Interim Regulatory Impact Statement: Amending Human Drinking Water Source Protection Policies

Coversheet

Purpose of Document	
Decision sought:	*This interim analysis is intended to support Cabinet decisions on which proposals should be progressed to public consultation on freshwater national direction amendments*
Advising agencies:	*Ministry for the Environment (MFE)*
Proposing Ministers:	*Minister responsible for RMA Reform* *Minister of Local Government* *Associate Minister for the Environment*
Date finalised:	*12 March 2025*

Problem Definition

Despite legislation in place, many New Zealanders are still exposed to unsafe drinking water and waterborne illnesses, with higher risk of exposure to those serviced by small supplies. This has significant impacts on health, on social and cultural values, and on local economies.

Some land use activities are located too close to drinking water sources and are negatively impacting the quality and safety of drinking water. Some councils are not adequately managing the risks that some land use activities pose to drinking water safety.

Executive Summary

The changes considered in this Regulatory Impact Statement (RIS) form part of 'phase two' of the Government's reform of the resource management (RM) system. Phase 2 includes targeted legislative amendments to national direction under the RMA. This will involve public consultation in early 2025, with delivery aimed for mid-2025. This RIS has been prepared to support Cabinet decisions on proposals that will be progressed through to public consultation.

As part of Phase 2, the Government has committed to reviewing and replacing the National Policy Statement for Freshwater Management (NPS-FM) 2020 as well as to rebalancing Te Mana o te Wai to better reflect the interests of all water users. The Government wants to remove unnecessary cost, complexity and rigidity, while improving the health of freshwater for all New Zealanders.

Significant problems with the National Environmental Standards for Sources of Human Drinking Water (NES-DW) were identified within the Havelock North Inquiry and in the subsequent MfE review. It was determined that the current NES-DW regulations had not achieved their intended purpose of protecting sources of drinking water as the NES-DW was:

- limited in its scope and application

- complex and technically challenging to apply
- inconsistently applied across the country.

One of the findings from the inquiry was that the current NES-DW terms of 'upstream' and 'abstraction point' are problematic to apply. Inquiry members therefore recommended that the regulations needed to incorporate a spatial criterion. The inquiry heard a number of submissions that explained how the use of spatially explicit source protection zones would remove the need for costly case by case analysis by consent applicants and consent authorities as to whether the NES regulations apply to a particular activity.

Two proposals are considered in this interim RIS, namely:

1. A one-stage proposal to require regional councils to map source water risk management areas (SWRMAs), with no further work on provisions controlling high-risk activities.
2. A more comprehensive two-stage proposal to firstly require regional councils to map SWRMAs (as in proposal one) then secondly, once mapping requirements are in legislation, initiate work to introduce specific activity control provisions for high-risk activities on a timeframe to be confirmed.

In our view, the two-stage proposal provides the best protection to New Zealander's drinking water sources, while acknowledging tight timeframes and limited resourcing in the immediate future. Progressing first with the SWRMA mapping requirements, followed by further work on activity control provisions in a second stage, provides the most critical improvements as soon as possible while being low-cost to deliver and implement.

The first stage of the preferred proposal would retain the activity control direction of the current NES-DW, and would introduce a requirement, under the NPS-FM, for regional councils to map SWRMA by three levels of risk, according to the following criteria:

a) SWRMA 1 – the zone directly surrounding the source water intake, where there is an immediate risk of contamination,
b) SWRMA 2 – a microbial risk area, to limit the concentrations of microbial pathogens before abstraction,
c) SWRMA 3 – the entire surface water catchment, or groundwater capture zone to protect against persistent contaminants.

The mapping of SWRMAs will ensure regional councils have appropriate environmental and hydrological information on hand to enable them to make better, more targeted consenting decisions. Regional councils would be required to complete mapping within 5 years of the commencement date and to prioritise the work by risk (eg, the largest and most under pressure supplies first).

Introducing mapping requirements would impose some additional costs for regional councils, but officials consider this is small compared to the benefits and possible down-stream savings of a higher level of drinking water protection. The preferred proposal allows for regional councils to choose the level of complexity of the mapping, by offering a bespoke option. This will ensure that the complex and costly mapping is used in appropriate situations, and for simple or small supplies, the default option is available.

Using these SWRMAs, regional councils will be required to implement the activity control provisions in the current NES-DW. While risks to source water will remain, the proposed mapping requirements would be a significant improvement, and changes to the NES-DW itself (eg, activity control policies) could be progressed in a second stage. This approach would mean no changes are made to the NES-DW in 2025.

The coverage of the preferred proposal for consultation would be broader than the counterfactual. Currently, the NES-DW applies to all supplies that serve no fewer than 501 people, covering 276 drinking water supplies and 82% of the population. Our proposal for consultation would not amend the scope of applicable supplies under the NES-DW but would require regional councils to map SWRMAs with supplies serving no fewer than 101-people. This would mean 815 supplies need SWRMAs mapped. Public consultation on this aspect will enable feedback on whether this threshold strikes the right balance.

We recommend including mapping requirements in the National Policy Statement for Freshwater Management (NPS-FM), rather than creating a new instrument. The proposal will form part of the consultation package relating to the NPS-FM for the public statutory notification (and submission) process in accordance with section 46A of the RMA by the Minister Responsible for RMA Reform. Cabinet will note Ministers' decisions when they consider the consultation package, including interim regulatory impact statements, in early 2025.

Limitations and Constraints on Analysis

Our multi-criteria analysis shows that the highest scoring option that best addresses the problem is to require mapping in a first stage and then deliver amendments to the NES-DW for activity controls in a second stage. Targeted engagement told us that we have more work to do to get the activity control policies right. However, this work requires more time and resources than those available for Phase 2 reform.

Given that SWRMA maps are required to enable an activity control framework, and therefore need to be introduced first, we think that progressing with SWRMA mapping requirements now and activity controls later is a 'no regrets' decision that we expect to be consistent with future RM system reform.

Officials from the Department of Internal Affairs (DIA) support the proposed approach to delay the progression of activity controls until further policy work has been completed. In particular, DIA would like to see further work on the costs of such work on drinking water suppliers as well as the implications for wastewater treatment plants, both existing and new.

Data on the number of registered supplies is very robust, due to the regulatory nature of their registration. However, the costs to each council of SWRMA mapping is more uncertain; firstly due to the variable nature of the methods that a council may choose to use (and have the flexibility to do so) and secondly because many councils have existing data and/or mapping that gives them a head start on meeting these new requirements. Analysis of regional plans in 2018 showed that five regional councils had explicit consideration of source protection zones (which could probably be transferred across easily), six regional councils had partial consideration of source protection zones, and the remainder had none.[1]

This interim RIS does not contain a Treaty of Waitangi impact analysis (TIA). This is because all RISs in this national direction package have one combined TIA, where the impacts of individual policy proposals are combined under four categories of impact:

1. improving water quality and the health of ecosystems and waterways
2. governance/ management/ decision-making

[1]Kerr, T., Cranney, O. and Dark, A. (2018). *Drinking Water Source Protection Zones: Delineation methodology and potential impacts of national implementation*. Prepared for Ministry for the Environment by Aqualinc Research Limited.. p. 5 Available at https://environment.govt.nz/assets/Publications/Files/aqualinc-technical- report-drinking-water-source-protection-zones.pdf

3. formal recognition of iwi/hapū relationships with water bodies

4. economic development

We consider this approach makes the cumulative impacts of the national direction package on Treaty partners clearer.

Overall, we feel that Ministers can have a high degree of confidence when using this analysis to inform their decisions.

Responsible Managers
Nik Andic *Manager, Freshwater* *Ministry for the Environment*      *11 March 2025*

Quality Assurance (completed by QA panel)	
Reviewing Agency:	*Ministry for the Environment*
Panel Assessment & Comment:	*The Regulatory Impact Analysis Review Panel (Panel) at the Ministry for the Environment has reviewed the Regulatory Impact Statement (RIS): Amending Human Drinking Water Source Protection Policies.* *The RIS meets the QA criteria. It clearly sets out the problem definition and objectives, assesses an appropriate set of options, and provides adequate information on the cost and benefit. The RIS analysis is also informed by consultation feedback.*

Section 1: Diagnosing the policy problem

What is the context behind the policy problem and how is the status quo expected to develop?

On-going change in the resource management legislative framework

1. In December 2023, the Government began its reform of the resource management system with the Resource Management (Natural and Built Environment and Spatial Planning Repeal and Interim Fast-track Consenting) Act, which repealed the Natural and Built Environment Act and the Spatial Planning Act.
2. A phased approach to resource management reform is being taken [CAB-23-MIN-0473]:
    - phase one: repeal the Natural and Built Environment Act (NBA) and Spatial Planning Act (SPA) (now complete)
    - phase two: introduce a fast-track consenting regime within the first 100 days, make targeted legislative changes to the Resource Management Act 1991 (RMA) in 2024; develop new, or amend existing, national direction under the RMA; and implement the Going for Housing Growth work package
    - phase three: replace the RMA with new resource management legislation based on the enjoyment of property rights, while ensuring good environmental outcomes.
3. The changes considered in this Regulatory Impact Statement (RIS) form part of 'phase two' of this approach and provide for targeted legislative amendments to national direction under the RMA. This will involve public consultation in early 2025, with delivery aimed for mid-2025.
4. As part of Phase 2 of the Government's reform of the resource management (RM) system, the Government has committed to reviewing and replacing the National Policy Statement for Freshwater Management (NPS-FM) 2020,[2] and to rebalance Te Mana o te Wai to better reflect the interests of all water users. The Government wants to remove unnecessary cost, complexity and rigidity, while improving the health of freshwater for all New Zealanders.

Overview of source water protection legislation

5. The RMA is the primary legislation that manages resource use and regulates activities which could have an adverse effect on source water quality. The Ministry for the Environment (MfE) administers the Resource Management Act 1991 (RMA).
6. The Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 (NES-DW) is secondary legislation (under the RMA) and is solely intended to protect source water in New Zealand. The NES-DW was introduced in 2007 to provide protection to drinking water sources, alongside the introduction of drinking water regulations to the Health Act 1956 (Part 2A).
7. The NES-DW aims to reduce the likelihood of source water contamination, and therefore reduce the risk of acute illness, and associated economic and societal costs, due to contaminated drinking water.
8. Source water protection is the first step in multi-barrier protection and plays a critical role in protecting drinking water as it's not always possible to remove contaminants through the treatment process.
9. The protection of source water and the NES-DW was found to have 'significant problems' in the Havelock North Inquiry (HNI). The HNI was conducted in response to the 2016 Havelock North drinking water contamination incident and initiated the wider Three Waters review and reforms that have substantially changed the drinking water regulatory

[2] Published here: https://environment.govt.nz/acts-and-regulations/national-policy-statements/national-policy- statement-freshwater-management/.

framework in New Zealand.

10. The requirements of the current NES-DW are summarised in Box 1.[3]

Box 1

Regulations 7 and 8: A regional council cannot grant water or discharge permits upstream of a source water abstraction point if the activity is likely to impact a water supplier's ability to meet the Drinking-Water Standards for New Zealand 2005 (Revised 2018) (**DWSNZ**), after that water has been treated.

Regulation 10: A regional council cannot permit certain activities upstream of a source water abstraction point if the activity is likely to impact a water supplier's ability to meet the DWSNZ after that water has been treated. Those activities include use of land, and river and lake beds, as well as those relating to water and discharges.
Regulations 7, 8 and 10 only apply to registered drinking water supplies servicing no fewer than 501 people.

Regulation 12: Any consent authority (including city and district councils, as well as regional councils) must, where any activity could significantly impact source water quality through an emergency event, impose a condition on the consent requiring the water supplier is notified.

Regulation 12 applies to any registered water supply servicing no fewer than 25 people. These supplier sizes aligned with categories from the now repealed Part 2A of the Health Act.

11. The application of NES-DW regulations 7, 8 and 10 are dependent on councils defining where 'upstream' land areas are. This has been done in an inconsistent and ad-hoc manner – some councils give explicit consideration of source protection zones in their regional plans and consenting decisions through maps, whilst others have quantitative setback rules (such as 'no offal holes within 100m of a water supply bore'), and some councils have minimum levels of protection with no specific rules around any community water supplies.[4]
12. The NES-DW regulations currently apply to registered drinking water supplies serving greater than 500 people with drinking water (for not less than 60 days each calendar year). There are notification requirements for supplies serving greater than 24 people.

The wider drinking water regulatory framework

The Three Waters Review and the Havelock North Inquiry (HNI)

13. The 2016 Havelock North drinking water contamination incident, which resulted in an estimated 6,260 to 8,320[5] cases of campylobacteriosis (a type of gastroenteritis), and four deaths, initiated a Government review of the 'three waters' regulatory system.[6] The subsequent Havelock North Inquiry (**HNI**) found the drinking water regime to be fragmented and identified various issues with the regulatory regime, including 'significant problems' with the NES-DW and the protection of source water.

[3] On 14 November 2022, the Ministry of Health Drinking-Water Standards for New Zealand 2005 (Revised 2018), will be replaced by the Water Services (Drinking Water Standards for New Zealand) Regulations 2022 developed by Taumata Arowai under the Water Services Act 2021.

[4] Kerr, T., Cranney, O. and Dark, A. (2018). *Drinking Water Source Protection Zones: Delineation methodology and potential impacts of national implementation*. Prepared for Ministry for the Environment by Aqualinc Research Limited. p.5 Available at https://environment.govt.nz/assets/Publications/Files/aqualinc- technical-report-drinking-water-source-protection-zones.pdf

[5] Gilipin, B.J. et al. (2020). *A large scale waterborne Campylobacteriosis outbreak, Havelock North, New Zealand*. Journal of Infection. Vol.81-3. Available at https://www.sciencedirect.com/science/article/pii/S016344532030445X. Previous estimates from the HNI recorded the number of cases at 5,500.

[6] 'Three waters' being defined as drinking water, wastewater and stormwater systems.

14. The Three Waters Review resulted in the establishment of a new dedicated regulator, Taumata Arowai, the introduction of the Water Services Act 2021 (**WSA**) and the repealing of the Health (Drinking Water Amendment) Act 2007. The Government is also reforming how water services are delivered.

The Water Services Act 2021 (WSA)

15. The WSA is the primary legislation that sets the requirements that drinking water suppliers must meet to ensure they provide safe drinking water, replacing Part 2A of the Health Act. The WSA seeks to provide safe drinking water to consumers which includes "providing mechanisms that enable the regulation of drinking water to be proportionate to the scale, complexity, and risk profile of each drinking water supply".[7]

16. Under the WSA, all drinking water suppliers, other than domestic self-suppliers[8], must register with Taumata Arowai and prepare Source Water Risk Management Plans (SWRMPs) to identify, manage and monitor risks to source water. Regional councils are required to contribute information to SWRMPs - including information on water quality, activities that could affect source water, and known risks and hazards. Regional councils must annually publish information about source water quality and quantity, and report to Taumata Arowai.

17. The WSA also amended the RMA with inclusion of new section 104G, which requires resource consent decision-makers to consider risks and effects on source water. This section will apply to all registered water supplies irrespective of how many people they serve.

Local Government Act 2002 Water Supply Bylaws

18. Council water suppliers that have adopted Water Supply Bylaws based on NZS 9201.7:2007, are currently able to establish controlled or restricted drinking water catchments[9] to protect their water supply. The Bylaw allows controls over activities such as camping, bathing, hunting, taking of livestock or dogs, or the use of toxic substances.

Other regulations that contribute to source water protection

19. The NPS-FM was established in 2011 and was last updated in 2020. While the focus of the NPS-FM is on freshwater ecosystem health (rather than drinking water), it also provides co-benefits to source water protection as it:

    - prescribes how regional councils must manage the cumulative effects of all activities that can affect freshwater through the NPS-FM. While the NPS-FM does not include drinking water as a 'compulsory value', it is listed as a value that must be considered, if the 'catchment (or part of it) can meet people's drinking water needs.
    - aims to reduce nutrient and sediment inputs from farming activities to water and improves bacterial loadings in water due to stock.

20. The Resource Management (Freshwater and Other Matters) Amendment Bill restricts councils' ability to notify freshwater plans before the gazettal of the replacement National Policy Statement for Freshwater Management. The restriction on notification is only intended to be a short pause until the NPS-FM is replaced in 2025 when all work can continue. If a regional council requires any urgent plan or policy statement amendments to address drinking water quality they can apply for an exemption to the restriction on notification, and we note the provision, operation, or maintenance of municipal drinking water is a specifically identified criteria for exemption.

21. The NES-DW is just one part of the complex system of regulation that applies across the water system, with responsibilities being shared across multiple local and central

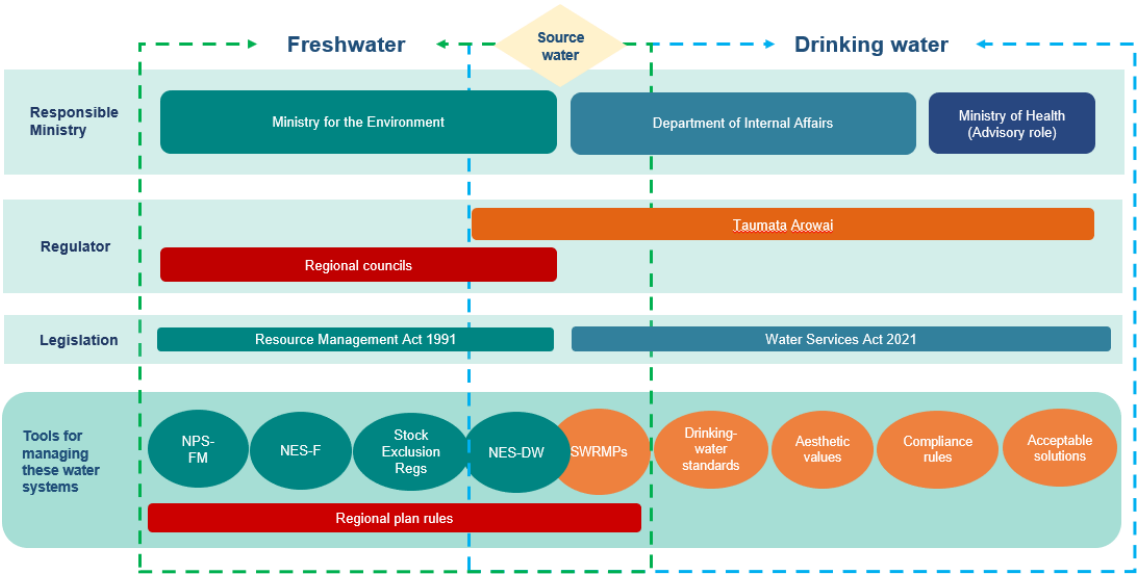
[7] See Water Services Act 2021, Part 1 (3)(1)(c). available at https://www.legislation.govt.nz/act/public/2021/0036/latest/LMS374568.html,

[8] Domestic self-supply is defined in the WSA as "means a stand-alone domestic dwelling that has its own supply of drinking water". While registered drinking water suppliers are regulated under the WSA, the Building Act 1991 continues to regulate private water connections.

[9] Over land the council owns or leases, or with the agreement of other landowners.

government agencies. Figure 1 below demonstrates the interaction and interdependencies between the freshwater and drinking water systems.

Figure 1: Interaction between freshwater and drinking water regulatory systems



Changing the NES- DW

22. In July 2019, Cabinet agreed to reform regulation of the drinking water system in relation to its Three Waters Review. This initiated the work to strengthen the NES-DW. In 2019, feedback was also sought as part of the broader consultation of the Essential Freshwater programme.

23. Areas of improvement were identified, considered and refined through engagement with stakeholders and a technical advisory group.

24. In November 2021, an interim RIS was finalised, which assessed and readied the proposals for public consultation.

25. A consultation document on proposed changes to the NES-DW was released in early 2022. While there was overall support to strengthen protection of drinking water sources, there were mixed views on how to best achieve this. Some groups felt the proposed changes went too far and that additional activity controls would be overly onerous, while other groups felt that the proposed changes did not go far enough.

26. Changes to the NES-DW were not progressed prior to the 2023 election. Following the election, targeted engagement was carried out in mid-2024 on three policy proposals (based on 2022 consultation document) to amend the NES-DW:

    - clarifying the existing activity control provisions and retaining the emergency notification provision in the current NES-DW to avoid weakening existing protections,
    - requiring regional councils to map three Source Water Risk Management Areas (SWRMAs) around water intakes of impacted drinking water supplies (registered drinking water supplies that serve over 500 people), with the areas designed to address different types of risk, and
    - including specific activity controls alongside existing protections for the highest-risk activities in the two SWRMAs nearest the drinking water intake, with most of these controls located in the smallest SWRMA.

27. On 1 July 2024, Cabinet:

    - agreed to amend drinking water regulations as part of Phase 2 of the Resource Management Act 1991 (RMA) reforms, and
    - jointly authorised the Minister Responsible for RMA Reform, the Minister of Local Government, and the Associate Minister for the Environment to make the policy

decisions necessary for its development [ECO-24-MIN-0112 and CAB-24-MIN-0246 refer].

Stakeholder views

28. There was significant engagement from stakeholders. A number of stakeholders support the intent of strengthening source water protection, however, some stakeholders have raised concerns about making sure that changes are feasible and proportionate to the risk. The summary of submissions from public consultation in 2022 is available on the MfE website.[10]

29. In addition to the public consultation process outlined above, the proposed amendments have been refined through direct engagement with technical experts, regional councils, water suppliers, and other organisations.

30. In June and July 2024, officials undertook a new round of targeted engagement on high-level proposals for drinking water national direction inclusion in the NES-DW to ensure workability. This round of engagement was focussed on government agencies, regional councils, territorial authorities, water industry and the primary sector.

31. Most of these groups recognised the need for improved protection of source waters as the first barrier in a multi-barrier approach to protecting drinking water, but there was disagreement about whether to have more directive activity controls in the NES-DW, or to rely on other protections in the National Policy Statement for Freshwater Management (NPS-FM) and Water Services Act 2021.

32. The majority of feedback on the mapping proposals was positive, albeit with some further technical clarifications needed (which can be addressed in drafting). The stakeholder views from the 2024 engagement round are summarised in Appendix A.

What is the counterfactual if no action is taken?

33. If no mapping requirements are introduced, regional councils' consideration of source protection zones in their consenting decisions would remain variable across the country. Analysis of regional plans in 2018 showed that only five regional councils had explicit consideration of source protection zones. While some further work could happen on the basis of guidance published by MfE in September 2023,[11] taking no action would entail continuing poor outcomes for the drinking water safety of many communities.

34. Even if the NES-DW is retained as it currently is, there will likely be changes to the way it is implemented and interpreted. Table 1 below sets out why.

Table 1: Expected impact of other requirements on the current NES-DW

The Water Services Act (WSA)	**Impact for the NES-DW**
• Requires that all supplies (excluding domestic self-supplies) must be registered with Taumata Arowai. • Requires that drinking water suppliers must develop Source Water Risk Management Plans (SWRMP) that identify and manage risks to source water. • Requires regional councils to provide information to support SWRMP development. • Requires increased monitoring, assessment, and annual publication of water quality by regional councils. Many small drinking water suppliers (<501) that use groundwater or spring water sources may adopt an 'Acceptable Solution', which removes the need to prepare an SWRMP subject to certain conditions being	• Registration ensures the location of drinking water supplies are known to regional councils and resource users. • The NES-DW will apply to any newly registered supplies that serve no fewer than 501 people. • The awareness, implementation, and application of the NES-DW may improve as: ○ SWRMP are developed ○ regional councils are required to contribute information on hazards and risks to source water ○ regional councils are required to report on source water quality.

[10] Ministry for the Environment. (2022). *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: Summary of submissions*. Available at nes-dw-summary-of-submissions.pdf (environment.govt.nz)

[11] Ministry for the Environment. (2023). *Delineating source water risk management areas*. Wellington: Ministry for the Environment. Available here

meet, including setting minimum distances of bores to high-risk activities. • Drinking Water Quality Assurance Rules require bore heads to be 'sanitary' and set source water monitoring requirements for water suppliers.	
RMA Freshwater Plans	**Impact for the NES-DW**
• Regional councils developing new freshwater regional plans and engaging with and actively involving tangata whenua and communities, to give effect to the NPS-FM, by December 2027 • Freshwater management units are established, values and environmental outcomes are identified, along with pathways to achieve those outcomes. • Drinking water supply values must be considered. • Those plans must also be consistent with other national direction, including the NES-DW.	• Freshwater planning is likely to increase awareness and improve implementation of the NES-DW. • Regional councils cannot include rules that permit activities under sections 9, 13, 14 or 15, if that activity would cause or contribute to issues with a registered large water supply meeting the DWSNZ after existing treatment. • The NPS-FM does not provide any consistent tools to consider drinking water as a value, which could lead to different approaches by regional councils. There is likely to be regional and even local variation in how source water risk is managed.
RMA Resource consent	**Impact for the NES-DW**
• RMA section 104G, in November 2021 by the WSA, requires consent decision-makers to have regard to effects on and risks to registered drinking water supplies.	• This change is likely to have a positive impact where an activity requiring resource consent has the potential to affect source water and may improve the use and application of the NES-DW. • However, there are limitations to section 104G as it only applies to resource consents and not permitted activities and, without clear guidance or criteria, its implementation is likely to be variable.

35. While we expect some improvements over time through the counterfactual, we also acknowledge that many of the issues raised in the HNI and the subsequent MfE review would remain unresolved. Namely that the NES-DW would continue to:
    - be complex and difficult to interpret;
    - be variably applied between regions and between water supplies;
    - lack clarity on the management of all activities that have an impact on source water; and
    - only afford protection to those that are served by large (>500 people) registered drinking water supplies.
36. Under the counterfactual, a strong reliance on existing water treatment to remove contamination may remain.
37. Amending the current NES-DW provides opportunities to:
    - improve baseline data and increase understanding of high-risk activities; and
    - better support regional councils to implement the NES-DW more efficiently and effectively.
38. Overall, the current NES-DW will operate in a substantially altered regulatory environment for drinking water and freshwater management. While other legislation may improve awareness around the general importance of source water protection to improve drinking water safety, the NES-DW is the key regulatory tool for regional councils to specifically consider source water protection.

The cost of taking no action is high

39. The 2016 Havelock North contamination event demonstrates the severe risks associated with poor multi-barrier protection for supplies serving large populations. Despite the NES-DW being in effect at this time, inadequate source water protection was identified as one

of several failures that contributed to the contamination event.

40. During the Havelock North outbreak, between 6,260 to 8,320 people contracted campylobacteriosis, with 45 people hospitalised and the outbreak linked to four deaths.[12] Other effects due to campylobacteriosis from the outbreak included reactive arthritis and Guillain-Barré Syndrome. The HNI noted those who died had other existing medical conditions, demonstrating the heightened risk that an outbreak can have for at-risk members of society.
41. Alongside adverse health outcomes, the HNI estimated the total economic costs to society to be just above $21 million.[13] The societal cost from the Havelock North outbreak included an estimated 78 per cent of outbreak victims needing to take time off work or school, with a small percentage experiencing on-going symptoms weeks after the event.[14] This figure is possibly an underestimate, considering more recent studies which estimate the number of cases as higher than that recorded in the HNI report.
42. In general, an estimated 18,000 - 100,000 people become ill from contaminated drinking water every year, costing between $12.4 million - $23.7 million per annum.[15] In the 10 years prior to the outbreak in Havelock North, 13 smaller outbreaks were notified. The cost of one of these incidents in Darfield in 2012 was estimated to cost between $544,316 and $1.26 million.[16]
43. These figures indicate the significant risks associated with contamination events in large supplies, emphasising the need for effective source water protection to protect population health, as well as to reduce the monetary and societal costs.
44. Our analysis of recorded outbreaks in New Zealand shows that outbreaks generally occur in small supplies, with large outbreaks like Havelock North in 2016 or Queenstown in 1984 (where 3,500 people fell ill) being the exception to the rule.[17]
45. Notification rates of potentially waterborne diseases (campylobacteriosis, giardiasis and cryptosporidiosis) are significantly higher in rural areas.[18] People in rural areas often have multiple risk factors, from a greater portion of residents receiving water from smaller supplies, through to increased contact with animals or manure. In particular, the cryptosporidiosis notification rate was roughly five times higher in rural areas than in main urban areas in 2020, with campylobacteriosis notification rates in rural areas four times higher than in main urban areas. The highest notification rates for campylobacteriosis, giardiasis and cryptosporidiosis occurred in children aged 0–4 years.
46. Compliance data available for registered supplies[19] serving more than 100 people reveal worsening compliance rates for small suppliers (serving 101 to 500 people). In 2021, bacteriological compliance for small suppliers was at 66.6%, while for protozoal compliance, it was 33.7%. Smaller supplies have less resources to monitor, treat, and respond to contamination of drinking water. Bacteriological and protozoal compliance

[12] Gilipin, B.J. et al. (2020). *A large scale waterborne Campylobacteriosis outbreak, Havelock North, New Zealand*. Journal of Infection. Vol.81-3. Available at https://www.sciencedirect.com/science/article/pii/S016344532030445X

[13] Moore D, Drew R, Davies P and Rippon R. (August 2017). *The Economic Costs of the Havelock North August 2016 Waterborne Disease Outbreak*. Sapere Research Group Ltd. Available at The Economic Costs of the Havelock North August 2016 Waterborne Disease Outbreak | Ministry of Health NZ

[14] Government Inquiry into Havelock North Drinking Water (May 2017). *Report of the Havelock North Drinking Water Inquiry: Stage 1.* Available at https://www.dia.govt.nz/vwluResources/Report-Havelock-North-Water- Inquiry-Stage-1/$file/Report-Havelock-North-Water-Inquiry-Stage-1.pdf, p. 11

[15] Government Inquiry into Havelock North Drinking Water (December 2017). *Report of the Havelock North Drinking Water Inquiry: Stage 2.* Available at Report of the Havelock North Drinking Water Inquiry - Stage 2 - dia.govt.nz p. 22

[16] Sheerin, I Bartholomew, N and Brunton C (2014). *Estimated community costs of an outbreak of campylobacteriosis resulting from contamination of a public water supply in Darfield, New Zealand* 127 The New Zealand Medical Journal 13-21 Available at https://nzmj.org.nz/media/pages/journal/vol-127-no- 1391/39b51dd655-1696469370/vol-127-no-1391.pdf

[17] See Appendix 1 in Ball, A. (February 2007). *Estimation of the burden of water-borne disease in New Zealand – Preliminary Report*. Prepared for the Ministry of Health Data. Available at Estimation of the burden of water-borne disease in New Zealand preliminary report / prepared as part of a Ministry of Health contract for scientific services by Andrew Ball.

[18] Environmental Health Intelligence NZ (2022). *Notifications of potentially waterborne diseases*. Wellington: Environmental Health Intelligence NZ, Massey University. Available at https://reports.instantatlas.com/view-report/91a2cb47825a4c8cba852eb8001a3d5a/NZ

[19] Data covers 85% of the total population of New Zealand

decreases with population size for registered suppliers,[20] and it is likely even worse for smaller, unregistered suppliers.

47. Poor microbiological compliance is of particular concern (compared to chemical compliance), because of the time scales over which their adverse effects are likely to be experienced (eg, pathogens can cause acute illness following a single contamination event). Those most at risk of infection are infants and young children, the immune supressed, the sick and the elderly.

What is the policy problem or opportunity?

48. Despite legislation in place, many New Zealanders are still exposed to unsafe drinking water and waterborne illnesses, with higher risk of exposure to those serviced by small supplies. Some councils are not adequately managing the risks that some land use activities pose to drinking water safety. As a result, some land use activities are located too close to drinking water sources and are negatively impacting the quality and safety of drinking water.

49. Significant problems with the NES-DW were identified within the HNI and in the subsequent 2017 MfE review. The NES-DW is not providing the source water protection necessary to support multi-barrier protection for drinking water and reduce the risk of waterborne illnesses. It was determined that the current NES-DW regulations had not achieved their intended purpose of protecting sources of drinking water as the NES-DW was:

    - limited in its scope and application;
    - complex and technically challenging to apply; and
    - inconsistently applied across the country.

50. The key problems identified with the existing NES-DW are listed in Box 2 below.

Box 2

Problems with the existing NES-DW as identified by the Havelock North Inquiry

- Terminology – the terms 'upstream' and 'abstraction point' are problematic to apply. Regulations lack a spatial criterion.
- Existing level of treatment – linkage to the existing level of treatment. It is difficult for users to determine whether a proposed activity will introduce or increase the concentration of a determinant, because of information and expertise required for this assessment.
- Application to land use activities – as the current regulations are partially limited to water and discharge permits, they questioned whether this scope reduces the effectiveness of the NES-DW (due to the risks posed by land use activities).
- Prospective application – the regulations only apply to future applications for water and discharge permits, and not to existing consents and activities.
- Rules in regional plans – Regulation 10 applies only to rules in regional plans (rather than rules in district plans), and the rules only apply to permitted activities.
- Size of supply – the Inquiry proposed extending the scope of the regulations to apply to activities with the potential to affect supplies serving no fewer than 25 people, noting that "all consumers should have the benefits and protections of the NES Regulations"[1] and the size of a supply should not determine the level of barrier protection
- Emergency notification – questioned the effectiveness of these provisions, and whether it would be better to require the implementation of preventative measures to reduce the likelihood of an emergency event, rather than just a notification after the event has occurred.
- Notification of relevant applications – currently no requirement for the water supplier to be informed of resource consent applications with the potential to affect a drinking water source
- Users' guide and information – MfE's Draft Users' Guide to the NES-DW 2009 is still in draft form, with no finalised guidance available.

[20] Ministry of Health. (2022). *Annual Report on Drinking-water Quality 2020–2021.* Available at https://www.health.govt.nz/publication/annual-report-drinking-water-quality-2020-2021

Additional problems with the existing NES-DW as identified by the Ministry for the Environment review

- The NES-DW is not promoting consistency and implementation is variable. This does not necessarily mean that regional councils are not meeting their obligations, but it does suggest that the regulations do not promote consistency in RMA decision-making.
- There does not appear to be any discernible impact on the concentration of contaminants in water supplies, despite regional councils taking steps to consider contamination in some RMA decisions.
- To achieve the purpose of the NES-DW, the regulations would need to apply to a wider range of activities and RMA decisions than those currently regulated for

51. On the terminology issue noted above, the inquiry recommended that the regulations incorporate a spatial criterion. Analysis of regional plans in 2018 showed that only five regional councils had a spatially explicit consideration of source protection zones, six regional councils gave consideration of source protection zones but were not spatially explicit, and five did not consider these zones in decision-making. There is, therefore, an opportunity to improve how councils identify source protection zones and how councils consider these zones when managing land use risks to drinking water safety.

What objectives are sought in relation to the policy problem?

52. The primary objective is to support source water protection by improving the management of the land areas and associated activities which may contribute contaminants to drinking water supplies.
53. It is imperative that the proposed solution is effective in addressing the policy problem. The preferred option should also be cost-effective, ie. possible to put in practice with the resourcing available. It needs to enable implementation within an adequate timeframe to allow regional councils to include any rules and regulations in their updated freshwater plans.
54. Trade-offs need to considered between how effective the solution is (in reducing the likelihood of contamination) and how proportionate it is. A proportionate response will need to account for a variety of factors beyond how well it reduces the contamination risk (and the related benefits of this), such as the scale of impact, cost, complexity and the risk of a contamination event occurring.

Section 2: Deciding upon an option to address the policy problem

What criteria will be used to compare options to the status quo?

55. To ensure alignment with the overall objective the following criteria was used in the assessment of options.

Criteria	Approach for the analysis
Effectiveness	• The option contributes to the understanding of hazards and risks to source waters (by councils, water supplier, resource user, public). • The likelihood the option will reduce contamination of the source water that is high-risk to human health. • Option improves the likelihood of compliance with the DWSNZ by reducing the reliance on treatment.
Efficiency	• Is it providing enough flexibility to allow local circumstances to be adequately taken into account/addressed at the local level? • Is it cost-effective in so far as it ensures better management of the risks that some land use activities pose to the drinking water safety, while doing so at the least possible cost?
Alignment	• Does the option integrate well with other proposals and the wider statutory framework?
Implementation	• The option is clear and leaves little room for interpretation. In cases where flexibility is allowed, there are clear parameters guiding a decision when not to apply default methods. • The ease of implementation. • Sufficient resources are available for implementation of the option in a timely way.
Treaty of Waitangi	• Iwi, hapū, whānau Māori can exercise rangatiratanga and make decisions over their respective resources and taonga which they wish to retain. • The degree the options provide protection for drinking water managed by and for iwi, hapū and whanau Māori under the principles of kawanatanga, active protection and equity.

56. The above criteria have been used in our analysis of the two different proposals. We have carefully considered each criterion as it applies to each proposal. We have also aimed to balance various criteria on the basis of proportionality, and therefore ensure that our preferred solution is not simply the most effective, but the most effective while ensuring other criteria are also met.

What scope will options be considered within?

57. This analysis focusses on options possible within the NES-DW and through amending other freshwater national direction (such as the NPS-FM) that have been included in Phase 2 of the Government's reform of the resource management (RM) system.

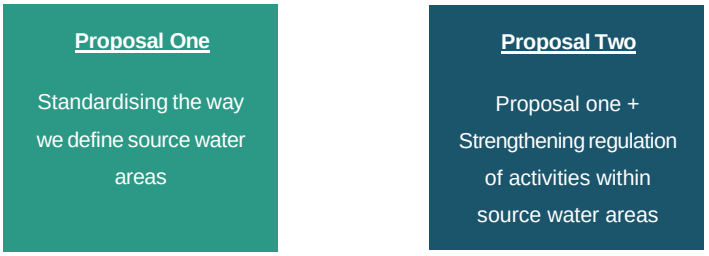
58. In Phase 2, the Government has committed to reviewing and replacing the National Policy Statement for Freshwater Management (NPS-FM) 2020. The Government wants

to remove unnecessary cost, complexity and rigidity, while improving the health of freshwater for all New Zealanders.

59. We developed two proposals: a simple one-stage proposal and a more comprehensive proposal with two stages.

What options are being considered?

60. The following two proposals were designed to address the issues identified and to strengthen source water protection.



61. Proposal two is reliant on proposal one being implemented first, to provide the framework in which targeted activity controls would apply. Proposal one on its own provides benefits, but not as strongly as when coupled with stronger activity controls.

62. Detailed analysis of each individual policy proposal and the potential options is provided below. Analysis of proposal two focuses on the aspects that are unique to it.

63. We have not included a proposal to only strengthen regulation of activities within source water areas. We considered this would not be feasible for two reasons: a) it is dependent on a spatial framework for the rules to operate, such as proposed in proposal 1; and b) both regional and central government have insufficient resources and time during Phase 2 of resource management reform to develop activity controls in a form that could be effective.

Proposal One: Standardising the way we define source water areas

64. Proposal one seeks to provide a consistent national approach to identifying areas where activities have a higher likelihood of affecting source water. To achieve this, we propose establishing a default methodology[21] through guidance to map Source Water Risk Management Areas (SWRMA) at three different risk levels - SWRMA1, SWRMA 2, and SWRMA 3. 3 below provides the full description of the default SWRMA zones.

65. These default methods provided through guidance have a long history of development in New Zealand by technical experts including both scientists and regional council staff. They are based in part on international best practice, and in part on a survey of what regional councils already are doing (for the few regions which use quantitative spatial considerations of source areas).

66. Mapping would be required for all applicable supplies which meet the population threshold (population threshold discussed below). The majority of SWRMA will be mapped using the default method. However, regional councils may opt for a bespoke approach in establishing SWRMA to allow for alternative mapping methods (if they deliver on outcomes at least as protective as the default).

[21] The default method is based on Pattle Delamore Partners Ltd. (June 2018) *Technical Guidelines for Drinking Water Source Protection Zones*. Prepared for the Ministry for the Environment. Available at https://environment.govt.nz/publications/technical-guidelines-for-drinking-water-source-protection-zones/

Box 3: Default SWRMA zones[22]

SWRMA 1 is the immediate area around the source water take where there is an immediate risk of contamination because there is very little time to respond to any contamination before it enters the water supply.

- For rivers, it encompasses the river and its bed 1,000 metres upstream and 100 metres downstream of the intake, extending 5 metres into land from the river edge.
- For lakes, it encompasses the lake and its bed within a 500-metre radius of the intake, extending 5 metres into land from the lake edge.
- For aquifers, it encompasses land within a 5-metre radius around the intake (bore head).

SWRMA 2 is a larger area where activities need to be managed, to mitigate more medium-term risks of contamination. The size will vary because it is based on the time it takes for water to flow to the source.

- For rivers, it is the river and bed from where water travels to the intake within an 8-hour period, extending 100m landward from the river edge.
- For lakes, it is the entire lake area, extending landward 100 metres, and includes tributaries (being the area from where water travels to the lake within an 8-hour period).
- For aquifers, it is the land area above where groundwater travels to the intake (bore) within a 1-year period, to a maximum of 2.5 kilometres.

SWRMA 3 is the entire catchment area or capture zone for the source water. Persistent contaminants and cumulative effects of all activities within the catchment are the management focus in this area, and they are considered to be appropriately managed under the RMA..

67. Due to the diverse range of land-uses in the vast majority of drinking water catchments, SWRMA 3 is required for the long-term management of persistent contaminants. However, in some limited circumstances, it may be warranted for SWRMA to not cover the entire catchment area or capture zone. It will be up to the relevant regional council to choose and justify an appropriate methodology; especially were it deviates from the default methods. The mapping guidance[23] outlines some circumstances where a smaller (or larger) zone may be considered. For example, in groundwater catchments with very slow transit times it may be appropriate to limit the extent of SWRMA 3 to a travel time (eg, 50 years).

Stakeholder views

68. Overall, we received positive feedback on this proposal in past public consultation processes, however, further refinement was required in parts of the proposal.

69. Most submitters recognised the importance of improving consistency, employing a spatially risk-based approach, and providing a robust default method applicable to most situations.

70. Submitters also highlighted that a bespoke method would be necessary for complex situations, large or high-risk supplies, and to enable existing source water protection zones to be transferred over to the new system.

71. Another significant area of feedback was the level of resourcing and information required by regional councils to map the areas. Submitters were concerned about access to necessary environmental data, cost, timeframes, and interactions with regional/district plans.

Description and analysis

72. Under this proposal, we recommend four key settings related to how and when the SWMRA mapping could be undertaken.

[22] The analysis justifying the definition of SWRMAs as presented here is provided in Pattle Delamore Partners Ltd. (June 2018) *Technical Guidelines for Drinking Water Source Protection Zones*. Prepared for the Ministry for the Environment. Available at https://environment.govt.nz/publications/technical-guidelines-for-drinking- water-source-protection-zones/

[23] https://environment.govt.nz/assets/publications/Freshwater/Delineating-source-water-risk-mgmt-areas.pdf

73. Table 2 below provides a summary of each setting and Table 3 shows how it compares with the counterfactual.

Table 2: Summary of Proposal 1 settings

Description	Analysis
Setting 1 – require regional councils to either have regard to, or use methods similar to, the methods described in the guidance document "Delineating source water risk management areas" when undertaking SWRMA mapping.	It is important to consider the trade-off between flexibility for local circumstances and national consistency when deciding how regional councils should undertake SWRMA mapping (and the purpose of each SWRMA zone). Providing guidance to councils reduces the cost and resourcing required to undertake the mapping, because central government has already invested the time in developing methods. But it is impossible to take into account all the local circumstances which could arise and may not fit within general guidelines. The trade-off for allowing this flexibility is that it reduces consistency. We think that the guidelines strike an appropriate balance, by providing generalisable default methods that cover most circumstances and also providing examples of situations that may require deviation from these defaults.
Setting 2 – require regional councils to complete mapping within 5 years of the commencement date and the order of mapping to be prioritised by risk (eg, the largest and most under pressure supplies first).	Protecting human health through appropriate environmental management should be of utmost importance for regional councils. We want to send a clear signal that this work should be prioritised and done quickly. However, if we force councils to undertake the mapping too quickly, it may be of worse quality (and more expensive) than if we gave them longer. We think that five years strikes an appropriate balance between getting the job done quickly and not causing undue burden on already stretched regional councils. We also think that by prioritising which supplies get mapped first, a greater proportion of the population will be protected quicker.
Setting 3 – require regional councils to publish SWRMAs in a public inventory alongside other associated information	Once SWRMA maps are completed, they should be published on regional council websites in an accessible GIS format in order to increase their useability and transparency. This option also helps regional councils to comply with their requirements under the section 46 of the WSA which requires them to publish information about source water. This option should be low-cost as it involves collating existing information.
Setting 4 – a lower population threshold to require regional councils to map SWRMAs, from 500-people to 100-people (whilst not amending the scope of applicable supplies under the NES-DW)	This setting would increase the number of supplies which would receive improved levels of source water protection. As the mapping requirement is intended to be delivered via the NPS-FM, the population threshold can be de- coupled from the population threshold in the NES-DW. This matter was one of the key recommendations arising from the HNI, that is, everyone should receive adequate levels of drinking water protection regardless of the size of supply they receive water from. However, we think it would be sensible to lower the population threshold over time.

How do the options compare to the status quo/counterfactual?

Proposal one: Standardising the way we define source water areas

Criteria / Option	Counterfactual • Location for activity control is determined as "upstream of an abstraction point"	Setting 1: • Require regional councils to either have regard to, or use methods similar to, the methods described in the guidance document "Delineating source water risk management areas" when undertaking SWRMA mapping.	Setting 2: • Require regional councils to complete mapping within 5 years of the commencement date and the order of mapping to be prioritised by risk (eg, the largest and most under pressure supplies first).	Setting 3: • Require regional councils to publish SWRMAs in a public inventory alongside other associated information.	Setting 4: • A lower population threshold to require regional councils to map SWRMAs, from 500-people to 100- people (whilst not amending the scope of applicable supplies under the NES-DW)
Effectiveness	**0**	++ This option will improve the overall understanding and consistency of understanding of risks to source water from land use activities by defining a fundamental set of technical understandings.	+ This option strikes a balance between having the most comprehensive understanding of environmental and hydrological factors, whilst getting protections in place quickly.	+ The publication of SWRMAs in a public inventory alongside associated information will increase the effectiveness of source water management as it will ensure that regional councils have the necessary information collated for making decisions related to drinking water hazard management.	++ This will bring improved source water protections to a greater number of people, especially those at greater risk due to being on smaller supplies.
Efficiency	0	++ This option provides both cost savings by prescribing a set of default methods which can be used to map SWRMAs, whilst also providing clear guidelines as to situations where these might not be appropriate, and what to do in these circumstances.	++ This option aims to be efficient by prioritising which supplies get mapped first. This means they can get done in batches, and people at more risk are afforded protections sooner.	- It is less efficient for regional councils to have to review and publish this information, relative to the counterfactual where they have no obligation to define or publish where is 'upstream'.	+ Once mapping methods are in place, there will be scales of efficiency to applying these to more supplies.
Alignment	0	++ The guidelines are based on the methods that some regional councils already use and are based on international best practice. This improves their alignment.	+ This option gives sufficient time to map SWRMAs in order to be incorporated into the next regional planning cycle.	++ This option will enable regional councils to meet reporting requirements such as s46 of the WSA, and State of the Environment reporting under the RMA.	++ These population thresholds were chosen in order to align with requirements under the WSA.
Implementation	**0**	+ The mapping of SWRMAs will require additional regional council resourcing in the short term, but we expect this to pay off in the long term due to increased certainty both for councils and resource users once implemented.	+ This option should allow enough time for technical expertise to be shared amongst councils, whilst not being so quick that competition is increased.	0 Most councils have existing GIS publication warehouses for publishing this type of information to the public, so it should not be difficult to implement.	- There are many additional supplies in the 100-500 category.
Treaty of Waitangi	0	The Treaty Impact Analysis only assesses the preferred option.	The Treaty Impact Analysis only assesses the preferred option.	The Treaty Impact Analysis only assesses the preferred option.	The Treaty Impact Analysis only assesses the preferred option.
Overall Assessment	0	++ **Overall, this option will bring about significant benefits to source water protection relative to the costs.**	+ **This option strikes an appropriate balance to get supplies mapped propmptly for the people who need this done the fastest.**	+ **This option will bring about some benefits, whilst being low cost to implement.**	++ **This option is an important step towards providing a full suite of source water protections to all New Zealanders.**

Key for qualitative judgements				
++ much better than doing nothing / the status quo / counterfactual	+ better than doing nothing / the status quo / counterfactual	0 about the same as doing nothing / the status quo / counterfactual	- worse than doing nothing / the status quo / counterfactual	- - much worse than doing nothing / the status quo / counterfactual

74. The settings described above have been designed to provide the best balance between the criteria of source water protection versus difficulty to resource and implement.

75. Compared with the counterfactual, significant improvements will be made in the protection of supplies under this proposal.

Proposal Two: Proposal one + strengthening regulation of high-risk activities

76. The aim of proposal two is to ensure that activities with a high-risk of adversely affecting source water are appropriately managed through more stringent controls, clearer direction where necessary, or consistent consideration of source water effects.

77. While this proposal relies on the prior mapping of SWRMAs as put forward on proposal one, this section focuses on the aspects that are unique to proposal two.

78. We propose that the key objective of proposal two is achieved by:

- the restriction of many activities in the immediate vicinity of source water intakes (SWMRA 1), while enabling water suppliers to undertake necessary work.
- the removal of any permitted activity status for high-risk activities within SWRMA 2, thereby ensuring adverse effects can be appropriately assessed and managed through the consent process;
- how to improve bore management, and disturbance of the land over vulnerable aquifers;
- risks to source water for all activities within SWRMA, with appropriate conditions imposed; and
- incentivising engagement with water suppliers.

Stakeholder views

79. Feedback was sought and provided on the details of this proposal. Overall, we found:

- There is broad support for national direction on activity controls in SWRMA to improve clarity and consistency in protecting source water, including from regional council regulators, territorial authorities (water suppliers), environmental groups, other agencies, and some resource users. There is support for clearly identifying which activities are permitted and prohibited, and which require a resource consent. However, support is conditional on control being proportionate to risk, with careful alignment with other legislative controls. Many examples of additional high-risk activities that should be subject to control in SWRMA were provided, including synthetic nitrogen fertiliser application and intensive grazing.
- There is also opposition to national direction on activity controls in SWRMA in favour of applying local approaches to local situations, including from some resource user groups. There are concerns about disproportionate impacts and costs, and negative effects on specific types of industry. Some submitters are particularly concerned that the use of prohibitions will unnecessarily restrict necessary or reasonable activities from occurring.

Description and analysis of options

80. We have refined our options within proposal 2 based on our engagement with stakeholders including the submissions received through our consultation. Further detail on stakeholder feedback across the options can be found in Appendix A.

81. Table below provides a summary of each option and considerations for comparison to the counterfactual.

82. For all options, regional councils can choose to adopt more stringent activity controls through their Freshwater Planning process.

Table 3. Summary of Proposal 2 options

Description	Analysis
Option 1 – Local solutions Repeal activity controls in the NES-DW, and Encourage regional councils to identify and control high risk activities	This option differs to the counterfactual as it would repeal current activity controls in the NES-DW (regulations 7, 8, 10 and 12), to provide flexibility to regional councils in the controls they use to address high-risk activities to source water. Regional councils would be encouraged to do this through their Freshwater Planning Process. This approach provides flexibility for local solutions, but it will also result in an inconsistent approach to source water protection. The issue of variability found by the HNI will remain unresolved. Requiring source water risk to be considered on a regional basis may not be efficient and may be challenging to implement given Freshwater Plans require notification by December 2027. It also may be challenging for regional councils to establish an appropriate degree of focus on source water given competing considerations in the NPS-FM. While there is often support for 'local solutions to local problems', there was strong submitter support, especially from regional councils and water suppliers, in establishing clear national direction on activities that pose a risk to source water.
Option 2 - Blanket controls Repeal activity controls in the NES-DW, and Impose location-based blanket controls in SWRMA 1 across all RMA s13, s14 and s15, and certain s9 activities and specifies controls in SWRMA 2, as identified in the 2022 consultation document[26]	This option was intended only as a baseline for consultation with feedback invited on high-risk activities and appropriate levels of control. It provides a useful baseline for comparison of options. In SWRMA 1, minor and essential activities (by parties other than the water supplier) would either require consent or be prohibited. Controls in SWRMA 2 are extremely limiting. Option 2 unnecessarily captures low-risk activities and would be challenging for regional councils to implement. As the controls are targeted and location-based, in certain situations the controls may be less stringent than in the current NES-DW (ie, in relation to s9 land uses in SWRMA 1, and various types of activities in SWRMA 2).
Option 3 – Refined controls Retain 2007 requirement that regional councils cannot permit or consent activities that would result in a breach of the DWSNZ, after water treatment, and Impose location-based controls targeting only high-risk activities within the range of restrictions identified in the 2022 consultation document[24]	This option builds on option 2, with improvements to refine the high-risk activities controlled in SWRMA 1 (adding no new controls). Low-risk activities under RMA s13, s14 and s15 would be removed, and there would be no further controls on land use under s9. There would be refinement to ensure low-risk discharges to water are not captured by the NES-DW in SWRMA 2. This option does not include controls on any further activities identified as high-risk by submitters, or that have subsequently been confirmed as high-risk through assessment. This option also retains the current requirements that regional councils cannot permit or consent activities that would result in a breach of the DWSNZ, after water treatment, regardless of location (SWRMA). As water suppliers are capable of managing the risks they create to source water when maintaining their intakes, an exception to some NES-DW controls is provided.

[24] Ministry for the Environment. (2022). *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*. Available at https://environment.govt.nz/assets/publications/nes-dw-consultation-document.pdf

Option 4 - Improved controls including location-based controls for some additional high-risk activities, that might be reasonably included at this time.	In SWRMA 1, certain high-risk land uses (in the 5 m riparian margin or 5 m radius around the bore) would also be controlled (less restrictive than option 2). In SWRMA 2 over aquifers, high-risk discharges to land would be included (ie, regional councils would not be able to permit them): wastewater, offal pits, landfills and contaminated sites. SWRMA 2 controls would establish minimum information, monitoring or quality requirements. This option better protects source water by ensuring a greater range of high-risk activities are appropriately managed. As water suppliers are capable of managing the risks they create to source water when maintaining their intakes, an exception to some NES-DW controls is provided.
Option 4 - Improved controls including location-based controls for some additional high-risk activities, that might be reasonably included at this time.	In SWRMA 1, certain high-risk land uses (in the 5 m riparian margin or 5 m radius around the bore) would also be controlled (less restrictive than option 2). In SWRMA 2 over aquifers, high-risk discharges to land would be included (ie, regional councils would not be able to permit them): wastewater, offal pits, landfills and contaminated sites. SWRMA 2 controls would establish minimum information, monitoring or quality requirements. This option better protects source water by ensuring a greater range of high-risk activities are appropriately managed.

How do the options compare to the status quo/ counterfactual?

Proposal Two: Proposal one + strengthening regulation of high-risk activities

Criteria/Option	Counterfactual: • Retain the NES-DW 2007 • Update guidance	Option 1: Local solutions • Repeal activity controls in NES-DW, and • Encourage councils to identify and control high risk activities	Option 2: Blanket controls (consultation approach) • Repeal activity controls in NES-DW, and • Impose location-based, blanket controls in SWRMA 1 across all s13, s14 and s15, and certain s9 activities, and specified controls in SWRMA 2	Option 3: Refined controls • Retain 2007 requirement that regional councils cannot permit or consent activities that would result in a breach of the DWSNZ, after water treatment, and • Impose location-based, controls targeting only high-risk activities within the scope of the consultation option	Option 4: Improved controls including location-based controls for some additional high-risk activities • Retain 2007 requirement that regional councils cannot permit or consent activities that would result in a breach of the DWSNZ, after water treatment, and • Impose location-based controls based on risk and consider further s9 activities and additional controls in SWRMA 2
Effectiveness	**0**	**0** *No improvement in understanding hazards / risks, or substantive reduction in source water contamination.*	**-** *Improved SWRMA1 controls but fewer s9 controls and limited controls on high-risk activities in SWRMA 2 may increase source water contamination.*	**+** *Improved understanding of hazards / risks, and an overall reduction in source water contamination.*	**++** *Improved understanding of hazards / risks, and an overall reduction in source water contamination.*
Efficiency	**0**	**0** *The burden on regulators and resource users depends on regional council decision- making.*	**-** *Increased regulatory and compliance burden as low-risk activities captured*	**0** *No substantial change to the burden on regulators and resource users compared to the counterfactual*	**0** *No substantial change to the burden on regulators and resource users compared to the counterfactual*
Alignment	**0**	**+** *Regional approaches must align with other legislative requirements and give effect to TMOTW.*	**+** *NES-DW must align with other legislative requirements and give effect to TMOTW, although some concerns of overlap and complexity.*	**+ +** *NES-DW must align with other legislative requirements and give effect to TMOTW. However, could be mismatch between regulations and guidance.*	**+ +** *NES-DW must align with other legislative requirements and give effect to TMOTW. However, could be some mismatch between regulations and guidance.*
Implementation	**0**	**0** *Flexibility and use of Freshwater Plan process may affect consistent, timely and efficient implementation.*	**0** *Implementation is not improved through clarity, consistency, efficiency.*	**+ +** *Clarity, consistency and efficiency should improve implementation. Targeted controls via national direction enables prompt implantation.*	**+ +** *Clarity, consistency and efficiency should improve implementation. Targeted controls via national direction would enable prompt implementation once further policy development took place..*
Treaty of Waitangi	**0**	The Treaty Impact Analysis only assesses the preferred option.	The Treaty Impact Analysis only assesses the preferred option.	**Refer to the Treaty Impact Analysis (Appendix B)**	**Refer to the Treaty Impact Analysis (Appendix B)**
Overall Assessment	**0**	**0** *Overall option does not offer an improvement to the counterfactual. Any amendment to NES-DW provides opportunity to improve consistency in freshwater / drinking water framework.*	**-** *Inclusion of low-risk activities and exclusion of some high-risk activity from control may be worse than the counterfactual.*	**+** *Some improvement in effectiveness, consistency and implementation.*	**+ +** *Greater improvement in effectiveness, consistency and implementation.*

Key for qualitative judgements					
	++ much better than doing nothing / the status quo / counterfactual	**+** better than doing nothing / the status quo / counterfactual	**0** about the same as doing nothing / the status quo / counterfactual	**-** worse than doing nothing / the status quo / counterfactual	**- -** much worse than doing nothing / the status quo / counterfactual

84. Both Options 3 and 4 are an improvement on the counterfactual.
85. Option 3 improves consistency with other legislation, and it will improve how the NES-DW is implemented. However, while most high-risk activities are identified and controlled in SWRMA 1, some high-risk land uses are not, nor all high-risk activities in SWRMA 2.
86. Option 4 improves the effectiveness of the NES-DW, by:
    - Addressing all high-risk land uses in SWRMA 1 (ie, around the bore head and within the 5 m riparian margin), and
    - Ensuring regional councils do not permit other high-risk activities in SWRMA 2.
87. The key trade-offs between Options 3 and 4 are effectiveness and proportionality. While increasing activity controls within SWRMA generally correlates with improved risk management and a greater reduction in source water contamination, doing so may increase regulatory complexity and the compliance burden on resource users.
88. The degree of impact of any NES-DW amendments will also depend on current regional plan rules.
89. Further development and assessment of options 3 and 4 would take place in collaboration with regional councils once mapping requirements are introduced in legislation.

Which proposal are likely to best address the problem, meet the policy objectives, and deliver the highest net benefits?

90. Based on our multi-criteria analysis, proposal two (ie. proposal one + strengthening regulation of high-risk activities) scores the highest and best meets the policy objective.
91. Given that SWRMA maps are also required to enable an activity control framework, and therefore need to be produced first, we think that progressing with SWRMA mapping requirements now and activity controls later is a ‘no regrets’ decision that would endure in the replacement RM system developed through the phase 3 reforms.
92. We’ve also heard through targeted engagement that proposal two needs further refinement in order to get the activity control policies right and ensure successful implementation. However, the timing and resourcing are not available to do so currently.
93. Our preferred option is therefore to take a two-stage approach with:

    Stage one - including SWRMA mapping requirements in Phase 2 National Direction amendments.

    Stage two - strengthening regulation of high-risk activities. This may be as part of Phase 3 RMA reforms in a timeframe to be confirmed.
94. Though we publicly consulted in 2022 and more recently undertook targeted engagement in 2024 on the basis these SWRMA mapping requirements would be delivered through the NES-DW, we’ve recently considered that an NES could not in practice require these types of maps and methods. An NPS would be the appropriate instrument for requiring mapping.
95. Rather than creating a new instrument (e.g. a NPS-DW) it would be more efficient to integrate the SWRMA mapping requirements into the NPS-FM, where it would be well integrated with other mapping requirements (e.g. wetlands) and wider freshwater planning requirements.

What are the marginal costs of the proposal?

96. This cost benefit analysis focusses on the first stage of our preferred option, which is the work that can be progressed in Phase 2 National Direction amendments. The cost benefit analysis of stronger regulation of high-risk activities will depend on further policy development after first stage is completed, and will be presented at a later time.

Stakeholders / resource	Explanations	Cost[25]
Resource user – primary sector		
Restrictions on activities	There may be some indirect costs of delineating new SWRMAs as land areas that may not have been regulated in the past will now be covered. However this is balanced by other land areas which were covered but did not need to be and are now not being covered.	Low
Consenting authorities – regional councils and unitary authorities		
Review plans	Consent authorities will be required to review their current plans to formalise SWRMAs into plans. The estimated cost per consent authority is estimated between $100,000 - $200,000.[26] For the sixteen regional councils and unitary authorities affected, this comes to a national cost of $1,600,000 - $3,200,000. However, as this work is being progressed as part of wider phase 2 reforms, these plan changes would need to occur anyway.	Medium
Delineation and establishment of SWRMAs	Consultants advise us that they have recently completed SWRMA mapping for two regions at an approximate cost of $2,000 per surface water supply and $3,500 per groundwater supply If the population threshold was lowered to 100-persons, this would increase the number of supplies which need mapping to 815. The median number of supplies > 100 people per regional council is 30 (range 1 – 136). A few regional councils already have mapped zones analogous to SWMRAs for this population threshold. Previous mapping could either be transferred directly across or modified, which would reduce costs. If the population threshold was kept at 500-persons, an estimated 282 supplies would require SWRMA mapping,	Medium Average cost per regional council, if >100 threshold: $60,000 - $105,000 Average cost per regional

[25] The evidential certainty of this CBA is low/medium. The intent of this preferred option does not differ substantially from the current policy. Rather it attempts to clarify and simplify the implementation of this policy intent. For these reasons, the marginal costs and benefits are of low evidential certainty.

[26] BECA (February 2022) *Cost Benefit Analysis for the Proposed Amendments to the National Environmental Standard for Sources of Human Drinking Water - Marae and Rural Water Supply Case Studies*. Prepared for the Ministry for the Environment. Available at https://environment.govt.nz/assets/publications/nes-dw-marae- and-rural-water-supply-case-studies.pdf

	of which approximately half are groundwater and half are surface water. The median number of supplies > 500 people per regional council is 17.6 (range 0 – 58). Many regional councils already have mapped zones analogous to SWMRAs that could either be transferred directly across or modified, which would reduce costs.	council, if >500 threshold: $35,200 - $61,600
Delineation and establishment of bespoke SWRMA	Regional councils may choose to undertake a new bespoke approach to mapping SWRMA, which would entail use of more complex numerical models. This work is only likely to be undertaken by councils who have complicated aquifer structures which are not well represented by default tools. Costs are likely to be variable, with upper ranges up to $400,000. These costs are likely to be rare, and planned for as part of long term science investment required for other freshwater management and allocation planning.	Medium
Additional consenting costs, including compliance, monitoring and enforcement	Many activities are already regulated by the current NES-DW or regional rules. The listed activities should have already been covered by the current NES-DW, so the expected change would be low.	Low
Central government		
Implementation of the amended the NPS-FM	Guidance material on SWRMA mapping has already been developed and published, so costs to support regional council implementation is expected to be low. Some technical assistance could be required, which may require the use of consultants. However, this mapping guidance has been developed over a number of years and has been successfully implemented in multiple regions so is expected to be fairly robust.	Low
Central Government Agencies as resource users and water suppliers	No additional costs are expected.	None.
Drinking water suppliers (if activities are restricted near source water, impacts considered under resource user)		
Engagement with resource users on consent applications	Water suppliers will be interacting with regional councils as their SWRMPs are developed, and vice versa, as required by the Water Services Act 2021.	Low

Iwi / hapū / Māori (Māori are also both resource users and water suppliers – their views are included in those costs)		
Compliance costs	Māori landowners and resource users may be affected by the same general compliance requirements as set out above. Engagement costs may be incurred by Māori landowners and resource users as most are operated by volunteer whānau member trusts.	Low

What are the marginal benefits of the proposal?

Stakeholders / resource	Explanation	Benefit
Environment		
Freshwater quality	By making the protection of source waters more explicit, water quality and the health of freshwater ecosystems will be improved – especially for groundwater as this is a significant source of drinking water in some regions, but does not have associated NOF attributes in the NPS-FM.	Medium
Reduced contamination events due to drinking water	The additional clarity the SWRMA mapping will provide to drinking water supplies, and consumers, will improve multi-barrier protection of their drinking water, which reduces the likelihood of contamination events occurring. Two separate studies estimated the endemic gastrointestinal disease attributable to drinking water sources in New Zealand in 2000 as between 18,000[27] and 34,000[28] cases per annum, though these were thought to be underestimates at the time, and the HNI Stage 2 Report states that evidence was heard to suggest a figure in excess of 100,000 cases per year was likely to be more accurate. The HNI Stage 1 Report found that there had been 13 waterborne illness outbreaks in the ten years preceding the Havelock North outbreak, with a total of 377 confirmed cases and an additional 806 probable cases reported. Avoidance of cost associated with outbreaks: For large suppliers, previous outbreaks have cost $21m (Havelock North) For smaller supply's, previous outbreaks have cost around $400,000 (small outbreak in 2012) Of the $21 million cost associated with the Havelock North outbreak, Sapere[29] found that the majority of the	Medium

[27] Ball, A. (February 2007). *Estimation of the burden of water-borne disease in New Zealand – Preliminary Report*. Prepared for the Ministry of Health Data. Available at https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE970327

[28] Close M; Dann R; Ball A; Pirie R; Savill M; and Smith Z. (2008). *Microbial groundwater quality and its health implications from a border-strip irrigated dairy farm catchment, South Island, New Zealand*. Journal of Water Health Vol 6 (1)

[29] Moore D, Drew R, Davies P and Rippon R. (August 2017). *The Economic Costs of the Havelock North August 2016 Waterborne Disease Outbreak*. Sapere Research Group Ltd. Available at The Economic Costs of the Havelock North August 2016 Waterborne Disease Outbreak | Ministry of Health NZ

	cost was borne by households ($12.4 million), followed by costs to local government ($4.1 million) and the health sector ($2.5 million). The costs faced by households relate to household inconvenience due to having to boil water, buy bottled water, and taking time off from normal activities during the outbreak, with a cost per household of $2,440.	
Additional human health benefits	<u>Swimming</u> Healthier waterways can reduce the level of contamination and sickness that occur when swimming. The NPS-FM introduced an *E. coli* bottom line for swimming spots. The SWRMA mapping will indirectly improve the water quality of many other waterways, including some swimming spots. <u>Mahinga Kai and other food gathering</u> The SWRMA mapping will improve the water quality in some water bodies. This will improve mahinga kai and other food gathering opportunities by reducing the contaminants in the waterways where these food sources live. <u>Wellbeing</u> Access to healthy and flourishing waterways have benefits for general wellbeing. The SWRMA mapping will improve the quality of some waterways and increase access for communities around these areas to healthy waterways.	Low
Resource users		
Certainty	Resource users will have more certainty over where source water may be at-risk from their activities, and improved clarity over requirements for protecting source water in their local area.	Medium
Relationship with water suppliers	Relationships with water suppliers will be established and grow.	Low
Consenting authorities – regional councils and unitary authorities		
Clear direction for consenting authorities	Consenting authorities will have improved and clearer direction to exercise their role as environmental regulators. The NES-DW will be easier to understand and apply.	Medium
Avoided costs due to outbreak	A reduced number of contamination events will avoid the additional costs faced by local government in the event of an outbreak. Of the $21 million cost associated with the Havelock North outbreak, $4.1m[30] was incurred by local government (the regional council regulator and the council water supplier).	Medium

[30] Idem

Central government		
Health system	A reduced number of contamination events will reduce the burden on the health system, both in direct costs and the opportunity costs of resources being used for the outbreak instead of other uses. Of the $21 million cost associated with the Havelock North outbreak, $2.5m[31] was borne by the health sector.	Low
Other costs created by outbreaks	A number of central government agencies get involved in and respond to large outbreaks. Avoidance of outbreaks will reduce these costs. Of the $21 million cost associated with the Havelock North outbreak, $0.5m[31] was faced by central government.	Low
Drinking water suppliers		
Supported in their obligations under the WSA to provide safe drinking water, and prepare SWRMP based on supply scale, complexity and risk.	Improved information and RMA processes will be available to inform their SWRMP and support their own management of risk to source water.	Medium
Reduced costs due to less treatment required	Potential reduction in, or avoidance of additional, water treatment costs, through reduced turbidity and lower levels of contaminants. Potential avoidance of the need to seek new water sources should existing ones become unsuitable as source water.	Low
Reduced or avoided costs due to reduced likelihood of contamination event	Reduced potential for contamination may reduce or avoid costs related to investigating cause of DWSNZ breach or outbreak. In the event of non-compliance, water suppliers incur costs related to additional testing, investigation, public communications, shut down of supply and provision of an alternative supply. Of the $21 million cost associated with the Havelock North outbreak, $4.1m[31] was incurred by local government (the regional council regulator and the council water supplier).	Low
Tangata whenua		
Improved mahinga kai safety	Improved water quality in some water bodies will have positive flow on effects for mahinga kai	Low
Total costs	Over 30 years (PV 8%)	Medium

What are the other changes proposed to the NPS- FM

97. The WSA requires water supplies manage and monitor risks to source water through Source Water Risk Management Plans (SWRMPs). The proposed amendments to the NPS-FM will require consenting authorities to map SWRMAs, providing consistent information and enabling accurate risk identification. These links between the WSA and proposed amendments to the NPS-FM will enable water suppliers to fulfil their obligations under the WSA.

98. The WSA links to the RMA and NES-DW by requiring regional councils to undertake appropriate actions to address identified risks and therefore protecting source water and benefiting freshwater ecosystems. The WSA requires regional councils report to Taumata Arowai on their source water quality, quantity, and the effectiveness of their interventions.

How does the proposal contribute to other National Direction programme' s objectives

99. These proposals contribute positively to other National Direction objectives, especially the urban development and housing priorities. This is because these type of residential developments require the provision of safe drinking water.

100. Many existing drinking water supplies are at, or nearing, capacity – both in terms of quantity but also quality. Strengthening source water protection policies is especially important when considering the development of new drinking water supplies, such as those required for new subdivisions.

101. These policies should be cost effective in respect of housing development, due to savings in treatment costs from having better protected source waters.

Section 3: Delivering an option

How will the new arrangements be implemented?

102. Regional councils will be responsible for undertaking SWRMA mapping, consulting their communities that these maps are appropriate, and then using them to implement freshwater planning in the NPS-FM and NES-DW as it relates to protecting source water. This is already the role of regional councils under the current regulatory settings, but these amendments will better clarify how the mapping should be undertaken.

103. We are proposing that regional councils will have 5 years to prepare SWRMA maps, which should then be incorporated into their next plan change. We think this strikes an appropriate balance between getting the maps prepared promptly to improve source water protection, ensure the maps are right, and not being overly burdensome to regional councils when they are juggling other freshwater planning responsibilities. This timeframe can be compared against similar wetland mapping provisions which require maps to be prepared within ten years, but we decided on a shorter timeframe for SWRMA mapping to reflect the importance of protecting human health.

104. We have previously prepared and published (non-regulatory) guidance documents containing technical methods on how regional councils should undertake SWRMA mapping. This guidance has been developed and built-on over a number of years, with assistance from technical experts and regional councils. The definitions of default SWRMA zones are also, in part, based on zones that some regional councils are already using, following a literature review.

105. We think that the recommended mapping options can be easily understood and implemented by regional councils. This is especially true for surface water supplies, where the process is simpler to map due to above-ground hydrological factors. Groundwater supplies will be more difficult to map, but many regional councils have extensive expertise and understanding of their aquifers' structure and conditions.

106. Following the introduction of mapping requirements, we would also take the opportunity to reconcile other forms of guidance relating to source water protection. For example, a draft users guide to the NES-DW was never finalised, and now could be a good opportunity to bring alignment to legislative updates (including other recent legislation like the Water Service Act 2021's Source Water Risk Management Planning provisions).

How will the new arrangements be monitored, evaluated, and reviewed?

107. Since 2021, the Water Services Act has introduced additional requirements for monitoring of drinking water supplies, both in terms of treated water quality and source water quality. The regulator, Taumata Arowai, publishes these compliance results publicly, as well as working closely with the Ministry to identify key risks and opportunities.

108. We should be able to tell if these policies are having an impact by tracking whether metrics such as the concentration of drinking water parameters (determinands) are getting better or worse, whether the number of do-not-drink or boil water notices are changing, whether SWRMA maps prepared by regional councils are being incorporated into planning by suppliers, etc.

109. We also expect to be able to review the number of SWRMA maps being published and utilised by regional councils over time. The Ministry's 2018

review of the NES-DW provides a useful baseline for this analysis. More recently our introduction of SWRMA mapping guidance is likely to have enabled further adoption. Eventually regulation requiring SWRMA mapping should see all regional councils prepare and publish SWRMA maps.

110. Drinking water contamination incidents and/or outbreaks would be potential outcomes that would prompt an earlier review of this legislation to ensure it was fit for purpose. These kind of incidents in drinking water supplies are well monitored thorough Taumata Arowai, and health outcomes are routinely surveilled by Ministry of Health.

Appendix A: Engagement feedback

Feedback from other government agencies

111. During the 2024 targeted engagement, other agencies stressed the importance of ensuring alignment with other drinking water legislation and wider freshwater legislation, particularly with wastewater discharge rules and wastewater treatment standards. It was also noted that details on contaminated site rules need further refinement.

Feedback received from Māori

112. Iwi, hapū and whānau Māori have rights to preserve, restore and enhance freshwater for the benefit of present and future generations. Some iwi, hapū and whānau Māori are also water suppliers (eg, at marae and papakāinga) and resource users. The 2021 Taumata Arowai Drinking Water Regulation Report identifies 154 'Kāinga'[31] registered supplies. The majority of these serve less than 501 people and are not afforded any source water protection under the current NES-DW.

113. Most iwi, hapū and whānau Māori supported the intent to strengthen source water protection to prevent contamination, although some acknowledged regulatory changes to the current source water protection regime could have consequences – such as increased regulatory and cost burden on marae, papakāinga and rural communities.

114. Some iwi, hapū and whānau Māori also highlighted existing Treaty settlement provisions, and the need to ensure they prevail, are appropriately recognised and given effect to if the regulatory environment changes. Some of the submissions also raised the importance of their own existing systems and models for freshwater management which actively protect, enable and exercise mātauranga Māori.

115. During the early stages of development, officials met with Waikato and Waipā River iwi representatives from Waikato Tainui and Ngāti Maniapoto on two separate occasions to engage on the proposed amendments to the NES-DW. Those representatives supported strengthening source water protections but raised concerns around the resourcing required for Māori to participate in the system, water availability, climate change, providing for existing iwi and hapū water management tools and principles and the impact of multiple reforms on iwi and hapū groups.

116. MfE also met with the Freshwater Iwi Advisory Group to discuss the package options, and were given clear advice to not include marae and papakāinga supplies in any initial expansion of the scope of the NES-DW.

Local government feedback

117. Regional councils are responsible for implementing the NES-DW and are significantly affected by any regulatory changes to source water protection. City and district councils are also impacted by the NES-DW, as they are water suppliers, perform district planning functions under the RMA, and are resource users (eg, they carry out a range of activities, such as road maintenance or landfill operation).

[31] Kāinga supplies are defined as 'iwi entities, kura kaupapa Māori, kōhanga reo, marae, papakāinga, and Māori communities'

118. The position of regional councils ranged from generally supportive of the proposed amendments, through to concern about the necessity of the NES-DW, and the challenges of its implementation. While there was broad support for mapping and clarity around controlling activities that are high-risk to source water in a manner that aligns with other regulatory requirements (including under the RMA and the WSA), they expressed concerns about how the NES-DW would affect their Freshwater Plans, the inclusion of an unknown number of currently unregistered small supplies, and with possible costs and resourcing constraints if there is significant regulatory change.

119. As drinking water suppliers, territorial authorities were broadly supportive of the intent to improve the protection of source water. As resource users they were concerned about potential restrictions in SWRMAs that could affect their activities. As consent authorities they sought clarity about their role and responsibilities in giving effect to the NES-DW, and consistency and alignment with other regulations.

120. In the 2024 targeted engagement, regional councils reiterated that proposed amendments were an improvement to the current NES-DW. However, both regional councils and territorial authorities highlighted that there was still an underlying reliance on treatment processes, which carries risk.

121. In this latest round of targeted engagement, councils noted it was important to ensure fair process for existing land users, particularly where new water supplies are coming online. Councils also stressed the difficulty with assessing cumulative risk to drinking water supplies over very large catchments.

122. In relation to mapping, councils noted that having national direction on mapping requirements would be helpful in dealing with Environment Court appeals on plan changes. They also requested further clarity on timeframes for when maps are required to be finished and what the transition period will be.

123. In 2024 territorial authorities considered the size of SWRMA 1 was too small to have a meaningful impact. They also recommended that scope of the NES-DW should be broadened to give protection to those that are served by smaller (>100 people) registered drinking water supplies.

124. Territorial authorities have also expressed concern that the nitrate controls were insufficient and recommended that a new national mechanism should be created to require water suppliers to be involved in consenting decisions.

Water industry feedback

125. During the round targeted engagement held in 2024, water industry organisations argued an additional intermediate source water risk management area was needed between areas 1 and 2. They have also highlighted that compliance, monitoring and enforcement of the existing rules need to step up to make any difference.

126. The industry stressed that technical details for activity controls related to pesticides, chemical storage, and emerging contaminants still needed to be defined. And they have noted the importance of adequate alignment with other legislation, such as the NPS-FM and Water Services Act.

Resource user feedback

127. Resource users are people (landowners, land occupiers and others) who undertake activities regulated by the RMA. Some activities carried out by resource users within the vicinity of a drinking water supply may have the ability to lead to a contamination event in a drinking water supply. Resource user groups represent the views of many resource users, such as the primary

sector, and various other industry groups (such as fuel companies and the quarrying sector).

128. While there was general agreement that source water needs to be protected, there was not a consensus that the current NES-DW is problematic in providing this protection. Several primary sector stakeholders also queried whether existing legislation, such as the NES-F, NPS-FM, stock-exclusion regulations and freshwater farm plans, may ensure adequate source water protection for drinking water sources without any changes necessary to the current NES-DW regulations. Other resource users were concerned how amendments to the NES-DW would affect activities undertaken by their industry.

129. Primary sector groups also raised concerns about land use controls impacting farming activities and the associated financial implications and costs of imposing these controls. They also emphasised the need to consider regional variations.

130. In the 2024 round of targeted engagement, the primary sector expressed concern about the justification for fertiliser and pesticide restrictions and about the evidence base and risk modelling that was being used. The notification requirements for pesticide use were considered too onerous.

131. The sector also voiced concerns about redundancy with other freshwater legislation and supplier obligations under the Water Services Act.

Environmental non-governmental organisation (ENGO) feedback

132. ENGOs strongly supported measures to improve source water protection, noting that everyone should have access to safe drinking water, and highlighted the existing contamination risks in New Zealand (particularly related to contaminants such as nitrates). They noted that current NES-DW regulations are not strong enough to manage activities that pose a high risk to source water contamination, such as intensive grazing and synthetic fertiliser application.

133. ENGO’s also noted the need for all sectors, regions, and communities to play their part in protecting and restoring the health of water.

134. Other stakeholders

135. Water suppliers have a key role in source water protection, as they have a duty to provide safe drinking water under the WSA.

136. Water suppliers generally supported improved source water protection and noted the important role of the NES-DW in encouraging communication between consent applicants and water service providers.

Appendix B: Replacement of National Policy Statement for Freshwater Management 2020: Interim Treaty impact analysis

The Interim Treaty Impact Analysis for the freshwater package can be accessed here.