

23 August 2024

Nelson City Council  
P O Box 645  
NELSON

Attention:  
Eddie Powick

**Review of Nelson City Councils water supply performance against the Water Services (Drinking Water Standards for New Zealand) Regulations 2022 and the Drinking Water Quality Assurance Rules 2022 [DWQAR], for the period 1 July 2023 – 30 June 2024**

I refer to the independent assessment of performance of water supplies against the Water Services (Drinking Water Standards for New Zealand) Regulations 2022 and the Drinking Water Quality Assurance Rules 2022 [DWQAR], for the period 1 July 2023 – 30 June. The assessments were undertaken by Matt Molloy, an independent drinking water compliance specialist.

The assessments under the DWQAR will follow a similar procedure that was used for the previous drinking water standards, using a methodology and an assessment checklist based on the Drinking Water Assessor process and developed by Matt Molloy Consulting (MMC). The monitoring rules to show treatment plant bacterial and protozoal compliance were reviewed along with the bacterial and residual chlorine compliance in the distribution zone. This covers the previous DWSNZ sections: Bacterial compliance (Section 4) and Protozoal compliance (Section 5).

This would also meet the Department of Internal Affairs/Audit NZ measures of no E.coli or protozoa. Only the monitoring rules and those assurance rules required to demonstrate immediate compliance were reviewed. Assurance rules only need to be reported on annually so are currently outside the scope of the assessment. The current audit cycle does not line up with the annual reporting required by Taumata Arowai. The DWQAR does state 'Assurance rules are not used to demonstrate compliance with the Drinking Water Standards but indicate whether supplies undertake activities that contribute to the provision of safe drinking water'. However, it is appropriate to report on these if the supplier has provided the information as they do affect compliance.

The assessment covered the Tantragee water treatment plant and the Nelson distribution zone. A brief report describing the process and results for the DWQAR assessment is attached to this letter.

## Drinking Water Quality Assurance Rules 2022

The outcome for each treatment plant and distribution zone is summarised in the table below. This is for the period 1 July 2023 – 30 June 2024. Bacterial and protozoa compliance at the treatment plant is assessed each day, the distribution zone is assessed each month.

Water supply	Treatment plant		Distribution zone	
	Bacterial	Protozoa	Bacterial	Residual disinfection
Nelson	365 <sup>1</sup> /366	364 <sup>1,2</sup> /366	12/12	11 <sup>3</sup> /12

<sup>1</sup> 29 February 2024 missing minutes (9.7%) a result of the moving of the server cabinet. Unfortunately, the data was not stored during that time and shows a data gap. Onsite plant log acknowledges this, and operators were onsite the whole time. Alarms and immediate monitoring were available. While there was no public health risk during this data outage and staff were onsite overseeing the plant the whole time, this does amount to a data quality failure. All the chlorine and membrane filtration parameters were met, however the continuous monitoring rule (G.14) was not able to be demonstrated. (29/2/24 did not meet all monitoring requirements all of the time). Affected both bacterial and protozoa compliance. This is a technical non-compliance and there was no risk to the public.

<sup>2</sup> 16 November 2023 an event where train 3 MIT was not done. This was when the plant shut while a MIT was being carried out on train 3, which triggered it to be abandoned to not keep it pressurised during outage. When it came back online Train 3 went back into service when a full MIT wasn't done. An extra step has been included in the plant operation to ensure that this does not occur again. Unfortunately, as a result rule T3.74 was not met for that day. This is a technical non-compliance and there was no risk to the public.

<sup>3</sup> Nelson City Council have a zone FAC monitoring plan to meet rule D3.18, which contains the routine monitoring site locations and testing frequency. These results are reported to Taumata Arowai. NCC also undertake what they refer to as 'piece of mind' monitoring which is done at some of the smaller reservoirs to assist in identifying lowering FAC levels in a more timely fashion. NCC don't routinely notify these results to Taumata Arowai. There was one instance where 0.1mg/L was recorded at the Ledbury tanks on 8/2/24. An appropriate response was initiated and Taumata Arowai were notified. However, given the result of 0.1 mg/L was notified to Taumata Arowai as a precaution, it is appropriate to include the result in the overall compliance monitoring. Therefore, the FAC was only met for 11/12 months. This is a technical non-compliance and there was no risk to the public.

If you have any questions or queries, please contact the undersigned.

Kind regards



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