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Otago Regional Council submission on proposed changes to Acceptable Solutions for Drinking Water

Introduction

1. Otago Regional Council (ORC) welcomes the opportunity to submit on the proposed changes to Acceptable solutions for Drinking Water Suppliers.
2. As a regulator, ORC has responsibilities in the management of water quality and quantity in freshwater bodies (e.g. rivers, lakes and aquifers), including those that are sources of drinking water.
3. Section 30 of the Resource Management Act 1991 (RMA) identifies the control of contaminant discharges to water, both direct and indirect (i.e. via land), and the control of the taking and use water as core functions of regional councils.
4. The National Policy Statement for Freshwater Management (NPS-FM) and the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 (NES-DW), impose further responsibilities on ORC with respect to the management of sources of potable water. The NPS-FM (currently under review) identifies the health needs of people, such as drinking water as a second priority, below ecosystem health and above other uses of water, and requires regional councils to consider the value “drinking water supply” when setting environmental outcomes, targets, limits and controls through engagement with communities and tangata whenua. On the other hand, the NES-DW requires regional council to ensure that the effects of activities on drinking water sources are considered in decisions on regional plans and resource consents.

Otago framework for managing drinking water

5. ORC recognises the importance of safe and continued access to healthy drinking water supplies in its key planning instruments, the Operative Regional Policy Statement 2019 (RPS), the proposed Otago Regional Policy Statement 2021 (pORPS) and the Regional Plan Water for Otago (RPW).
6. Policy 3.1.1 of the RPS requires the maintenance of good quality water and enhancement of water quality where it is degraded, including for existing drinking water supplies. The

importance of drinking water is also reflected in the pORPS, where Policy LF-WAI-P1 requires all decision-making affecting freshwater to recognise the health needs of people ingesting or immersing in water as a second priority (after the health needs of water bodies and ecosystems, but over other uses of water). Policy LF-FW-P7 of the pORPS seeks to ensure that environmental outcomes, attribute states, environmental flows and levels, and limits ensure that drinking water, harvested from water bodies is safe for human consumption.

7. Finally, the RPW also recognises the importance of domestic or communal water supply values, through a suite of different provisions. Key RPW provisions include Objective 5.3.1, which seeks to maintain or enhance human use values, including water supply values, and Policy 5.4.2, which requires decision-makers to give priority to avoiding adverse effects on water supply values, in preference to remedying or mitigating these effects.
8. Recent engagement with our iwi partners and communities on the development of a regional planning framework for managing freshwater in Otago also suggests that reliable access to safe drinking water, now and in the future, remains a strong expectation of people and communities across the region.

Overview of water quality in Otago

9. Within Otago, a large number of potable supplies are sourced from a large number of rivers, lakes and aquifers across the region. Although the ORC does not systematically monitor water quality at the location of all drinking water supply takes across the region, data collated from the ORC's State of Environment (SoE) monitoring network for rivers, lakes, and groundwater over the period between 01 July 2017 and 30 June 2022 indicate that the state of these water bodies is often variable across the region.
10. Trend analysis for rivers and lakes shows mixed results, with the 10-year trend analysis for rivers showing an overall improvement in E. coli, TN, Nitrate Nitrite Nitrogen and turbidity, but the 5-year trends for lakes showing degradation at most sites. Water quality is often best in surface water bodies located at high elevations surrounded by a predominantly native land cover, and poorer in urbanised areas or catchments characterised by more intensive rural land uses.¹
11. The state of groundwater quality is also mixed across Otago, with E. coli usually an issue in areas with poorer surface water quality; and high nitrate concentrations typically observed in aquifers located in areas with high densities of septic tanks or intensive nitrate application. In these parts of the region various monitoring sites show elevated nitrate concentrations that exceed the Maximum Acceptable Values (MAV) in the Drinking Water Standards for New Zealand (DWSNZ).²

¹ Ozanne, R., Levy, A., & Borges, H. (2023). State and trends of Rivers, Lakes, and Groundwater in Otago 2017 - 2022. Otago Regional Council. Retrieved from <https://www.orc.govt.nz/media/14523/orc-river-lake-groundwater-state-and-trends-2017-2022.pdf>

² Ibid.

Feedback on the proposal

12. ORC has a strong interest in the proposal given its responsibilities for managing sources of drinking water under the RMA and subordinate instruments, the ongoing challenges with respect to the management of the water quality of our water bodies and Otago's communities' expectations with respect to healthy drinking water.
13. Overall, ORC is supportive of Taumata Arowai's intent to save drinking water suppliers, and their communities, time, effort and cost, while continuing to provide end-users with access to good quality drinking water, and considers the proposal is likely to deliver on its intent, subject to the following matters being adequately addressed:
 - Providing for the protection of source water
 - Requirement for the piping of water supply networks
 - Providing guidance for bore owners/operators

Source water protection

14. The Acceptable Solutions require all types of supplies covered by these regulations to be treated at 'end-point' with a filter and ultraviolet (UV) light. While effective in the removal of various contaminants, such as sediment, particles and bacteria, these treatment methods are not effective in the removal of heavy metals, nitrogen, herbicides or pesticides.
15. In the past Central Government has recognised the shortcomings of the current National Environment Standards for Sources of Human Drinking Water (NES-DW). To address these, the Government consulted in 2022 on proposed amendments to the NES-DW to improve the protection of human drinking water sources.
16. At present Central Government is consulting on a new proposal to introduce a new requirement in the NPS-FM for source water risk management areas to be delineated to protect drinking water supplies. While we are still in the process of evaluating the details of this latest proposal and are yet to form a position on its merits, ORC believes that the effective protection of our communities' access to healthy drinking water is reliant on a combination of 'end-point' treatment solutions and source water protection.

Piping

17. The draft regulations and information sheet *Overview of proposed Acceptable Solutions* provided by Taumata Arowai do not provide consistent or clear messaging with respect to the requirement to provide water to end users via a piped network.

18. While the draft *Water Services (Mixed-use Rural) Drinking Water Acceptable Solution 2025* does not explicitly state a requirement for suppliers to provide water via a piped network, the draft *Water Services (Small and Medium Networks) Drinking Water Acceptable Solution 2025* defines small and medium networked drinking water supply as “a drinking water supply that provides drinking water via a distribution system made up of pipes, and may include storage, to consumers’ properties”.
19. However, the information sheet *Overview of proposed Acceptable Solutions* suggests that both *Mixed-use Rural Supplies* and *Small and Medium-Sized Networked Supplies* require piping.
20. Various water supplies in Otago that are likely to classify as a *Mixed-use Rural Supply* or a *Small and Medium-Sized Networked Supply* currently supply water to end-users via an open race system. ORC considers that a requirement to convert these systems to a piped network may result in significant costs on network operators and/or end-users.
21. The policy direction set by RPS, pORPS and RPW seeks to improve the efficiency of water conveyance infrastructure but does not require piping of water.³ Reducing water leakage and reducing the risk of contamination through open race channel systems is important, but the cost of piping may be prohibitive for many smaller network operators and their customers.
22. This requirement to convert these open channels to piped network also places the cost of pollutant removal onto network operators and/or the end-users, irrespective of the fact that these parties may not be responsible for the discharge of contaminants into supply network or source water.

Providing further guidance for bore owners/operators

23. ORC considers that clause 4.9.2 S3 of the Sanitary Bore Head Requirements of the *Drinking Water Quality Assurance Rules 2022* is a thorough and effective instrument for protecting people from water source contamination.
24. However, ORC considers the proposed changes provide an opportunity to include an advice note in all relevant regulations or guidance materials reminding bore operators to register their bore with Wells Aotearoa New Zealand (<https://wellsnz.teurukahika.nz/>). Wells Aotearoa New Zealand seeks to establish a comprehensive national dataset of well installation data, making it accessible to everyone. This will be a crucial information resource that will support planning, consenting, compliance, and scientific processes.
25. ORC further submits that it would be beneficial to include an advice note in the Acceptable Solutions signalling that a resource consent may be required for the construction or alteration of a bore and for the taking of water.

³ RPS Policy Policy 3.1.3, pORPS Policy LF-FW-P7A and RPW Policy 6.4.0A.

26. If Taumata Arowai has any questions in respect to the above recommendations, ORC would welcome discussing those with Taumata Arowai staff.

Yours sincerely



Gretchen Robertson
Chairperson