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3 March 2022

Improving the protection of drinking-water sources
Urban Water team
Ministry for the Environment
PO Box 10362
Wellington 6143

Dear Sir/Madam

Submission on consultation document – “Improving the protection of drinking-water sources”

Thank you for the opportunity to provide comment on the consultation document “*Kia kaha ake te tiakina o ngā puna wai-inu: Improving the protection of drinking-water sources*”.

Attached is the West Coast Regional Council’s (WCRC or the Council) submission.

Council welcomes the opportunity to respond to this consultation.

The Council supports in principle improving the protection of sources of human drinking water. Council notes that the intent of the recent Water Services Act (the Act), in tandem with the proposed NES-DW changes, and changes to New Zealand Standards, is to improve protection of drinking water sources and reduce the risk of contamination. The WCRC is aware that improvements can be made to our Regional Plan provisions on this matter.

WCRC has concerns about the cost to West Coast ratepayers of implementing not only the proposed NES-DW changes but also the Act. While stronger regulation is appropriate in areas with larger populations and more intensive development upstream of community water supply takes, this level of pressure on drinking water supplies, and the subsequent higher risk of contamination of those supplies, is not necessarily the same in all regions.

Council therefore seeks a more scaled regulatory approach with strengthened alternative options so that the smaller rural populations on the West Coast with relatively less land development and pressure on human drinking water supplies, can have an appropriate level of regulation and not be burdened with unnecessary costs of over-regulation.

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We would be grateful for acknowledgement of receipt of our submission.

Yours faithfully

A handwritten signature in black ink, appearing to read 'H Mabin', followed by a long horizontal line extending to the right.

Heather Mabin
Chief Executive Officer

List of Recommendations and Feedback

That the Government-

Recommendation 1

- a) provides for alternative solutions and/or a general exemption, either in legislation or regulation, for small rural drinking water supplies to avoid having to be registered;
- b) provides information on what alternatives and exemptions will entail, and consults with rural communities and councils on these options);
- c) takes a proactive approach to people becoming self-sufficient when it comes to water supply through subsidies and incentives for water tanks;
- d) provides, through the Water Services Act or documents setting up Taumata Arowai, for Taumata Arowai to grant alternative solutions and/or exemptions for smaller water supplies who do not have the capability or capacity to undertake comprehensive risk management planning;
- e) provides science and resource support for rural councils to develop bespoke solutions.

Recommendation 2

- a) establishes realistic monitoring, evaluation and reporting targets for small rural drinking water supplies;
- b) makes a commitment to fund the monitoring and reporting of water quality at the source of drinking water supplies, to be undertaken by regional councils;
- c) makes a commitment to support households becoming self-sufficient in their water needs through the installation of rain-water tanks;
- d) applies the range of national tools for maintaining and improving water quality in an integrated manner so that gains for drinking water quality made under the NPSFM and NESF mean that regulations and restrictions in the Act and NES do not need to be excessive.

Recommendation 3

reviews the proposed SWRMAs 1-3 system in terms of:

- a) its suitability for small rural drinking water supplies with little land use activity in upstream areas of catchments;
- b) the cost of resourcing the SWRMA process for differing hydrological and geological systems;
- c) any unintended consequence as a result of land use limitations in the SWRMAs.

Recommendation 4

reconsiders its move away from treatment of drinking water supplies, as a valid option for small, remote rural supplies.

Recommendation 5

- a) clarifies the role of mapping of SWRMAs and the intention as to how this will be regulated and made publicly available;**
- b) confirms mapping requirements falling to regional councils, and the method to be used;**
- c) amends the proposal for newly created drinking water supplies to be added immediately to regional plans, to allow more time for them to be mapped and added to regional plans.**

Recommendation 6

strengthens the option for bespoke source protection delineation in the NES so it is an equally treated option for small, rural community drinking water supplies.

Recommendation 7

amends NZS 4411:2001 as proposed, and amends the NES to require that compliance with the relevant provisions of NZS 4411:2001 for groundwater bores is required in regional plan rules and in consent conditions.

Feedback

Council supports improving groundwater bore management over vulnerable aquifers¹, including prohibiting below-ground bore heads.

Recommendation 8

- a) provides guidance to regional councils on protecting vulnerable aquifers which supply drinking water, from contamination;**
- b) waits until freshwater plan changes are notified and decisions released before undertaking a review of regional plans, and current consent conditions;**
- c) introduces provisions that allow water supply consent renewals to be declined where the application of a SWRMA will severely limit productive land use;**
- d) enables small scale water supply consents to be cancelled where reticulated water supplies are available.**

¹ A vulnerable aquifer is one which which can be easily contaminated from the surface. This could be because:

- The aquifer is near the surface so there is less of a barrier between the activities above ground and below. However, a shallow aquifer with optimum geology could be better than a deeper suboptimal one.
- Unsecure bores (poor construction) can provide ingress of contaminants into an aquifer.
- Land use, for example, intensive farming near takes poses a pathogen risk. Commercial/industrial land use discharging hazardous substances can also have a risk of water contamination.
- Unfavourable subsoil and geology for filtering pathogens. Preferential pathways eg limestone, provides for direct surface water ingress.
- The climatic and geographical conditions create a drier area and have higher nitrate concentrations, for example, in farmed areas in the Upper Grey Valley, Reefton and Karamea. (Pers comm, R Beagley, West Coast Regional Council Acting Hydrology Team Leader, 27/1/2022).

Recommendation 9

includes provision in the NES for an extended period of time for small, rural councils to implement any changes.

Recommendation 10

- a) That the issue of reverse sensitivity for our rural land users is acknowledged and investigated;
- b) That water quantity and allocation risks are investigated and a framework for allocation is developed that recognizes the productive value of water use;
- c) Prior to implementing the SWRMA process, priorities of water use are developed to ensure there are no reverse sensitivity effects from the SWRMA process.

Introduction

The West Coast Regional Council (the WCRC or Council) appreciates the opportunity to provide feedback on the consultation document “*Kia kaha ake te tiakina o ngā puna wai-inu: Improving the protection of drinking-water sources*”.

As background, the Council submitted on the Government’s Water Services Bill in early 2021, supporting in principle the purpose of the Bill, to ensure that drinking water suppliers provide safe drinking water to consumers. Council also raised the following concerns:

- The pressures that the NES will put on small vulnerable communities and small private suppliers, and the lack of support for them; and
- The extra costs of new roles for the WCRC, and no indication of central government funding to undertake additional monitoring and reporting of water supply sources.

The Council’s concerns remain with the new Water Services Act (the Act), and now the proposed changes to the National Environmental Standards for Sources of Human Drinking Water (NES) reinforces our concern about the cost of implementation for landowners in source protection areas, and the cost of new functions placed on the Council which will have to be passed on to ratepayers. These functions cannot be resourced through existing roles.

The affordability of the proposals, and the impacts of central government environmental policy and regulation on the economic, social and cultural wellbeing of small, rural communities, and our freshwater quality, are key points in our submission.

Our feedback responds to some of the questions in the consultation document. Council has not had time to review the technical documents accompanying the consultation document, accordingly this submission does not comment on these matters.

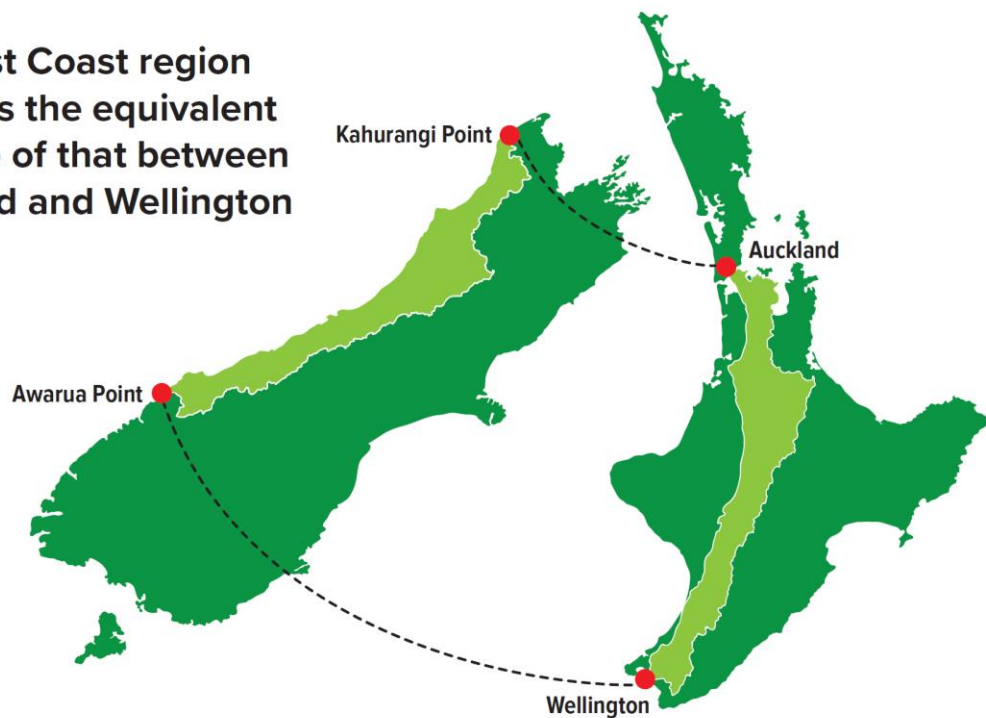
Council notes that the Act and the proposed changes to the NES do not apply to households on individual water supplies, such as rain tanks.

About the Submitter

The West Coast Regional Council (WCRC) is the local authority for a region covering a vast area with a sparse population. Extending from Kahurangi Point in the north to Awarua Point in the south, this is the same distance from Wellington to Auckland. The West Coast is predominantly rural.

Map of New Zealand to highlight 600km length of West Coast Region compared to distance between Auckland and Wellington

The West Coast region stretches the equivalent distance of that between Auckland and Wellington



The West Coast has a limited supply of productive land due to topography, and limitations through statutory environmental protection. Approximately 10% of land has anthropogenic activity (including farming, mining, exotic forestry, urban), and exotic shrubland. The remaining 90% is in a natural state. The Conservation Estate comprises 84.17% of the West Coast land area, with an additional 1.55% administered by Land Information New Zealand (LINZ). This leaves 14.28% of land available for private ownership although some restricted uses can occur on Crown Land. The land in the Conservation estate and Crown ownership is not

rateable by local authorities. Due to the WCRC's low rating base, the Council has limited resources to undertake mapping, monitoring and reporting of drinking water sources, on top of overseeing supplier management of drinking water supplies under the Water Services Act (the Act).

WCRC works closely with the regions' three territorial authorities (the Buller, Grey and Westland District Councils). Outside of the main towns of Westport, Greymouth, Reefton and Hokitika, the region's relatively low population of approximately 32,700² is spread across smaller settlements and rural communities. It is important that the proposed NES changes are not unnecessarily onerous, but are appropriate, for the level of risk in small rural communities.

Te Rūnanga o Ngāti Waewae and Te Rūnanga o Makaawhio (Poutini Ngāi Tahu – PNT) are mana whenua of Te Tai o Poutini (the West Coast). Our Mana Whakahono ā Rohe (Resource Management Act - Iwi Participation Arrangement) captures the intent of the Council and Poutini Ngāi Tahu to progress our relationship in accordance with the Treaty of Waitangi partnership between iwi and the Crown.

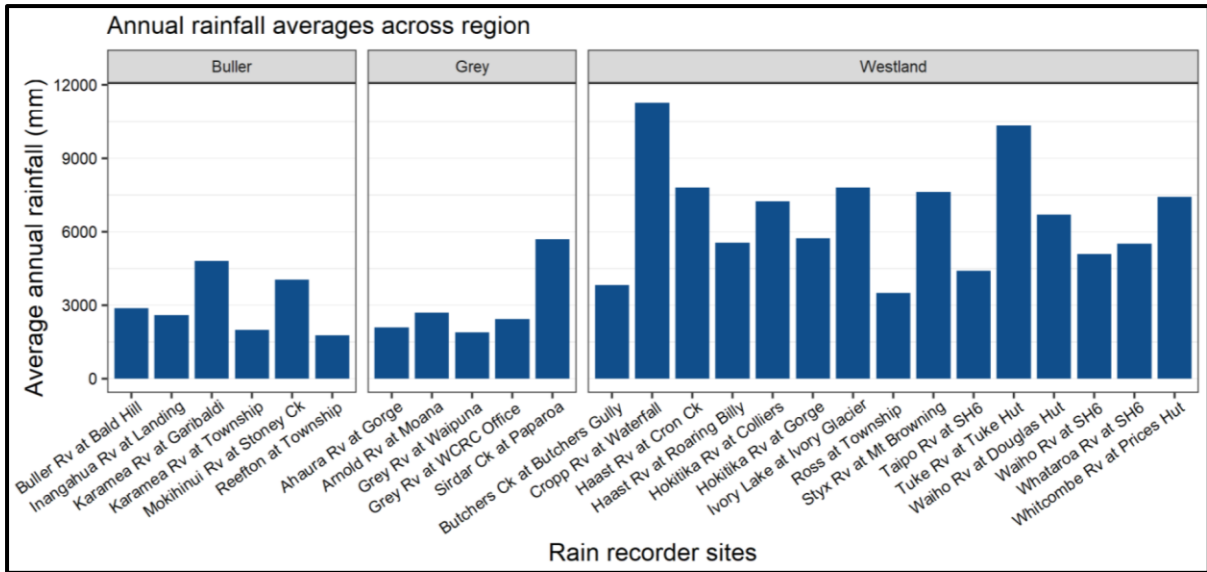
The West Coast Regional Council has the transferred responsibilities of each of Buller, Grey and Westland District Councils under section 73 and Schedule 1 of the RMA for there to be a district plan at all times for each district. The preparation, notification, adoption, periodic amendment and review of one district plan have been transferred to the West Coast Regional Council. This has resulted in a substantive increase in rates for the West Coast Region with no apparent reduction in District Council rates³.

The West Coast Region has a unique environment; it is known to be the wettest region in New Zealand, recording average annual totals of between 1,775mm and 11,275mm of rainfall per year during the 2017 – 2021 reporting period.⁴ Annual rainfall is generally higher in the mid to southern region, particularly in the Southern Alps at higher latitudes. The West Coast has plenty of water and therefore in terms of resilience and sustainability households should pursue a strategy of harvesting water. There is potential for the West Coast to supply water to the rest of New Zealand.

² Statistics New Zealand Tatauranga Aoteroa

³ Local Government Reorganisation Scheme (West Coast Region) Order 2019. See <https://gazette.govt.nz/notice/id/2019-go2872>

⁴ State of the Environment – West Coast Region – Summary 2021 [Not yet published]



General Comments

As the Act and the NES will operate in tandem, this submission outlines the main issues for the West Coast with implementing both the Act and the proposed NES changes.

The Council agrees in principle that protection of human health is a priority. The Council considers that the Act is not fair or equitable for small drinking water supplies in rural areas. The regulation effect of the Act's definition of a drinking water supplier (s8) means that a person who provides drinking water to at least one other person is classed as a supplier. There are likely to be numerous small clusters of rural houses, including workers accommodation, or other facilities (for example, 2-10 houses) sharing a drinking water supply. A motor camp operator using a ground bore, as an example, would be a drinking water supplier, or a rural café. A farmer supplying two farmhouses from a ground water bore would also fall under this law.

Council agrees it is important to avoid any contamination event that results in effects on human health. Council considers there is a range of existing tools that can be utilised to protect public health. WCRC suggests that alternative options to improve protection of small, rural drinking water supplies should be better provided for in the legislation and regulation. The regulations also need to address the effect of reverse sensitivity and the effect of new water suppliers on permitted land uses.

While the Act requirements provide a good level of protection for drinking water supplies, and Council supports in principle amending parts of the NES which are problematic, Council questions the suitability of additional protection regulations for rural areas with low populations and the unintended effects of limiting currently permitted land uses.

An unintended consequence of the proposed NES is the effect of new drinking water sources on limiting surrounding land use practices. The proposed NES will have the net effect of prioritising drinking water

supplies over existing land uses. This may occur in locations where reticulated or alternative water supplies are available. For example, cropping or grazing practices could be limited by a rural subdivision establishing a new bore for their water supply; see Regulation 12 of the existing NES for Drinking water.⁵

Water Services Act

Impact of Water Services Act requirements for suppliers

The new Water Services Act 2021 (the Act) sub-part 1 sets duties that water suppliers must undertake to ensure they provide safe drinking water. The requirements, as WCRC understands from the document, are numerous and will be time-consuming and costly for small, private and council suppliers. Requirements involve:

- Complying with drinking water standards;
- Registering the supply with Taumata Arowai, including annual renewal of registration and paying an annual fee;
- Preparing a Source Water Risk Management Plans (SWRMP) to identify, manage and monitor risks to source water;
- Taking reasonable steps to supply aesthetically acceptable drinking water;
- Providing sufficient quantity of drinking water;
- Duties where sufficient quantity is at imminent risk;
- Protecting against risk of backflow;
- Duties relating to end-point treatment;
- Having a drinking water safety plan;
- Duties to notify Taumata Arowai and others of notifiable risk or hazard;
- Keeping records;
- Providing information to consumers and having a complaints process;
- Monitoring source water quality.

The duties of a water supplier under the Act place a significant responsibility and cost on the supplier. While this may be 'business as usual' for larger councils supplying large populations, for smaller, rural private suppliers, this is a disincentive to provide a community supply. Approximately half of the consented community drinking water takes listed in Schedule 7B of the Council's Regional Land and Water Plan (Regional Plan or L&WP) are private supplies, and there are numerous non-consented and non-registered suppliers, mainly farms who provide water for a small number of houses on, and in close proximity to, the farm. This adds another layer of cost to farmers on top of the costs of implementing other national regulation.

⁵ Regulation 12 of the NES-DW 2007 requires councils to add a condition on resource consent if an activity may significantly adversely affect a registered drinking-water supply.

Compliance with the Act and proposed NES requirements will benefit public health and those receiving drinking water from a private communal supply, as meeting all the proposed standards will reduce the risk of contamination of their supply from upstream land uses. WCRC consider there are other methods to protect the public health of users, negating the need for costly registration and compliance. Consequently, there are no incentives for the individual or group who is the designated 'supplier' of a private supply, only a lot of work, cost and responsibility. A further unintended consequence may be that group suppliers, who have acted under goodwill in the past, may cut off supply to a private group. This could result in several individual supplies being established to bypass the Act. The net result being several unprotected supplies or all those receiving a communal supply would then have to find another source, with the most likely option being individual rain tank rather than a larger supply that complies with the proposed standards.

This is not ideal as rural communal drinking water supplies have an important role in providing resilience to remote communities if a major natural disaster occurred such as a magnitude 8 Alpine Fault earthquake. While both reticulated supplies and rain water tanks may be particularly vulnerable in earthquakes, WCRC consider that regulation should not take away community resilience and communities being able to choose the most appropriate source for themselves rather than the less regulated choice.

WCRC have outlined in a previous submission the concern regarding the Act requiring currently registered drinking-water suppliers to re-register and submit a Source Water Risk Management Plan (SWRMP) by November 2022, and unregistered drinking water suppliers to register by November 2025. The latter have seven years to submit a SWRMP, unless an acceptable solution is adopted, or a general exemption granted. WCRC support the need to have knowledge of the location of drinking water sources, but the cost of registration is a further cost. WCRC **strongly** supports alternative solutions and/or a general exemption being provided for, either in legislation or regulation. It would be helpful if the Government provides information on what these might be. WCRC advocates for supplies from mountain streams in wilderness areas to be exempt from regulation. WCRC also seeks science and resourcing support to consider if there are any other options apart from a bespoke source protection area.

The consultation document explains that Taumata Arowai may issue an acceptable solution to provide an alternative approach for certain types of smaller water supplies, who do not have the capability or capacity to undertake comprehensive risk management planning (i.e. preparing a SWRMP). Council **strongly** supports Taumata Arowai granting alternative solutions for smaller water supplies. These may be needed for many of the West Coast small, private communal supplies, including on-farm supplies and possibly some of the District Council-administered small rural supplies.

Recommendation 1

That the Government:

- a) provides for alternative solutions and/or a general exemption, either in legislation or regulation, for small rural drinking water supplies to avoid having to be registered;**

- b) provides information on what alternatives and exemptions will entail, and consults with rural communities and councils on these options;**
- c) takes a proactive approach to people becoming self-sufficient when it comes to water supply through subsidies and incentives for water tanks;**
- d) provides, through the Water Services Act or documents setting up Taumata Arowai, for Taumata Arowai to grant alternative solutions and/or exemptions for smaller water supplies who do not have the capability or capacity to undertake comprehensive risk management planning;**
- e) provides science and resource support for rural councils to develop bespoke solutions.**

Impact of Water Services Act requirements for regional councils

Section 46 of the Act establishes several new roles and responsibilities for regional councils:

- Monitor the quality of the source of drinking water supplies, and contribute information to SWRMPs;
- Publish, and provide Taumata Arowai with, information on source water quality and quantity in their region annually, including any changes to source water quality and quantity;
- Assess the effectiveness of regulatory and non-regulatory interventions to manage risks or hazards to source water in their region at least once every 3 years, and make this information available to the public on Internet sites maintained by or on behalf of the councils.
- The WSA has also amended the RMA requiring consenting authorities to consider risks and effects on source water for registered water supplies (new section 104G).

New national standards for drinking water and operational compliance rules are also proposed, which will replace the current Drinking Water Standards for New Zealand 2005 (Revised 2018).

These arrangements put more resourcing and work on to the WCRC. If monitoring and reporting were previously the responsibility of the Ministry of Health, the Ministry would have been centrally funded for this. As this role is being passed to regional councils, then central funding for the work must surely be transferred from the Ministry to regional councils. However, the WCRC is not aware of any commitment from the Government for this. The cost of local authority monitoring of every single source of water take for drinking water is clearly prohibitive and common sense needs to prevail.

The Council's current role is focused on environmental regulation of water quality, with a limited role once water is taken. The question therefore arises as to how the WCRC would recover costs for additional monitoring, reporting and support services. The WCRC does not have the resources to bear this cost. And it would be inequitable to on-charge these costs to an already stretched rating base. This current financial year the Council has had to enact a 30% rise in the general rate. A proportion of this has been to address the increased regulation imposed through national policy. It is a significant increase for West Coast ratepayers.

A substantial proportion of our current and future increased planning and science costs is implementing the NPSFM, NESF and the Order in Council⁶, which also have restrictions aimed at maintaining or improving water quality. Implementing these parts of the Freshwater Package may have spinoffs of reducing the risk of contamination of drinking water supplies, especially for small, rural community supplies. This is not to contradict our main submission points, as Council is not advocating for full support of the Act, and NES changes. The matter is raised in Question 36 of the consultation document (Page 21 of this submission), whether other national direction such as farm plans may achieve, or help to achieve, improvements in water quality generally, which will also potentially mean an improvement in drinking water sources where these intakes are downstream of farms. The Government should apply the range of national tools for maintaining and improving water quality in an integrated manner so that gains for drinking water quality made under the NPSFM and NESF mean that regulations and restrictions in the NES do not need to be excessive.

Recommendation 2

That the Government:

- a) establishes realistic monitoring, evaluation and reporting targets for small rural drinking water supplies;**
- b) makes a commitment to fund the monitoring and reporting of water quality at the source of drinking water supplies, to be undertaken by regional councils;**
- c) makes a commitment to support households becoming self-sufficient in their water needs through the installation of rain-water tanks;**
- d) applies the range of national tools for maintaining and improving water quality in an integrated manner so that gains for drinking water quality made under the NPSFM and NESF mean that regulations and restrictions in the Act and NES do not need to be excessive.**

Issues for West Coast with proposed changes to NES

The consultation document outlines three types of regulations:

Proposal 1: Source water risk management areas (SWRMAs)

It is proposed to establish a scientifically derived methodology for regional councils to map source water risk management areas (SWRMAs) for different types of water bodies (rivers, lakes and aquifers), based on the time it takes for contaminants to travel to a source water intake and the level of filtration or mixing before reaching the intake (Pg 19). Three different sizes of SWRMAs can be used, based on the level of risk of contamination to the drinking water supply. See Appendix 1 of this submission for a summary of the size areas of SWRMAs 1, 2 and 3.

⁶ Local Government Commission Mana Kāwanatanga Ā Rohe <https://gazette.govt.nz/notice/id/2018-go5585>

Q1. Domestic and international evidence suggests that delineating three at-risk areas is a good approach for protecting sources of drinking water. Do you think this is a good approach for protecting our source waters? What other approach can you think of that could contribute to protecting our drinking water sources? Do you think that three areas (and therefore levels of control) are sufficient to protect our drinking water sources?

Q6 While water takes from complex spring systems or wetlands may require a bespoke SWRMA to ensure consideration of any contamination pathways present, a default method is necessary to ensure interim protection. Do you think a default method is practicable in most situations?

Do you think a regional council should determine (on a case-by-case basis) the most applicable default method for a river, lake or aquifer, or is a different default approach necessary? If so, what alternative would you suggest?

Appropriateness of SWRMAs 1-3 on West Coast

Council has concerns and queries about the application of SWRMAs 1-3 to protect West Coast drinking water sources, the cost of resourcing the SWRMA process for differing hydrological and geological systems, the cost of compliance and consent processes for SWRMAs and any unintended consequence of land use limitations as a result of the SWRMAs.

The WCRC has areas of differing geological and hydrological systems across the 600km length of the region. Resourcing the scientific analysis to undertake the SWRMA would be prohibitively expensive for our Region's ratepayers.

SWRMA 3 (Pg 22), which covers the entire catchment area for the source water, will be a difficult, time-consuming and impractical option for the many upper catchment areas on the West Coast that extend into public conservation land (PLC). The description on Pg 22 about the SWRMA 3 seems to assume that there are a lot of activities within a whole upstream catchment, for example, in a highly built-up urban area, however this is often not the case in West Coast rural areas. This size area does not reflect the level of risk in many whole catchments on the West Coast.

The proposed SWRMAs system also assumes that there will be a risk of activities affecting drinking water sources in all situations. It does not consider scenarios where there is low or no risk because there are minimal or no activities upstream of the drinking water intake, nor in the situation where geology or geographic features would protect the water source. The NES changes do not appear to provide for this situation, but they should.

The unintended consequence of limiting land use through SWRMA 3 process or default protection measures also needs to be considered. Limiting permitted land use due to the location of a water abstraction further limits viable land use areas for our production land. In addition, increased waterway setback areas would be an excessive restriction for West Coast productive land users.

The Havelock North Inquiry (HNI) found that there is significant variation in the methods used to define source protection zones, and in applying restrictions in those zones (Pg 20). It may be appropriate to have

variation to reflect different geographical contexts in different regions, and science support to identify bespoke SWRMAs in differing hydrological, geological and geographic features.

The WCRC would oppose the use of the default method, due to the effects this may have on the relationship with productive land users. Page 26 states through the use of the default method “....*there would be no requirement for regional councils to consult on the SWRMAs through the RMA Schedule 1 process. SWRMAs would be formalised through the gazette process and published on the regional council’s website.*” Existing land users should be consulted on to identify how they will be affected by a default SWRMA and its restrictions.

WCRC does not have enough information about the water quality of our smaller, rural drinking water supply takes to estimate whether the SWRMAs 1-3 would need to be applied, or whether Council would use bespoke source protection areas, or a mixture of approaches. What is apparent is the intended consequence of limiting productive land use through this mechanism.

Recommendation 3

That the Government reviews the proposed SWRMAs 1-3 system in terms of:

- a) its suitability for small rural drinking water supplies with little land use activity in upstream areas of catchments;**
- b) the cost of resourcing the SWRMA process for differing hydrological and geological systems;**
- c) any unintended consequence as a result of land use limitations in the SWRMAs.**

Dismissing treatment of drinking water

The NES changes appear to ‘move away’ from the reliance on understanding the likely quality of water after it has been treated, by instead using SWRMAs as a way to identify areas where activities have a higher likelihood of affecting source water (Pg 21). Council is concerned with the implied move away from monitoring treated water quality. Treatment can be a valid way of maintaining potable water quality, especially given the high rainfall effects on drinking water sources on the West Coast, as explained below.

The HNI considered that current NES provisions inappropriately emphasise reliance on treatment processes as a solution to contamination. Council agrees in principle with eliminating or minimising, as much as practically possible, contaminant levels in water bodies. However, there are some situations where treatment is a pragmatic, efficient and effective option on the West Coast.

As an example, the Grey River catchment is an extensive catchment on the West Coast, with the most development upstream of the Greymouth township and Kaiata, Dobson, Taylorville, Rapahoe and Runanga drinking water supply intakes. Upstream of these drinking water supply intakes, there are numerous farms and forestry blocks. Given the scale of this catchment, it would be difficult to control all these activities to achieve protection of downstream drinking water sources. As a result, and along with the

rainfall issue, the Grey District Council needs to treat the drinking water supply to meet the New Zealand Standards for potability.

Contaminants outside of Council's/suppliers control

Half of the consented community water supply takes on the West Coast are from surface water bodies, mainly creeks and rivers. After moderate to high rainfall, there tends to be elevated levels of E. coli in these water bodies. This is a natural phenomenon from various wild and domestic sources, that the Council and water suppliers cannot control, so the source protection areas and additional regulations proposed for the NES may not provide the desired protection in these situations. Those living in rural areas on a communal water supply are aware of this, and it is up to individual households to appropriately treat their drinking water to eliminate contaminants and make it potable.

Recommendation 4

The Government reconsiders its move away from treatment of drinking water supplies, as a valid option for small, remote rural supplies.

Council is concerned that there will potentially be overly restrictive rules for small-scale, low impact land uses if a SWMRA 2 or 3 is applied upstream of a community water supply intake. For example, a single rural-residential lifestyle dwelling may face increased costs of having to install a more expensive sewage effluent disposal system, where a cheaper type of system that is setback from the river and the drinking water intake in compliance with setback distances in the regional plan will treat contaminants adequately and have no impact on the drinking water take.

Typical small scale takes on the West Coast include simple community stream takes where an unsecured polythene pipe supplies a few houses, and the pipe is often unsecured to allow removal during high flows. The resultant drinking water supply has never resulted in illness or injury.

Impacts of WCRC mapping SWRMAs

Q7. How long do you think is necessary for regional councils to delineate SWRMAs for currently registered water supplies in each region using the default method?

WCRC do not support using the delineation of SWRMAs due to the possible impact on permitted land use in the region.

Q8. What challenges do you foresee in delineating SWRMAs, when previously unregistered supplies are registered with Taumata Arowai (see Proposal 3 for more details)?

Q9. What support could enable regional councils to delineate SWRMAs within shorter timeframes?

Q10. Do you think consideration should be given to mapping currently unregistered supplies as they register (but before the four-year deadline provided under the Water Services Act), or do you think that waiting and mapping them all at the same time is a better approach?

Council assumes that mapping of SWRMAs will be done by regional councils using GIS, and that the maps will be used as overlays in regional plans in an e-plan format, although this is not stated in the

consultation document. Page 26 explains that SWRMAs would be formalised through the gazettal process and published on the regional council's website. It is unclear why they will be gazetted if they are going to be used in Council's planning, consent and compliance processes, to support Council's monitoring and compliance roles.

The proposed process seems to be a mix of central and local government roles and processes, and sounds complicated and unclear. It would be helpful if this work was instead included in the RMA reform work, and included as Environmental Standards in the proposed Natural and Built Environments Act.

The mapping will need to be done by someone with technical GIS skills, and hiring another GIS person or using a consultant will be an additional cost to the WCRC (and ratepayers), as current GIS staff are already at capacity.

The proposed NES changes will require regional councils to map the default SWRMA for all registered drinking water supplies in their region following completion of re-registration of drinking-water suppliers under the Act, that is, by November 2022 (Pg 21). This is a very short timeframe to budget and recruit additional GIS personnel.

The proposed mapping could involve identifying a lot of areas and collecting a lot of information on existing consented activities upstream of drinking water takes, and permitted activities. This will take time and adds to the cost of GIS mapping. There are likely to be gaps in Council's records of permitted activities as these are not routinely monitored. For instance, one farmer may use groundwater for their own, and nearby houses', drinking water; and another nearby farm may be taking from the same source, but as the latter is an individual take, it does not need to be registered and so goes undetected. Council does not receive many complaints of this nature as there are plentiful water supplies in most of the Region.

Once the two phases of mapping are completed (after the November 2025 timeframe for current unregistered supplies to become registered), newly created drinking water supplies would require mapping immediately following their registration with Taumata Arowai (Pg 26).

Under the current proposals, this could require a RMA Schedule 1 public notification process if a newly created drinking water supply needs a bespoke source protection area. This is yet another cost to the Council and ratepayers, and unfairly discriminates against using bespoke source protection areas, when these may be the most appropriate option. Plan change processes are costly and time-consuming, and these costs could extend into five years after November 2025 and beyond.

A better system for recognising and formalising new drinking water supplies in regional plans needs to be provided, for example, mapping them but not having to add them into a regional plan until it can be undertaken as part of a broader plan change or full review. The changes to the NES need to be

consistent with, and take into account, the Natural and Built Environments Act provisions for plan changes and full plan reviews.

Recommendation 5

The Government:

- a) clarifies the role of mapping of SWRMAs and the intention as to how this will be regulated and made publicly available;**
- b) confirms mapping requirements falling to regional councils, and the method to be used;**
- c) amends the proposal for newly created drinking water supplies to be added immediately to regional plans, to allow more time for them to be mapped and added to regional plans.**

Bespoke source water protection areas unfairly provided for

Council **strongly** supports providing for a bespoke delineation in the NES (Pg 26), where the SWRMAs 1-3 would unnecessarily restrict land use. Bespoke source protection zones may be the most relevant tool for protecting many drinking water sources on the West Coast, given the low level of development upstream in steep catchments on public conservation land (PCL) where small rural community drinking water intakes may be located.

Council opposes some aspects of the proposed bespoke water source protection area option as they are unfairly stacked against rural councils using it. The criteria for identifying a bespoke SWRMA includes where data and evidence show there is adequate protection. It is unclear in the consultation document what data and evidence is needed, and what the process will be for establishing bespoke SWRMAs. Also the level of resourcing required to establish bespoke SWRMAs.

The consultation document further explains that a bespoke approach may be proposed at any time, however, the default approach of an interim identification of either SWRMAs 1, 2 or 3 would apply until any bespoke approach is formally established (Pg 21). Until the Council is able to have information supporting an application to use a bespoke water source protection area, having to use one of the SWRMAs 1-3 as a default will be a waste of Council's resources.

Council also opposes the proposed NES provision that where a council uses a SWRMA 1-3, this will not need to be notified under Schedule 1 of the RMA, but bespoke source protection areas must go through the RMA Schedule 1 public consultation process, and seek approval from the Minister for the Environment so these areas can be gazetted (Pg 26). The reason for this is unclear – being able to add a SWRMA 1-3 designation over a catchment without consultation with the local community denies those undertaking activities within that area from having any input into it. It is an unfair disincentive to have to publicly notify bespoke SWRMAs, when they may be a more efficient and effective way of protecting drinking water supplies of small, rural communities. Instead of discouraging the use of bespoke delineation tools, they should be treated the same as the proposed SWRMAs 1-3, as they are an appropriate good practice tool in the right situations.

Recommendation 6

The Government strengthens the option for bespoke source protection delineation in the NES so it is an equally treated option for small, rural community drinking water supplies.

Proposal 2: Regulation of activities that pose risks to source water.

Duplication, complexity between NZ Standards and NESDW

Regulatory changes are proposed to some relevant New Zealand Standards (NZS) to close some gaps identified in the national regulatory framework for protecting drinking water supplies.

The HNI noted issues with NZS 4411:2001 *Environmental Standard for Drilling of Soil and Rock*, including:

- a) they do not effectively require proof of sealing groundwater bores; and
- b) below-ground bore heads pose an unacceptable risk, but are not prohibited or even mentioned.

Q21. What is your view on how to address issues with bores – should it be enough to amend the NZS 4411:2001 (with reference to that standard in the NES-DW), or should greater direction be given in the NES-DW itself?

Council supports amending this NZS in tandem with amending the NES to require that compliance with the relevant provisions of NZS 4411:2001 for groundwater bores is required in regional plan rules and in consent conditions. Greater direction does not need to be given in the NES, but these national regulatory tools need to have links between them.

The New Zealand Standards are generally considered 'best practice', but they are not a legal requirement unless specified by relevant regional rules or resource consent conditions (Pgs 27, 28). The specific requirements for groundwater bores do not need to be repeated in both the NZS and the NES. The more documents that have to be read the harder it is for consents staff to determine the right thing to do.

Over-regulation at the national level needs to be avoided.

Q36. Is reliance on the NPS-FM, NES-F and Stock Exclusion Regulations enough to manage the long-term effects of farming activities on underlying aquifers and waterbodies?

Can you identify potential duplication between the NES-DW and other regulations that control land use?

New national standards for drinking water and operational compliance rules are also proposed, which will replace the current Drinking Water Standards for New Zealand 2005 (Revised 2018) (DWSNZ). This

Standard for drinking water supplies currently does not identify or provide acceptable limits for all contaminants. It is unclear whether the NES, or another NZS will replace DWSNZ.

With either option, the Government should consider reducing the plethora of national regulation and integrating national standards into one regulatory tool for protecting drinking water sources/supplies. For example, there are minimum standards for a range of attributes in the National Policy Statement for Freshwater Management (NPSFM), including E. coli. The Council monitors non-municipal groundwater supplies to check that E. coli levels meet the NZDWS.

Any new legislation needs to be consistent and not limit other legislation, nor the rights and privileges of any resource user above the rights of another user.

Recommendation 7

The Government amends NZS 4411:2001 as proposed, and amends the NES to require that compliance with the relevant provisions of NZS 4411:2001 for groundwater bores is required in regional plan rules and in consent conditions.

Impact of NES regulatory changes

The following NES regulatory changes are being considered by the Government: (Pgs 28, 29):

1. Restricting activities in the immediate vicinity of source water intakes (SWMRA 1), while enabling water suppliers to undertake intake management.
2. Removing any permitted activity status for high-risk activities within SWRMA 2 (area identified as medium risk of contaminating a downstream drinking water intake, and the area of restrictions covers a larger upstream area).
3. Improving bore management, and land disturbance over vulnerable aquifers, to ensure potential adverse effects on groundwater are managed.
4. A comprehensive review of regional plans, and current consent conditions be undertaken.

Our response to these proposed changes is:

1. and 2. Council cannot support proposals 1 and 2 at this time as it does not have enough information or analysis to identify the positive and negative, cost and benefit impacts of restricting activities in the immediate vicinity of source water intakes (a SWRMA1), or removing permitted activity status for high-risk activities in a SWRMA2. Council believes that if either of these types of restrictions would apply to earthworks, this could be very restrictive, and could make alluvial mining, for example, difficult in some areas. This example indicates that there will potentially be significant economic impacts on farming and mining activities, for instance.

Q23. *What is your view on prohibiting below-ground bore heads?*

Q24. *Regional councils are responsible for control of the use of land for the purpose of maintenance and enhancement of the quality of water in water bodies (RMA section 30(1)(c)(ii)). Do you think territorial authorities have a role in land management over aquifers, and if so, what is that role?*

Q25. *It is not clear which approach might be best for ensuring risk to vulnerable aquifers is appropriately managed. Do you think that an NES-DW is the right tool for addressing this? If not, what might be better?*

Q26. *Would it be helpful if guidance on vulnerable aquifers was provided to support freshwater planning as the NPS-FM is given effect to?*

3. Council supports improving groundwater bore management over vulnerable aquifers⁷, including prohibiting below-ground bore heads. Half of the consented community drinking water supplies on the West Coast are from groundwater. There may be other non-consented communal supplies from groundwater and springs on farms.

The HNI recommended a prohibition on new below-ground bore heads⁸. Although Council is not aware of any of these bores on the West Coast, it recognises that it is more desirable and safer to have bore heads above ground to reduce the risk of stormwater/surface water intrusion contaminating drinking water sources.

The Council's 2018 State of the Environment Report identified elevated levels of E. coli and nitrogen in a number of groundwater bores as a potential indicator of land use impacts. The report also recommended, amongst other, improving bore head protection. See Appendix 2 for a summary of the latest groundwater monitoring results.

One of the Council's Freshwater Management Unit community groups with Poutini Ngāi Tahu members recommended to Council that a requirement be added to the Regional Plan, that groundwater bores used for drinking water supplies be capped to stop contaminants entering drinking water sources. This will be addressed in the Council's upcoming freshwater plan change, to implement the National Policy Statement for Freshwater Management (NPSFM).

For the West Coast, it would be preferable in the short term for the Government to provide guidance on vulnerable aquifers. This could then inform any changes to the Regional Plan, rather than having requirements in the NES that Council has to implement when it does not have sufficient information about the Region's vulnerable aquifers. NES regulation may not be workable on the West Coast, as

⁷ This Footnote is shown as Footnote 1 in the List of Recommendations at the start of the submission.

⁸ Staff understand that a below-ground bore head is one that is set below ground level to avoid severe frost/freezing, or in a situation where, for some reason, it needs to be flush with the ground, for example, to enable vehicle movement. (Pers comm, J Horrox, West Coast Regional Council Science Team Leader – Water Quality, 27/1/2022).

demonstrated with the impractical Spring timeframes in the NPSFM for some regions, for resowing pasture grass after Intensive Winter Grazing.

4. Council does not support the Government undertaking a comprehensive review of regional plans, and current consent conditions. The NPSFM requires councils to change their regional plans to implement the NPSFM, NESF, stock exclusion and other freshwater national direction, and notify the plan change by December 2024. Along with all other regional councils and unitary authorities, the WCRC is in the process of reviewing our Regional Plan provisions in preparation for the plan change. It would be a waste of Government resources to duplicate these reviews.

The WCRC suggests that the Government waits until the freshwater plan changes are notified for public submissions, and/or decisions on submissions are released, and then review how the plan changes give effect to protecting drinking water supplies. The NPSFM has Policies 13 and 14 and bottom lines to improve water quality that is degraded or deteriorating, and “drinking water supply” is a “must be considered” value.

The role of District Plans in regard to land management over aquifers should be to ensure there are no unintended consequence from new subdivision and land use applications. That is, any new land uses have water supplies that will not limit existing productive land use through application of the SWRMA system. For example, if a new subdivision is granted subject to using an existing bore water supply, where applying a SWRMA over that existing bore for the land use may limit existing permitted farming activities, i.e. cropping or winter grazing.

The discussion document, page 32, also provides for Section 128 of the RMA to be used to vary existing consent conditions for land use that may endanger water supplies. WCRC consider that the equivalent provision be added to the Act which allows water supply consent renewals to be declined where application of SWRMA will severely limit productive land use. Additionally, where reticulated water supplies are available, small scale water supply consents should be able to be cancelled.

It should be noted that through the RMA reforms, District Plan preparation functions will come under Regional Authorities and Territorial Authorities will administer District Plan consenting. This is currently the case for the WCRC under the Te Tai Poutini process⁹. It is unclear if the Act was prepared taking into account the RMA reform process.

Feedback

Council supports improving groundwater bore management over vulnerable aquifers¹⁰, including prohibiting below-ground bore heads.

⁹ <https://gazette.govt.nz/notice/id/2019-go2872>

¹⁰ This Footnote is the same as Footnote 1 in the List of Recommendations at the start of the submission.

Recommendation 8

That the Government:

- a) provides guidance to regional councils on protecting vulnerable aquifers which supply drinking water, from contamination;**
- a) waits until freshwater plan changes are notified and decisions released before undertaking a review of regional plans, and current consent conditions;**
- b) introduces provisions that allow water supply consent renewals to be declined where the application of a SWRMA will severely limit productive land use;**
- c) enables small scale water supply consents to be cancelled where reticulated water supplies are available.**

Impacts on regional plan and consent processing

Q35. In your view, how might regional councils be affected by the NES-DW's new Requirements to change regional plan rules?

There is scope to make changes to the Council's Regional Plan rules for earthworks, and drilling for groundwater bores, to make these rules clearer in regard to managing effects on drinking water sources.

Permitted earthworks rules, for example, could be amended so the activity does not adversely affect groundwater takes. The earthworks rules currently have conditions around not affecting surface water takes.

One of the Council's Freshwater Management Unit community groups with Poutini Ngāi Tahu members recommended to Council that a requirement be added to the Regional Plan, that groundwater bores used for drinking water supplies be capped to stop contaminants entering drinking water sources. This will be addressed in the Council's upcoming freshwater plan change.

Conditions could be added to either our permitted earthworks rules, and/or our permitted rule for drilling bores, that the activity complies with the (amended) NZS 4411:2001 for groundwater bores. The latter currently only applies to temporary investigative drilling of subsurface conditions. The rule could be amended to include all drilling activities.

A new rule would need to be added to the Regional Plan to prohibit below-ground bore heads.

It is uncertain at this stage what, if any, provisions need to be added to the Regional Plan to protect vulnerable aquifers from land use activities. This will be considered in the freshwater plan change process.

Once notified, the freshwater plan change will affect consenting for groundwater and surface water takes for community drinking water supplies.

Council is concerned that once changes to the NES and NZ Standards for drinking water and drilling bores are in force, there will be insufficient time for the WCRC to gather enough information about drinking water sources to decide if or what type of source protection area needs to be added to the Regional Plan as part of the freshwater plan change. Council seeks to have provision included in the NES for an extended period of time for small, rural councils to implement any changes.

Recommendation 9

The Government includes provision in the NES for an extended period of time for small, rural councils to implement any changes.

Q36. In your view, how could the amendments to the NES-DW better align with farm plans?

The farm plans are a work in progress by the Ministry for the Environment (MFE) but Council understands West Coast Plans will follow current templates used by Environment Waikato and ECan.

These templates could be used to identify risk factors for drinking water sources, for example, farm activities near groundwater bores.

Council believes the question should focus on how can farm plans align with the NESDW by including this into the farm plan template.

Issues with retrospective NES application

Consideration is being given to retrospectively applying the requirements of the NES-DW to those activities where effects on source water are ongoing and require addressing (Pg 32). Section 128 of the RMA allows water and discharge permits, and land-use consents granted by a regional council to be reviewed when an NES has been made.

Q28. In your view, what are the key challenges and benefits to retrospective application?

Most consents have a timeframe which is usually one month from each anniversary of the commencement of the consent. Council would have to first identify which consents may need reviewing and then schedule them for the appropriate time for review. Council questions the value that would be gained from staff addressing this issue.

Usually Council does charge the Applicant when Council has identified a significant issue as a result of their works which needs addressing, therefore it is appropriate to charge. However, Council does not believe it is appropriate to charge a consent holder to review a part of their activity that until the NES came into effect, they were authorised to do. This gets particularly challenging if the activity was not adversely affecting a drinking water source prior to the NES changes, and/or it is still not adversely affecting the supply source.

Also refer to our comments on Page 21 of this submission and Recommendation 8(c) on Page 22 regarding retrospectively applying the NES, that provision should be added to the Act which allows water supply consent renewals to be declined where the application of a SWRMA will severely limit productive land use.

Proposal 3: Protecting all registered water supplies

It is proposed to apply the NES-DW source water protection to cover all supplies registered under the Water Services Act (the Act), being all water suppliers other than domestic self-suppliers.

Council reiterates its concern with the costs to, and impacts on, small private and council-managed water supplies, and the WCRC and our ratepayers, of implementing the Act and some of the proposed NES changes. Reducing risk only improves health if there is a real risk.

Recommendation 10

- a) That the issue of reverse sensitivity for our rural land users is acknowledged and investigated;**
- b) That water quantity and allocation risks are investigated and a framework for allocation is developed that recognizes the productive value of water use;**
- c) Prior to implementing the SWRMA process, priorities of water use are developed to ensure there are no reverse sensitivity effects from the SWRMA process.**

The NES appears to imply that the government position is that drinking water source protection has absolute priority over other values, objectives and activities. In other words, source water protection is essentially a new 'national bottom' line with no discretion at regional plan level as to how it is managed. This circumvents the process set out in the NPS-FM where regional councils are to engage with tangata whenua, communities and stakeholders in identifying visions, values, outcomes and limits/rules and action plans for freshwater.

The changes to the NES-DW will essentially cut across this national direction and the significant current and future efforts to implement the NPS-FM. In effect, the process would be wasted as robustly developed and agreed NPS-FM provisions would be 'trumped' by NES-DW rules once the numerous small supplies register under the WSA in 2024 and the rules in SWRMA apply. This undermines local decision-making processes under the Local Government Act.

WCRC are also concerned about accessibility to water as this is not discussed in the regulations. It is difficult to understand why the water user will have the priority over resource use, limited previously to permitted land use upstream of a water take. There is also no discussion regarding how to prioritise allocation of resources for consent authorities, or water conservation requirements of the water takes.

More consideration needs to be given to the impact of reverse sensitivity on existing land users and how land users may be affected by the setbacks and exclusion proposals.

This ends our submission.

Appendix 1: Description of sizes of SWRMAs 1, 2 and 3, Page 22 of the consultation document

Box 9: Default SWRMA zones

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. Most activities will be restricted in this area.

- 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.
- 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 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. The proposed amendments to the NES-DW aim to clarify that consenting decisions must address source water risks.

Appendix 2: West Coast Regional Council summary information on groundwater quality

Groundwater quality

Groundwater is an important source of drinking water, irrigation water, and a major contributor to surface water flows. The Council monitors a broad range of physical and chemical attributes at a number of wells across the region to track state and trends in groundwater quality.

Microbial contamination can be an issue for potable groundwater. *E. coli* is commonly used as an indicator of pathogen risk. The NZ Drinking Water Standard for *E. coli* is stringent requiring there to be no *E. coli* in the sample (less than 1 *E. coli*/100 ml). Of the monitored wells that were used for human consumption (but not municipal), around half met the NZDWS for *E. coli* 90% of the time (**Figure 13**). A quarter of sites passed between 70 to 90% of the time, with the bottom quarter pass rate of 55 to 70%.

While sometimes above the guideline, *E. coli* levels were normally low with an overall median of < 1 *E. coli*/100ml. Likely causes of contamination were inadequate wellhead protection and the bore being located in close proximity to a potential contaminant source.

High nitrate levels are undesirable in drinking water. West Coast groundwater's remain relatively dilute overall, and exceedances of the NZ Drinking Water Standards maximum allowable limit for nitrate (11.3 mg/L), are rare (Figure 14). 94% of groundwater bores passed nitrate drinking water standard 100% of the time, with a mixture of declining and improving trends.

While not toxic, high levels of naturally occurring iron can be a nuisance in groundwater used for domestic purposes. 71% of groundwater bores passed iron aesthetic drinking water standard 100% of the time

Short residence times (less than 10 years) are typical for groundwater resources in the region. There are three geographically distinct groundwater types: a) those in unimpacted alpine foothills; b) impacted coastal and fluvial areas; and c) dilute valley aquifers impacted by human land use. West Coast waterways are well connected to adjacent gravel aquifers. There does not appear to be a relationship between groundwater depth and age, which indicates a lack of confining layers throughout large parts of the regions aquifers. The majority of water in a river after a few fine days is groundwater, so the age is relevant for how long it takes for contaminants, like nitrates, to move from the land into streams.

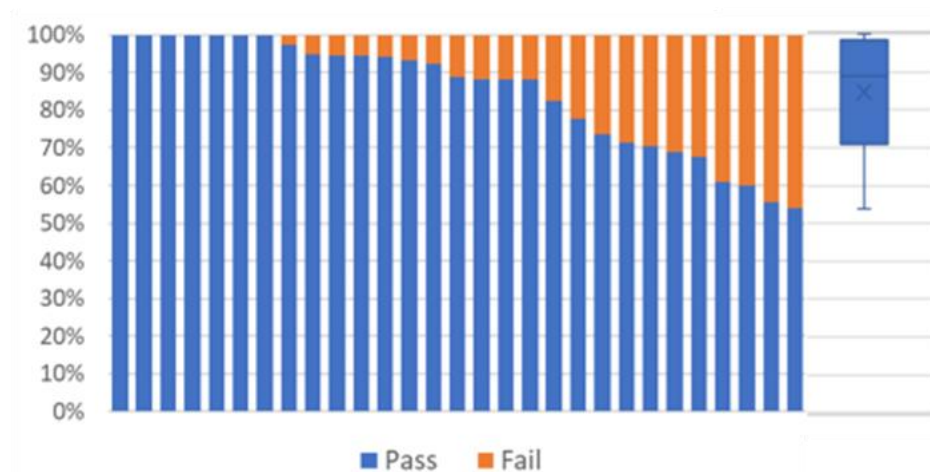


Figure 13 Percentage of times non-municipal groundwater supplies meet NZDWS for *E. coli*.

