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Dear Jacob

Response to your letter dated 11 March 2022

Thank you for the chance to provide an update relating to your previous audit entitled PERFORMANCE AUDIT OF MONITORING HOW WATER IS USED FOR IRRIGATION – REPORT PUBLISHED MAY 2018. The Otago Regional Council (ORC) has undertaken considerable work in the water metering space to improve our resourcing, technology and processes.

This response outlines the actions ORC has taken which address the two recommendations contained in your previous audit.

Recommendation 1. Councils continue to work with people and organisations holding water permits and intermediary data service providers to improve the timeliness and completeness of water-use data received;

- ORC has invested in the development of a dedicated Regulatory Data Team who complete desktop reviews of water meter data. These reviews include checking data completeness and timeliness. Water permit holders are advised of any issues and staff work with data providers and permit holders to resolve them. Since July 2019 the number of data staff working on regulatory data compliance has increased from 3 permanent FTE to 4.3 permanent FTE with a further 0.8 FTE currently employed on a fixed term contract. The team's work is split between water permits and discharge consents with around two thirds of their workload focused on water permits.
- ORC's Compliance Team undertake field audits of surface and ground water takes. Issues with data timeliness and completeness are discussed with water permit holders as part of these audits. The efficiency of these audits has recently been improved by moving them from a paper-based system to an online form.
- ORC employees a support role (1 FTE) which focuses on reminding permit holders and data providers when returns are due and liaising with them to correct issues. This is particularly important with manual and data logger returns which are submitted to the Council on an annual basis. This staff member also reminds permit holders of their meter verification requirements.

- A significant factor in the improvement of data timeliness has been the increased use of telemetry. Use of this technology results in Council receiving water meter data on a daily basis as opposed to annual submissions. The updated Water Meter Regulations (2020) require telemetry from September 2022 on larger takes, with all takes over 5 l/s requiring telemetry by September 2026. While these regulations don't apply yet telemetry has been widely adopted in Otago. This is partly because water permit holders have embraced the technology, as it provides benefits to their own water management, and partly because ORC has already introduced telemetry requirements on a number of consents. At the time of writing this letter around 80% of water takes, which will require telemetry under the updated regulations, already have telemetered water meters installed. The continued uptake of telemetry will have the most significant ongoing effect on the timeliness of the water meter data received by the Council.

Overall the Council considers that the quality and timeliness of data we receive has improved over time. However, the challenges outlined in paragraph 3.7 of your audit still remain and issues with data completeness, accuracy and timeliness still occur.

Recommendation 2. the Ministry for the Environment, councils that manage freshwater resources, and other interested groups work together to use water-use data to encourage compliance with water permits and the limits they impose, to enable effective and efficient use of freshwater resources.

- As outlined above the Council's Regulatory Data Team has grown in recent years. The reviews completed by this team include assessing water meter data against the limits imposed under a water permit. In addition the field audits undertaken by ORC's Compliance Team address issues with compliance against permit limits. Permit holders are advised of any non-compliances.
- For low flow limits, which are dependent on river levels, ORC undertakes proactive monitoring and notifies affected permit holders when a river enters low flow. These notifications help to ensure that permit holders are aware a river is in low flow and their ability to take water is reduced. Notifications include both automatic alerts and phone calls from the Regulatory Data Team.
- Council staff are being supported in their reviews by developments in Technology. ORC has invested in new Environmental Monitoring software. In 2021 the Council moved to the Aquarius software for all Environmental data including water metering. One feature of this software is the development of Dashboards. These Dashboards enable the Regulatory Data Team to summarise all the limits and take data for each permit in one place. This is particularly helpful when a permit is covered by multiple meters or has complex variable conditions. Dashboards enable a consistent approach to the assessment of consents. While Dashboards take some time to build, once a Dashboard is built the process for assessing compliance on a water permit is much faster. The Aquarius system also enables the potential to share Dashboards with both the public and water permit holders. ORC is still in the process of building Dashboards for all sites and will consider future options for sharing this data.

Overall the Council sees the majority of water permit holders working hard to achieve compliance with the conditions of their permit. In the 2018 calendar year, 46.3% of the reviews and audits carried out against water permits were fully compliant. In 2021 this number was 52.1%.

Your letter also asked the Council to comment on two opportunities for improvement;

1. As the quality of data from water meters improves, all councils have a role in ensuring they set realistic and needs-based water allocations using all relevant and current information.

- The Council is in the process of preparing our Land and Water Plan in line with the NPSFM 2020. The Plan is required to have environmental limits, and existing allocation will be reviewed as part of this process. The new Land and Water Plan will use a range of information to set environmental limits, including allocation limits in line with Te Mana o te Wai and the hierarchy of obligations.
- Water Permits 'replaced' under ORC's Plan Change 7 are not granted more water than has been used historically. The plan change introduced a methodology to use water meter data to calculate the typical maximum rates and volumes taken historically. This has the effect of removing unused paper allocation.

2. Councils need to share and promote more information with the public about how much freshwater is used.

- Under the NPSFM 2020 the Council is required to develop and maintain a freshwater quantity accounting system which will include information on water abstraction. ORC is in the process of developing our system in line with guidance from the Ministry for the Environment.
- As discussed above the Council's new Aquarius system gives us the ability to share water meter information more widely. The Council plans to consider this as part of future phases in the Aquarius development.

Yours sincerely



Sarah Gardner
Chief Executive