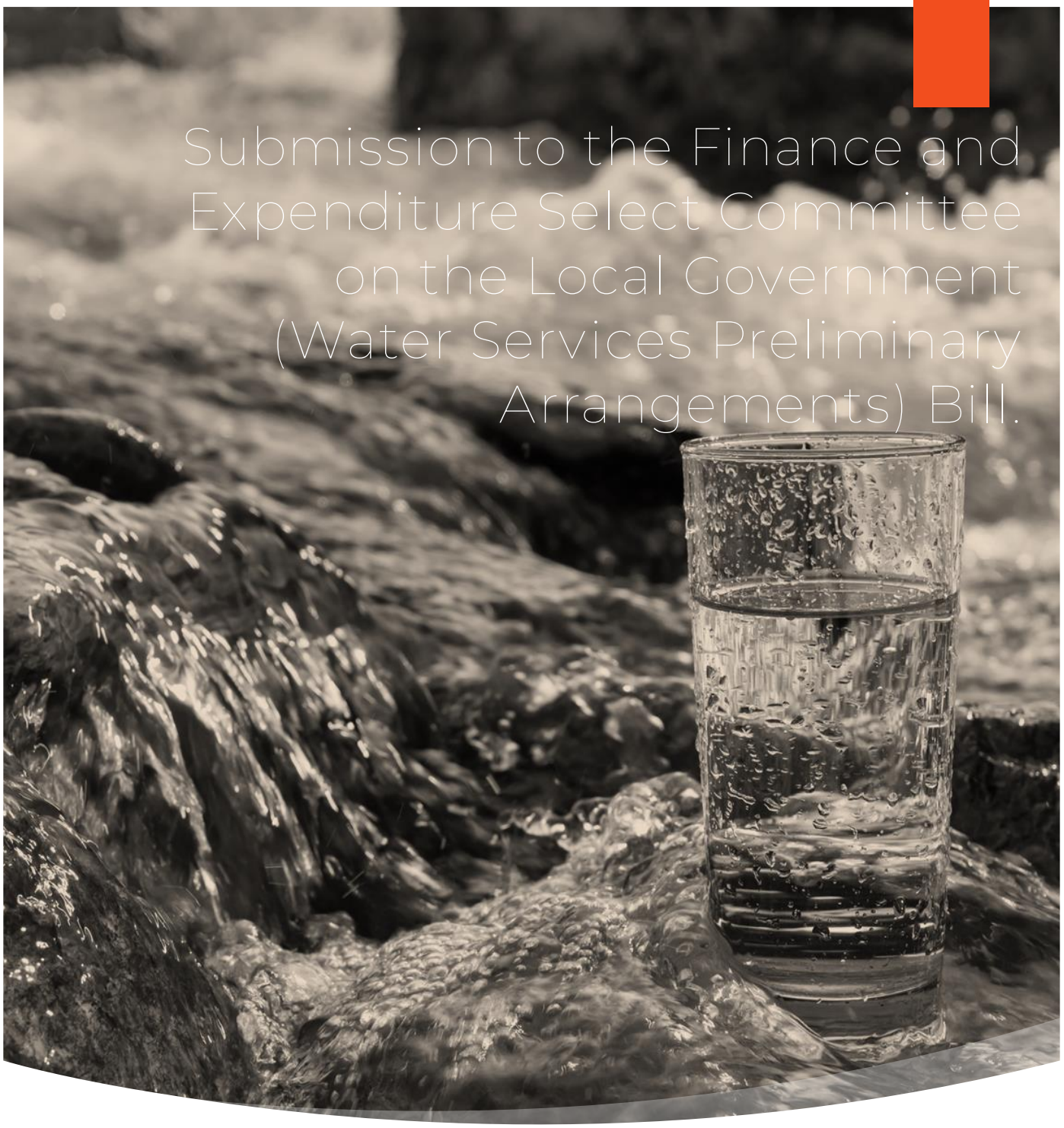
Submission to the Finance and Expenditure Select Committee on the Local Government (Water Services Preliminary Arrangements) Bill.



PUBLIC HEALTH COMMUNICATION CENTRE AOTEAROA

13 June 2024

The Public Health Communication Centre (PHCC) thanks the Committee for the opportunity to make a submission on the proposed Local Government (Water Services Preliminary Arrangements) Bill (henceforth 'the Bill'). **We wish to speak in person to the Committee and answer questions on this submission.**

Authors of this submission have researched and published extensively on New Zealand's water problems and policy, including drinking water and water infrastructure. Our submission outlines two main points.

1. Wastewater can enter drinking water sources and cause serious illness and death. The safety of people's drinking water must remain prioritised through the hierarchy of obligations.

2. Climate change and equity must be addressed through water services delivery plans.

We recommend the Committee establishes in their report to the House that the Bill is a fundamental public health bill. Water infrastructure is public health infrastructure. As such people's health should be prioritised in decision making. We recommend the Committee rejects the proposal to remove the hierarchy of obligations from Taumata Arowai's wastewater considerations. To this end, we also recommend the Committee communicates to the House the importance of the hierarchy of obligations to New Zealanders' health.

Additionally, because of the impact of climate change on water infrastructure, we recommend the Committee puts forward climate change adaptation and mitigation as compulsory considerations for Water Services Delivery Plans. Finally, there is a high risk that councils and communities with fewer resources, or more significant challenges, may be underserved by the Water Services Delivery Plan process as it is outlined. Our submission includes further recommendations on how to address this issue.

About the Public Health Communication Centre

The Public Health Communication Centre (PHCC) is an independently funded organisation dedicated to increasing the reach and impact of public health research in Aotearoa New Zealand (NZ). The Centre has a range of public health and science communication experts.

We are hosted by the Department of Public Health at the University of Otago, Wellington.

Authors and contact details

Research Fellow Marnie Prickett has a background in freshwater ecology and agricultural science. Her current work focuses on analysis of freshwater policy and the communication of water issues, with a particular focus on drinking water source protection.

Professor Nick Wilson trained as a public health physician and has extensive research experience in communicable diseases and pandemics, as well as non-communicable diseases.

Professor Simon Hales is a medical epidemiologist who specialises in environmental health issues including air and water pollution, climate change and social inequalities. He also has experience as a scientist, journal editor and consultant with the World Health Organisation.

Adele Broadbent is a former RNZ senior current affairs journalist with extensive communications experience in the health and international development sectors.

Professor Michael Baker is a public health physician and Professor of Public Health as well as an award-winning science communicator. His research has focused on infectious diseases, environmental health, and housing and health.

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1. Wastewater can enter drinking water sources and cause serious illness and death. The safety of people's drinking water must remain prioritised through the hierarchy of obligations.

We strongly oppose the removal of the hierarchy of obligations (which includes the prioritisation of drinking water) from Taumata Arowai's work to develop wastewater standards, as proposed by the Bill.

The hierarchy of obligations is an essential addition across policies relating to water as it gives sufficient legal weight to the protection of people's drinking water sources. Sufficient legal weight for the protection of drinking water has not previously existed in policy and because of this (and other system failures) NZ communities' experience contaminated drinking water sources.[1]

Removing the hierarchy of obligations from Taumata Arowai's work (as proposed by the Bill) means deprioritising the safety and quality of people's drinking water and potentially increasing the risk of illness from polluted drinking water.

Wastewater has been a source of contamination of communities' drinking water in NZ and has caused disease outbreaks. Given the human and financial costs of illness from waterborne disease and the typical high cost-effectiveness of reticulated water/sewerage systems in urban settings, it holds that the safety of drinking water should be given a very high priority. Wastewater standards should contribute to the protection of people's health or improve the performance of wastewater facilities for the purpose of addressing risks to people's health. If not tested against the health requirements of the environment and the drinking water needs of people, what would the standards be aiming to achieve?

We draw the Committee's attention to the comprehensive review of NZ's drinking water system undertaken in the wake of the Havelock North campylobacteriosis outbreak and highly recommend the Committee review the Inquiry reports as part of its decision-making process. The lessons of the Inquiry were hard won and deserve serious consideration. As a result of the outbreak, more than 6,000 people become ill in the outbreak, 42 were hospitalised, three developed serious ongoing medical conditions and four people died.[2] The Government's Havelock North Drinking Water Inquiry not only investigated the specifics of the outbreak but also NZ's drinking water system, from central government policy to the roles and responsibilities of individual agencies, etc. Below we highlight here some important and relevant findings from Inquiry.

[1] Prickett M, Chambers T, Hales S. 2023. When the first barrier fails: public health and policy implications of nitrate contamination of a municipal drinking water source in Aotearoa New Zealand. Australasian Journal of Water Resources.1-10.

[2] Gilpin BJ, Walker T, Paine S, Sherwood J, Mackereth G, Wood T, Hambling T, Hewison C, Brounts A, Wilson M et al. 2020. A large scale waterborne Campylobacteriosis outbreak, Havelock North, New Zealand. Journal of Infection. 81(3):390-395.

- The first two of the six fundamental principles of drinking water safety for New Zealand are particularly relevant to the Bill. The Inquiry emphasises the protection of source water (ie, the waterbodies from which communities draw their drinking water) and the high standard of care needed. The prioritisation of the health of waterbodies and drinking water support the protection of drinking water sources ('of paramount importance') and the requirement of work on water services to apply this prioritisation is part of the vigilance needed given the high risk to people's health.

  "Principle 1: A high standard of care must be embraced. Unsafe drinking water can cause illness, injury or death on a large-scale. All those involved in supplying drinking water (from operators to politically elected representatives) must therefore embrace a high standard of care akin to that applied in the fields of medicine and aviation where the consequences of a failure are similarly detrimental to public health and safety. Vigilance, diligence and competence are minimum requirements and complacency has no place.

  Principle 2: Protection of source water is of paramount importance Protection of the source of drinking water provides the first, and most significant, barrier against drinking water contamination and illness. It is of paramount importance that risks to sources of drinking water are understood, managed and addressed appropriately. However, as pathogenic microorganisms are found everywhere, complete protection is impossible and further barriers against contamination are vital." (page 8)[3]

- The Inquiry finds that wastewater contamination is a real danger to NZ drinking water supplies.

[3] Government Inquiry into Havelock North Drinking Water. 2017. Report of the Havelock North Drinking Water Inquiry: Stage 2. Auckland, New Zealand. Retrieved from https://www.dia.govt.nz/Report-of-the-Havelock-North-Drinking-Water-Inquiry---Stage-2

"[44] A wide range of other risks may impact the quality of source water, posing particular difficulties to the supply of safe water…Human use factors include wastewater or sewage discharges and the fact that sewerage and drinking water assets may be in close proximity.

[45] The Inquiry heard evidence that human sewage is a common source of outbreaks, and a particular risk for New Zealand given the proximity of sewerage and drinking water assets, combined with the earthquake risk. Dr Deere gave evidence at the Inquiry's June 2017 hearing that he was surprised on his visit to Hastings as he had "never seen drinking water bores that close to sewerage assets before, even in developing countries". The risk from the proximity of these assets is exacerbated by the fact the systems are ageing, liable to leakage, and situated underground so that failure is difficult to detect. These assets are also susceptible to damage in an earthquake." (page 12)[4]

- The Inquiry recommends explicit requirements in law to protect drinking water sources, as the hierarchy of obligations now does.

"[616] The Inquiry observed the clear sentiment from the expert panel members that in the absence of specific recognition, the protection of drinking water sources could easily be overtaken by competing pressures.

[617] The Inquiry considers it essential that the protection of drinking water sources be expressly recognised in the primary resource management legislation. As the RMA regime already affords such protection, it would simply be a matter of clarification to make that protection express." (page 147)[5]

[4] Government Inquiry into Havelock North Drinking Water. 2017. Report of the Havelock North Drinking Water Inquiry: Stage 2. Auckland, New Zealand. Retrieved from https://www.dia.govt.nz/Report-of-the-Havelock-North-Drinking-Water-Inquiry---Stage-2

[5] As above.

2. Climate change and equity must be addressed through Water Services Delivery Plans.

The purpose of Water Services Delivery Plans (WSDPs) is described as follows:

- "for councils – individually or jointly – to publicly demonstrate their intention and commitment to deliver water services in ways that are financially sustainable, meet regulatory quality standards for water network infrastructure and water quality, and unlock housing growth".
- "provide an assessment of their water infrastructure, how much they need to invest, and how they plan to finance and deliver it through their preferred service delivery model."
- "a way for councils to provide transparency to their communities about the costs and financing of water services, and empower them to make decisions about managing and delivering high-quality water services that reflect their local needs and circumstances."[6]

For these plans to serve this purpose, they must be required to take climate change impacts into account. This should be a formal requirement to ensure that plans are realistic and that gaps or risks to communities can be known and addressed by central and local government. Our research has demonstrated that NZ's water infrastructure has low resilience to climate change impacts.[7]

Taking climate change into account (as well as recognising realistic timeframes for delivery and financial arrangements) means these plans must be required to cover at least the next 30 years rather than the next 10 as proposed in the Bill. A 10-year timeframe is a markedly insufficient timeframe when planning for resiliency of water infrastructure and water services. Water infrastructure should be conceived as an intergenerational investment and consideration of climate predictions until the end of the century might be more informative in terms of design required for the infrastructure's life span.

For this reason, we also suggest that 12 months is an insufficient timeframe for the development of WSDPs. These are long term, complex and vital infrastructure investments. They should be rigorously developed. Councils are already stretched and are likely to struggle to find adequate resources to develop comprehensive, high-quality plans in such a short time frame.

Additionally, plans must be required to demonstrate how rural, small and/or low-income communities will be served. Those with fewer resources or in smaller, more remote

[6] Department of Internal Affairs. (2024). Local Water Done Well: Overview of the Local Government (Water Services Preliminary Arrangements) Bill. Retrieved from https://www.dia.govt.nz/diawebsite.nsf/Files/Water-Services-Policy/$file/LWDW-Overview-of-Prelim-Arrangements-Bill_May-2024.pdf

[7] Wilson N, Chambers T, Prickett M, Broadbent A, Kerr J. 2023. Water infrastructure failures from Cyclone Gabrielle show low resilience to climate change. The Briefing. Retrieved from https://www.phcc.org.nz/briefing/water-infrastructure-failures-cyclone-gabrielle-show-low-resilience-climate-change

communities must also be provided for in planning and decision making on water infrastructure.

Furthermore, given that cooperation between councils is voluntary, there remains a high risk that some councils (particularly those with small rates base and major challenges, eg, damage from severe weather and localities with high tourist numbers, may be left stranded and unable to raise funds necessary.

For this reason, WSDPs should only be approved by the Department of Internal Affairs once all plans have been completed and assessed, rather than on a plan-by-plan basis. This will allow central government to identify and address gaps in the national system in advance of further undertakings. Once again, we submit that no community or district should suffer from inadequate water infrastructure as it is an important matter of public health.

Thank you for this opportunity to submit. We hope to discuss these important matters further with you.