PROACTIVE RELEASE COVERSHEET

Minister	Associate Minister for the Environment, Hon Peeni Henare	**Portfolio**	Environment
Name of package	Amendments to the National Environmental Standards for Sources of Human Drinking Water (NES-DW)	**Date of issue** 27/04/23	

List of documents that have been proactively released		
Date	**Title**	**Author**
23 November	Cabinet paper *'Amending the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007'*	Office of Minister for the Environment
25 November	Cabinet Environment, Energy and Climate Committee Minute of Decision [ENV-22-MIN-0052]	Cabinet Office

Information withheld
Not applicable – released in full

In-Confidence

Office of the Minister for Associate Minister for the Environment

ENV - Cabinet Environment, Energy and Climate Committee

Amending the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007

Proposal

1. This paper seeks Cabinet agreement to amend the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 (NES-DW) to include requirements for regional councils to map areas of risk to source water and to include additional specific activity controls in these areas to better manage high-risk activities.

2. This proposal, in part, gives effect to Cabinet decisions to reform regulation of drinking water in response to the findings of the Havelock North Drinking Water Inquiry (HNI) [CAB-18-MIN-0545 refers]. The changes also support our Essential Freshwater programme, to restore and protect the health of waterways [CAB-19-MIN-0414 refers].

Relation to government priorities

3. This proposal relates to the Labour Party's 2020 Election Manifesto commitment to reform our drinking water system and to improve the health of our freshwater.

Executive summary

4. Protection of the water body from which water is taken for use in a drinking water supply (source water) provides the first of multiple barriers to protect drinking water from contamination.

5. The NES-DW was introduced in 2007 to protect source water from contamination. The 2017 Havelock North Drinking Water Inquiry (HNI) and subsequent review by the Ministry for the Environment (the Ministry) found it had not achieved its intended purpose.

6. Cabinet approved public consultation on three areas of improvement to the NES-DW in early 2022 [CAB-21-MIN-0530]: to map 'source water risk management areas' (SWRMAs); to improve how activities within those areas

are controlled; and to extend the protections of the NES-DW to smaller[1] registered drinking water supplies.

7. Following feedback and submissions, I propose to amend the NES-DW to:

   7.1 Require regional councils to map 'source water risk management areas' (SWRMAs), using either a default or bespoke approach, establishing three categories of land areas in terms of proximity to a source water take, and of risk to water quality.

   7.2 Establish additional restrictions within SWRMAs on activities that pose a high risk to source water to ensure effects on source water are appropriately managed.

   7.3 Retain the scope of the current NES-DW to include all supplies that supply no less than 501 people. This will provide protection to source water that serves 82% of the population.

8. I do not propose to amend the NES-DW to include additional smaller supplies as their inclusion is not viable at this stage, due to uncertainty around their number and location, and as the benefits of doing so are unable to be clearly demonstrated on the currently available evidence.

9. If Cabinet agrees to these proposals, I will instruct the Parliamentary Counsel Office to prepare the draft amendments to the regulations.

Background

The drinking water system

10. Drinking water suppliers take water from rivers, lakes, and aquifers. Water taken is typically treated so it is safe to drink by removing or reducing contaminants. Under the Water Services Act 2021 (WSA), water suppliers are responsible for managing risks to the drinking water they supply.

11. Activities that can contaminate source water include discharges (e.g. wastewater), activities in the bed of a river, and drilling into aquifers. These activities increase the risk of contaminants entering source water. This is a problem because not all contaminants can be removed or reduced by existing treatment processes.

12. The NES-DW was introduced in 2007 to provide the first barrier of drinking water protection. The main requirements in the NES-DW apply to activities that are "upstream of abstraction point" and to activities that are likely to contribute

[1] Currently the NES-DW targets those registered water supplies that provide no fewer than 501 people with drinking water for not less than 60 days each calendar year.

to large drinking water supplies breaching national drinking water standards[2] after treatment, as determined by regional councils.

Issues with the current NES-DW

13. The HNI found "significant problems" with the NES-DW[3], with which a Ministry review in 2017-18 agreed. In summary:

    13.1 it is complex, difficult to interpret and apply, and has had variable implementation and impact across New Zealand

    13.2 it does not adequately address the full range of activities that can pose a risk to drinking water sources

    13.3 water suppliers are not well engaged in regional plan processes, and adequate protection is not provided for smaller water supplies.

The wider regulatory framework

14. The proposed amendments to the NES-DW are part of a larger programme of improvements to freshwater management through the Essential Freshwater programme.

15. To address the problems with the NES-DW, we consulted on amendments in three key areas:

    15.1 **Proposal 1:** sought to map three 'source water risk management areas' (SWRMAs) in terms of proximity to a source water take, and therefore risk to water quality

    15.2 **Proposal 2:** sought to update and strengthen requirements within SWRMAs for managing activities that pose a high-risk to source water, to ensure effects on source water are appropriately managed

    15.3 **Proposal 3:** sought to extend the protections of the NES-DW to smaller registered water supplies.

Feedback has refined proposed changes to the NES-DW

16. There was significant engagement from stakeholders. Several stakeholders, including agricultural organisations, supported the intent of strengthening source water protection and improving clarity and consistency, however many stakeholders raised concerns about the feasibility and proportionality to the risk. Agricultural organisations supported reduced coverage and a risk-based approach, which are reflected in the final proposals. A summary of feedback received through the consultation process is given in Appendix 1.

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2 Water is considered safe to drink, where it meets the Water Services (Drinking Water Standards for New Zealand) Regulations 2022: a set of criteria prescribing limits for various contaminants that may be present in drinking water.

3 Government Inquiry into Havelock North Drinking Water (2017) Report of the Havelock North Drinking Water Inquiry: Stage 2.

17. The feedback received has been used to refine the proposed amendments to the NES-DW.

Analysis

Recommendations to amend the NES-DW

18. I have considered options to amend the NES-DW, including the option of making no change to the NES-DW. Although the regulatory and legislative changes to the broader water system would likely improve implementation of the existing NES-DW, leaving it unamended would not address the specific problems found by the HNI and the Ministry review.

19. To address the issues of the existing NES-DW and to provide better protection of source water in a way that is proportionate to the risk and is easy to implement, I propose the following amendments.

Proposal One – Map (delineate) risk areas around source water

20. The NES-DW currently includes criteria relating to "abstraction points"[4], and "upstream" activities. These criteria are technically challenging to apply and have resulted in variable implementation.

21. I am, therefore, proposing a requirement on regional councils to define and map Source Water Risk Management Areas (SWRMA) for all registered drinking water supplies that the NES-DW applies to. Regional councils will be provided with standard (or default) methods to map these SWRMAs, which differ depending on whether water is sourced from a river, lake or aquifer[5]. These methods are scientifically derived, internationally used[6], and based on the time it takes for contaminants to travel to a source water intake and the level of mixing that occurs before reaching the intake.

22. Regional councils could also opt for a 'bespoke' mapping approach if they prefer. For example, where the standard approach does not provide adequate protection or where evidence demonstrates it would be unnecessarily restrictive to land use. Bespoke methods would need to deliver on outcomes at least as protective as the standard method.

23. There are three categories (illustrated in Appendix 2) to which the activity controls (described in Proposal 2) will be applied:

4 Abstraction is a technical term that means taking water from a water body.
5 For a complex waterbody, such as springs or wetlands, a bespoke approach must be used.
6 For examples see the United States Environmental Protection Agency, or the United Kingdom Environment Agency.

23.1 **SWRMA 1** is the immediate area around the source water take (intake).[7] Activities in this area pose the highest risk because of their proximity to the intake and the limited time there is to respond to any contamination before it enters the water supply. It will result in the most stringent controls on resource users but is a relatively small area.

23.2 **SWRMA 2** is a larger area[8] where activities need to be managed to mitigate more medium-term risks of contamination to source water. The size of this area will vary because it is based on the time it takes for water to flow to the intake.

23.3 **SWRMA 3** is the entire catchment area or capture zone for source water at the intake. Persistent contaminants and long-term risks are the management focus in this area. No additional restrictions are proposed in SWRMA 3, as current requirements under the RMA are considered adequate.

24. Mapping SWRMAs using a nationally consistent method clearly identifies areas where activities may impact source water. This mapping approach was proposed in the Consultation Document, and feedback was generally supportive of the option, and of the methods provided.

25. Estimates of the land area included in SWRMA 1 and 2 for currently registered water supplies are summarised in the table below.[9]

SWRMA	Total land area	Land area impacted[10]	Productive land area	Productive land area impacted[11]
1	1,430 ha	0.01%	423 ha	0.004%
2	1,227,247 ha	6.8%	606,249 ha	5.5%

Proposal Two – Strengthening activity controls

26. Restrictions on RMA activities under the current NES-DW only apply where an activity is likely to contribute to a breach of national drinking water standards

[7] For rivers, it includes 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 is the lake and its bed within a 500-metre radius of the intake, extending 5 metres into land from the lake edge. For groundwater, this is a 5 m radius around the intake (bore head).

[8] For rivers, it is the river and bed from where water travels to the intake within an 8-hour period. For lakes, it is the entire lake area, extending landward 100 metres, and includes tributaries (being the rivers and beds from where water travels to the lake within an 8-hour period). For groundwater, this is 1 year travel time (to a maximum distance of 2.5 km).

[9] These estimates do not include the area covered by currently unregistered supplies. Taumata Arowai expects that all supplies that supply no fewer than 501 people are already registered.

[10] Total land in New Zealand (not including formally protected land eg the conservation estate, where we expect the impacts of the NES-DW to be minor) is 17,998,483 ha.

[11] Total productive land (high producing grassland, low producing grassland, orchard, vineyard / perennial crop, short rotation crop) is 10,935,336 ha.

after existing treatment. This means activities that could result in a gradual decline in source water quality cannot easily be addressed.

27. I propose to add activity controls for specific high-risk activities in SWRMA 1 and 2. The activity controls in both SWRMA 1 and 2 are a subset of the controls consulted on in early 2022. The addition of specific activity controls will allow appropriate conditions to be imposed, and in some cases will prevent new high-risk activities from being allowed. This establishes a clearer and more consistent approach to the management of activities that pose a risk to source water. Regional councils can still consider imposing more stringent local approaches through their regional plans.

28. In SWRMA 1, being the immediate area around the intake including the water body, its riparian margin and the 5 m radius around the bore head[12], I propose to establish minimum requirements to mitigate risk to source water for:

    28.1 existing discharges of wastewater[13], and discharges from existing contaminated sites, landfills and offal pits

    28.2 certain discharges of stormwater and pesticides[14]

    28.3 commercial aquaculture operations[15]

    28.4 dams that may result in cyanobacterial blooms

    28.5 disturbance of the wetted bed of water bodies

    28.6 earthworks that could damage shallow aquifers or the protective layers of aquifers

    28.7 new bores.

29. In SWRMA 1, I also propose to prevent certain new high-risk discharges from occurring:

    29.1 wastewater

    29.2 landfills, offal pits, silage, and composting

    29.3 synthetic nitrogen fertiliser.

30. To enable water suppliers to maintain their surface water intakes in SWRMA 1, I propose they not be subject to NES-DW activity controls that establish

[12] For individual agricultural producers, the area impacted relative to the size of their farm is likely to be minimal.

[13] In this paper, 'wastewater' generally refers to any human sewage or animal effluent, or biosolids that are collected for subsequent management and discharge, and industrial or trade wastes.

[14] While the Hazardous Substances and New Organisms Act 1996 sets minimum standards for use of chemicals, users also need to comply with additional requirements under the RMA. Note the NES-DW will not override the Resource Management (Exemption) Regulations 1996 and 2017.

[15] This is not intended to cover small hatcheries that support conservation or game management purposes.

minimum requirements for disturbance of the wetted bed, and the discharge of certain pesticides[16].

31. In SWRMA 2, which covers 5.5% of productive land in New Zealand, I propose establishing minimum requirements to mitigate risk to source water, for:

    31.1 SWRMA 2 **groundwater** - earthworks that could damage shallow aquifers or the protective layers of aquifers, and new bores.

    31.2 SWRMA 2 **surface water** - direct discharges of the following contaminants to water: wastewater, and certain stormwater and aquatic pesticide discharges.

Proposal Three – Including more water suppliers under the NES-DW

32. The main provisions of the existing NES-DW only apply to activities with the potential to affect a registered drinking water supply for no fewer than 501 people for not less than 60 days in a calendar year.

33. The WSA now requires all water supplies other than a 'domestic self-supply' to register with Taumata Arowai, and to identify and manage risks to drinking water. Registered water suppliers have until November 2022 to submit an initial drinking water safety plan. Unregistered (typically smaller) suppliers have until November 2025 to register. Taumata Arowai estimates there are between 57,000 – 97,000 unregistered suppliers.

34. The Consultation Document proposed to extend the scope of the NES-DW to all registered suppliers, including small suppliers, as they registered with Taumata Arowai. The majority of submitters thought the inclusion of small supplies unfeasible at this time, raising concerns about the extensive resources and funding required to map SWRMAs, and additional obligations on these smaller suppliers (e.g. marae or rural households). These concerns were also held by Taumata Arowai.

35. I therefore propose to make no changes to the scope of the current NES-DW[17] at this time.

36. Retaining the scope of the current NES-DW provides protection to source water that serves 82% of the population.

Impacts of amending the NES-DW

37. The benefits from amending the NES-DW is improved source water protection, through better understanding of risk management areas and improved management of activities that could pose a risk of contamination to source water. These changes support the provision of safe drinking water.

[16] Regional council rules will still apply.

[17] Although minor changes are necessary through drafting of the regulations to align the scope definition with the WSA and the Taumata Arowai drinking water supplier register.

38. There are some administrative costs that will be faced by regional councils (the mapping of SWRMAs) and there are low-moderate costs that could potentially impact resource users. These costs will depend on how well their regional council currently manages risk. The main costs and impacts are outlined in Appendix 3.

39. These increased costs will be balanced against reduced costs through the avoidance of a contamination event for the health system, and individuals. Ministry of Health estimates put the total economic costs to society of the Havelock North outbreak to just above $21 million.[18]

Implementation

40. If Cabinet agrees to the proposal, I anticipate returning to Cabinet for approval to recommend the making of the amendment regulations in the first half of 2023.

41. I propose a staged approach to implementation so that regional councils have sufficient time to prepare for and implement the changes. Implementation is expected to occur as follows:

    41.1 Regional councils map SWRMA 1 to 3 for registered supplies.

    41.2 Regional councils update their regional plans to remove any rules that duplicate or conflict with the provisions of the NES-DW.

    41.3 Regional councils apply activity controls once SWRMAs are formally established.

Financial Implications

42. There are no direct financial implications to the Crown associated with this paper.

Legislative Implications

43. The NES-DW are regulations under the Resource Management Act 1991. Final decisions on amendments to the regulations will be made by Cabinet, signed off by the Governor-General, and come into effect 28 days after gazettal.

Impact Analysis

Regulatory Impact Statement

44. A regulatory impact statement (RIS) has been prepared and is attached to this paper (Appendix 4).

45. The Ministry for the Environment Regulatory Impact Analysis Panel has reviewed this Regulatory Impact Statement and considers it meets the quality

[18] Government Inquiry into Havelock North Drinking Water (2017) Report of the Havelock North Drinking Water Inquiry: Stage 2.

assurance criteria for Regulatory Impact Assessments. The Regulatory Impact Analysis Panel provided the following statement:

45.1 The RIS clearly sets out the context for the issues that it analyses, and shows adequate consultation with affected parties. Furthermore, the RIS canvasses an appropriate selection of proposals and sub-options to amend the NES-DW and strengthen source water protection in Aotearoa New Zealand. The Panel found the impact and cost-benefit analyses to be both robust and comprehensive. While the RIS is quite long and in parts highly technical, overall the Panel considers it to be convincing, and more than sufficient to support informed and effective decision-making from Ministers.

Treaty of Waitangi Implications

46. Māori-owned land will be covered by the areas defined as SWRMAs[19]. 12.5 ha (0.0009% of total whenua Māori) of whenua Māori is covered by SWRMA 1 and 85,094 ha (6.3% of total whenua Māori) is covered by SWRMA 2. There are no marae or papakāinga water suppliers that would be covered by the proposed NES-DW.

47. These areas would be required to be mapped by regional councils and would be subject to the activity controls of the NES-DW. Throughout engagement my officials heard that careful consideration must be given to the mapping of Māori-owned land and to the imposition of regulation on Māori-owned land, given the historical and ongoing impacts of government mapping in these spaces and the protection of tino rangatiratanga in te Tiriti o Waitangi.

48. Particular care will be taken in the development of the supporting guidance and the implementation plan to ensure regional councils are aware of these sensitivities and of the importance of working with mana whenua on the implementation of the new requirements under the NES-DW.

Population Implications

49. The proposal may have a greater impact on resource users in rural communities as many source water takes are in rural areas. Resource users may find themselves located within a SWRMA, meaning, they will be required to address their potential effects on source water.

[19] Whenua Māori as defined by Te Ture Whenua Act and included in the Māori Land Court Spatial Dataset, and does not include whenua Māori that is not Māori Freehold Land or Māori customary land (ie does not include land that is owned by iwi or land that is privately owned by Māori). Total whenua Māori is 1,404,710 ha.

Human Rights

50. The proposals in this paper are consistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

Consultation

51. Officials have sought feedback on the proposals through regular engagements with councils, water suppliers, iwi/Māori, primary sector and other key organisations over the past two years and undertook a public consultation process.

52. The Department of Internal Affairs, Taumata Arowai, Ministry of Health and Ministry for Primary Industries. In addition, New Zealand Defence Force, the Department of Conservation, Department of Corrections, Ministry of Education, Ministry of Housing and Urban Development, Ministry for Business, Innovation & Employment, Te Arawhiti, Te Puni Kōkiri, and the Department of Prime Minister and Cabinet have been consulted. Their feedback has informed the development of this paper.

Communications

53. I propose that a press release is prepared to release alongside the gazettal of the amended NES-DW in the first half of 2023, after final Cabinet approval.

Proactive Release

54. I propose that this Cabinet paper and the RIS (Appendix 4) be released proactively, subject to redactions considered under the provisions of the Official Information Act.

Recommendations

55. The Associate Minister for the Environment recommends that the Committee:

1. **note** that protection of the water body from which drinking water is taken provides a crucial barrier to protect drinking water from contamination
2. **note** the intent of the National Environmental Standards for Sources of Human Drinking Water (NES-DW), introduced in 2007, is to protect source water, but the Havelock North Drinking Water Inquiry (HNI) and Ministry of Environment (the Ministry) review found it had not achieved its intended purpose
3. **note** the proposed amendments to the NES-DW are part of other improvements to drinking water, implemented through the Three Waters Review, and freshwater management, through the Essential Freshwater programme
4. **note** that in early 2022, the Ministry publicly consulted on proposed amendments to the NES-DW [CAB-21-MIN-0530]. Based on feedback received

in this consultation and other engagement, the proposed amendments have been refined

5. **agree** that the current provisions in the NES-DW preventing regional councils from allowing an activity that would lead to a breach of the Drinking-Water Standards after existing treatment will be retained

6. **agree** to the following amendments to the NES-DW:

   6.1. Require regional councils to map and make available 'source water risk management areas' (SWRMAs) as soon as practicable, using either a standard or bespoke approach, establishing three categories of land in terms of proximity to a source water take:

      6.1.1. For the standard approach:

         6.1.1.1. SWRMA 1 is the immediate area around the source water intake, of fixed size depending on whether water is sourced from a river, lake or aquifer

         6.1.1.2. SWRMA 2 is a larger area, calculated based on the time it takes for water to flow to the intake

         6.1.1.3. SWRMA 3 is the entire catchment area or capture zone for source water at the intake

      6.1.2. A bespoke approach provides more flexibility in mapping SWRMAs, but must deliver on outcomes at least as protective as the standard method. A bespoke approach must be used for complex water systems such as springs or wetlands

   6.2. Establish minimum requirements within SWRMA 1 to mitigate source water risk, for:

      6.2.1. existing discharges of wastewater, and discharges from existing contaminated sites, landfills and offal pits

      6.2.2. certain discharges of stormwater and pesticides (noting the NES-DW will not override the Resource Management (Exemption) Regulations 1996 and 2017)

      6.2.3. commercial aquaculture operations

      6.2.4. dams that may result in cyanobacterial blooms

      6.2.5. disturbance of the wetted bed of water bodies

      6.2.6. earthworks that could damage shallow aquifers or the protective layers of aquifers

      6.2.7. new bores

   6.3. Prevent the following high-risk activities from occurring within SWRMA 1:

6.3.1. wastewater (including sewage, effluent, biosolids and industrial / trade wastes)

6.3.2. landfills, offal pits, silage, and composting

6.3.3. synthetic nitrogen fertiliser

6.4. Make a maintenance exception for water suppliers from NES-DW requirements relating to disturbance of the wetted bed, and certain discharges of pesticides

6.5. Establish minimum requirements within SWRMA 2 groundwater for earthworks that could damage shallow aquifers or the protective layers of aquifers, and new bores

6.6. Establish minimum requirements within SWRMA 2 surface water for direct discharges of the following contaminants to water:

6.6.1. wastewater (including sewage, effluent, biosolids and industrial / trade wastes)

6.6.2. certain stormwater and aquatic pesticides

7. **authorise** the Associate Minister for the Environment (Hon Kiritapu Allan) to issue drafting instructions to the Parliamentary Counsel Office to draft the amendments to the National Environmental Standards for Sources of Human Drinking Water 2007 as proposed in recommendation 6 above and to report to Cabinet Legislation Committee in the first half of 2023

8. **authorise** the Associate Minister for the Environment (Hon Kiritapu Allan) to make any final minor or technical changes to the proposed amendments to the NES-DW.

Authorised for lodgement

Hon Kiritapu Allan

Associate Minister for the Environment

Appendix 1: High level feedback from stakeholders

Submissions made through the consultation process

56. The Ministry received 2,407 submissions from regional councils and territorial authorities, iwi/Māori, resource user interest groups (including the primary sector), environmental organisations, other agencies, businesses, and individuals. The submissions set out a range of views about each aspect of the proposed amendments. The full summary of submissions was published on the Ministry website[20]. Below is high-level summary of the main themes raised through submissions.

There is general support for improved source water protection, but care is needed to ensure the NES-DW is a workable and proportionate response

57. There was support for the objectives and intentions of the proposals, but it will require care if the amendments are to work as intended, and not result in a cumbersome regulatory framework, or a disproportionate response to the problem. There was concern that greater protection for registered water supplies (including new water supplies established in future) would make existing lawful activities vulnerable, and result in potentially unnecessary restrictions. Submitters also noted the importance of a co-ordinated and collaborative approach to protecting source water.

There is mixed opinion on the degree of national direction necessary

58. There was strong support for national direction on managing risks to source water to improve clarity and consistency. However, there was also opposition to national direction, in favour of local approaches to local situations. This applied to the delineation of source water risk management areas, and any controls of activities within them.

Nitrate contamination of source water is a concern

59. There was concern about the risk from nitrate / nitrogen to source water, and whether the NES-DW addresses this risk strongly enough.

There are concerns about the inclusion of small water supplies

60. A common concern among submitters was the potential impact of the amendments on small water suppliers. Submitters questioned the proportionality of the amendments (such as whether the benefits would outweigh the costs), and whether alternative (or simpler) pathways have been considered for small supplies.

[20] Improving the protection of drinking water sources: Summary of submissions | Ministry for the Environment

There are cost and resourcing concerns, and guidance, education and support will be necessary

61. The costs and resourcing required to implement an amended NES-DW was a concern for some submitters – from mapping and consenting through to education and compliance. The potential number of currently unregistered water suppliers was a concern in terms of the resourcing required through the new regulatory changes. Iwi/Māori were particularly concerned about their ability to engage as water suppliers or resource users in any consenting or plan change processes.

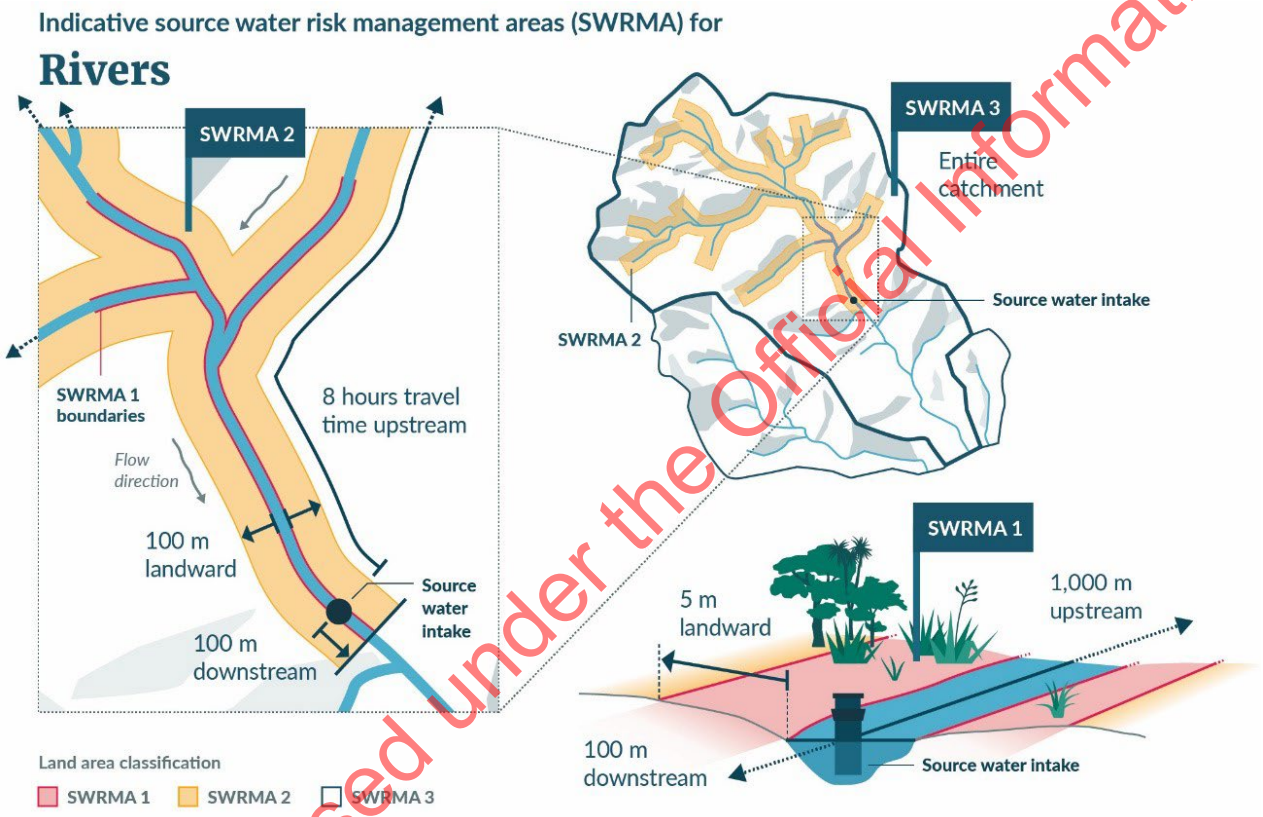
Appendix 2: Indicative SWRMA for rivers, lakes and aquifers

2-1 Indicative SWRMA for rivers

SWRMA 1 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.

SWRMA 2 is the area from where water travels to the intake within an 8-hour period.

SWRMA 3 is the rest of the river catchment.

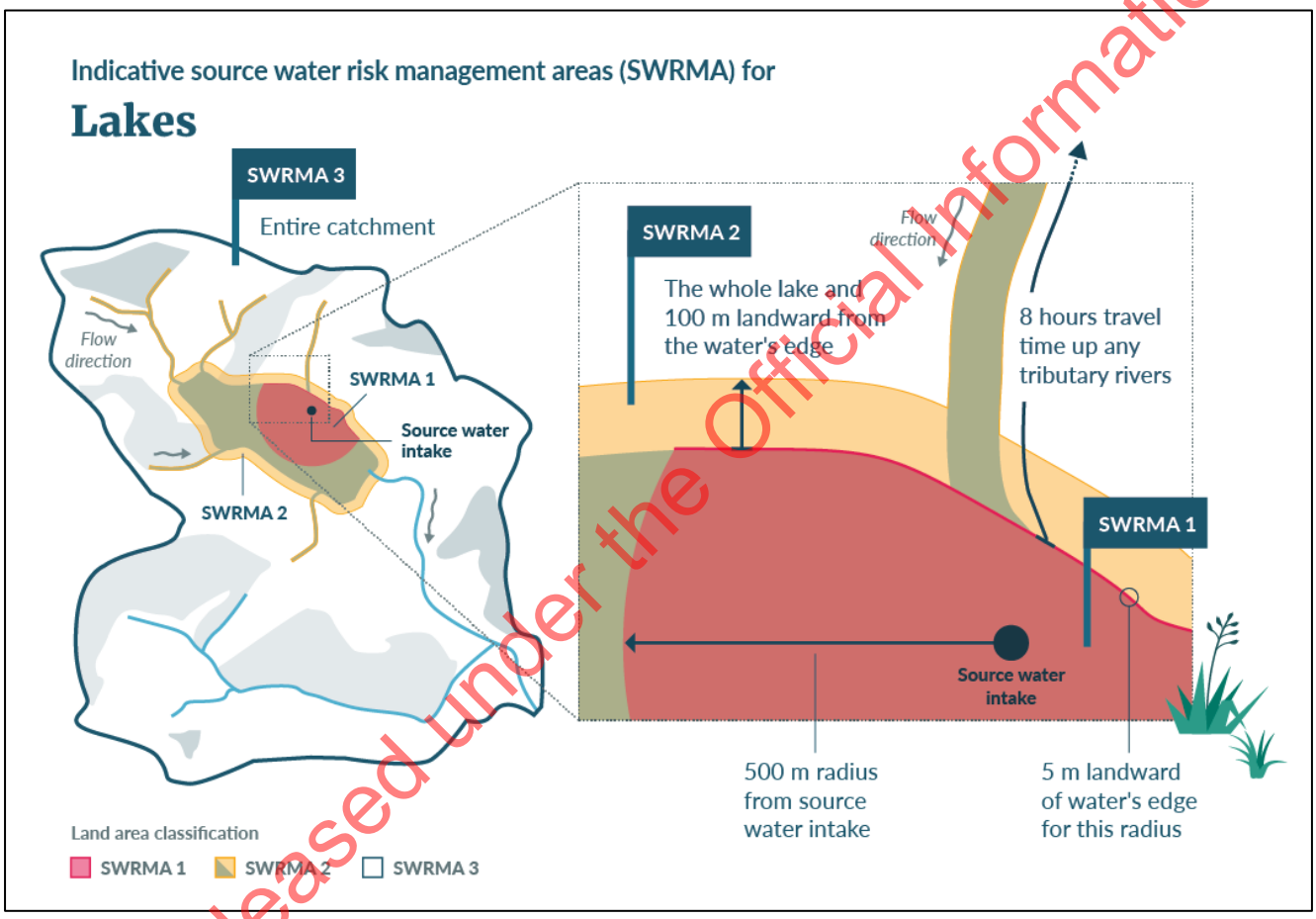


2-2 Indicative SWRMA for lakes

SWRMA 1 encompasses the lake and its bed within a 500-metre radius of the intake, extending 5 metres into land from the lake edge.

SWRMA 2 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).

SWRMA 3 is the rest of the lake catchment.

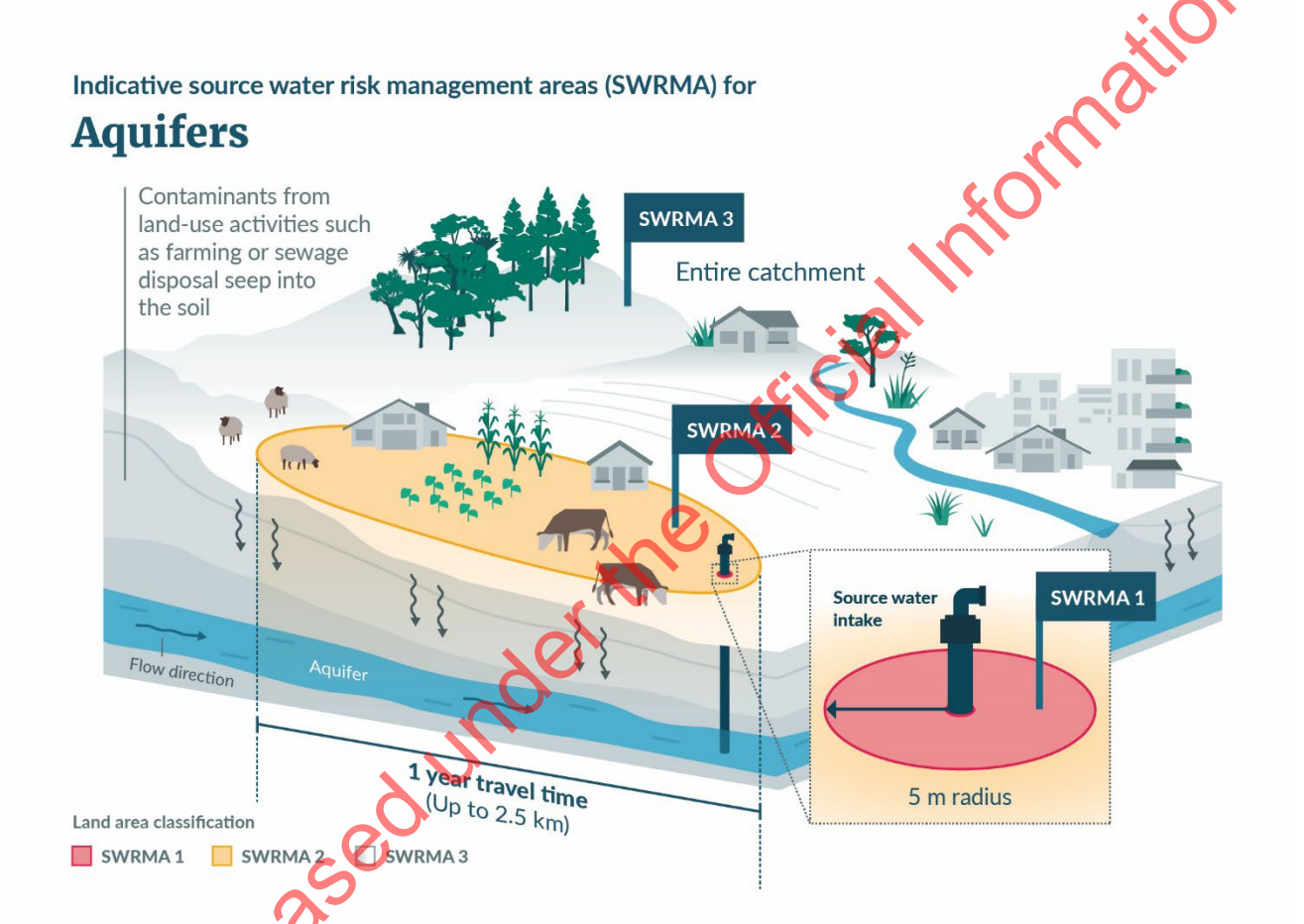


2-3 Indicative SWRMA for aquifers

SWRMA 1 encompasses land within a 5-metre radius around the intake (bore head).

SWRMA 2 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 rest of the land area overlying the aquifer, that contributes water to the aquifer.



Appendix 3: Estimated costs of amending the NES-DW

62. The main estimated costs for stakeholders are summarised below. These are included in more detail in the attached RIS (Appendix 4). It is important to note that calculating some of the costs of the amendments on a national level is complex, due to regional variations.

Central Government:

63. $400,000: a one-off cost to the Ministry for guidance, consultation with stakeholders, and technical assistance for consent authorities, to aid the implementation of the NES-DW. This will be met through baselines.

64. There will likely be additional costs for government agencies that are impacted as resource users or water suppliers (e.g. the Department of Conservation, the Ministry of Education) that have not been quantified in this document.

Regional Councils

65. We expect the delineation and establishment of SWRMAs using the default methods provided, will cost between $51,750 - $258,750 per council if spread evenly across the country (a total of between $828,000 and $4,140,000[21]). This consists of:

    65.1 $1,000–$5,000: delineating a single water supply using the simplest method[22]. Regional councils can make cost efficiencies by doing this for several water supplies at the same time, eg, $5,000–$10,000 per region using a default SWRMA.

    65.2 Delineating a bespoke SWRMA from scratch is expected to cost between $70,000–$400,000. However, a number of regional councils have already defined source protection areas for their regions, and we expect regional councils to apply for bespoke SWRMAs using existing data.

    65.3 Reviewing current plans to ensure they are consistent with the amended NES-DW is expected to cost between $100,000 and $200,000 per consent authority. This cost may vary depending on the extent to which existing source water protection provisions align with the amended NES-DW.

[21] This amount assumes regional councils using the fixed distance or velocity method. Source: BECA (2022) *'Delineation of Source Water Risk Management Areas'*

[22] Using the default time of travel method is estimated to cost between $500-$400,000. This does not include any efficiencies found by regional councils.

Resource Users

66. For activities permitted under the current NES-DW that may require consent under the proposed amendments, the costs will vary depending on the complexity of the application. Consent costs may lie between $5,000-$50,000 per application. We expect this proposal to create the need for less than 300 additional consents.

67. The impacts on different stakeholders are summarised in Table 3-1.

Table 3-1: How will an amended NES-DW impact different stakeholders

Stakeholders	Roles and responsibilities
Regional councils	• Mapping SWRMAs for all registered water supplies in their region, including engagement with water suppliers and other parties to help validate the delineation of SWRMAs and updating regional plans. • Updating operational procedures to ensure the NES-DW is being applied to applicable consenting decisions and considered as part of compliance, monitoring and enforcement activities. • Informing and educating resource users of the requirements of the NES-DW and any previously permitted activities now requiring a consent (noting a transition period will be provided for).
Territorial authorities (as consent authorities)	• Under the RMA regional councils are responsible for controlling land uses that affect water quality. The amended NES-DW will clarify this. Consequently, the amended NES-DW reduces the current implementation responsibility of territorial authorities.
Water suppliers	• Potential engagement with regional council regarding mapping of SWRMAs. • Provide information on risks to source water (as identified in Source Water Risk Management Plans (SWRMPs)) to regional councils. • Asked by resource users or regional councils, for greater involvement in consent applications where a risk to source water is identified.
Resource users	• Activities continue to be controlled under the RMA, regional/district plans, and through any national direction including the NES-DW. • Restricted from certain activities and consents required for certain activities very close to source water abstraction (SWRMA 1). • Consents may be required for high-risk activities in a slightly broader area around the intakes (SWRMA 2) depending on how well their regional council previously regulated those risks. • Must consider the effects of their activity on local registered drinking water supplies, and they are encouraged to engage with water suppliers when considering how to avoid, remedy, or mitigate effects.
Central government	• Taumata Arowai to facilitate access to information on water supplies as contained in the national drinking water supply register, including location of intakes. • Ministry for the Environment to provide support and guidance for councils to undertake mapping of SWRMAs. • Ministry for the Environment to provide guidance on assessing risks to source water in consenting decisions in accordance with the requirements of the NES-DW. • Other agencies have responsibilities as water suppliers and resource users (eg, Department of Conservation, Ministry of Education, Department of Corrections).

Stakeholders	Roles and responsibilities
Iwi, Hapū and whānau Māori	• Potential engagement with regional councils regarding mapping of whenua Māori. • If whenua Māori is included in the mapped SWRMAs, the new activity restrictions would apply.

Appendix 4: Regulatory Impact Statement

ENV-22-MIN-0052

Cabinet Environment, Energy and Climate Committee

Minute of Decision

Amending the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007

Portfolio **Associate Environment (Hon Kiri Allan)**

On 23 November 2022, the Cabinet Environment, Energy and Climate Committee:

1 **noted** that protection of the water body from which drinking water is taken provides a crucial barrier to protect drinking water from contamination;

2 **noted** that the intent of the National Environmental Standards for Sources of Human Drinking Water (NES-DW), introduced in 2007, is to protect source water, but the Havelock North Drinking Water Inquiry (HNI) and Ministry of Environment (the Ministry) review found it had not achieved its intended purpose;

3 **noted** that the proposed amendments to the NES-DW are part of other improvements to drinking water, implemented through changes to drinking water provisions under the Water Services Act 2021 (WSA), and to freshwater management, through the Essential Freshwater programme;

4 **noted** that in early 2022, the Ministry for the Environment publicly consulted on proposed amendments to the NES-DW [ENV-21-MIN-0070], and based on feedback received in this consultation and other engagement, the proposed amendments have been refined;

5 **agreed** to retain current provisions in the NES-DW that prevent regional councils from allowing activities that would lead to a breach of the Drinking Water Standards after treatment;

6 **agreed** to amend the NES-DW to:

6.1 require regional councils to map and make available 'source water risk management areas' (SWRMAs) as soon as practicable, using either a standard or bespoke approach, establishing three categories of land in terms of proximity to a source water take:

6.1.1 for the standard approach:

6.1.1.1 SWRMA 1 is the immediate area around the source water intake, of fixed size depending on whether water is sourced from a river, lake or aquifer;

6.1.1.2 SWRMA 2 is a larger area, calculated based on the time it takes for water to flow to the intake;

6.1.1.3 SWRMA 3 is the entire catchment area or capture zone for source water at the intake;

6.1.2 a bespoke approach:

6.1.2.1 provides more flexibility in mapping SWRMAs, but must deliver on outcomes at least as protective as the standard method;

6.1.2.2 be used for complex water systems such as springs or wetlands;

6.2 establish minimum requirements within SWRMA 1 to mitigate source water risk, for:

6.2.1 existing discharges of wastewater, and discharges from existing contaminated sites, landfills, and offal pits;

6.2.2 certain discharges of stormwater and pesticides (noting the NES-DW will not override the Resource Management (Exemption) Regulations 1996 and 2017);

6.2.3 commercial aquaculture operations;

6.2.4 dams that may result in cyanobacterial blooms;

6.2.5 disturbance of the wetted bed of water bodies;

6.2.6 earthworks that could damage shallow aquifers or the protective layers of aquifers;

6.2.7 new bores;

6.3 prevent the following high-risk activities from occurring within SWRMA 1:

6.3.1 wastewater (including sewage, effluent, biosolids and industrial / trade wastes);

6.3.2 landfills, offal pits, silage, and composting;

6.3.3 synthetic nitrogen fertiliser;

6.4 make a maintenance exception for water suppliers from NES-DW requirements relating to disturbance of the wetted bed, and certain discharges of pesticides;

6.5 establish minimum requirements within SWRMA 2 groundwater for earthworks that could damage shallow aquifers or the protective layers of aquifers, and new bores:

6.6 establish minimum requirements within SWRMA 2 surface water for direct discharges of the following contaminants to water:

6.6.1 wastewater (including sewage, effluent, biosolids, and industrial / trade wastes);

6.6.2 certain stormwater and aquatic pesticides;

7 **authorised** the Associate Minister for the Environment (Hon Kiri Allan) (the Associate Minister) to issue drafting instructions to the Parliamentary Counsel Office to draft the amendments to the National Environmental Standards for Sources of Human Drinking Water 2007 as outlined in paragraph 6 above;

8 **invited** the Associate Minister to report to the Cabinet Legislation Committee in the first half of 2023;

9 **authorised** the Associate Minister to make any final minor or technical changes to the proposed amendments to the NES-DW;

10 **noted** that Ministers discussed issues with nitrate/nitrite levels in small water supplies, and that officials will be reporting back on this matter separately to relevant Ministers;

11 **noted** that in June 2022, the Cabinet Legislation Committee directed the Ministry for the Environment and the Ministry of Health in consultation with Taumata Arowai, to report back to the Minister of Local Government, Minister for the Environment, Associate Minister of Health (Hon Dr Ayesha Verrall), and Associate Minister for the Environment (Hon Kiri Allan) with further advice on the risks associated with nitrate/nitrite levels in water and how those risks can be addressed, particularly for South Canterbury bores, and that Ministers are awaiting this advice [LEG-22-MIN-0089].

Rebecca Davies
Committee Secretary

Present:
Hon Grant Robertson
Hon Kelvin Davis
Hon David Parker (Chair)
Hon Damien O'Connor
Hon Dr Ayesha Verrall
Hon Phil Twyford
Rino Tirikatene, MP

Officials present from:
Office of the Prime Minister
Department of the Prime Minister and Cabinet
Officials Committee for ENV