



Simon Upton  
Parliamentary Commissioner for the Environment  
Te Kaitiaki Taiao a Te Whare Pāremata  
PO Box 10 241  
Wellington 6140  
Aotearoa New Zealand

Tēnā koe Simon,

Thank you for your letter dated 24 November 2022 regarding the Health of Otago's deep-water alpine lakes. I appreciate your concern regarding the lakes and am supportive of your interests in further understanding how the issues raised in the report by WAI Wānaka are being addressed.

As you are aware efforts to improve environmental monitoring, data collection, research and reporting are not limited to Otago's deep-water alpine lakes, and this case is yet another example of the importance of investment in the foundational elements of the system. The Ministry for the Environment is committed to improving the environmental monitoring system nationally to ensure that evidence-based management efforts start from a robust place of understanding.

Please find attached to this letter a response from the Ministry for the Environment for the information you requested, notably:

- Details of how the Ministry for the Environment is, or is planning to, monitor the environmental state of the lakes;
- What actions the Ministry is making or planning to address the findings of monitoring and research;
- Any plans, projects or strategies that would address this issue directly or indirectly; and
- Any collective and cooperative initiatives that are being envisioned or implemented to ensure evidence-based management supported by regular lakes environmental assessment and modelling.

Should you have any further questions or wish to discuss this further please feel free to contact me directly.

Ngā mihi,

**Natasha Lewis**  
Deputy Secretary

Joint Evidence, Data, and Insights  
Ministry for the Environment | Manatū Mō Te Taiao

## **Ministry for the Environment response to the Parliamentary Commissioner for the Environment Request for Information regarding the Health of Otago's deep-water alpine lakes.**

Noting the focus on Lakes Wakatipu, Hāwea and Wānaka ('the lakes') in the supporting documentation provided by WAI Wānaka we have limited our review to these three lakes.

### *Existing Statutory Powers and Responsibilities*

As you will be aware the Minister and the Ministry have several powers under the existing legislation and policy that are applicable to this issue.

Under the Resource Management Act 1991 the Minister for the Environment has powers relating to resource management issues and the functioning of local authorities, these include:

- Recommending the making of national policy statements and national environmental standards;
- Deciding whether an application to make or amend a water conservation order be referred to a special tribunal, and deciding whether or not to recommend that a water conservation order be issued;
- Monitoring the effect and implementation of the RMA, including any regulations in force under it, national policy statements and water conservation orders;
- Monitoring and investigating matters of environmental significance;
- Investigating and making recommendations on the exercise or performance of local authorities' functions, power or duties; and
- Directing a regional council to prepare or change a regional plan to address a resource management issue in a region or direct a territorial authority to change its district plan to address a resource management issue.

Specifically in relation to freshwater the Ministry for the Environment's role also includes provision of National Direction. The Ministry has released and is responsible for the following:

- National Policy Statement for Freshwater Management
- National Environmental Standards for Freshwater 2020
- Freshwater farm plans provisions in the RMA (Part 9A)
- Resource Management (Stock Exclusion) Regulations 2020

The Ministry has set up a Policy Implementation Division to support the achievement of national direction outcomes. The Ministry is providing support for those responsible for implementation of the national direction including:

- Developing implementation tools and guidance for policies and regulations;
- Supporting the freshwater planning process by providing assistance to the Office of the Chief Freshwater Commissioner;
- Providing other support for those implementing freshwater national direction, including capacity and capability support (see specific support provided for the lakes below);

Some examples of freshwater guidance include:

- Guidance on the National Objectives Framework of the NPS-FM;
- Guidance for implementing the NPS-FM sediment requirements;
- Guidance on implementing Clause 3.13 of the NPS-FM (Setting instream nutrient concentration thresholds for nutrient-affected attributes in rivers).

*Details of how the Ministry for the Environment is, or is planning to, monitor the environmental state of the lakes.*

As it pertains to monitoring and research the Ministry has not commissioned or contracted any specific research into the state of Otago's deep-water alpine lakes. However, through the Environmental Reporting programme the Ministry periodically gathers relevant monitoring data from councils and in collaboration with Stats NZ produces environmental indicators and reporting.

Recently, this included an update to the [Lake Water Quality](#) indicator (which includes the lakes at the centre of the WAI Wānaka report) was released in April 2022 and was also commented on in [Environment Aotearoa 2022](#).

In addition to the information available on the Stats NZ Lake Water Quality indicator site the environmental reporting programme has longer term data (ten- and twenty-year trends) for Lakes Wakatipu, Hāwea and Wānaka available on the [Ministry's Data Service](#).

- These trends show the following:
  - Monitoring information for the lakes analysed by Stats NZ include ten- and twenty-year trend data for Trophic Level Index (2010-2019 and 2001-2020 respectively). In both instances, trends indicate the Trophic Level Index for each of the lakes **very likely improved**.
  - Indicator data for Chlorophyll-a analysed by Stats NZ for the ten-year trend period from 2010-2019 shows **likely improving** trends for Lakes Hāwea and Wakatipu and an **indeterminate** trend for Lake Wānaka.
  - Indicator data for Chlorophyll-a analysed by Stats NZ for the twenty-year trend period from 2001-2020 resulted in **indeterminate** trends for all three lakes.
- Of note however:
  - While the Stats NZ trend analysis covers a longer period and likely better incorporates certain variables, it does not include the more recent monitoring data utilised in the WAI Wānaka timeseries which warrants further investigation and research.
  - The underlying data used in trend analysis by Stats NZ was from the council monitoring sites located near the outlets of each lake. These outlet sites may have been chosen by the council for logistical convenience and to enable sampling in all weather conditions. However, samples from lake outlets are not necessarily representative of conditions in the main bodies of the lakes.

- Additionally, if samples from the main body of the lake are only taken during calm weather, this may also influence the pattern observed, as algal cells are dispersed during rough weather. Calm-weather only sampling may more frequently capture concentrated layers of algae near the surface and give a different picture to all-weather sampling.
- Contrasting the long-term outlet monitoring sites with the more recently added centre-lake monitoring sites may help provide a more complete picture of lake water quality, the lack of which is a relevant source of concern in the WAI Wānaka report.

*Any plans, projects or strategies that would address this issue directly or indirectly.*

In concert with the statutory powers above, the Ministry also administers several targeted investment funds through which financial support in relation to the lakes has been provided, this includes:

- In June 2018, Otago Regional Council was awarded up to \$385,000 over five years through the Freshwater Improvement Fund (FIF) for their project entitled ‘Upper Clutha Lakes and Catchment Community Water Management Plan’. This contribution towards total expected project costs of \$820,000 is for the project to undertake riparian planting, assess the effects of urban development on lake health, use results to define management measures, and develop and implement a collaborative water management plan. The project is managed by Wai Wānaka.
- Wanaka Catchment Group was awarded a FIF contribution of up to \$1,132,269 towards total project costs of \$1,836,257 over 3.5 years for their project ‘Wanaka Catchment Group Wai Ora Initiative’.
- The FIF is a \$100 million appropriation over 10 years to improve the management of New Zealand lakes, rivers, streams, groundwater, and wetlands. The fund is now fully allocated, and at this stage there are no plans for further funding rounds.

Additionally, there remain opportunities for Otago Regional Council and Queenstown Lakes District Council alongside community groups to seek additional financial support in relation to the lakes.

Through the Jobs for Nature funding, the Ministry is investing \$433m to create nature-based employment opportunities. The remaining funding of \$175m will specifically target building capability and capacity across all key partners in the freshwater management system to support the implementation of the freshwater reforms, some of this has been directly tagged to support councils. The Ministry is also working in partnerships with the councils to identify what jobs and skills are needed to achieve the freshwater aspirations councils set through their 2024 plans and have contributed funding towards this. Separate funding and support will also be provided for councils to implement the NPS-Indigenous Biodiversity.

*Policy Reform and Future Levers*

With the expansive policy reform taking place across the Ministry there is also an expectation that in future a new suite of relevant statutory levers will be available to the Minister and the Ministry in managing environmental issues.

The proposed [Spatial Planning Act \(SPA\)](#) will require the development of regional spatial strategies that will set long-term objectives for urban growth and land use change, responding to climate change, and



identifying areas that are inappropriate to develop for reasons such as natural values or their importance to Māori. Regional spatial strategies will also be required to be consistent with national direction under the Natural and Built Environments Bill and will be reviewed every nine years.

The proposed [Natural and Built Environments Act \(NBE\)](#) will require the establishment of a National Planning Framework (NPF), this framework will provide a stronger more active role in the system for central government on how we use, protect and manage our natural and built resources. Of relevance to this issue, the NPF will set natural environmental [limits](#) relating to air, soil, indigenous biodiversity, fresh water, estuaries, and coastal waters. The NBE will also require targets associated with these limits to be set either by the Minister or at the regional level through regional planning committees.

The proposed reforms to the [Environmental Reporting Act](#) will also include legislating Environmental Outcomes and the requirement for the Secretary for the Environment to set Core Indicators in regulations. The combined package of reforms aims to drive the shift to a clearly defined, coordinated monitoring and reporting system that gives a robust, comprehensive, consistent, and authoritative evidence base on the state of New Zealand's environment.

Environmental Outcomes provide a framework under which the environmental reporting programme can focus its investment in indicator development and reporting topics with a view to providing an independent assessment of national progress against the specific outlooks using the Driver, Pressure, State, Impact and Outlook framework.

Core Indicators, with the support of other quality data and statistics, will provide important information for tracking and understanding changes in the environment. Core indicators will be defined in the ERA as a set of indicators most needed to gain an objective long-term view of how and why the natural environment is changing. It is proposed that the Secretary for the Environment (in consultation with the Government Statistician under the Data and Statistics Act) will have powers to establish environmental monitoring standards.

*Any collective and cooperative initiatives that are being envisioned or implemented to ensure evidence-based management supported by regular lakes environmental assessment and modelling.*

Other than the Ministry's existing engagement with regional and district councils and community groups in relation to investment bids for lakes related community initiatives, the Ministry has not been involved in or sought to establish any collective or cooperative initiatives. However, the Ministry is aware that Otago Regional Council is establishing a working group to oversee strategic work on lake management, and we will be seeking representation on that group.

*What actions the Ministry is making or planning to address the findings of monitoring and research.*

The Ministry is committed to further inquiry into this issue and consider involvement in the Otago Regional Council's Lake working group will be an excellent mechanism to provide the Ministry with certainty the Council is meeting its statutory and stewardship responsibilities and will inform any further required steps.



Ministry for the  
**Environment**  
*Manatū Mo Te Taiao*