2024

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

Contents

Halton Region Drinking Water Quality Report: Georgetown 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 4
Microbiological standards for treated and distributed water: 4
Operational Testing 5
Chemical Testing 5
Inorgranic Parameters 5
Organic Parameters 6
'Adverse' Results Notifications 8
Community-Wide Lead Sampling Program Results 8
More Information or Questions 8

Introduction

Halton is committed to providing safe drinking water to all of our customers. As mandated by the Safe Drinking Water Act, 2002, this annual Water Quality Report includes:

- A description of the water treatment process and chemicals used;
- Any major expenses to install, repair or upgrade equipment in the system; and,
- The results of our water tests and how they compare to provincial regulatory standards.

All provincial regulatory monitoring requirements and actions applicable to Halton Region's operation of this system were met or surpassed in the current reporting year.

System Description

As of November 5th, 2024 a section of Georgetown was connected to the Halton Region Distribution Subsystem (lake-based) where treated surface water (Lake Ontario) is pumped to the Ashgrove Reservoir and Booster Station. Under normal operating conditions, lake water and groundwater do not mix in Georgetown's distribution system. Refer to the Halton Region Distribution Subsystem report for more information.

The remainder of the system is serviced by groundwater. The groundwater system consists of three well fields. There are four wells in the Cedarvale well field, three wells in the Princess Anne well field and two wells in the Lindsay Court well field. The Georgetown Water Treatment Plant (WTP) treats water from the four Cedarvale Wells with greensand filtration, ultraviolet light for primary disinfection, hydrofluosilicic acid (fluoridation), and chlorine (chlorination) for secondary disinfection. Water from the Princess Anne and Lindsay Court Wells receives treatment at the well sites with chlorination for disinfection and fluoridation. Together, these three sources pump water into the distribution system that includes 22 Side Road Reservoir, Moore Park Booster Station, Todd Road Tower, and the Norval Standpipe under a water distribution Class III Certificate (# 566). The system is controlled through a computerized Supervisory Control and Data Acquisition (SCADA) system that is monitored twenty-four hours per day, seven days a week.

What Improvements Are We Making?

Approximately $13,100,000 was spent on water main projects in the current reporting year for the Georgetown Treatment and Distribution Subsystem. Halton continued to support the production of quality drinking water through increased sampling for groundwater monitoring, the implementation of the source protection plans (including capture zone and groundwater vulnerability assessments), upgrades to the SCADA monitoring and infrastructure management systems, and water efficiency programs. Work also continued on the Drinking Water Quality

Management System, a provincial requirement to support the licensing of municipal drinking water systems, which was enacted for Halton Region in January 2009.

Partnership for Safe Water Program

Halton Region is actively involved in the American Water Works Association's Partnership for Safe Water, an alliance of prestigious drinking water organizations with a mission of improving the quality of drinking water delivered to customers. The Partnership's comprehensive programs have provided the Region with the tools needed to continuously improve performance beyond regulatory requirements.

Water Quality Testing

A large number of water quality tests are performed every day, in accordance with the *Safe Drinking Water Act, 2002 and* regulations. The following sections provide a summary of the test results.

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	811	0 - 0	0 - 5	N/A	N/A
Treated	308	0 - Absent	0 - Absent	159	0 - 24
Distribution	810	0 - Absent	Absent - 66	598	0 - 87

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 Georgetown Treatment and Distribution Subsystem, continuous analyzers measure and record the results of chlorine residual, turbidity and fluoride residual 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) if a free chlorine residual in the distribution system is <0.05 mg/L or if the fluoride residual is >1.5 mg/L. In the current reporting year, all of the validated readings and test results for these parameters were within the ranges required by regulation.

Chemical Testing

Inorgranic Parameters

Parameter	Sample Date	Result Value	Unit of Measure	Standard	Exceedance of Standard
Antimony	04/22/24	0.0005	mg/L	0.006	No
Arsenic	04/22/24	<0.001	mg/L	0.01	No
Barium	04/22/24	0.216	mg/L	1.0	No
Boron	04/22/24	0.049	mg/L	5.0	No
Cadmium	04/22/24	<0.0005	mg/L	0.005	No
Chromium	04/22/24	0.002	mg/L	0.05	No
Mercury	04/22/24	<0.00005	mg/L	0.001	No
Selenium	04/22/24	<0.001	mg/L	0.05	No
Sodium	11/11/24	92.0	mg/L	20	Yes – Reported February 2022
Uranium	04/22/24	0.002	mg/L	0.02	No
Fluoride	12/16/24	0.72	mg/L	1.5	No
Nitrite	11/04/24	<0.01	mg/L	1.0	No
Nitrate	11/04/24	3.66	mg/L	10.0	No

Organic Parameters

Parameter	Sample Date	Result Value	Unit of Measure	Standard	Exceedance of Standard
Alachlor	04/22/24	<0.50	µg/L	5	No
Atrazine + N-dealkylated metabolites	04/22/24	<1.0	µg/L	5	No
Azinphos-methyl	04/22/24	<2.0	µg/L	20	No
Benzene	04/22/24	<0.10	µg/L	1	No
Benzo(a)pyrene	04/22/24	<0.0050	µg/L	0.01	No
Bromoxynil	04/22/24	<0.50	µg/L	5	No
Carbaryl	04/22/24	<5.0	µg/L	90	No
Carbofuran	04/22/24	<5.0	µg/L	90	No
Carbon Tetrachloride	04/22/24	<0.10	µg/L	2	No
Chlorpyrifos	04/22/24	<1.0	µg/L	90	No
Diazinon	04/22/24	<1.0	µg/L	20	No
Dicamba	04/22/24	<1.0	µg/L	120	No
1,2-Dichlorobenzene	04/22/24	<0.20	µg/L	200	No
1,4-Dichlorobenzene	04/22/24	<0.20	µg/L	5	No
1,2-Dichloroethane	04/22/24	<0.20	µg/L	5	No
1,1-Dichloroethylene (vinylidene chloride)	04/22/24	<0.10	µg/L	14	No
Dichloromethane	04/22/24	<0.50	µg/L	50	No
2-4 Dichlorophenol	04/22/24	<0.25	µg/L	900	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	04/22/24	<1.0	µg/L	100	No
Diclofop-methyl	04/22/24	<0.90	µg/L	9	No
Dimethoate	04/22/24	<2.5	µg/L	20	No
Diquat	04/22/24	<7.0	µg/L	70	No
Diuron	04/22/24	<10	µg/L	150	No
Glyphosate	04/22/24	<10	µg/L	280	No
HAA (latest running annual average)	11/04/24	8.7	µg/L	80 (running annual average)	No

2-Methyl-4-chlorophenoxyacetic acid	04/22/24	<10	µg/L	100	No
Malathion	04/22/24	<5.0	µg/L	190	No
Metolachlor	04/22/24	<0.50	µg/L	50	No
Metribuzin	04/22/24	<5.0	µg/L	80	No
Monochlorobenzene	04/22/24	<0.10	µg/L	80	No
Paraquat	04/22/24	<1.0	µg/L	10	No
Pentachlorophenol	04/22/24	<0.50	µg/L	60	No
Phorate	04/22/24	<0.50	µg/L	2	No
Picloram	04/22/24	<5.0	µg/L	190	No
Polychlorinated Biphenyls(PCB)	04/22/24	<0.05	µg/L	3	No
Prometryne	04/22/24	<0.25	µg/L	1	No
Simazine	04/22/24	<1.0	µg/L	10	No
THM (latest running annual average)	11/04/24	12.4	µg/L	100 (running annual average)	No
Terbufos	04/22/24	<0.50	µg/L	1	No
Tetrachloroethylene	04/22/24	0.10	µg/L	10	No
2,3,4,6-Tetrachlorophenol	04/22/24	<0.50	µg/L	100	No
Triallate	04/22/24	<1.0	µg/L	230	No
Trichloroethylene	04/22/24	<0.10	µg/L	5	No
2,4,6-Trichlorophenol	04/22/24	<0.50	µg/L	5	No
Trifluralin	04/22/24	<1.0	µg/L	45	No
Vinyl Chloride	04/22/24	<0.20	µg/L	1	No

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

‘Adverse’ Results Notifications

The following table shows the notices of ‘adverse’ water quality results 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
October 28, 2024	Distribution	TC = 66 CFU/100 mL Duplicate TC = 64 CFU/100 mL	System flushed, resampled, and resample results within acceptable limits	November 1, 2024

Community-Wide Lead Sampling Program Results

Under the Community-Wide Lead Sampling Program, samples were collected from eight sampling points located throughout the Georgetown Treatment and Distribution Subsystem in the current reporting year. None of the samples contained concentrations of lead above the standard of 10 µg/L.

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 posted on halton.ca

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

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