

7 March 2022

Improving the protection of drinking-water sources
Urban Water team
Ministry for the Environment
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Wellington

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Dear Sir/Madam,

**SUBMISSION FOR WATER NEW ZEALAND ON THE PROPOSED AMENDMENTS
TO THE RESOURCE MANAGEMENT (NATIONAL ENVIRONMENTAL
STANDARDS FOR SOURCES OF HUMAN DRINKING WATER) REGULATIONS
2007**

INTRODUCTION AND OVERVIEW

1. Water New Zealand ("Water NZ") appreciates the opportunity to provide a submission for the inquiry on the Proposed Amendments to the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 ("Proposed Amendments - NES – DW Sources")
2. Water NZ is a national not-for-profit organisation which promotes the sustainable management and development of New Zealand's three waters (drinking water, wastewater and stormwater).
3. Water NZ is the country's largest water industry body, providing leadership and support in the water sector through advocacy, collaboration and professional development. Its 2,600 members are drawn from all areas of the water management industry including regional councils and territorial authorities, consultants, suppliers, government agencies, academia and scientists.
4. Water NZ notes that many of its members will be making their own submissions on the Proposed Amendments – NES – DW Sources and these submissions are intended to compliment those of its members.

COMMENTS ON SPECIFIC QUESTIONS

5. Water NZ wishes to make several comments on specific provisions in the discussion document.

The default method for delineating SWRMA

Q. 1 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?

6. Water NZ strongly supports national direction on activities within SWRMA 1.
7. It is noted that the proposal is that discharges (excluding discharges to air) be severely restricted within SWRMA 1.
8. In some instances (depending on the water treatment system) water supply authorities are discharging:
- (a) backwash water which is after the water that has been treated through a water treatment plant the backwash is then discharged into the source at a similar location;
 - (b) flow augmentation where groundwater is taken and subsequently discharged in the river to augment downstream river flows.
9. If such discharges are to be restricted within SWRMA 1, and they occur within these areas for the related abstraction point, it is unclear whether a new proposed discharge such as this would be prohibited, or otherwise severely restricted under the proposed amendments to the NES-DW.
10. Given the integral and intimate connection such discharges have with the water supply abstraction activity it is considered that any restriction would be inappropriate.
11. Water NZ considers that backwash, flow augmentation and any other discharges associated with treatment of water by a water supplier is expressly excluded from the scope of changes to the NES-DW in relation to discharges.

Q. 2 In your view, is the method to determine each SWRMA, for each type of water body, the best option?

- Should other factors be considered in determining size?
- What challenges can you foresee in delineating SWRMAs?
- Do you have any comments or feedback on the detail contained in the technical guidance materials?
- Should SWRMA for all aquifers be bespoke so their unique features, depth and overall vulnerability can be considered?

12. Water NZ does not have any specific view on this matter but notes that there is likely to need to be some bespoke response for some SWRMA's particularly for aquifers as noted in the Document.

Q. 3 For lakes, do you agree that SWRMA 2 should include the entire lake area?
— What might be an alternative approach?

13. Water NZ defers to those (such as regional councils) who will have a better understanding of this issue.

Q. 4 SWRMA 1 for lakes and rivers is proposed to extend 5 metres into land from the river/lake edge. This contrasts with 3 metres setback requirement of the Resource Management (Stock Exclusion) Regulations 2020. SWRMA 1 is proposed to be used as a basis for controlling activities close to source water intakes, and applies to a wide range of activities. Do you think these differing setbacks will cause confusion or result in other challenges?

14. Water NZ notes (as the Document does) that in the agricultural sector the setbacks are 3 metres. Different setbacks for water bodies depending on whether they are SWRMAs or not is very likely to cause confusion and unless there is a good reason for the 5 metres it is recommended that 3 metres is adopted.

Q. 5 There is evidence suggesting that a 10–30-metre radius around source water bores is a preferable way to delineate the area where activities would be heavily restricted (SWRMA 1). However, expert advice suggests a 5-metre radius is the most workable option.
— Do you agree that a 5-metre radius around a source water bore gives enough protection? Why or why not?
— If not, what alternative would you suggest?

15. Water NZ is keen to ensure workable rules and considers that the expert advice of 5 metres should be adopted in this case.

Q. 6 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?

16. Water NZ has no expertise in this matter and defers to those, such as regional councils, who do.

Regional council mapping of SWRMA

Q. 7 How long do you think is necessary for regional council to delineate SWRMAs for currently registered water supplies in each region, using the default method?

17. Water NZ will leave regional councils to answer this question noting that whatever time is chosen there needs to be tie in with the water services legislation.

Q. 8 What challenges do you foresee in delineating SWRMAs, when previously unregistered supplies are registered with Taumata Arowai (see Proposal 3 for more details)?

18. The delineation of SWRMA's will be challenging for the large number of small water suppliers. See response to question's nine and ten.

Q. 9 What support could enable regional councils to delineate SWRMAs within shorter timeframes?

19. This is a matter for regional councils to respond, suffice to say our statute books are littered with legislation that local authorities have been expected to implement with little or no resources
20. SWRMA's could be mapped by a central government agency such as LINZ, or Ministry for the Environment acting on regional council's behalf. Consistent mapping standards and/or centralised repositories of SWRMA's would support operation of the four entities proposed for the three-waters reform who will be working across regional council boundaries.

Q. 10 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?

21. Yes, consideration should be given to mapping unregistered supplies as they register. Waiting four years until the end of the Water Services Act deadline means risks go unmanaged needlessly. Beginning the process of mapping supplies as they register allows any issues arising with the mapping process to be refined.

Bespoke method for delineating SWRMA

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| Q. 11 | If a regional council has already established local/regional source water protection zones through a consultative process, should there be provision to retain that existing protection zone as a bespoke method without further consultation or consideration against new national direction? |
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22. Simplicity is the key to success in changing any regulatory regime in our opinion. It does seem that capturing as much of the work that has already been done is desirable provided the outcomes of the changes to the NES are achieved.

SWRMA 1 controls

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| Q. 12 | <p>Do you think national direction on activities within SWRMA 1 is necessary?</p> <ul style="list-style-type: none">— If so, what activities should it address?— How restrictive should controls be in SWRMA 1, for resource users other than water suppliers?— Are there any activities you believe should be fully prohibited in this area?— Are there any activities you believe should be permitted or specifically provided for or acknowledged in this area? |
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23. National direction for both SWRMA 1 and SWRMA 2 is necessary.
24. Water NZ considers that there should be controls imposed within all SWRMA's for specific contaminant sources, and industrial, farming and other uses of land, where such activities might pose current and future risks to drinking water source water.
25. A risk-based approach will dictate what activity status a particular activity would have.
26. It would also be of benefit to include the capture of risks associated with persistent contaminants. In this regard the proposed changes / framework could link to the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES-CS), particularly the Hazardous Activities and Industries List (HAIL). This is especially important for aquifers. Linking the two National Environmental Standards together would give regulators a mechanism to manage against long-term risks associated with such persistent contaminants.

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| Q. 13 | For water suppliers, are there any other activities beyond intake maintenance/management that should be provided for? |
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27. Water NZ supports the inclusion of a permitted activity status for the maintenance and management of existing abstraction and associated infrastructure within SWRMA 1.
28. In addition, Water NZ considers that provision should be made (i.e. permitted activity status) for the expansion and upgrading of any existing abstraction point and associated infrastructure within SWRMA 1.

Q. 14	<p>In and around freshwater, control of pest species (including aquatic pest species) may be necessary, including through physical control (removal, that may include bed disturbance) or chemical control (discharge). How much of an issue is this in and around abstraction points?</p> <ul style="list-style-type: none"> — How critical is that work? — How often is this work mandated by other regulation or requirements? — How frequently is this work undertaken by parties other than the drinking-water supplier (or their contractors)?
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29. A number of water suppliers do undertake pest management in water supply catchments and this can be critical for ensuring that source water quality is maintained. Water NZ cannot provide specific information but notes that it is necessary that this NES works in and complements other regulatory tools that are used to maintain source water quality.

SWRMA 2 controls

Q. 15	<p>Do you think national direction on activities within SWRMA 2 is necessary?</p> <ul style="list-style-type: none"> — If so, what activities should it address?
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30. Water NZ supports national direction on activities within SWRMA 2.
31. Generally, and as noted above, the proposed SWRMA framework seeks to manage activities that present a high risk to source water from certain types of contaminants that degrade or attenuate relatively quickly within the natural environment, such as biological contaminants.
32. As noted under the SWRMA 1 section Water NZ considers that the controls within all the SWRMA's should seek to address activities which result in more persistent contaminants being emitted. These types of contaminants are much more difficult to deal with when treating drinking water.
33. See the response to question 12 in relation to SWRMA 1 in relation to controls imposed within all SWRMA's for specific contaminant sources and the point about persistent contaminants.
34. Septic tanks and onsite wastewater treatment systems pose a risk to source water and national direction should be provided on their management. The number and location of onsite wastewater systems in New Zealand is unknown. Requiring regional councils to maintain a register of the location of septic tanks and have in place processes to ensure they are adequately maintained would assist in managing risks they pose to source water. Ensuring their adequate maintenance could consist of requiring evidence of pump outs, having a training and/or certification scheme available for maintenance personal, and having in place minimum standards for new installs.
35. The testing facility for ensuring onsite wastewater systems meet minimum standards has been closed indefinitely due to inadequate resources to maintain its operation. More about the testing facility is available here: <https://www.waternz.org.nz/OSET>. The assets

of the facility are available for use and could be reinstated, should adequate support be available.

36. Untreated sewage poses a range of chemical and biological hazards to source water. Accordingly, networks are managed to prevent sewage overflows wherever possible. However, it is inevitable that when it rains, some rain will make its way into the sewer for example through gully traps, or cracks in pipes. During heavy rainfall this can cause sewers to be overwhelmed causing sewage to overflow into the external environment, either through engineered overflow points, or uncontrolled locations such as manhole covers. Overflows can also occur in dry weather due to blockages or equipment failures.

The regulatory framework for managing wastewater overflows is piecemeal. In the 2020/21 National Performance Review 7 of 37 water service providers had in place network discharge consents for the management of overflows.

National direction on the management of overflows would support regions without consents to ensure management processes were in place to protect drinking water sources. While sewage system and drinking water operators are generally managed by the same authority this is not always the case. For example, a small supplier such as a campground may have an abstraction point down stream of an overflow. Providing national direction on the management of wastewater overflows would help ensure risks from the stormwater network were reduced where possible, and appropriate notification processes were in place.

37. Stormwater discharges contain a range of contaminants which in some instances could pose a risk to source waters. The extent to which stormwater discharges are consented varies around New Zealand. Of the 37 stormwater service providers participating in the 2020/21 National Performance Review eight had consents which apply to the entire stormwater network, ten reported no consents whatsoever, and others reported a range of different consenting approaches. Providing national direction on the management of stormwater discharges would help ensure risks from the stormwater network were reduced where possible, and appropriate notification processes were in place.

Q. 16

In your view, how much will this proposal impact the current situation in your region?

- What discharges to water are currently permitted?
- Should provision be made to continue to permit those activities? What controls are typically used to ensure potential adverse effects are managed?

38. Water New Zealand does not have a view. This is a regional council matter.

Q. 17

Are there any other activities that should not be permitted within SWRMA 2?

39. Water NZ does not have a view on this separate from the points made in relation to other questions.

Q. 18

The original intent of SWRMA 2 was to manage microbial contamination. However, there are indications that protections against other contaminants may be required. What contaminants do you think should be controlled in SWRMA 2?

40. As noted above there are persistent contaminants that may need to be controlled.

Q. 19

What other challenges do you see when making a consent application within SWRMA 2?

41. It is not considered that this is likely to be an issue for water suppliers noting that they are likely to have to get consent to take the water and the point about discharges of back wash etc are covered above in question 1.

SWRMA 3 controls

Q. 20

Do you think any additional controls, other than broad consideration of the effects of the activity on source water, are required in SWRMA 3?

42. Broad controls are likely to be appropriate in the case of SWRMA 3.

Groundwater bore management

Q. 21

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?

43. The current NZS 4411:2001 does not provide sufficient guidance to ensure the management of bores. Water New Zealand recommends the *Minimum Construction Requirements for Water Bores* developed by the National Uniform Drillers Licensing as an alternative, and better, guidance document for specifying bore construction.
44. If an amended NZS 4411 is adopted, a funding mechanism needs to be in place to provide for updates and the ongoing maintenance of the standard. In many instances industry is required to raise the funds required for updates to standards, and this funding can be difficult to source. If a mechanism cannot be found to fund the ongoing maintenance of the standard, then direction should be incorporated into the NES-DW.

Q. 22

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?

For existing bores:

- What is your view on requiring unused bores to be decommissioned?

- Should bores of poor quality be required to be upgraded or decommissioned? What timeframe might be reasonable to do this?
- For many older bores there are no records. What sort of evidence could be used to support the ongoing use of these bores, or demonstrate they pose a low risk to the security of the aquifer?

45. Yes, unused bores should be required to be decommissioned as they pose a risk to aquifers. This would ideally be witnessed to ensure an adequate seal between surface water and the aquifer. Periodic audits of bores would allow regional councils to check for unused bores. Sanitary surveys conducted by territorial authorities may also present an opportunity for territorial authorities to check for unused bores.
46. Bores of poor quality should be required to be upgraded or decommissioned. Specified water treatment processes may not provide adequate treatment if there is a connection between surface water and ground water due to the bore creating a short circuit between surface and groundwater. As bore upgrades are likely to be expensive, a two-year time frame would seem reasonable.

Q. 23 What is your view on prohibiting below-ground bore heads?

47. Yes, we believe below below-ground bore heads should be prohibited because they are prone to flooding and harder to maintain. Also, because they are a confined space they also pose health and safety risks for workers.

Q. 24 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?

48. Yes. Some territorial authorities have a role in land management over aquifers in cases where there are urban environments built on top. For example, the Waiwhetu aquifer that lies beneath Lower Hutt and Upper Hutt cities and supplies water to the Wellington Region. Territorial authorities have a role in administering building consents for activities such as bores, piling, deep excavation and decommissioning or removal of bores and piles. These activities have the potential to affect the protecting layer above the aquifer, which could decrease sustainable yield by reducing aquifer pressure and allow contaminants into aquifers from wastewater and stormwater networks, streams and rivers, low quality shallow ground water or sea water.

Identifying and managing activities over vulnerable aquifers

Q. 25 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 channel for addressing this? If not, what approach might be better?

49. It is considered that this is matter that regional councils are better placed than Water NZ to answer fully. In our view this appears to be more of a NPS- FM matter as it operates at a much higher level than what the NES operates at.

Q. 26 Would it be helpful if guidance on vulnerable aquifers was provided to support freshwater planning as the NPS-FM is given effect?

50. As above this seems to be more appropriate to sit in the NPS-FM level.

Retrospective application of the NES-DW to existing activities

Q. 27 What activities do you believe the NES-DW should retrospectively apply to / not apply to, and why?

51. Water NZ supports the use of s 128 RMA in the context of the NES-DW whereby regional councils can review the conditions of water and discharge permits, and land use consents once the proposed amendments to the NES come into effect.

Q. 28 In your view, what are the key challenges and benefits to retrospective application?

52. Water NZ has no view on this issue except to note that NES's by their nature trigger reviews of consent conditions and therefore effectively have retrospective application.

Criteria when considering effects on source water

Q. 29 Do you agree with the proposed list of criteria?
– Are any additional criteria needed, or clarifications

53. No additional criteria proposed .

Proactive response planning

Q. 30 What types of activity might pose a significant risk to a water supply in an accident, emergency, or other natural event?

54. As noted in the Document any activity that has the potential to discharge a contaminant into the water supply system pose risks to that supply.

Q. 31 Do you think it is reasonable to require all activities with some potential to affect source water to undertake response planning, or just those with a higher risk (likelihood and consequence)?

55. This needs to risk based. Only those activities with the higher risk should be undertaking response planning.

Water supplier involvement

Q. 32 Do you agree that resource users should engage with water suppliers in consenting matters, within SWRMA 1 and 2?

56. Water NZ supports the proposed approach of incentivising resource users engagement with water suppliers in consenting matters.
57. Carterton District Council provided an example of where recommendations to the regional council to protect source water had been made but not adopted. In this instance, the district council, had been notified of a consent to discharge dairy effluent to land. The district council had suggested conditions to protect sources of drinking water nearby which were adopted. This example suggests that in addition to processes to ensure that consent applicants engage with water suppliers, there needs to be in place processes to ensure that regional councils give water supply risks due weight in granting consents.
58. The depth of engagement should be guided by risks identified in water suppliers source water risk management plans (required under the Water Services Act 2021). Where activities are in these plans are identified as high risk, pro-active response is needed to ensure that risks are appropriately managed.

Q. 33 What hurdles do you see in promoting this engagement with water suppliers?

59. A blanket requirement for written approval within SWRMA 1 and 2 could see a significant number of requests which could pose issues from a resourcing perspective. Consideration should be given to having specific categories of high-risk activity which require the water supplier to give their written approval. One possible way of identifying which activities are high risk, could be to base this on activities identified as high risk in trade waste bylaws, which classify some types of commercial businesses, such as salons as requiring trade waste controls based on the contamination risks they pose to the wastewater system.

Q. 34 What support might small water suppliers need to effectively engage in the consent process?

60. Small suppliers are going to need to be both educated, resourced and assisted to engage in the consent process.

General matters relating to managing source-water risks

- Q. 35** A National Environmental Standard is a regulation under the Resource Management Act 1991 (RMA) that requires, among other things, that regional councils make changes to their regional plan rules. Making these changes can add costs (e.g. financial, administrative) for regional councils.
- In your view, how might regional councils be affected by the NES-DW's new requirements to change regional plan rules?
 - Do these effects outweigh the expected benefits of better source water protection?

61. Water New Zealand does not have a view. This is a regional council matter.

- Q. 36** In your view, how could the amendments to the NES-DW better align with farm plans?
- 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?

62. In general Water NZ considers that Alignment with the NPSFM 2020 and the Freshwater Farm Planning (FW-FP) regulations being developed (in addition to the stock exclusion regulations etc.) is critical.

- Q. 37** If you are a water supplier, do you think these amendments will affect your ability to supply water (positively or negatively)? Would they influence whether you continue to provide water?

63. Water New Zealand has members who are water suppliers, it is not a water supplier itself so will leave others to answer this question.

- Q. 38** If you are a resource user, do you think these amendments will affect how you currently use your land or undertake activities? Will you have to change how you do things as a result?

64. Water New Zealand has members who are resource users, so will leave others to answer this question.

Which water supplies should be protected by the NES-DW

Q. 39 Do you think the protections of the NES-DW should apply to all registered water supplies?

- If not, what types of supplies should be included, and why?

65. There is some debate as to whether water supplied by rainwater tanks would be required to register. The NES-DW should not apply to rainwater supplies as they are not affected by source water risks in a way in which the NES-DW risk management approach would apply.

Q. 40 The WSA has a registration timeframe of four years for currently unregistered supplies.

- Do you agree with aligning application of the NES-DW with the WSA? If not, why?
- In your view, what are the challenges resulting from including these newly registered supplies within the NES-DW framework?

66. Aligning the NES-DW with the WSA is critical in our view. There is going to be significant transitional challenges in including the water suppliers into the NES-DW framework which will require considerable work to ensure that the outcomes of the changes to the NPS-DW are achieved.

Other comments

Q. 41 Do you have any other comments you wish to make?

67. There is a significant amount of reform facing the water sector and it is critical that all this reform is aligned in terms of the timing of it coming into force and the substance of the reform itself.

68. The wider regulatory framework is well articulated in the consultation document. What is not articulated is how the NES-DW will interact. This makes it difficult to identify overlap and understand how various pieces of legislation will support each other. Importantly the interactions with source water risk management plans required under the Water Service's Bill need to be further explained.

69. Low-flow conditions can have serious adverse impacts on water quality. Maintaining sufficient environmental flows is critically important to the protection of sources of drinking water. While the focus of the NES-DW is rightfully placed on controlling contamination of source water, it is important to reflect how other legislative instruments are intended to achieve healthy environmental flows.

70. Implementation and enforcement of policy is needed to ensure the protection of drinking water sources functions as intended. This pertains not only to the NES-DW, but existing legislation for protecting water sources. For example, there are opportunities to strengthen the enforcement of existing consents. Participants in the 2020-21 Water New

Zealand National Performance Review reported 648 non-conformances with wastewater discharge consents, and only 37 regulatory actions taken in response. While many of these non-conformances are likely to have related to administrative issues, it is also likely that several of the events would have adverse environmental outcomes which could have impacted source water bodies.

CONCLUSION

71. Water NZ thanks the Ministry for the opportunity to provide comments on the NES-DW-Sources.

A handwritten signature in black ink, reading "Gillian Blythe". The signature is written in a cursive, flowing style.

Gillian Blythe
Chief Executive