
MEMORANDUM

PWC-C 5-2022

Subject: Niagara Water Treatment Plant 2021 Summary Reports

Date: July 12, 2022

To: Public Works Committee

From: Jen Croswell, Project Manager

Purpose

The Safe Drinking Water Act requires the preparation of a Drinking Water Summary Report (Summary Report) for every municipal drinking water system in Ontario on an annual basis. These reports are being provided to the drinking water system owner, Council, to meet regulatory requirements and to promote transparency regarding drinking water system capacity and compliance performance.

Key Facts

- Niagara Region water treatment plants consistently produce clean and safe drinking water. Water quality summary reports are attached as appendices 1-6 for the reporting period of January 1 to December 31, 2021.
- All water treatment plants were capable of meeting water flow demand for the 2021 reporting period.
- All but one plant were operated such that 100 per cent of the time they met or exceeded the requirements of the Safe Drinking Water Act and associated regulations for this reporting period.
- The Niagara Falls Water Treatment Plant received an inspection rating of 99 percent due to one administrative non-compliance related to updating documentation. This non-compliance did not affect water quality.
- Municipal drinking water is a complex and highly regulated public service. Niagara Region staff work diligently to consistently produce clean and safe drinking water which is demonstrated through frequent high standing inspection ratings.

System Capacity and Compliance Performance

Summary Reports have been provided in the appendices (Appendix 1-6) and contain pertinent system performance information related to each system's capability to meet existing and planned water flow demand as well as compliance performance with the requirements of the Safe Drinking Water Act and relevant regulations.

Niagara Region's water treatment plants were capable of meeting water flow demands for the reporting period. System capability is routinely evaluated through various assessments and capital program long-range planning.

Niagara Region water treatment plants continue to consistently produce clean and safe drinking water. Specific annual water quality information for each plant has been summarized in [Annual Water Quality Reports](https://www.niagararegion.ca/living/water/Water-Quality-Reports/default.aspx) which, in addition to the Summary Reports, have been made available to the public via the Niagara Region website (<https://www.niagararegion.ca/living/water/Water-Quality-Reports/default.aspx>).

Annual compliance inspections by the Ministry of Environment, Conservation and Parks (Ministry) are conducted based on the Ministry's fiscal calendar between April 1st and March 31st and typically include a review of data and documentation from a one-year period preceding the date of inspection.

Inspection ratings are determined based on the nature of non-compliance, where present, and the risk to public health or the environment. It is possible to receive an inspection rating below 100 per cent while drinking water quality was maintained.

All but one plant were operated such that they met or exceeded the requirements of the Safe Drinking Water Act and associated regulations 100 per cent of the time for this reporting period. One administrative non-compliance was documented during the Niagara Falls Water Treatment Plant inspection related to updating documentation and did not affect drinking water quality. This non-compliance resulted in an inspection rating of 99 percent.

Niagara Region regularly surpasses the average provincial inspection rating and where deficiencies are observed, they are typically administrative in nature. A summary of Niagara Region's past inspection ratings and provincial compliance performance for large municipal drinking water systems is available in Appendix 7.

Summary of Administrative Non-Compliance

During the Niagara Falls Water Treatment Plant inspection, the Ministry inspector observed several instances where administrative updates to plant drawings were not finalized or made available to staff following improvements to the drinking water system.

This observation resulted in an administrative non-compliance and does not affect drinking water quality.

Improvements to the drinking water system may be administered through the capital program or by divisional project teams. Specific improvement projects that were reviewed during the inspection include:

- Addition of disinfectant chemical injection to filter backwash water supply;
- Addition of a flash mixer to the coagulation process;
- Chemical system upgrades at the water treatment plant, Kent Avenue Reservoir and Booster Pumping Station, and Port Robinson Rechlorination Station;
- Modification of disinfectant residual monitoring locations at the Port Robinson Rechlorination Station; and
- Replacement of filter backwashing pumps.

The specific requirements that must be met are identified under section 15.2, Schedule B, of the water treatment plant's Municipal Drinking Water Licence. Staff has reviewed the requirements and an action plan to correct the non-compliance is ongoing.

At present, an internal procedure has been drafted which outlines the process for internal staff to ensure drawings, and other project deliverables, are completed within regulated timelines for projects originating from current and capital budgets. In addition, work has begun, in consultation with the Ministry, to bring affected drawings into compliance.

To ensure awareness and prevent reoccurrence, training on the procedure will be conducted for relevant staff throughout the water and wastewater services division.

Other Pertinent Reports

- PWC-C 4-2020 Niagara Water Treatment Plant 2019 Summary Reports
- PWC-C 6-2021 Niagara Water Treatment Plant 2020 Summary Reports

Respectfully submitted and signed by

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Project Manager
Water & Wastewater Services

Appendices

Appendix 1 – 2021 Decew Falls Water Treatment Plant Summary Report

Appendix 2 – 2021 Niagara Falls Water Treatment Plant Summary Report

Appendix 3 – 2021 Rosehill Water Treatment Plant Summary Report

Appendix 4 – 2021 Port Colborne Water Treatment Summary Report

Appendix 5 – 2021 Grimsby Water Treatment Plant Summary Report

Appendix 6 – 2021 Welland Water Treatment Plant Summary Report

Appendix 7 – 2021 Drinking Water System Inspection and Provincial Comparison
Information