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MARLBOROUGH DISTRICT COUNCIL

Only Marlborough

Date; 8th April 2022

Ask For: Gina Ferguson

Office of the Auditor General
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By email: Jacob.Strang@oag.parliament.nz

Tēnā koe Mr Strang

Performance Audit of Monitoring how Water is Used request.

In response to your request on how our Council has addressed your audit report recommendation, please refer to the below information:

Recommendation: *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.*

Council has focused on improving the completeness of water-use data and timeliness with consent holders and 3rd party data service providers by:

- Implementing general telemetry requirements for water permit holders since 2014 with some water permit holders having telemetry since 2004. With the proposed Marlborough Environment Plan notified in 2016 policy and objectives supporting the requirement for telemetered water meters. The requirement for telemetry is applied as a condition on granted applications for new or existing water take and use permits. The amendments to the Resource Management (measurement and Reporting of Water takes) Regulations 2020 will further enable region wide telemetry requirements ahead of water permit expiries for water permits 5 litres per second and above by 2026.
- Using the "Compliance Checker" data system which provides a daily report to the Water programme monitoring officer, identifying when data is not received or take volumes exceed consented amounts.
- Council firstly contacts 3rd party providers when there is missing, or irregular telemetry data is received. This is often due to:
    - the export not being set up correctly rather than a true exceedance.
    - or malfunctioning equipment this can include flat batteries.
- To resolve water meter data gaps or missing historic data, Council contacts the 3rd party provider and requests them to send through the historic data. Council adds this data to its system once provided.
- Council officers have developed good relationships with data service providers through regular contact and a collaborative approach to resolve data issues efficiently.
- Where the issue is beyond a technical matter with the system, Council officers contact consent holders directly. Officers firstly attempt phone contact to talk through the issue to reach resolution in a timely manner, this is followed up with written communication and further action if the matter remains unresolved.

The increasing amount of water meter use data received via telemetry, and daily checking of water data received is improving the completeness and accuracy of water data for stakeholders including Council policy and science areas, external consultants and the public. Working closely with 3rd party data providers delivers efficient resolutions of water data receival issues to improve completeness or accuracy.

Recommendation: *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.*

In order to increase Council's ability to utilise regional water use data to enable effective and efficient use of our regions freshwater resource and encourage compliance Council has taken the following actions:

FMU audit project.

- Historically water take permit allocations for Marlborough's FMUs have been maintained by processing officers without the use of an integrated database.
- The proposed Marlborough Environment Plan (pMEP) provides allocation limits for identified FMU's.
- The proposed Marlborough's Environment Plan prohibits the application of water take permits in fully allocated FMU's.
- It is critical for Council to have an accurate account of water that has been allocated in the region to ensure allocation limits for sustainable use are not exceeded.
- To improve data quality and reduce manual errors Council has made changes to its Compliance Monitoring and Consent processing databases to capture water take allocation by FMU which can then be automatically reported on and crosschecked across databases.
- A project commenced late last year in connection with Science & Monitoring and Compliance to audit all water takes/use in each FMU. Auditing of the data includes:
    - Checking take volumes are correct in Councils database.
    - Documenting and checking the pMEP FMU which the take is from.
    - Check that data and verifications is being provided as per conditions of consent and Resource Management (Measurement and Reporting of Water Takes) Amendment Regulations 2020.
    - Checking recent aerial photos to confirm compliance with the water use consented.
    - Checking lapse, surrender and transfers accuracy of records.
- Data issues are firstly followed up with 3rd party providers, followed by the consent holders to achieve compliance. Matters of change in use, trigger either a variation to existing or new water permit. This is followed up with consent holders. A change in use in Marlborough is usually from pasture to vineyard, this results in less water take and use volumes being granted which allows water to go back into the FMU for allocation to a future applicant or to address any overallocation of an FMU.
- Once this project is complete, Council will display current total allocated water for each FMU and identify where water is available in an FMU on Councils website for consultants and the public to access.

Antenno Notifications

- Council utilises the Antenno system (txt message system) to notify consent holders within FMU's when shut off limits are approaching or reached.
- This notifies consent holders to cease their water takes in compliance with their water permits without requiring the consent holder to seek out limit levels on Councils systems.

- Shut off limits and information is also located on Council's website, advertised in the newspaper and on Council social media sites.
- Councils water monitoring staff monitor water take data for FMU's that are shutoff, actioning immediate contact with consent holders in the event of water continuing and follow up action if required.

MDC water metering and irrigation.	Discussion & MDC examples
Checking compliance with water permit consent conditions and real time management of water use during drought seasons	Water permit holders can't exceed their daily or seasonal consent conditions, especially when river flows or aquifer levels are low and universal pMEP restrictions are in effect. Real time, telemetered water meters provide the tracking tool to verify consent holders are abiding by their conditions and plan rules.
Refining MEP crop water application guidelines	MDC use IRRICALC to guide the efficient use of water, particularly for crop irrigation.

Internal Water Group: MDC has established an Internal working group including Compliance Monitoring, Consents Group, Environmental science Information management and policy. This group meets regularly to discuss state of water resources rivers, aquifers, rainfall, restrictions, Antenno Notifications and communication for customers.

Compliance Monitoring and Consents Groups work together and have processes in place to follow up on consents that fall into the following categories which identifies any takes / use permits that are no longer required. This free's up water for future allocation or to be maintained in the FMU.

- Lapse Section 125 and Expiry Notification letters.
- Variation RC Section 127,
- Surrender section 138,
- Transfer section 136.

Resource Consent Conditions review:

- MDC have commenced a review of current resource consent conditions including water take and use permits.
- The purpose of the Conditions review project is to provide an integrated approach to condition drafting to ensure currency, transparency, effectiveness and efficiency following implementation of the resource consent should it be granted.

Appointment of Freshwater Data and Information Manager

- In response to the significant data and information requirements within central government direction, particularly the 2020 Freshwater Package, the Council developed a specific role in late 2021 to work on this aspect of freshwater management. This role sits within the Council's Information Management Group, which works across all departments of the Council.
- The Freshwater Data and Information Manager will develop and manage a strategic and integrated approach to freshwater data and information systems. This will include working collaboratively across Council and with external stakeholders.
- A freshwater data and information management programme will support the implementation of national direction.

- The Freshwater Data and Information Manager will communicate diverse and complex information to a wide range of stakeholders and be available to respond to all enquires/issues regarding freshwater data and information management projects.
- Effective systems will be developed to deliver freshwater data and information to stakeholders, ensuring timely and accurate dissemination of information, including improved public accessibility of data services.
- An effective programme will be developed that delivers a range of outputs for Council, the local community, the wider region, and Central Government.

The outlined initiatives contribute to improving compliance and enabling the effective and effective use of freshwater resources in the Marlborough Region.

Improvement opportunity: *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.*

- Realistic and needs based water allocation is a focus of our proposed Marlborough Environment Plan, through the use of Irricalc. Allocations were set through the plan process. Water allocation was a 3 year plus exercise, where meetings were held monthly with a Water Users Group of about 10 people, including irrigators, F&G, DoC etc. This was followed by public consultation, including a series of public meetings, before the plan was notified, then the submissions process and appeal process that is continuing.
- Water is allocated as per the objectives and policies in the Proposed Marlborough Environment Plan. **https://www.marlborough.govt.nz/your-council/resource-management-policy-and-plans/proposed-marlborough-environment-plan/decisions-on-the-pmep/pmep-tracked-changes-version**

Water take and use data	Hydrology Analysis and Use
Quantifying effects of consented cumulative use on Freshwater Management Unit (FMU) for refining MEP plan limits	Refining FMU limits, especially those for aquifers where the flow can't be measured unlike rivers, depends on relating cause and effect. The effect part can be measured now using changes in groundwater level across the MDC State of the Environment (SoE) monitoring well network. However, the cause aspect relies on summing water use for individual water meters to provide an overall aquifer cumulative total. MDC are still building that capability and with the increase of universal real time (telemetered) metering contributing to this capability. Just like a financial accounting system, unless all components of the water budget are known it isn't possible to precisely analyse the effect of plan limits hydrologically and whether they are appropriate.
Refining MEP crop water application guidelines	MDC use IRRICALC to guide the efficient use of water, particularly for crop irrigation. The reasonable water use requirements for irrigating particularly grapes on different soils and under different climates is still being refined. The most useful data for improving knowledge and reviewing IRRICALC is how much water is used by growers under Marlborough conditions.

With increased knowledge and collection of real time water use data, Councils Science and Monitoring team continue to review pMEP FMU allocations and limits to support efficient and effective use of water in the Marlborough region.

Improvement opportunity: *Councils need to share and promote more information with the public about how much freshwater is used.*

MDC provides the following information and mapping on its website to promote and share public and stakeholder knowledge of freshwater resources in the region.

- *MDC Website Information content* *https://www.marlborough.govt.nz/services/my-property/water-information*

    - *Water Meter Web Page - https://www.marlborough.govt.nz/environment/water-metering-information*
    - *About water take and use – why measure*
    - *Consent conditions vs government Metering Regulations*
    - *Entering Readings Manually Online*
    - *Installation, verification, and data Hosts for water Metres*
    - *Irrigation Status Notifications*
    - *Providing your data to council*
    - *Water meter Monitoring Contact information*

- *MDC Website Environmental data Information content* https://hydro.marlborough.govt.nz/

    - *Weekly Climate Report*
    - *Environmental Graphs*
    - *River report*
    - *Rain Report*
    - *Floodwatch*
    - *Groundwater*
    - *Aquifer Status*
    - *Rainfall maps*

MDC report annually to Councils Environment Committee on the Use of Water in the region.

Council has a public access Smart maps site which includes information to assist the public with water information. https://smartmaps.marlborough.govt.nz/smaps/

Upon completion of the FMU allocation audit project, FMU cumulative allocation data will be made available to the public including identifying FMU's with allocation available and those that are fully allocated.

Nāku iti noa, nā

GINA FERGUSON
CONSENTS AND COMPLIANCE GROUP MANAGER