



Hon Judith Collins  
Minister for Science, Innovation and Technology  
Parliament Buildings  
Private Bag 18041  
Wellington 6160  
New Zealand

21 December 2023

Dear Judith,

I am writing to draw your attention to an on-going problem concerning the future of the National River Water Quality Network (NRWQN). I am aware, from discussions with the Ministry for Business, Innovation and Employment (MBIE), the National Institute of Water and Atmospheric Research (NIWA) and the Ministry for the Environment (MfE), that officials and science agencies have been working hard for some time to find a durable solution. But the facts are illustrative of problems that have arisen because of a dysfunctional approach to funding significant elements of environmental research.

The NRWQN started in 1989 with 77 sites located on 35 of Aotearoa's largest rivers.<sup>1</sup> The network was designed for the purpose of monitoring the state and trends of river water quality, establishing baseline sites and generating long-term records. Providing almost 35 years' worth of data, the NRWQN monitoring sites form an important part of the current national monitoring network across the country and provide robust observations and measurements used to detect and report improvement or decline in the state of our freshwater. This includes national-scale reporting under the Environmental Reporting Act 2015.

While officials have been working to find a solution, they have different motivations and intervention logics. NIWA – as a Crown Research Institute (CRI) – is dedicated to delivering excellent research outcomes (rather than routine monitoring and data collection), and as such is focusing on technological advances and innovative ways of monitoring. MBIE as the purchaser of science, focuses on excellence, impact and innovation, but not specifically on the science required to support the development of environmental policies. MfE is New Zealand's environmental steward and, with Stats NZ, is in charge of reporting on the state of Aotearoa's environment (including freshwater), and relies on the long-term and consistent monitoring that NRWQN represents.

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<sup>1</sup> <https://www.lawa.org.nz/learn/glossary/n/national-river-water-quality-network-nrwqn/>

The NRWQN is part of the Water Resources Archive (WRA), which is one of the 25 Nationally Significant Databases and Collections (NSDC). It is currently funded from the Strategic Science Investment Fund (SSIF) Infrastructure under MBIE contract C01X1702. The purpose of this contract is to “cover the preservation, maintenance and development” of the four NSDCs held by NIWA. However, funding for the WRA has been static since 2017 (when SSIF was established) except for one 15.7% funding increase in 2020. Prior to that, it was funded under what was termed ‘core funding’ allocated to NIWA. NIWA has long argued, and demonstrated, that this was far from sufficient to fulfil its contracted mission to maintain the NSDCs it was responsible for. To my knowledge, MBIE does not dispute this.

As a result of increasing financial strain, and with the agreement of MBIE and local government agencies, NIWA started to transfer responsibility for monitoring the NRWQN stations to regional councils. This transfer has been underway for about a decade now. As of today, NIWA operates 42 of the original 77 sites, while the 2017 contract C01X1702 provided funding for 60 sites. But NIWA is about to discontinue or transfer to regional councils a further 30 monitoring sites, keeping charge of just 12.

The result is that regional councils will be asking their ratepayers to fund an even larger share of a network that has national benefits. This continues the practice of successive governments that have been happy to declare national priorities but pass the funding down the line. It is my concern that relying on regional authorities to effectively take over the network may put its long-term funding at risk and risk further data inconsistency across the country.

In the short term, I would encourage you, in consultation with your colleague the Minister for the Environment, to precipitate a sustainable and acceptable solution not just for the NRWQN but for the National Significant Databases and Collections (NSDCs) more broadly. Your officials, in close collaboration with MfE, should satisfy themselves that any risks to the integrity of the monitoring network have been comprehensively taken care of. I am aware that discussions among officials are taking place, but fear that decisions may still be rushed.

Innovation in monitoring is needed, but not at the risk of losing continuity in the resource that the long-term records provided by the NRWQN provides. Further, efforts to design the monitoring network (including environmental data) that Aotearoa needs should be boosted. This is because New Zealand’s river monitoring network, which includes both the NRWQN sites and regional councils water quality monitoring sites, is neither spatially nor temporally representative. Neither is it sufficiently comprehensive in terms of the attributes monitored.

The logistics around the monitoring and operation of the network (including who does what) is the immediate task to be addressed. But underlying this is a more fundamental question about the funding of essential environmental monitoring and data collection. The challenge thrown up by the NRWQN is symptomatic of a much larger problem. How can we pretend that certain databases and collections are nationally significant when their funding has been left to wither for years on end? The maintenance of long-term datasets simply does not lend itself to the current funding mechanism offered by the SSIF. Something as crucial as the national water quality network needs to be treated as a core element of a wider investment in environmental research.

In my 2020 Review of the funding and prioritisation of environmental research in New Zealand, I noted that current funding arrangements, focused as they are on excellence and innovation, seem to treat the Crown's research investment as homogeneous. Environmental research is a long game, it is unavoidably in the public domain, and it deals with a raft of economic and national security risks that cannot be left to the whim of a contestable funding regime that is blind to strategic national priorities. Environmental research needs to be managed and funded by an agency with a strategic oversight of what's needed for New Zealand. That agency needs to be competent in making judgements about the broader environmental research strategy and its funding in the context of New Zealand's wider environmental priorities.

Three years on, the recommendations developed in my 2020 report remain current and unaddressed. I would urge you to discuss them with your colleagues and would be more than happy to discuss these matters with you at your earliest convenience.

With kind regards

A handwritten signature in black ink, appearing to be 'Simon Upton', with a stylized, cursive style.

Simon Upton

Parliamentary Commissioner for the Environment  
Te Kaitiaki Taiao a Te Whare Pāremata

Cc. Hon Penny Simmonds, Minister for the Environment  
James Palmer, Chief Executive, Ministry for the Environment