. Mr Greenaway in paras 28 and 29 of his statement seems to suggest, based on his review of the research (specifically *Amoako-Tuffour and Martinez Espineira (2008)*) that the full hourly rate should not be applied. He also implies that this research effectively invalidates the use of the full hourly rate.

31. While this research highlights the challenges for this type of analysis, these challenges are not insurmountable. In addition, the section from *Amoako-Tuffour and Martinez Espineira (2008)* quoted by Mr Greenaway only tells part of the story and this piece of research is one of many research papers on this topic.

32. While that research suggests the commonly applied factor to the average wage was about 33%, it identified the factor applied to the hourly wage can range between 0% and 100%. It also states (page 33) that using a fraction of the hourly rate may grossly underestimate the opportunity cost in some cases. Notwithstanding these points, the reduction factors relate to where a full travel cost method was applied (i.e. including time and expenses incurred traveling to site and potentially including time at site). Accordingly, the analyst will need to select the wage rate factor most appropriate to the situation at hand and methodology to be applied.

33. Given the data available and approach, I consider it is appropriate to use the full average national hourly wage in this case. The considerations in this choice included:

- purpose and scope of the analysis
- the availability of data on hiking times for the tracks and Treasury CBAX values
- the limited other data available, for example:
  - on travel time and expenses incurred getting to the site
  - on 'what the next best use' of visitors' time is – either work or leisure and whatever this is it would likely involve expenditure
- the use of complex composite hourly rates<sup>7</sup> for different days of the week or time of the day with the lack of data (on next best use of visitor time) would

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<sup>6</sup> Although these numbers are not a material influence of the compensation estimate given the minor loss of experience value above Kiwi Flat hut.

<sup>7</sup> For example, NZTA's Economic Evaluation Manual uses composite hourly rates for time of day and purpose of travel.

require even more assumptions and require an overcomplex model considering the analysis purpose

- while the national average hourly wage rate balances a potential range of visitors' incomes, from information DOC has on domestic visitors, multi-day hikers on conservation estate tend to earn above average salaries, so using the average national hourly wage already applies a reduction factor in this situation
- the conservative visitor numbers used (133 as opposed to 300 visitors, the number I have used being only ~\$44% of Mr Greenaway's figure)
- using only hiking time at site, and not time and expenses required to travel to and from the site
- time at site (hiking) did not include staying in the hut, so as not to overstate the opportunity cost or double count the value of accommodation (included separately to time).

34. Ultimately, to undertake a full Travel Cost Method to help define the potential compensation may well be a "zero sum game"; instead, it is appropriate to use a simplified approach with a sensitivity analysis (to address the inherent uncertainties in the data) to define an acceptable range for an order of magnitude compensation estimate. The potential compensation range was set out in Appendix 2 to Ms Sidley's recreation report (**\$252,000 to \$378,000**).

#### **Additional comments**

35. Mr Greenaway in para 47 of his statement suggests there is a range of potential benefactors of Westpower's proposed recreational effects compensation, such as Backcountry Trust, Permolat and Federated Mountain Clubs (as referenced in the panel's draft decision at paragraph 681(c)).
36. I do not agree with this suggestion that these organisations should be the direct recipients of the compensation, as it does not reflect either the ownership status or accountabilities associated with the assets on which the compensation could be spent (e.g. tracks, structures, huts etc). DOC 'owns' these assets, which comes with the legal obligations and accountabilities of ownership including health and safety, even where community groups may be doing the maintenance work. I also understand that DOC is required to ensure any compensation required through a fast-track concession is applied to land it administers. Therefore, any compensation must be allocated to DOC, who holds ownership and accountability for its assets on conservation land and for those funds being spent on its assets. Ultimately, it is the visitors to conservation land that win or lose in this situation depending on whether compensation is provided and the amount of land compensation. DOC is best placed to redistribute the compensation to replace that lost value.
37. Ms Sidley's statement below (**Attachment 1**) records that she does not agree with the Panel's assessment in paragraph 723 that suggests biodiversity compensation funding will enhance to some extent the experience of recreational users.

38. In my view, from an economic standpoint, there is no assurance that any wildlife or biodiversity compensation funding will be directed to the project vicinity or the Waitaha Valley nor that it will be applied to locations or programmes experienced by recreational users of the Waitaha Valley affected by the Scheme. Neither is there any assurance that benefits from wildlife or biodiversity compensation funding outside the Waitaha Valley would 'trickledown' to the Valley. Therefore, biodiversity compensation cannot reasonably be relied upon as delivering recreation-related benefits and thus be considered as an all-compassing compensation package.

## **Attachment 1 – Statement from Shelly Sidley<sup>8</sup>**

1. I wish to comment on the Panel's conclusion at paragraph 723 that biodiversity compensation will enhance to some extent the experience of recreational users and therefore their values. This infers that the biodiversity compensation will deliver broader public benefits capable of contributing meaningfully to recreation outcomes for visitors of the Waitaha Valley.
2. The ongoing significant recreation effects acknowledged by the Panel will be experienced directly by users within clearly defined locations and relate to attributes such as remoteness, naturalness, flow dependent recreation quality, and freedom from industrial activity
3. For sound ecological reasons, wildlife and biodiversity compensation may be directed to other locations and is therefore not spatially constrained to these recreation environments nor functionally connected to the recreation experiences adversely affected. Accordingly, there is no assurance that such compensation will be applied in locations or programmes experienced by the recreation users affected by the Scheme. In the absence of any clear spatial or experiential nexus, it is not evident how such funding would in practice “enhance” the recreation experience at this site in practice.
4. While biodiversity compensation may deliver general environmental benefits and may be appropriate in response to ecological effects, this does not equate to a recreation benefit where the effects are site specific, experiential, and persistent.
5. In my view, biodiversity compensation, in this case cannot be relied on, either directly or indirectly, as compensation for the recreation effects or enhancement of the recreation experience.

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<sup>8</sup> Ms Sidley's credentials can be found at page 20 of DOC's s51 covering report - [Waitaha-Hydro-section-51-covering-report.pdf](#)