

14 May 2021

Otago Regional Council Long Term Plan, (2021-2031): Submission from Guardians of Lake Hāwea, and Guardians of Lake Wānaka.

Otago Upper Lakes Rohe: Lakes Wānaka, Hāwea and Whakatipu water quality and ecosystem function – treatment by the ORC Long Term Plan, 2021-2031.

Context: This submission is in response to the call for public consultation on the ORC Long Term Plan (LTP) 2021-2031, and is from the Guardians of Lake Hāwea, and Guardians of Lake Wānaka. **Our comments are confined to the lack of ORC focus in the LTP on the water quality and ecosystem health (including indigenous biodiversity status and biosecurity risks) of the three deepwater Lakes Hāwea, Wānaka and Whakatipu in the Otago Upper Lakes Rohe.** We expect council would deem addressing these concerns as vital to meet its requirements under the Local Government Act (2002) specifically to: “[1] Enable democratic local decision-making and action by, and on behalf of, communities and [2] Promote the social, economic, environmental, and cultural well-being of communities in the present and for the future”.

1. **Environmental threats:** Lakes Wānaka, Hāwea and Whakatipu each face similar environmental threats and lack of understanding of key attributes and processes. An absence of evidence based management puts all three lakes at risk of accumulating nutrients, sediment, toxins and pathogens through human development in their catchments and also of establishment of new invasive pest plants and animals. The recent detection in Lake Hāwea of the highly invasive Canadian Pondweed (*Elodea canadensis*) and the absence of a control plan is of concern. Ecosystem changes such as the apparent decline of longfin eel populations should not be permitted to continue. Such risks to these three very important Otago lakes are not acknowledged or addressed by ORC in its LTP.
2. **Community wellbeing:** The economic, social and cultural wellbeing of the communities living beside and enjoying our deepwater alpine lakes is entirely dependent on the lakes remaining in a pristine state. We contend that this will not happen in the absence of evidence based

management of the lakes. We do not see evidence in the LTP of intent by ORC to raise the level of monitoring and research supporting active management, or the development of a stakeholder or community engagement process that would assess existing information, recommend new research and monitoring, to support management actions and policy review.

3. **National Policy Statement for Freshwater Management:** ORC's current minimal approach to Otago's deepwater lakes' management leaves many questions unanswered and maintains the risks to ecosystem health and consequent community impact. If such neglect continues, the protection of the "compulsory values" in the most recent version of the National Policy Statement for Freshwater Management (NPS-FM) Appendix 1A may not be achieved for the Otago deepwater lakes.
4. **Commitment to lakes monitoring and research:** On page 3 of the LTP consultation document, ORC acknowledges *"...last year's significant water quality policy changes as central government responded to increased community expectations of the quality of our cherished waterways"*. The LTP document also states: *"We have added staff and resources to support this and it accounts for a 35% increase from your 2020- 21 rates before we even look at the other projects you told us are important to you"*. The Guardians believe that the LTP should include specific objectives to ensure that there is commitment to sufficient monitoring and research to substantially raise our level of understanding of the Otago deepwater lakes and their processes. To continue to take a minimal approach to understanding of the lakes places their health at risk.
5. **Regional planning, environmental monitoring and science:** Page 12 of the ORC LTP Consultation document states: *"Our operating expenditure is proposed to increase by \$20M in year 1 of the LTP in regional planning, environmental monitoring, science and regulatory activities. This includes an unplanned component of expenditure needed in 2020 to quickly respond to central government direction on freshwater management"*. In the absence of more detail it is unclear if some or any of this one-off increase will be committed to addressing research questions for Otago's three deepwater lakes.

6. **Urgency for enhanced water management.** Following the recent central government initiatives around the urgency for enhanced water management across NZ, we expected to see more of a response from ORC regarding its monitoring and research in Lakes Wānaka, Hāwea and Whakatipu. We are concerned that the large margin areas of the lakes that are most exposed to catchment land use run-off, and the huge water volumes in the deep basins are not being researched or monitored. Much of the larger colder tributary inflow into the lakes is likely to sink down to these basins carrying nutrients, toxins, sediments and organic matter. Lakes margin and deep basin changes including for example nutrient accumulation or oxygen depletion will be unlikely to be detected by ORC's very limited and shallow offshore measurements at only a few surface (10 m) sites in the three lakes. These limited measurements will not provide a basis to determine with a reasonable degree of confidence that the three lakes are in a stable condition and in a good state of ecosystem health.
7. **State of the Environment monitoring review:** In 2017, NIWA were commissioned by ORC to carry out a review of ORC's State of the Environment monitoring programmes for river and lake water quality and ecology (Milne et al 2017). The review concluded and recommended that *"...in light of their very high regional (and national) values, and potential for change in condition, ongoing monthly sampling of open water sites on Lakes Whakatipu, Wanaka and Hawea is highly recommended. The sampling of these lakes – and Lake Hayes – should be modified to ensure that the full vertical water column is profiled on every sampling occasion for water temperature and dissolved oxygen, with periodic profiling of nutrient concentrations. The addition of a monitoring buoy on each of the three deep lakes would provide high frequency information on stratification and mixing that will help ORC to understand changes in trophic state that are identified through regular monthly sampling."* We believe that these recommendations should be specifically addressed in the 2021-31 ORC LTP. We are pleased to hear of ORC's intent to install a monitoring buoy in each of Lakes Wānaka and Whakatipu by June 2021, but concerned that there is no ORC plan to install a buoy in Lake Hāwea.

8. **Working closely with communities:** On page 16 the LTP Consultation document states: *“Otago generally has good water quality in our lakes and rivers, however there are some waterbodies that have degraded. Over the next 10 years we plan to work closely with communities, at a water catchment level, to improve the quality of our precious waterways”*. The Guardians strongly support this statement and agree that close community collaboration is essential for successful water management across the province. However, in the LTP this sentiment is expressed regarding only very polluted Lake Hayes. No such intent is evident in the LTP with respect to Lakes Wānaka, Hāwea and Whakatipu, which we hope ORC would aim to prevent going the same way as Lake Hayes.

9. **More investment in monitoring networks and environmental studies:**

Page 22 of the ORC LTP Consultation document states: *“We need to understand Otago’s environment better. When it comes to managing water, land and our biodiversity priorities we need the best possible information. This means we need to invest more in our monitoring networks and environmental studies. We’re planning to:*

- *Establish new monitoring programmes, especially in estuaries and coastal waters*
- *Build a better understanding of the effect of land use on water*
- *Expand our current freshwater monitoring network to give effect to national legislation*
- *Work towards meeting the monitoring requirements for indigenous biodiversity.”*

While we strongly support the general intent of these statements, Guardians’ are concerned that the absence of any specific reference to Lakes Wānaka, Hāwea and Whakatipu means that ORC may carry out these actions in other less challenging and possibly lower priority areas of Otago while continuing to neglect these deepwater lakes.

10. **Community outcomes:** In the LTP Supporting Information document, Draft LTP 2021-31 Section 1 (Parts 1-3) pages 15 and 16, ORC states amongst its community outcomes many references to various

environmental gains that will “...capture what Council seeks to achieve, through the range of its activities over the next 10 years. These community outcomes were developed in consultation with the community.” Three of these outcomes invoke multiple environmental gains. These outcomes are:

- “Communities that connect with, and care for, Otago’s environment
- An environment that supports healthy people and ecosystems
- A sustainable way of life for everyone in Otago”.

Our concern is that in the absence of more specific statements of intent regarding Lakes Wānaka, Hāwea and Whakatipu another decade will go by without progress on their evidence based management towards these desired community outcomes, as well as the requirements in the new NPS-FM.

11. Ecosystem research: We have the same concern about the lack of specificity regarding the absence of any reference to the large and important ecosystems of Lakes Wānaka, Hāwea and Wakatipu in the ORC LTP Supporting Information document, Draft LTP 2021-31 Section 1 (Parts 1-3). See for example pages 27, 28 and 34 where there is broad generic reference to environmental monitoring including aspects of biodiversity and biosecurity, but no mention of research in the whole document. Again, our concern is that in the absence of any reference to plans to better understand Lakes Wānaka, Hāwea and Whakatipu, there will continue to be no focus on these very important ecosystems and their processes.

12. Meeting Kai Tahu aspirations: The Draft LTP 2021-31 Section 1 (Parts 1-3, page 8) states that ORC is committed to work in partnership with Kai Tahu Papatipu Runaka. “Working in partnership will deliver better outcomes for Otago, and fulfil the principles and requirements for engaging with iwi under the Local Government Act and Resource Management Act. For Council, these legislative requirements are considered a bottom line. We aspire to go beyond these statutory responsibilities to ensure meaningful engagement with Mana Whenua which recognises the principles of partnership of The Treaty. This also recognises the value that engagement with Māori adds through the sharing of their knowledge and wisdom as Mana Whenua.” While

Guardians of Lake Hāwea and Guardians of Lake Wānaka strongly support this intent, we are concerned that the very high importance of the health of Lakes Wānaka, Hāwea and Whakatipu to Kai Tahu will not be addressed if the current lack of progress towards understanding the ecosystem health of these deepwater lakes continues.

Reference

Milne, J. Whitehead, A. and P. Verburg 2017: Review of Otago Regional Council's State of the Environment monitoring programmes. River and lake water quality and ecology. Pp 115.

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