



Another Havelock North? Govt undoing protections for drinking water safety

7 May 2024

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Summary

After the world's largest recorded campylobacteriosis outbreak occurred in Havelock North in 2016, the National-led Government established a formal inquiry into what went wrong and lessons for the future. This led to policy changes to strengthen the protection of source water and improve the country's drinking water supply system. These changes included introducing Te Mana o te Wai, the central decision-making framework in the country's national freshwater policy. Te Mana o te Wai formally prioritises the protection of drinking water over commercial interests and other activities that could harm people's health through contaminated, or otherwise degraded, drinking water sources.

However, the current National-led Coalition has begun disestablishing protections brought in after the Havelock North outbreak, going against the Inquiry and international bestpractice for drinking water safety.

It is critical that Ministers, and other policymakers, take stock of the suite of changes currently proposed and ensure that they are not setting the stage for another major outbreak.

Havelock North outbreak the catalyst for strengthened drinking water policy

In 2017, the report of the Official Inquiry into the Havelock North campylobacteriosis outbreak stated, "As time passes, knowledge of the circumstances of the August 2016 outbreak will fade and its immediate impact will be lost." The National-led Government established the Inquiry after the outbreak left an estimated six to eight thousand people sick, 42 hospitalised, and led to four deaths.¹

This was the largest waterborne campylobacteriosis outbreak ever reported, not only in Aotearoa New Zealand (NZ) but the world.¹ However, it wasn't the only NZ outbreak caused by a contaminated drinking water supply in recent years. There had been others before Havelock North, in Darfield² and Cardrona.³ Additionally, more than 30,000 New Zealanders are estimated to experience gastrointestinal disease as a result of pathogen-contaminated drinking water each year.⁴

As well as human health costs, Havelock North's outbreak was estimated to have cost the town over \$21 million (\$2,440/household). The Inquiry noted this was likely an underestimate and that there was also the risk of reputational damage to the country's tourism and export sectors. Concerns were also raised about reputational damage from contaminated drinking water during Queenstown's cryptosporidium outbreak last year.

As the Inquiry warned, the impact of the Havelock North outbreak appears to be fading from some memories. The current Government's policy programme is disestablishing protections for drinking water sources brought in after the outbreak, delaying reform on the delivery of water services and infrastructure improvements by repealing Three Water legislation, and introducing a fast-track process that would allow projects that override local government plans and rules for drinking water protection.

The consequences of this policy programme may be obscured because changes are being

made across several different water policies and other policy areas. However, together, these proposed changes represent a serious rollback of protection, and would make drinking water more vulnerable to contamination and increase the risk to people's health.

Strengthened protections for drinking water and the Coalition Government's proposed changes

Delivering safe and good quality drinking water requires a cohesive and connected system across agencies and policies to ensure multiple barriers are in place to prevent contamination. These multiple barriers (Appendix 1) can be thought of like the 'Swiss cheese model' used to explain interventions to stop the spread of Covid-19. It was the failure of multiple agencies to implement these barriers that led to the Havelock North outbreak.

As the Inquiry emphasised, source water protection "provides the first, and most significant, barrier against drinking water contamination and illness". Source water refers to the waterbody that drinking water is drawn from (eg, lake, river or aquifer). Following the outbreak, the National Policy Statement for Freshwater Management (NPS-FM 2020) was rewritten to require regional councils to prioritise the protection of drinking water sources over commercial interests (the Te Mana o te Wai framework). This was a major public health gain. The Resource Management Act 1991 (RMA) was also amended to strengthen regional councils' responsibility for source water protection (s 104 G), and a new National Environmental Standards for Sources of Human Drinking Water was drafted for the same purpose.

The Government is planning to undo or weaken these vital improvements (Table 1 – with more information on each policy change provided in Appendix 2). Furthermore, the Government has signalled its intention to rewrite the RMA to prioritise the "enjoyment of property rights" (the current purpose of the Act is sustainable management, including "safeguarding the life-supporting capacity of air, water, soil, and ecosystems"). ^{9 11} It has also proposed the Fast-Track Approvals Bill that would mean regional plans (the main mechanism by which source water can be protected) could be over-ridden, and is likely to lead to large-scale projects that increase the pressure on and pollution of source water (eg, irrigation dams). Projects approved under the Bill are not required to prove they would not impact communities' source water. Additionally, the Government has delayed improvements to water infrastructure through repealing Three Waters reform.

The combined effect of the Government's changes and proposals would mean serious weaknesses in protections for, and provision of, safe drinking water (Table 1 – with more information on each policy change provided in Appendix 2).

Table 1: Policy or legislation changes planned by the Government and their potential consequences for the safety of drinking water.

Policy or legislation

Government's proposed changes and likely consequences for the safety of drinking water

Te Mana o te Wai is the central decision-making framework of the National Policy Statement for Freshwater Management (NPS-FM) 2020.¹²

Te Mana o te Wai (in the National Policy Statement for Freshwater Management 2020) Te Mana o te Wai was strengthened post-Havelock North by introducing a "hierarchy of obligations", which requires councils to prioritise the health of waterways and drinking water sources before considering commercial activities that can impact waterbodies.¹³

This was an important and essential change, as it gave legal weight to the protection of drinking water sources that had not existed previously.¹⁴

The Government announced last month that is would disapply Te Mana o te Wai from consenting decisions through an amendment to the RMA and reconfirmed its intention to "rebalance" Te Mana o te Wai. ¹⁵ This is likely to mean a return to a previous iteration of the NPS-FM, where drinking water was not given priority over commercial uses of water (eg, for irrigation).

Rewriting the Resource Management Act 1991

The RMA is the country's overarching policy for sustainable development. It includes provisions to protect drinking water sources. These were amended following the outbreak to strengthen and clarify the responsibility regional councils have for source water protection (s 104 G).

The Coalition Government has reiterated its commitment to the coalition deal between National and ACT parties, which agreed the Government would rewrite the RMA to have as its priority "the enjoyment of property rights". 11

The protection of source water typically requires management of landscapes across multiple properties. Prioritising property rights in the RMA will result in the deprioritisation of the protection of the safety and quality of communities' drinking water.

National Environmental Standards for Sources of Human Drinking Water (NES-DW) 2007

An updated NES-DW was publicly consulted on in 2022 and had been due to be updated in 2023. For unclear reasons, updates have not been finalised in a revised policy.

The Inquiry stated that its "expert panel and submitters were adamant that all drinking water supplies should receive similar quality safeguards and that the size of a drinking water supply should not determine the level of first barrier protection. The Inquiry firmly accepts this view. All consumers should have the benefits and protections of the [National Environmental Standards] Regulations".⁴

However, the National Party stated in pre-election policy documents that it planned to amend the proposed NES-DW to avoid excessive compliance requirements for small providers of 30 connections or fewer". ¹⁶ This is likely to result in lesser protection for smaller communities' drinking water.

Policy or legislation	Government's proposed changes and likely consequences for the safety of drinking water
Fast-Track Approvals Bill	Regional council planning is a key legal mechanism for protecting source water. The Fast-Track Approvals Bill would allow Ministers to approve projects that are inconsistent with regional councils' plans. This means projects could go ahead even if they pose a risk to drinking water sources, either through pollution or otherwise degrading the waterbody (eg, taking too much water from the catchment in a way that impacts communities' access to water).
Repeal of Three Water reforms	The Havelock North outbreak was the direct catalyst for the Three Waters reform. A review into Aotearoa New Zealand's three waters (stormwater, wastewater, and drinking water) infrastructure began in mid-2017 to identify how to overcome the widespread neglect of water infrastructure. The new Government repealed the Water Services Entities Act 2022 introduced by the Labour-led Government, which was designed to overcome the challenges for councils in raising sufficient funds and other limitations to delivering water infrastructure. Delaying improvements to water infrastructure is likely to have public health consequences, particularly if drinking water sources have less protection under the law.

Why drinking water standards are not enough to protect people from contaminated drinking water

Local Government Minister Simeon Brown has emphasised the need for strict standards for water quality. ¹⁹ Drinking water standards are important as part of the precautionary approach to contaminants in drinking water and outbreak prevention. However, standards alone are not enough to achieve safe, good quality drinking water. As previously stated, multiple barriers must be implemented through cohesive and connected policies and agencies (Appendix 1).

Despite the existence of drinking water standards for some time in NZ, some communities have had their drinking water contaminated to levels above the limits specified in these standards. Drinking water standards existed before the events in Havelock North but did not prevent the outbreak. In the case of Waimate, Environment Canterbury granted consents knowing that the effect would likely be the town's water source being contaminated above standards for nitrate (this was prior to the introduction of the Te Mana o te Wai "hierarchy of obligations" and the RMA improvements). The town's supply exceeded nitrate standards just seven years later.²⁰ Another pathogen, cryptosporidiosis, also causes occasional outbreaks despite the existence of specific quality standards for excluding this pathogen from drinking water.^{21 22}

Conclusions

Through the Havelock North outbreak and the subsequent inquiry, NZ learned hard and important lessons about the severe impact of contaminated drinking water and best practice approaches to strengthen the country's drinking water system. However, the Coalition Government is unwisely, and currently largely unaccountably, dismantling improvements made or initiated for the protection of drinking water in the aftermath of the

outbreak. It is critical that Ministers and other policy makers take stock of the suite of changes proposed and ensure that they are not setting the stage for the next Havelock North type disaster.

What is new in this Briefing

- We present a summary of the Coalition Government's proposed changes to drinking water and related policies. The overall pattern shows a severe weakening of protections and, therefore, increased risks to public health.
- The increased risk to public health of these policy changes has not yet been clearly discussed in the public arena or by the relevant Ministers.

Implications for public health policy and practice

- Health agencies need to alert the Government that important gains made in the protection of drinking water after the Havelock North campylobacteriosis outbreak risk being lost if new policy changes continue as proposed.
- It is essential to retain Te Mana o te Wai to give adequate legal weight to the protection of drinking water in regional plans and avoid the proposed "rebalancing" of Te Mana o te Wai.
- The Fast-Track Approvals Bill should be halted due to the threat it poses to the protection of drinking water safety and other risks it poses to public health.

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Appendix 1:

The multiple barriers needed in the provision of safe, good quality drinking water and agencies or entities with responsibilities for the barrier (Adapted from Plummer et al., 2010, Prickett, et al. 2023).

Barrier	Agencies or entities with responsibilities for the barrier.
Source water protection (described by the Havelock North Inquiry as the "first, and most significant, barrier against drinking water contamination and illness").4	Regional councils are responsible for water quality and rules that control land use and activities (eg, ensuring forestry cover, minimising livestock related contamination). Suppliers have a responsibility to identify risks to their source water in a Source Water Risk Management plan. Suppliers may be a regional or district council. Taumata Arowai, the drinking water regulator, responsible as regulator and oversight body. Ministry of Environment responsible for formulating policy for protecting sources of drinking water
Adequate water treatment (eg, filtration, chlorination)	Suppliers, which may be a council where they are the supplier for a town, city, or community. Taumata Arowai, the drinking water regulator, responsible as regulator and oversight body. Ministry of Health/Manatū Hauora, responsible for formulating policy for achieving safe drinking-water supplies
Secure storage and distribution (eg, reticulated piping that does not leak)	Suppliers, which may be a council where they are the supplier for a town, city, or community. This is currently a major problem in many areas given the scale of water leakage from reticulated piping. ²³ Taumata Arowai, the drinking water regulator, responsible as regulator and oversight body. Ministry of Health/Manatū Hauora, responsible formulating policy for achieving safe drinking-water supplies
Proper monitoring and warning systems	Suppliers, which may be a council where they are the supplier for a town, city, or community. Taumata Arowai, the drinking water regulator, responsible as regulator and oversight body. Regional council responsible for providing monitoring of environmental impacts assessing compliance.
Appropriate responses to adverse conditions (ie, prepared for when things go wrong)	Suppliers, this may be a council where they are the supplier for a town, city, or community. National Public Health Service (and Medical Officers of Health) which is part of Health New Zealand/Te Whatu Ora. Taumata Arowai, the drinking water regulator, responsible as regulator and oversight body. Regional council responsible for incidence response and prosecuting environmental non-compliance. Central Government agencies eg, Ministry of Health/Manatū Hauora, Health New Zealand/Te Whatu Ora.

Appendix 2

Policy or legislation changes planned by the Government and their potential consequences for the safety of drinking water - more detail.

Government's proposed changes and likely consequences Policy or legislation for the safety of drinking water

Te Mana o te Wai is the central decision-making framework of the National Policy Statement for Freshwater Management (NPS-FM) 2020.12

Te Mana o te Wai was strengthened post-Havelock North by introducing a "hierarchy of obligations", which requires councils to prioritise the health of waterways and drinking water sources before considering commercial activities that can impact waterbodies.12

This was an important and essential change as it gave legal weight to the protection of drinking water sources that had not existed previously. 14 It was consistent with the Inquiry that identified "express recognition as essential so that the protection of drinking water sources remains front and centre and visible in future", and recommended resource management law be "amended to expressly recognise the protection and management of drinking water sources as a matter of national importance".⁴

Te Mana o te Wai (in the National **Policy Statement** for Freshwater Management 2020)

By giving legal weight to the health of the waterbody itself (ecosystem health), there is also recognition that degraded waterways are not able to supply good quality water for drinking. In 2023, commissioners declined a Hawke's Bay consent application to take 8.44 billion litres of water a year for irrigation on the basis of the Te Mana o te Wai hierarchy. They noted in their decision that, in previous versions of the NPS-FM, "no strong weighting was given to the protection of freshwater values versus its use and development."14

The Government announced that it would disapply Te Mana o te Wai from consenting decisions through an amendment to the RMA and reconfirmed its intention to "rebalance" Te Mana o te Wai. This is likely to mean a return to a previous iteration of the NPS-FM, where drinking water was not given priority over commercial uses of water (eg, for irrigation).

Policy or legislation

Government's proposed changes and likely consequences for the safety of drinking water

Rewriting the Resource Management Act 1991

The RMA is the country's overarching policy for sustainable development. It includes provisions to protect drinking water sources. These were strengthened following the outbreak to strengthen and clarify the responsibility regional councils have for source water protection (s 104 G). Though, if the recommendations of the Havelock North Inquiry were fully enacted, these provisions would be stronger by established source water protection as a matter of national importance. The Coalition Government has reiterated its commitment to the coalition deal between National and ACT parties, which agreed the Government would rewrite the RMA to have as its priority "the enjoyment of property rights".

The protection of source water typically requires management of landscapes across multiple properties. Prioritising property rights is likely to result in the further deprioritisation of the protection of the safety and quality of communities' drinking water.

National Environmental Standards for Sources of Human Drinking Water (NES-DW) 2007

The Inquiry was particularly direct in its recommendations on the need to update the NES-DW. It had found that the NES-DW had been established to address what it called councils' "no responsibility" mindset on drinking water but that it had lacked clarity in some significant ways.⁴

An updated NES-DW was publicly consulted on in 2022 and had been due to be updated in 2023. For unclear reasons, updates had not been finalised in an updated policy.

The Inquiry was especially clear that communities on smaller or private supplies should not be at greater risk and that smaller supplies' source water must be covered by an updated NES-DW. The Inquiry stated that its "expert panel and submitters were adamant that the size of a drinking water supply should not determine the level of first barrier protection. The Inquiry firmly accepts this view. All consumers should have the benefits and protections of the [National Environmental Standards] Regulations".⁴

However, the National Party stated in pre-election policy documents that it planned to amend the proposed NES-DW to avoid excessive compliance requirements for small providers of 30 connections or fewer". ¹⁶

Fast-Track Approvals Bill

Regional council planning is a key legal mechanism for protecting source water. The Fast-Track Approvals Bill would allow Ministers to approve projects that are inconsistent with regional councils plans. This means projects could go ahead even if they are a risk to drinking water sources, either through pollution or otherwise degrading the waterbody (eg, taking too much water from the catchment in a way that impacts communities access to water).

Projects under the Bill could include large-scale irrigation dams, which can have profound effects on the quality of drinking water sources as they promote the intensification of land use and lead to more pollution of waterways.²⁴ Under the Bill, such projects would not be required to prove they would not impact communities' drinking water sources.

Policy or legislation

Government's proposed changes and likely consequences for the safety of drinking water

The Havelock North outbreak was the direct catalyst for the Three Waters reform. A review into Aotearoa New Zealand's three waters (stormwater, wastewater, and drinking water) began in mid-2017 to identify how to overcome the widespread neglect of water infrastructure.

The Three Waters review aimed to achieve:

- "Safe, acceptable (taste, colour, and smell) and reliable drinking water.
- Better environmental performance from our water services.
- Efficient, sustainable, resilient, and accountable water services.
- Achieving these aims in ways our communities can afford."¹⁸ The review estimated the national infrastructure deficit could be up to ~\$185 billion and identified that many councils were struggling to raise the funds needed to complete necessary upgrades due to limited rates base and difficulty in accessing sufficient financing through loans.¹⁸

Repeal of Three Water reforms

The Coalition Government repealed the Water Services Entities Act 2022 introduced by the previous Government, which was designed to overcome these and other limitations to the country's water infrastructure.

The new Government is still working on a replacement programme called 'Local Water Done Well'. This new programme is due to be finalised next year and has delayed council work. Some commentators have expressed concerns that 'Local Water Done Well' is likely to be insufficient to address the deficit as the Government has said it would not act as a guarantor for loans taken on to upgrade infrastructure. Additionally, Water NZ has warned some councils may find themselves as "orphans", where their size or extent of their infrastructure issues may leave them unable to partner with other councils to provide the scale needed for securing funds.

Delaying acting to improve water infrastructure is likely to have public health consequences, particularly if drinking water sources have less protection under the law.

This article was updated (16 May 2024) to note Taumata Arowai's role as both regulator and oversight body in relation to barriers described in Appendix 1. An earlier version lacked clarity on the agency's role as regulator in relation to these barriers.

References

- 1. Gilpin BJ, Walker T, Paine S, et al. A large scale waterborne Campylobacteriosis outbreak, Havelock North, New Zealand. *Journal of Infection* 2020;81(3):390-95. doi: https://doi.org/10.1016/j.jinf.2020.06.065
- 2. Bartholomew N, Brunton C, Mitchell P, et al. A waterborne outbreak of campylobacteriosis in the South Island of New Zealand due to a failure to implement a multi-barrier approach. *Journal of Water and Health* 2014;12(3):555-63. doi: 10.2166/wh.2014.155
- 3. Radio New Zealand. Wastewater likely source of Cadrona Norovirus. Radio New

Zealand 2012 22 September 2012.

 $\frac{https://www.rnz.co.nz/news/national/116405/wastewater-likely-source-of-cardrona-nor ovirus.}$

- 4. Government Inquiry into Havelock North Drinking Water. Report of the Havelock North Drinking Water Inquiry: Stage 2. Auckland, New Zealand, 2017.
- 5. Moore D, Drew R, Davies P, Rippon R. The Economic Costs of the Havelock North August 2016 Waterborne Disease Outbreak. Wellington, NZ., 2017.
- 6. Callahan C. Queenstown's reputation on the line after Council warn boil notice could last months. *Newshub* 2023 21 September 2023. https://www.newshub.co.nz/home/new-zealand/2023/09/queenstown-s-reputation-on-the-line-after-council-warn-boil-notice-could-last-months.html.
- 7. Plummer R, Velaniškis J, de Grosbois D, et al. The development of new environmental policies and processes in response to a crisis: the case of the multiple barrier approach for safe drinking water. *Environmental Science & Policy* 2010;13(6):535-48. doi: https://doi.org/10.1016/j.envsci.2010.05.004
- 8. Government Inquiry into Havelock North Drinking Water. Report of the Havelock North Drinking Water Inquiry: Stage 1. Auckland, New Zealand, 2017.
- 9. Resource Management Act. NZ, 1991.
- 10. Ministry for the Environment. Kia kaha ake te tiakina o ngā puna wai-inu | Improving the protection of drinking-water sources: Proposed amendments to the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007: Consultation document. Wellington, NZ, 2022.
- 11. New Zealand National Party, ACT New Zealand. Coalition Agreement between the National Party and the ACT Party: New Zealand National Party, 2023.
- 12. Ministry for the Environment. National Policy Statement for Freshwater Management 2020. In: Ministry for the Environment, ed. Wellington, NZ, 2023.
- 13. Ministry for the Environment. Proposed national policy statement for highly productive land 2021 [Available from: https://environment.govt.nz/acts-and-regulations/national-policy-statements/proposed-nps-highly-productive-land/ accessed 9 May 2022.
- 14. Kirikiri R, Cussins T. Ruataniwha Tranche 2 Resource Consent Applications Decision. Hawke's Bay, NZ, 2023.
- 15. Radio New Zealand. Government reveals first changes to the Resource Management Act. *Radio New Zealand* 2024 23 April 2024. https://www.rnz.co.nz/news/political/514993/government-reveals-first-changes-to-resource-management-act.
- New Zealand National Party. Getting back to farming 2023 [Available from: https://www.national.org.nz/getting back to farming accessed 9 January 2024.
- 17. New Zealand Government. Fast-track approvals Bill, 2024.
- 18. Department of Internal Affairs. Three Waters Review 2021 [Available from: https://www.dia.govt.nz/Three-waters-review accessed 26 April 2024.
- 19. Campbell G. Local Government Minister Simeon Brown asks Wellington Water for explanation over restrictions and shortage crisis. *NZ Herald* 2024 19 January 2024. https://www.nzherald.co.nz/nz/simeon-brown-asks-wellington-water-for-a-please-explain-over-restrictions-and-shortage-crisis/Z46LV6X42BFXPDRGIAMLPOPFYQ/.
- 20. Prickett M, Chambers T, Hales S. 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* 2023:1-10. doi: 10.1080/13241583.2023.2272324
- 21. Grout L, Hales S, Baker MG, et al. Severe weather events and cryptosporidiosis in Aotearoa New Zealand: A case series of space-time clusters. *Epidemiology and*

- *Infection* 2024;152:e64. doi: 10.1017/S095026882400058X [published Online First: 2024/04/15]
- 22. Baker MG, Prickett M, Pourzand F, et al. Queenstown outbreak highlights future challenges for clean drinking water. *The Briefing* 2023 29 September 2023. https://www.phcc.org.nz/briefing/queenstown-outbreak-highlights-future-challenges-clean-drinking-water.
- 23. Wilson N, Prickett M, Broadbent A, et al. Money Down the Drain: The high cost of leaking water pipes. *The Briefing* 2024 12 March 2024. https://www.phcc.org.nz/briefing/money-down-drain-high-cost-leaking-water-pipes.
- 24. Prickett M, Reuvecamp I, Hales S, Baker MG. Fast-track Bill puts NZ on wrong track, threatening public health. *The Briefing* 2024 2 April. https://www.phcc.org.nz/briefing/fast-track-bill-puts-nz-wrong-track-threatening-public-health.
- 25. Kirkby-McLeod L. Three Waters repeal an added complication for councils' long-term plans. *Radio New Zealand* 2024 14 March 2024. https://www.rnz.co.nz/news/political/511649/three-waters-repeal-an-added-complication-for-councils-long-term-plans (accessed 26 April 2024).
- 26. Hickey B. The holes in National's water plan. *The Kākā* 2024 12 February 2024. https://thekaka.substack.com/p/the-holes-in-nationals-water-reform (accessed 26 April 2024).
- 27. Water NZ. Briefing to the Incoming Minister. 2023 November 2023. https://www.waternz.org.nz//Article?Action=View&Article_id=2586.



Public Health Expert Briefing (ISSN 2816-1203)

Source URL:

https://www.phcc.org.nz/briefing/another-havelock-north-govt-undoing-protections-drinking-water-safety