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Tēnā koe

Canterbury Regional Council (Environment Canterbury) submission

Thank you for the opportunity to provide comment to Taumata Arowai on its proposal documents. Please find Environment Canterbury's submission attached.

Environment Canterbury supports the overall intent of the proposed documents to lift performance of drinking water supplies so that all communities have access to safe drinking water every day.

We would welcome the opportunity to work further with Taumata Arowai to strengthen the drinking water standards for Aotearoa.

For all enquiries please contact:

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Ngā mihi



Jenny Hughey
Chair
Te Kaunihera Taiao ki Waitaha

Encl: Canterbury Regional Council (Environment Canterbury) Submission to Taumata Arowai on proposed documents

Our ref:
Your ref:
Contact:

Canterbury Regional Council ('Environment Canterbury', 'the Council') submission to Taumata Arowai on:

- Drinking Water Standards of New Zealand
- Drinking Water Quality Assurance Rules
- Drinking Water Aesthetic Values
- Drinking Water Acceptable Solution for Roof Water Supplies
- Drinking Water Acceptable Solution for Spring and Bore Water Supplies
- Drinking Water Acceptable Solution for Rural Agricultural Water Supplies
- Drinking Water Network Environmental Performance Measures

Response to general questions

Email address - this will only be used if we need to communicate with you about your submission, or if you indicate below that you would like to be contacted in the future in relation to drinking water issues

- cameron.smith@ecan.govt.nz

If your organisation has presence in more than one region – select 'National'

- Canterbury / Waitaha

Which of the below options best describes you in the context of this consultation?

- Regional Council

If you would like to be contacted in the future by Taumata Arowai in relation to drinking water issues, please select the option.

Yes, I would like to be contacted in the future by Taumata Arowai in relation to drinking water issues on the email provided above.

Do you give us permission to proactively publish your submission?

Yes. You may publish this submission, including organisational details (name, organisation and email address).

Official Information Act requests

Your submission may be subject to requests made under the Official Information Act (OIA), even if it hasn't been published. Your preference about the release of your submission, including your contact details, will be relevant to our decision on each request. We may be legally required to make your submission available, even if you indicate that you would prefer us not to release it

Yes. You may make my submission available in response to requests made under the OIA, including my personal details (name, organisation, email)

Introduction

1. Canterbury Regional Council ('Environment Canterbury', 'the Council') welcomes the opportunity to comment on the proposed documents that relate to Taumata Arowai's regulatory role under the Water Services Act 2021.
2. This submission is presented in relation to Environment Canterbury's roles, functions, and responsibilities under the Resource Management Act 1991 (RMA) and the Local Government Act 2002 (LGA).
3. This submission covers general comments and comments on some of the proposed documents. Where relevant we have responded to the specific consultation questions.
4. Environment Canterbury welcomes the opportunity to continue to work with Taumata Arowai, particularly in the area of protecting source water.

General Comment

5. Environment Canterbury supports the overall intent of the proposed documents to lift performance of drinking water supplies so that all communities have access to safe drinking water every day.
6. The proposed documents are consistent with what iwi/hapū and marae have long aspired to for safe drinking water. Most, if not all, Iwi Management Plans have clear policies on water quality, the need for security of safe drinking water for current and future generations and the importance of water as a taonga.
7. Environment Canterbury supports the alignment with Te Mana o te Wai and the intent of the proposed documents that will affect all three priorities in the hierarchy of obligations. The overall anticipated outcomes seem well aligned with Te Mana o te Wai.
8. The Council is pleased to note that funding will be available to help marae water suppliers (intended to directly support treatment options), and that funds are available to help marae and non-council suppliers to meet regulatory requirements. We recommend continued assessments of what resourcing might be needed, with a focus on whanau capability and implementation that supports the mana of the marae to do this mahi themselves.
9. The Council supports clarity over the role and responsibility of regional councils, territorial authorities, Taumata Arowai and drinking water suppliers in the management of source water.
10. The Council considers that regional councils should be providing Taumata Arowai with data relating to resource consent compliance, effects on the environment and a number of other

metrics to avoid suppliers providing the same information to two different agencies; Council would welcome the use of a shared data platform.

Drinking Water Standards for New Zealand

Do you agree that the process used to review the MAVs for drinking water standards was appropriate?

11. Yes.

Do you agree that the proposed MAVs will support the objective of ensuring that drinking water suppliers provide safe drinking water to consumers?

12. Yes.

Additional feedback

13. There is little guidance given on sampling or measurement methodologies for chemical contaminants e.g. trace elements, organic contaminants, even though there are a diversity of sampling and measurement methods available. For example, samples might be filtered in the field prior to analysis, or might be filtered in the lab (to measure “dissolved” contaminants) or might not (to measure “total” concentrations of contaminants). We recommend that at least a brief discussion or guidance be included regarding how samples are to be taken and analysed for chemical contaminants.

Drinking Water Quality Assurance Rules

Do you agree that the proposed Drinking Water Quality Assurance Rules support the objective of ensuring that drinking water suppliers provide safe drinking water to consumers?

14. Yes.

The proposed Drinking Water Quality Assurance Rules are structured as ‘modules’ for source water, treatment systems and distribution systems. There are different rules depending on the level of complexity for each module. Do you agree with the proposed Drinking Water Quality Assurance Rules being structured in this manner?

15. Yes.

Section 10 of the proposed Drinking Water Quality Assurance Rules covers the Compliance Rule Modules. Section 10.2 provides the Source Water Rules for the S1 module. Do you agree with the proposed Source Water Rules for the S1 module?

16. Yes, the monitoring set out in Section 10.2 should indicate changes in source water quality, provided that a good understanding of baseline quality is established per Section 3.1 (page 13-14). Given that water quality can change throughout the year, an initial year of quarterly sampling is needed to establish that baseline understanding.

Section 10 of the proposed Drinking Water Quality Assurance Rules covers the Compliance Rule Modules. Section 10.5 provides the Source Water Rules for the S2 module. Do you agree with the proposed Source Water Rules for the S2 module?

17. The Source Water Rules for S2 and S3 provide more detailed monitoring and increase the ability of the water supplier to detect changes in source water quality, for larger and more complex supplies. This seems appropriate. It may be that some of the monitoring is overly conservative. For example, many supplies will have no issues with alpha or beta radiation, and if this is established in baseline sampling, then such issues are unlikely to develop for that source water in the future. However, testing once every five years is not onerous and may help to give added assurance. We suggest that the Sanitary bore head requirements for S3 would also be helpful for S2 supplies.

Section 10 of the proposed Drinking Water Quality Assurance Rules covers the Compliance Rule Modules. Section 10.8 provides the Source Water Rules for the S3 module. Do you agree with the proposed Source Water Rules for the S3 module?

18. Similar to our comment above for S2, the S3 requirements seem appropriately more rigorous for these larger supplies. Again, some may be overly conservative. For example, monthly monitoring for iron and manganese may not be necessary once a good baseline understanding of these parameters is established. However, as above, the testing is probably not overly onerous for these larger supplies, and it provides added assurance.

Additional feedback

19. Five-metre fencing is consistent with the 5-metre restriction in Source Water Risk Management Area 1 in the proposed changes to the National Environmental Standards for Sources of Human Drinking Water and seems a reasonable distance over which to exclude animals, noting that this requirement only applies where farm animals are present and for larger (S3) supplies.

Drinking Water Aesthetic Values

20. Environment Canterbury has no comment to make on this document as it does not include any regional council responsibilities.

Drinking Water Acceptable Solution for Roof Water Supplies

21. Environment Canterbury has no comment to make on this document as it does not include any regional council responsibilities.

Drinking Water Acceptable Solution for Spring and Bore Water Supplies

Do you believe that the proposed Drinking Water Acceptable Solution for Spring and Bore Water Supplies will provide assistance to water suppliers to comply with the Water Services Act 2021?

22. Yes, however, there needs to be alignment with other freshwater and drinking water regulations. See comments below on Section 6.2.
23. We would like to highlight that the Acceptable Solution will not be a panacea for small supplies in Canterbury that source their drinking water from groundwater with high nitrate concentrations (i.e. concentrations greater than 50% of the Maximum Acceptable Value (MAV), as set out in the Drinking-water Standards for New Zealand 2005 (revised 2018).

Section 6.1 of the proposed Acceptable Solution for Spring and Bore Drinking Water Supplies covers the requirements before the drinking water acceptable solution can be adopted by a supplier. Do you agree that the proposed requirements before the drinking water acceptable solution can be adopted by a supplier are appropriate?

24. Section 6.1 sets out source water parameters to be tested for prior to installation of an Acceptable Solution. Testing is intended to demonstrate the suitability of the cartridge filtration and UV disinfection in removing contaminants of concern.
25. Clarification is needed that the Acceptable Solution can only be used if the broader suite of parameters to be tested for in monitoring requirement SB4 show no issues (exceedance of MAV).
26. If the range of contaminants tested for is too narrow, water suppliers may install inappropriate treatment systems and make assumptions as to the safety of “treated water”. In addition, water suppliers may find themselves in the position of having to upgrade treatment systems if subsequent testing demonstrates non-compliance with MAVs.
27. Given the prevalence of high nitrate concentrations in groundwater in Canterbury, testing for nitrate should be a pre-requisite prior to the use of an Acceptable Solution. Where nitrate concentrations exceed the MAV, the use of an alternative Acceptable Solution for the removal of nitrate should be required or an alternative source found.

Section 6.2 of the proposed Acceptable Solution for Spring and Bore Drinking Water Supplies covers the requirements the bore or spring source for the drinking water supply must meet before the drinking water acceptable solution can be adopted by a supplier. Do you agree that the proposed requirements before the Acceptable Solution can be adopted by a supplier are appropriate?

28. We note that section 6.2 of the proposed Acceptable Solution is not currently aligned with proposed amendments to the National Environmental Standards for Sources of Human Drinking Water (NES-DW) in several respects. We suggest that Taumata Arowai and the Ministry for the Environment discuss alignment between the Acceptable Solution and NES-DW on setback distances and prohibited activities where possible to avoid confusion or make clear which instrument or requirements prevail. Examples of misalignment include:
 - a. The proposed Acceptable Solution requires that springs and bores must not be located within 50-metres of specified activities whereas the proposed amendments to the NES-DW propose a setback distance of 5-metres for “aquifers” (bores) for

Source Water Risk Management Area (SWRMA) 1 and a 1-year travel time (up to 2.5 km) for SWRMA 2.

- b. The proposed Acceptable Solution includes spring supplies. It is unclear whether springs would fall under “rivers” or “aquifers” as in the NES-DW.
 - c. The proposed Acceptable Solution specifies that bores or springs must not be located within 50 m of 7 listed activities¹ whereas the NES-DW is currently seeking feedback on activities to be controlled or prohibited within SWRMA 1 and 2. Care should be taken to ensure the activity descriptions and controls/prohibitions do not conflict between the two instruments
 - d. The proposed Acceptable Solution does not specify whether the bore or spring requirements apply to existing supplies retrospectively, and if they do, the timeframe for compliance. We suggest this is made clear.
29. We also note slight inconsistency in language between the proposed Acceptable Solution and Drinking Water Quality Assurance Rules with respect to stock exclusion. The Acceptable Solution states that “Farm animals must be excluded (e.g. with a fence) from within 5 metres of the headworks...” whereas the Drinking Water Quality Assurance Rules (S3 Source Water Rules) state at least five metres (see s10.8.2 Sanitary bore head requirements). These should be aligned.

Drinking Water Acceptable Solution for Rural Agricultural Water Supplies

- 30. Environment Canterbury has few comments to make on this document as it does not include any regional council responsibilities.
- 31. However, we would like to reiterate the same comments made in relation to nitrate testing and treatment as for the proposed Acceptable Solution for Spring and Bore Drinking Water Supplies. Namely, that the proposed Acceptable Solution is not a panacea for rural agricultural water supplies in Canterbury that abstract their water from groundwater that has elevated nitrate concentrations.
- 32. In this Acceptable Solution, it is also unclear who the water supplier is and therefore who has legal responsibility for providing safe drinking water and treatment to meet the MAVs for nitrate and other contaminants in the Section 9 (Table Rule RA3). Is this the owner/operator of the water supply (e.g. an irrigation scheme, or other entity) **or** is it the farmer who receives the water onto the farm, **or** is it both? If it is both, then some form of legal agreement will likely be required to set out responsibilities of both parties.

Do you agree with the proposed supply monitoring requirements?

¹ Acceptable Solution s6.2 - sewage disposal field or effluent discharge, an underground storage tank, a waste pond, a landfill, an offal pit, areas where pesticides or animal effluent is applied to land, urban aquifers contaminated with or at risk of contamination with sewage from exfiltration and/or pump station overflows.

33. See comment below in relation to Section 10.

Do you agree that the incident and emergency response plan requirements are appropriate?

34. Yes.

Drinking Water Network Environmental Performance Measures

Do you agree that the scope of environmental performance should include the entire network, from source to discharge?

35. Yes. We agree that an entire network approach is required to drive system efficiency and good practice.

Do you have any suggestions for how we could give effect to Te Mana o te Wai through the drinking water network environmental performance measures and the Network Environmental Performance Annual Report?

36. In many ways, several of the proposed performance measures contribute directly or indirectly to Te Mana o Te Wai, e.g. reducing network water losses will mean less water needs to be abstracted from the environment. We recommend that measures requiring water use efficiency and water services demand reduction are incorporated.

37. We note the need to ensure alignment of the objectives with the proposed Natural and Built Environment Act and alignment of the performance standards with the proposed National Planning Framework.

38. However, consideration could be given to an additional measure on ‘*Delivery of key regional or national projects that contribute to Te Mana o te Wai*’ for example projects to restore sustainable levels abstraction, or catchment initiatives to protect source waters.

Do you agree with the proposed outcomes and principles?

39. Outcomes as drafted are focussed on the use of information to support decision making. A key outcome should be evidenced-based good practice and continual improvement to service delivery and environmental outcomes.

40. We support the principles of working together to ensure clarity of roles and ensure efficient sharing of accurate and relevant information.

Do you agree with the insights and measures we have proposed?

41. Broadly yes. However, we recommend that the ‘insights’ might be more correctly termed ‘outcomes’. For example, the outcome of ‘Environmental and public health are protected’, ‘Resources are used efficiently’ etc.

42. We note that targets and standards are to be developed later, and we look forward to contributing to their development. We suggest that ‘targets’ should also be built into the

framework for reporting against performance measures in Table One and Appendix One e.g. “100% compliance with consent conditions or Action Plans in place to achieve compliance”

43. We note that several of the performance measures are required by other regulatory requirements, for example, fish screens and measuring and reporting of water takes. The timeframes for reporting on performance measures should align with these requirements and monitoring priorities of regional councils. Preferably, these data would be provided to one agency (i.e. Taumata Arowai **or** the regional council) and then shared between agencies. As these activities are primarily regulated by the regional council, it would be our preference for the regional council to make these data available to Taumata Arowai, provided that automated reporting is available.
44. To ensure that automated reporting and sharing of data can be possible, some of the timeframes may need to be adjusted, or allow for iterative improvement/automation of the reporting. The adjustment of monitoring programmes and collection of additional data may be required to support this.
45. We note the need for consistency in compliance monitoring and grading between regional councils to ensure meaningful comparison, particularly in areas where an Entity is regulated by multiple regional councils.
46. Though possibly beyond the scope of this document, if the intention is to report on comparative performance using a traffic light type system, the methodology, including performance thresholds, data collection, data verification, and calculations, will need to be transparent and applied consistently across the country. We recommend development of guidance on measuring and reporting on metrics and a quality assurance process.
47. We support proposals to incorporate mātauranga māori into the measures and insights. Again, regional councils and iwi partners are exploring mātauranga māori monitoring frameworks, so alignment of these would be preferable.

Do you agree with the proposed phasing of the measures over three years?

48. Yes. We recommend that engagement with network operators and councils is undertaken to ensure consistent understanding and ability to deliver on the measures to be reported in the appropriate format and quality. As stated above, if automated reporting is desired, timeframes may need to be adjusted for some parameters.

Do you agree we should include the insight: Is the environment and public health protected?

49. Yes. We note inconsistency in the insight wording between Table One and Appendix One.

Do you agree with the 1 July 2022 measures and data associated with the insight: Is the environment and public health protected?

50. We broadly agree with the proposed measures for reporting in July 2022 but note the challenges in obtaining consistent information from all providers within that timeframe if data and metrics have not been confirmed.
51. We also consider that some of the data is also required to be supplied to the regional council. As the regulator of water abstraction, we consider that these data should be supplied first to the regional council, and then shared with Taumata Arowai. Alternatively, a common data sharing methodology should be developed.
52. Based on Environment Canterbury's compliance monitoring of water take consents, additional data points could include the following, noting that this data would ideally be supplied to the regional council by the service provider, and then shared with Taumata Arowai by the regional council, or supplied to a shared data space:
- a. Number of water takes, water abstraction points (WAPs), consented rates of takes and volumes
 - b. Water meter installation status (number and % water meters installed for water abstraction points (WAPs))
 - c. Water meter verification status (to ensure the water meter is calibrated to meet accuracy requirements) – number and % complete and up to date (compliant), expired (non-compliant), not verified (non-compliant)
 - d. Data availability – number and % WAPs for which telemetered data is provided (in accordance with the Measurement and Reporting of Water Takes Regulations), and data completeness
 - e. Compliance with consented rate of take and annual or return period volume
 - f. Compliance with low flow restrictions
53. In our experience, it has been a challenge to collect some of this information and Taumata Arowai's support in ensuring this information is provided to regional councils for compliance assessment would be valued.
54. Longer-term, an additional indicator could be '*Delivery of key regional or national environmental initiatives related to source water*'. This could be projects to reduce water demand and restore sustainable levels of abstraction, measures to ensure security of supply, or initiatives to protect source water, etc.

Do you agree with the 1 July 2023 measures and data associated with the insight: Is the environment and public health protected?

55. The introduction of data points regarding fish passage and fish screens adds to the list of information required by both Taumata Arowai and the regional council. Allowance for fish passage and adequacy of fish screens are assessments that will be required to gain resource consent for an intake structure. We consider that 'compliance with resource consent

conditions' should be adequate information for Taumata Arowai's metrics on this matter, and that these data should be provided by regional councils.

Do you agree with the 1 July 2024 measures and data associated with the insight: Is the environment and public health protected?

56. Refer paragraph above – construction impacts are assessed when resource consent is sought for a structure in a stream. Equally, abstraction within environmental flows is a condition of resource consent that will be monitored by the regional council.

Do you agree we should include the insight: Are services reliable?

57. Yes.

Do you agree with the 1 July 2022 measures and data associated with the insight: Are services reliable?

58. The performance measure and data points for the conditions of above ground assets should include water meters and associated infrastructure (it is assumed this would be the case at a more granular level when it comes to data collection).
59. Water meter data is also collected by the regional council as part of the resource consent, therefore, data relating to this could be shared with, or provided by, the regional council.
60. Note that water restriction could be a function of low river flows or low groundwater levels; this is information that would be valuable to regional councils.

Do you agree we should include the insight: Are resources used efficiently?

61. Yes. We support performance measures to ensure water is used efficiently and promote lower water use, especially in high urban growth districts and water stressed areas.
62. Regional councils are required to receive water use data from all takes; this can be summarised and provided to Taumata Arowai for specified drinking water abstractions. We note that there have been challenges with data quality that result in these measures being uncertain but this will improve with the implementation of the amended Resource Management (Measurement and Reporting of Water Takes) Regulations.

Do you agree we should include the insight: Are services resilient?

63. Yes. To achieve the performance measure from 1 July 2024 "Ability to withstand drought" will require planning. We note that in other jurisdictions there are statutory requirements to produce and maintain drought plans. These set out how water resources and the supply system will be managed during droughts of different severity, extent, and duration.
64. We recommend an additional data point "a drought management plan is in place to manage water resources and the supply system during periods of drought".

65. We recommend that drought planning also includes consideration of droughts where the effects may be focussed on the environment as well as on public water supply.
66. For reference, Schedule 25 of the Canterbury Land and Water Regional Plan sets out the components of a Water Supply Strategy. This includes a drought management plan which outlines methods to reduce consumption during water shortage conditions, particularly consumption by non-essential agricultural, residential, industrial or trade processes, and a description of methods to ensure water conservancy during times of drought, including but not limited to public education programmes and compliance and enforcement measures.

Do you think we have missed any insights, measures or data that fall within the environmental performance definition scope?

67. We note the absence of source water monitoring – in order to respond to the insight ‘is the environment and public health protected’ there may need to be a performance measure relating to source water quality; the document notes an interface with LAWA, or this information could be obtained from regional councils.

Do you have any comment on the likely impact of complying with the data requirements in the timeframe outlined (i.e., will compliance require operators to employ more people or purchase new software)?

68. In our experience, data provided by suppliers has been variable and it may take some time to achieve good quality data. An approach similar to water use regulations may be useful where the requirements are first met by priority suppliers (based on risk, take size, etc.).

Do you want to be contacted when targeted consultation on the drafting of the rules begins?

69. Yes. We wish to be involved in developing measures and targets.

Have we missed any other pieces of work that may interact with drinking water environmental performance?

70. The Environmental Reporting Act regulates central government roles and responsibilities (rather than local government). However, there is the need for better alignment between environmental reporting that occurs at the regional scale (e.g. State of the Environment Reporting) and that which occurs at a national scale. There is also the need for the government to consider cost and resource impacts that can occur as a result of the need to adjust monitoring programmes. This reinforces our suggestion that there needs to be a shared data platform.

If you want to provide any additional feedback on environmental performance and/or the drinking water environmental performance measures please provide this here:

71. It is critical that the role of regional councils in management of the water resource, compliance monitoring, data collection and flow of information for the purposes of national reporting is clear. There is a need to be specific about what performance indicators Taumata

Arowai, the economic regulator, and regional councils are responsible for. This should be supported by clear national guidance, templates, and systems.

72. We also support clarity over which agency has primary responsibility to drive system and regulatory improvements. For example, regional plans or consent conditions include timeframes and standards, including to reduce over-allocation for water quantity and quality.
73. We also note again the overlap between regulatory instruments and support clarity for monitoring and driving compliance e.g. fish screens, water metering.
74. We note that the UK Environment Agency reports annually on the performance of water and sewerage companies in England and includes a range of performance measures, including (amongst others) pollution incidents, compliance with environmental permits, restoring sustainable abstraction, security of supply, and water resource planning. [Water and sewerage companies in England: environmental performance for 2020 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/water-and-sewerage-companies-in-england-environmental-performance-for-2020).