



TOI TE ORA PUBLIC HEALTH

Bay of Plenty + Lakes Districts

Toi Te Ora Public Health
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Submission to proposed regulatory documents under the Water Services Act 2021

Introduction

Thank you for the opportunity to submit on the content of the documents that relate to Taumata Arowai regulatory role under the Water Services Act 2021.

This submission has been endorsed by the Medical Officers of Health at Toi Te Ora Public Health (Toi Te Ora) which is the Public Health Unit for Bay of Plenty and Lakes District Health Boards.

Access to safe water all the time to everyone is critical in determining the health and wellbeing of the present and future populations. This submission provides our objective and independent advice on the proposed document content to ensure Taumata Arowai have the regulatory tools necessary to implement the main purpose of the Water Services Act 2021.

You may publish this submission, including my personal details (name, organisation, and email address).

You may make my submission available in response to requests made under the Official Information Act, including my personal details (name, organisation, email).

Toi Te Ora Public Health and I would like to be contacted in the future by Taumata Arowai at the address provided at the top of this submission or at enquiries@toiteora.govt.nz

Dr Jim Miller
Medical Officer of Health

Toi Te Ora Public Health

Toi Te Ora's purpose is to improve and protect the health of the population in the Lakes and Bay of Plenty District Health Board districts with a focus on the achievement of health equity, particularly for Māori. Toi Te Ora provides public health services to an estimated population of more than 350,000 people¹ across seven territorial authorities (Tauranga City and the district councils of Western Bay of Plenty, Whakatāne, Ōpōtiki, Kawerau, Rotorua and Taupō.)

Medical Officers of Health have responsibilities to identify and reduce environmental and social risks within our locality that are associated with disease. The scope of our role includes:

- a) Preventing acute diseases, for example waterborne infection or toxic poisoning from contaminated water supplies
- b) Preventing chronic long-term disease and promoting health, for example by leading programs that increase access and appeal of drinking water to support increased consumption.

Many of the factors that determine health are beyond the control of individuals and determined by Government. It is therefore a necessity that the supply of water regulatory regime is fit for purpose and provides a sufficient supply of safe water for drinking, food preparation, personal hygiene, and sanitation to communities now and for future generations.

Drinking Water Standards

1. The changes to the maximum acceptable values of substances **are supported**. We particularly support the changes made to align the acceptable values with guideline values set by the World Health Organization.
2. A research and scientific review to consider the feasibility of a maximum acceptable parameter and value for enteric viruses **is recommended** for inclusion in the Drinking Water Standards.

It is noted that Environmental Science and Research (ESR) considered whether contaminants not detected in water in New Zealand were required. It is also noted that the draft Drinking Water Standards recognises that 'advances in scientific knowledge may lead to changes in the microbiological acceptable values and that when evidence for these changes becomes available, revised MAVs will be included in later editions of the Standards'.

Since the Drinking Water Standards were developed viral science and research has advanced significantly. It is well known that bacterial indicators do not adequately

¹ Ministry of Health population projections for DHBs in 2019 (Bay of Plenty DHB 240,000 and Lakes DHB 111,000)

reflect the occurrence and survival of viruses. Faecal contamination poses a risk to health whether recent or months past. It is also known that only a very few viral particles can cause disease.

Viral infections are present in the community and are anticipated to be in the environment, including fresh water for long periods of time. Viruses in drinking water at low concentrations are a significant risk to human health. To safeguard consumers from drinking water containing viral pathogens **it is recommended** that the viral reference laboratory at ESR review the feasibility of an enteric virus indicator or representative for inclusion in the Drinking Water Standards.

3. For clarity and to support users of the Drinking Water Standards, **it is suggested** that the maximum and minimum acceptable value substance name display the common name, scientific name when applicable and be written in full. For example, 1080 – sodium fluoroacetate, and MCPA - 2-methyl-4-chlorophenoxyacetic acid.

Drinking Water Quality Assurance Rules

1. The changes proposed to reflect the increased scope of the Water Services Act **are supported**. I particularly support improvements to monitoring of source water, treatment monitoring including cyanotoxin compliance, distribution system residual disinfection, backflow prevention, and widening the scope of water supplies to include temporary events, water stations and tankered water supplies.
2. Regardless of population size, water quality assurance rules need to provide confidence to Taumata Arowai and consumers that every day water supplied from all water supplies is safe.

I note the proposed rules approach is to increase complexity of the rules with the size of the supply while reducing the burden on smaller supplies. It is understandable that drinking water supplies to large populations need to demonstrate compliance to a higher level and reduce the health risk from unsafe water being supplied to many people.

To effectively manage the risks to the population of small (<50 people) and very small (50-500 people) water supplies, the on demand networked small and very small drinking water supply types need to consider the vulnerability of the population and adjust the rules to match the risk posed.

Managing risk to health by population size alone is likely to promote inequalities in vulnerable populations served by small and very small water supplies. Compliance minimises the risk that drinking water might exceed the Drinking Water Standards and my concern here is that while the aim is not to place too much burden on small water supplies, they may also pose a significant risk to health. Unless there is confidence by demonstrating compliance the proposed approach may increase inequalities rather than reduce them.

Of paramount consideration here is the ‘protection’ of public health regardless of the size of the population being served by the supply. **It is recommended** that water quality assurance rules for small and very small water supplies need to consider the vulnerability of the population that is supplied.

3. Each marae is unique and varies in terms of how and when they are used. To assist marae drinking water suppliers understanding which supply category their marae falls into, **it is suggested** that marae and their varied uses be included as examples in the *guidance to determining drinking water supply population* and/or the *description of drinking water supply types* documents. For example, describing examples of a marae which has a Kōhanga reo, kura or papakāinga on site, or a marae that is frequently used or not so frequently used would support marae to know what they need to do for monitoring, reporting and other activities to comply with the Drinking Water Standards.

Providing more clarity will assist Iwi, Taumata Arowai, and other regulatory agencies that have a drinking water role under the Health and Building Acts.

Drinking Water Aesthetic Values

Water that tastes, smells, and looks appealing will promote good health by increasing consumption and removing the need to find an alternative supply that may be unsafe and less nutritious. Therefore, **I support** the acceptable ranges of substances. We particularly support changes to align the acceptable values with acceptability values set by the World Health Organization.

Drinking Water Acceptable Solution for Roof Water Supplies

Drinking Water Acceptable Solution for Spring and Bore Water Supplies

Drinking Water Acceptable Solution for Rural Agricultural Water Supplies

The new concept of acceptable solutions for roof, spring and bore, and rural agricultural water supply is supported in principle and the key criteria for use are mostly supported.

Water supplies without regular maintenance and correct operation have the potential to supply unsafe water and cause disease. Larger networked supplies, like those managed by councils, are usually professionally operated and maintained and are the most protective of public health.

Public health supports the best practicable water supply to protect public health. Therefore, when a networked water supply is available, it needs to be connected to whenever possible. This should be a key criterion for use for all small drinking water supplies. Consequently, **I recommend** that the acceptable solution key criteria for spring and bore water supplies include that they are only to be used where a networked community supply is not available to the dwellings or buildings in question.

I recommend the inclusion of a definition for 'available' to provide clarity and the assessment criteria that need to be considered. For example, a long-term cost benefit analysis to health needs to be considered in conjunction with the practical limitations and overall cost to connect to the nearest network.

I recommend that the acceptable solution for roof water supplies is only a solution when an adequate quantity of water is provided to the dwellings or buildings at peak times. For good health, people need uninterrupted access to safe water to reduce the overall level of infectious disease in the community.

Further comment

The Water Services Act provides for notification to the Medical Officer of Health by Taumata Arowai when a drinking water supplier informs them that a notifiable risk or hazard exists. Notification to the Medical Officer of Health is also provided for when a drinking water emergency is declared due to a serious risk to public health.

When drinking water does not comply with the Drinking Water Standards a risk of harm to human health exists. The purpose of the proposed documents will guide the way drinking water is supplied in relation to Taumata Arowai regulatory role under the Water Services Act 2021.

To assist the Medical Officer of Health in their regulatory duties to prevent disease in the community, and to support Taumata Arowai in their regulatory duties by ensuring all communities receive safe drinking water every day, **it is requested** that Taumata Arowai, immediately on notification from the drinking water supplier, inform the Medical Officer of Health of the initial actions taken by the drinking water supplier to manage the risk and prevent ongoing harm.

It is also requested that during an investigation if suspected water borne disease or chemical harm is brought to the attention of Taumata Arowai that it be reported to the Medical Officer of Health.

We suggest that, when a risk to health exists, that consumer advice provided by drinking water suppliers includes the advice that people seek medical advice should they be concerned about their health if they have consumed unsafe water.