



2025

Halton Region Drinking Water Quality Report:
Milton Treatment and Distribution Subsystem

Contents

Halton Region Drinking Water Quality Report: Milton Treatment and Distribution Subsystem ...	1
Introduction	3
System Description	3
What Improvements Are We Making?.....	3
Partnership for Safe Water Program.....	4
Water Quality Testing.....	4
Terms.....	4
Microbiological Testing.....	5
Microbiological standards for treated and distributed water	5
Operational Testing.....	5
Chemical Testing	5
Inorganic Parameters.....	5
Organic Parameters	6
‘Adverse’ Results Notifications.....	8
Community-Wide Lead Sampling Program Results	8
Per - and Polyfluoroalkyl Substances (PFAS).....	8
More Information or Questions.....	9

Introduction

Halton Region is committed to providing safe drinking water to all of our customers. As mandated by the *Safe Drinking Water Act, 2002*, this Annual Drinking Water Quality Report summarizes system performance for the period January 1 to December 31 of the reporting year and includes:

- A description of the drinking water treatment process and chemicals used;
- A summary of any major expenses related to the installation, repair or upgrade of system equipment; and
- The results of drinking water quality testing and how they compare to provincial regulatory standards.
- Any adverse test results or other issues, along with the corrective actions taken.

All provincial regulatory monitoring requirements and operational actions applicable to Halton Region's drinking water system were met or surpassed during the current reporting year.

System Description

Drinking Water System Number: 220001646

The Town of Milton is supplied with both groundwater and surface water. Treated surface water (Lake Ontario) from the Halton Region Distribution Subsystem (lake-based) is pumped to the Steeles Avenue Water Tower. Under normal operating conditions, lake water and groundwater do not mix in Milton's distribution system.

The groundwater system previously consisted of two well fields: Kelso and Walker's Line. Increasing nitrate levels were observed in the aquifer supplying the Walker's Line Well in the second quarter of 2025 during routine testing. Walker's Line was removed from service and decommissioned in August of 2025. The volume of water supplied from Walkers Line to the distribution system was offset by an increase in production from the Kelso well field. There are four wells in the Kelso well field that pump raw water into the Kelso Water Treatment Plant. The treatment includes greensand filters for manganese removal and chlorination for disinfection and control of manganese. The water is pumped to the Milton Reservoir. From there, the water flows by gravity into the distribution system. Fluoride is not added to the Milton groundwater system. The system is controlled through a computerized SCADA system that is monitored 24 hours per day, seven days a week.

What Improvements Are We Making?

During the current reporting year, approximately \$469,091 was invested in capital upgrades to pumping station infrastructure, including improvements at the 4th Line Pumping Station. These upgrades were undertaken to maintain system reliability and support continued operational

performance. In addition, approximately \$2,386,832 was invested in watermain projects within the distribution system. These works support the ongoing renewal of aging infrastructure and help ensure the continued delivery of safe and reliable drinking water.

In addition to capital upgrades, Halton continues to support the production of quality drinking water through increased sampling for groundwater monitoring, the implementation of the Source Protection Plans (e.g. establishing Risk Management Plans, threat activity verification, and screening both planning and building permit applications in vulnerable areas), upgrades to the SCADA monitoring and infrastructure management systems, water efficiency programs and optimization of water treatment processes. Work also continued on the Drinking Water Quality Management System, a provincial requirement to support the licensing of municipal drinking water systems which came into effect for Halton in January 2009.

Partnership for Safe Water Program

The Partnership for Safe Water is an alliance of drinking water organizations with a mission of improving the quality of drinking water delivered to customers. Halton Region is actively involved in the Partnership for Safe Water program that awarded the Region the prestigious American Water Works Association Directors Awards in 2020. The Region is the first municipality in Canada to receive the awards recognizing outstanding commitment to high-quality drinking water and treatment. The Public Works department has built a one-team culture effectively integrating operations with maintenance and engineering. The culture aligns with the Partnership for Safe Water and optimization program capable plant concept. Operational process control combines with facility design, asset maintenance and administrative policies to create an infrastructure capable of achieving or bettering objectives and targets set by the regulatory bodies and the operating authority.

Water Quality Testing

A comprehensive program of water quality testing is performed daily in accordance with the *Safe Drinking Water Act, 2002* and its associated regulations. The following sections summarize the results of this testing and demonstrate compliance with applicable provincial drinking water quality standards.

Terms

CFU/100 mL	Colony-forming units per 100 millilitres of water
µg/L	micrograms per litre
mg/L	milligrams per litre
Standard	Ontario Drinking Water Quality Standard, O.Reg. 169/03

Microbiological Testing

	Number of Samples	E. coli Results (min-max)	Total Coliform Results (min-max)	Number of HPC Samples	HPC Results (min-max)
Raw	455	0 - 0	0 - 1	N/A	N/A
Treated	146	0 - Absent	0 - Absent	73	0 - 2
Distribution	516	0 - Absent	0 - Absent	410	0 - 36

Microbiological standards for treated and distributed water:

E.coli not detected

Total Coliforms not detected

HPC Heterotrophic Plate Counts are conducted on some distribution system samples. The HPC test is used as a tool to monitor overall quality, but the results are not indicators of water safety. There is no Drinking Water Quality Standard for HPC.

Operational Testing

In the Milton Treatment Subsystem, continuous analyzers measure and record the results of free chlorine residual and turbidity in treated water. All of the readings are validated by an operator and are also reviewed by the Ministry of the Environment, Conservation and Parks (MECP) Inspector. As well, Halton operators measure the chlorine in the distributed water. 'Adverse' test results must be reported if the free chlorine residual at the end of the treatment process is not sufficient to achieve primary inactivation (disinfection) or if a free chlorine residual in the distribution system is <0.05 mg/L. In the current reporting year, all of the validated readings and test results were within the ranges required by regulation.

Chemical Testing

Inorganic Parameters

Parameter	Sample Date	Result Value	Unit of Measure	Standard	Exceedance of Standard
Antimony	04/14/25	<0.0005	mg/L	0.006	No
Arsenic	04/14/25	<0.0005	mg/L	0.01	No
Barium	04/14/25	0.135	mg/L	1.0	No
Boron	04/14/25	0.047	mg/L	5.0	No

Cadmium	04/14/25	<0.0005	mg/L	0.005	No
Chromium	04/14/25	<0.0005	mg/L	0.05	No
Mercury	04/14/25	<0.00006	mg/L	0.001	No
Selenium	04/14/25	<0.0005	mg/L	0.05	No
Sodium	11/17/25	46.9	mg/L	20	Yes – Reported February 2022
Uranium	04/14/25	0.0010	mg/L	0.02	No
Fluoride	11/17/25	0.10	mg/L	1.5	No
Nitrite	11/17/25	<0.01	mg/L	1.0	No
Nitrate	05/29/25	10.6	mg/L	10.0	Yes

Organic Parameters

Parameter	Sample Date	Result Value	Unit of Measure	Standard	Exceedance of Standard
Alachlor	04/14/25	<0.50	µg/L	5	No
Atrazine + N-dealkylated metabolites	04/14/25	<1.0	µg/L	5	No
Azinphos-methyl	04/14/25	<2.0	µg/L	20	No
Benzene	04/14/25	<0.10	µg/L	1	No
Benzo(a)pyrene	04/14/25	<0.0050	µg/L	0.01	No
Bromoxynil	04/14/25	<0.50	µg/L	5	No
Carbaryl	04/14/25	<5.0	µg/L	90	No
Carbofuran	04/14/25	<5.0	µg/L	90	No
Carbon Tetrachloride	04/14/25	<0.10	µg/L	2	No
Chlorpyrifos	04/14/25	<1.0	µg/L	90	No
Diazinon	04/14/25	<1.0	µg/L	20	No
Dicamba	04/14/25	<1.0	µg/L	120	No
1,2-Dichlorobenzene	04/14/25	<0.20	µg/L	200	No
1,4-Dichlorobenzene	04/14/25	<0.20	µg/L	5	No
1,2-Dichloroethane	04/14/25	<0.20	µg/L	5	No

1,1-Dichloroethylene (vinylidene chloride)	04/14/25	<0.10	µg/L	14	No
Dichloromethane	04/14/25	<0.50	µg/L	50	No
2-4 Dichlorophenol	04/14/25	<0.25	µg/L	900	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	04/14/25	<1.0	µg/L	100	No
Diclofop-methyl	04/14/25	<0.90	µg/L	9	No
Dimethoate	04/14/25	<2.5	µg/L	20	No
Diquat	04/14/25	<7.0	µg/L	70	No
Diuron	04/14/25	<10	µg/L	150	No
Glyphosate	04/14/25	<10	µg/L	280	No
HAA (latest running annual average)	11/10/25	5.1	µg/L	80 (running annual average)	No
2-Methyl-4-chlorophenoxyacetic acid	04/14/25	<10	µg/L	100	No
Malathion	04/14/25	<5.0	µg/L	190	No
Metolachlor	04/14/25	<0.50	µg/L	50	No
Metribuzin	04/14/25	<5.0	µg/L	80	No
Monochlorobenzene	04/14/25	<0.10	µg/L	80	No
Paraquat	04/14/25	<1.0	µg/L	10	No
Pentachlorophenol	04/14/25	<0.50	µg/L	60	No
Phorate	04/14/25	<0.50	µg/L	2	No
Picloram	04/14/25	<5.0	µg/L	190	No
Polychlorinated Biphenyls(PCB)	04/14/25	<0.05	µg/L	3	No
Prometryne	04/14/25	<0.25	µg/L	1	No
Simazine	04/14/25	<1.0	µg/L	10	No
THM (latest running annual average)	11/10/25	23.4	µg/L	100 (running annual average)	No
Terbufos	04/14/25	<0.50	µg/L	1	No
Tetrachloroethylene	04/14/25	<0.10	µg/L	10	No

2,3,4,6-Tetrachlorophenol	04/14/25	<0.50	µg/L	100	No
Triallate	04/14/25	<1.0	µg/L	230	No
Trichloroethylene	04/14/25	<0.10	µg/L	5	No
2,4,6-Trichlorophenol	04/14/25	<0.50	µg/L	5	No

No additional testing was required by a Municipal Drinking Water License, order, or other legal instruments.

'Adverse' Results Notifications

Notices of 'adverse' water quality results are submitted in accordance with the Safe Drinking Water Act, 2002 to the MECP and the Medical Officer of Health.

Sample Date	Location	Adverse Condition	Corrective Action	Notice of Issue Resolution
May 29, 2025	Treated	Nitrate = 10.6 mg/L	Well taken out of service and decommissioned	June 5, 2025

Community-Wide Lead Sampling Program Results

As part of the Community-Wide Lead Sampling Program, water samples were collected from eight sampling points located throughout the Milton Distribution Subsystem during the current reporting year. None of the samples exceeded the provincial lead standard of 10 µg/L.

Per - and Polyfluoroalkyl Substances (PFAS)

In August 2024, Health Canada introduced a new drinking water objective of 30 ng/L for the sum concentration of 25 PFAS compounds. In 2025, Halton Region proactively tested raw and treated water at all of its water treatment facilities to assess PFAS levels Region-wide. All results were below the federal objective. Halton Region has also established an annual monitoring program to ensure PFAS levels remain low and to continue protecting the safety of the drinking water supply. The Region keeps current on the changing regulatory environment for this emerging contaminant and will be prepared should adjustments to the monitoring strategy or treatment operations be required.

More Information or Questions

The related Annual Drinking Water Systems Flow Report is presented to Municipal Council members on or before March 31 of each year and is available on halton.ca

For alternative formats or questions relating to these documents, email accesshalton@halton.ca or call 311.

Halton Region

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