

3 March 2020

Committee Secretariat
Health Committee
Parliament Buildings
Wellington

By email: he@parliament.govt.nz

Tēnā koe

Tōpūtanga Tapuhi Kaitiaki o Aotearoa, New Zealand Nurses Organisation (NZNO) welcomes the opportunity to comment on Taumata Arowai – the Water Services Regulator Bill (the Bill).

NZNO has consulted its members and staff in the preparation of this submission. NZNO is the leading professional nursing association and union for nurses in Aotearoa New Zealand, representing 51,651 nurses, midwives, students, kaimahi hauora and health workers on professional and employment matters. NZNO embraces te Tiriti o Waitangi and contributes to improvements of the health status and outcomes of all people of Aotearoa New Zealand through influencing health, employment and social policy development.

1. NZNO supports the Bill and its objective to establish a distinct body (Taumata Arowai) to oversee, administer and enforce the drinking water regulatory system in Aotearoa New Zealand. We wish to raise the following :
 - support for Te Mana o te Wai.
 - concerns around the decreasing reliability of the fundamental service of safe drinking water;
 - concerns around deteriorating drinking water quality and potential future health implications; and
 - recommendations that better measures of the potential impact of nitrate levels on health outcomes are needed (notably the need for public health authorities to conduct systematic surveys to assess current levels in our drinking waters and estimate the colorectal cancer burden that can be attributed to these levels, as well as possible changes to the current standard for nitrate in drinking water).

Support for Te Mana o te Wai

1. NZNO strongly supports the concept of a “Te Mana o te Wai” framework (restoring and protecting the integrity of water) and the hierarchy of obligations for water use that prioritizes the inherent health of water, followed by human health needs and finally commercial interests. When Te Mana o te Wai is given effect, the water body will protect not only economic values, but the environmental, social and cultural values held by iwi and the community. This aligns with NZNOs view that population health is ultimately dependent on environmental determinants such as the quality of drinking water.

Decreasing reliability of the fundamental service of safe drinking water

2. The provision of safe drinking water is fundamental to population health in Aotearoa New Zealand. As front-line health professionals working with those affected by the outbreak of gastroenteritis in Havelock North in 2016 our confidence in the reliability of safe drinking water source protection arrangements was shaken. Nurses were impacted both personally and professionally by this outbreak and fully endorse the establishment of a regulatory body aimed at preventing the recurrence of a similar scenario.

Deteriorating drinking water quality and potential future health implications

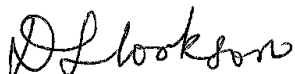
3. NZNO is also concerned about indicators that show increased nitrates in waterways and subsequently drinking water associated with intensification of agriculture (particularly dairy farming)ⁱ and the potential risks to human health. We believe the provisions of the Bill represent a more targeted and precautionary approach to managing drinking water quality, but more needs to be done to establish and manage the health impacts of nitrates.
4. Recent large-scale international epidemiological studies from the US and Denmark show long-term consumption of nitrate in drinking water is associated with cancer risks, notably increased risk of colorectal (bowel) cancer^{ii iii}. We urge the Government to take note that the Danish study (which followed 2.7 million people over 23 years) shows a link between nitrates and colorectal cancer at pollution levels much lower than Aotearoa New Zealand currently allows in drinking water. It is alarming that in Canterbury, for example, nitrate levels have been shown to be more than three times higher than the threshold level for colorectal cancer risk identified in this study^{iv}. This could have significant implications for the health of New Zealanders.
5. Aotearoa New Zealand has one of the highest bowel cancer rates in the world and this is rising among young people^v. Leading public health expert Professor Michael Baker has recently stated that based on numbers in the US study “50 people could be dying from bowel cancer every year in New Zealand because of nitrates in their drinking water”^{vi}.
6. High levels of nitrate can also pose a risk to babies less than six months who are formula fed and the unborn foetus of pregnant women – a condition known as “blue baby syndrome”^{vii}. While very few cases of “blue baby” syndrome have been reported, nitrate levels in

groundwater have been rising in the last twenty years and are said to increase over the next 100 years^{viii}.

Recommendations: better measures of health impacts of nitrate in drinking water

7. While NZNO supports this Bill as a positive step towards managing drinking water quality, we also strongly recommend the inclusion of provisions in the Bill for public health authorities to conduct systematic surveys to assess current nitrate levels in our drinking waters. In particular, as the largest professional body of health professionals, we would like to see estimates of the colorectal cancer burden that can be attributed to these levels.
8. NZNO is also of the view that the Danish study shows that the Government needs to consider whether the current nitrate standard for drinking water used in Aotearoa New Zealand (a Maximum Acceptable Value (MAV) of 50 milligrams per litre (mg/l) which is equivalent to 11.3mg/l nitrate-nitrogen)^{ix} is probably too high.
9. Please note our previous submission on the Action for Healthy Waterways Discussion Document on Freshwater Management in New Zealand^{xii}. Further, we endorse the joint submission made by the New Zealand College of Public Health Medicine and the Public Health Association on this Bill.

Nāku noa nā



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