

Sonya Drinking Water System

2025 Annual Water Report

Drinking Water System Number: 2600056516

Drinking Water System Operating Authority: City of Kawartha Lakes

Drinking Water System Category: Small Municipal Residential

Reporting Period: January 1st – December 31st, 2025

Revision: 1 (March 24, 2026)

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2025 Annual Drinking Water System Summary Report

General Information

The City of Kawartha Lakes prepares a report summarizing system operation and water quality for every municipal drinking water system annually. This report has been prepared to satisfy the annual reporting requirements in O. Reg. 170/03 Section 11 and Schedule 22. The annual reports will be available to residents at the City of Kawartha Lakes Public Works Administration Office by appointment and the [City's website](#). Notification that the reports are available free of charge will be made on the City of Kawartha Lakes website. The City of Kawartha Lakes Public Works Administration Office is located at 322 Kent Street West in Lindsay, Ontario.

This system does not serve more than 10,000 residences.

- Drinking Water System Number:** 260006516
- Drinking Water System Name:** Sonya Drinking Water System
- Drinking Water System Owner:** City of Kawartha Lakes
- Drinking Water System Category:** Small Municipal Residential
- Reporting Period:** January 1, 2025 – December 31, 2025

Compliance Summary

Table 1. Drinking Water Compliance Summary

	Number of Events	Date (yyyy/mm/dd)	Details
Ministry (MECP) Inspections	1	2025 03 05	Announced – Focused Drinking Water Inspection – Final Inspection Rating – 96.6%
Adverse Water Quality Incidents (AWQIs)	0		
Non-Compliances	1	2025 06 02	Operator did not examine continuous monitoring test results within 72 hours.
Boil Water Advisories	0		

Drinking Water System Description

The Sonya drinking water system is a small municipal residential drinking water system serving the Sonya Village subdivision in the Hamlet of Sonya, Ontario, within the City of Kawartha Lakes. The drinking water system is classified as a Limited Groundwater subsystem in accordance with O. Reg. 128/04.

Source Water

The water supply for the system is obtained from two groundwater wells identified as Well #1 (TW2/95) and Well #3 (TW5/05). These wells are designated as non-GUDI, meaning they are not considered groundwater under the direct influence of surface water.

Water Treatment Facility

The Sonya water treatment facility consists two cartridge filtration systems, a sodium hypochlorite disinfection system providing both primary and secondary disinfection, iron sequestration system using sodium silicate, hydropneumatic tanks, a deep in-ground clearwell, and high lift pumping system. Cartridge filtration is used primarily for turbidity removal, while sodium silicate aids in the control of iron. The clearwell provides chlorine contact time and treated water storage prior to distribution.

A diesel generator is located onsite to provide standby power to the water treatment facility in the event of a power failure.

Distribution System

The distribution system consists of approximately one kilometre of PVC watermain and includes four blowoffs/flushing hydrants. The system is not rated for fire protection and does not included treated water storage facilities, chlorine boosting stations, secondary disinfection processes or pressure boosting capabilities within the control of the distribution system.

Table 2. Treatment Chemicals Used

Chemical Name	Use	Supplier
Sodium Hypochlorite	Disinfection	LAVO
Sodium Silicate	Iron Removal	Brenntag

Summary of Non-Compliance

Adverse Water Quality Incidents

There were no adverse water quality incidents reported during the reporting period.

Non-Compliance

There were no non-compliances reported during the reporting period.

Non-Compliance Identified in a Ministry Inspection

Table 3. Non-Compliance Identified in a Ministry Inspection

Legislation	Requirement(s) System Failed to Meet	Duration of Failure (Dates)	Corrective Action	Status
SDWA, O. Reg. 170/03, 6-5m (1) 1-4;	Requirement to examine continuous monitoring test results within 72 hours of the test.	Identified June 2, 2025, compliance check missed by 30 minutes.	Self reported non-compliance to MECP. Staff retrained on rounds procedure, and reminder of facility rotation to meet 72-hour compliance. Recommended the use of labels in eRIS to easily identify.	Completed

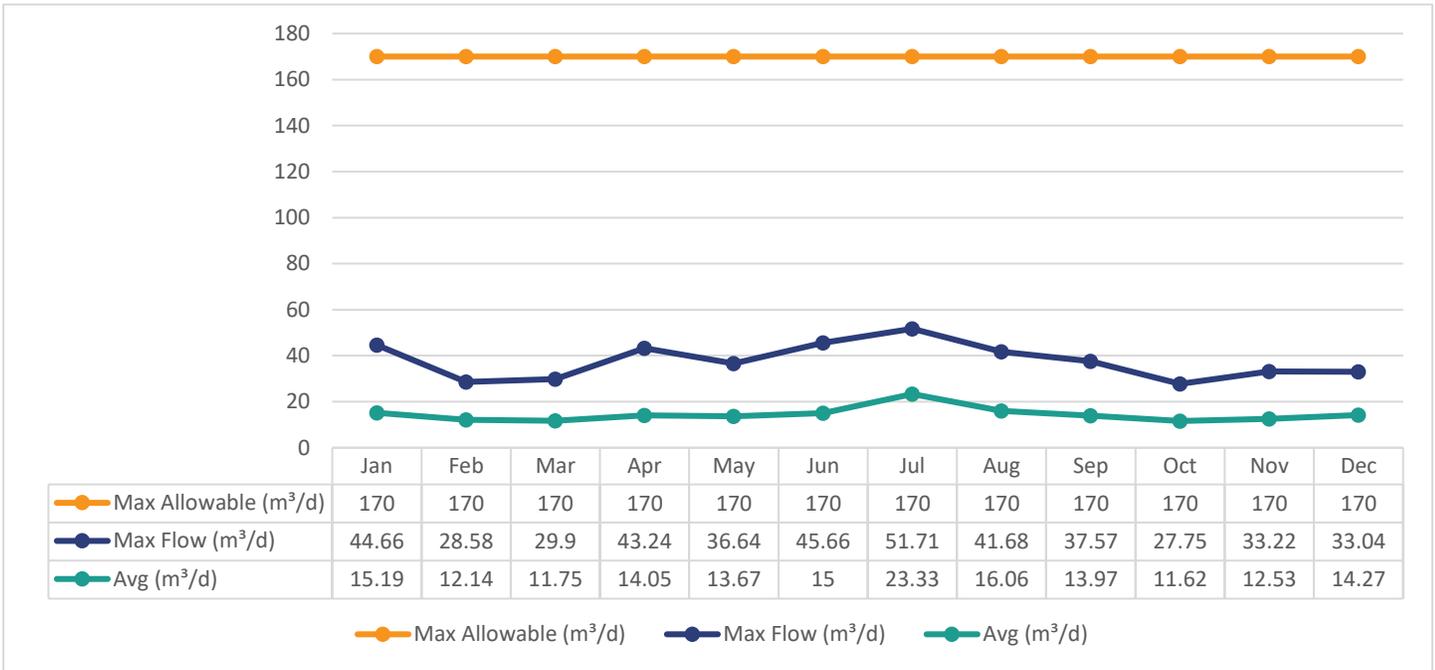
Flows

The Sonya Drinking Water System is operating on average under half the rated capacity. The rated capacity of the system (treated water flows) is 170 m³/day.

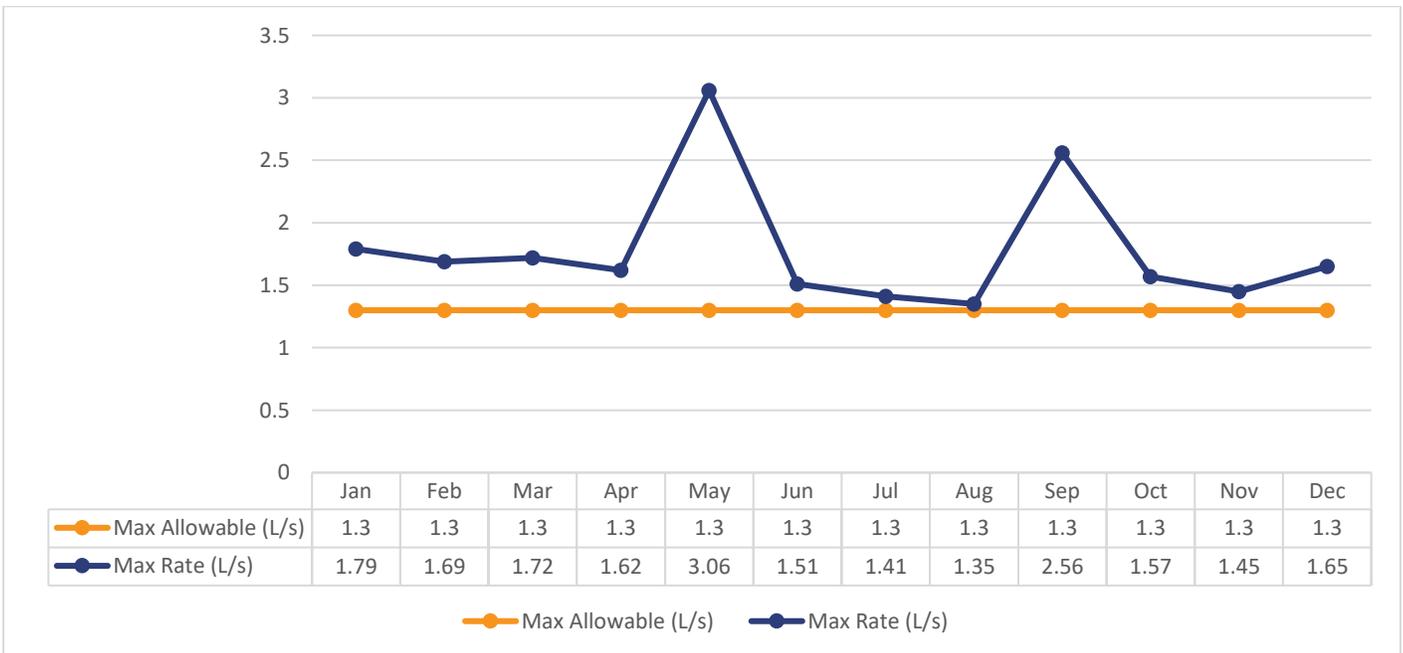
Raw Water Flows

The raw water flows are regulated under the Permit to Take Water. Raw flow data for 2025 was submitted to the Ministry of Environment, Conservation and Parks (MECP) electronically under permit #1246-AWTJXZ. The confirmation of the data that was submitted is attached in Appendix A.

Graph 1. Total Monthly Flows (m³/d) – Well #1 (Max Allowable PTTW)



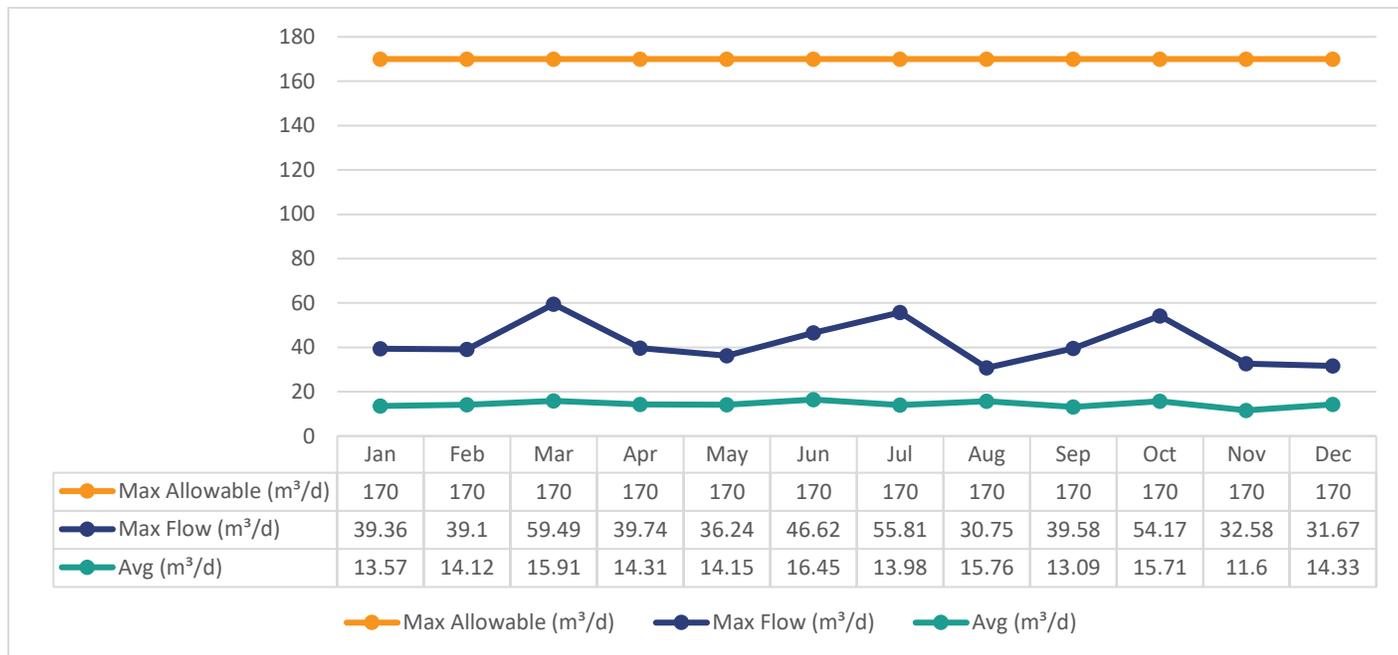
Graph 2. Monthly Rated Flows (L/s) – Well #1 (Max Allowable Rate PTTW)



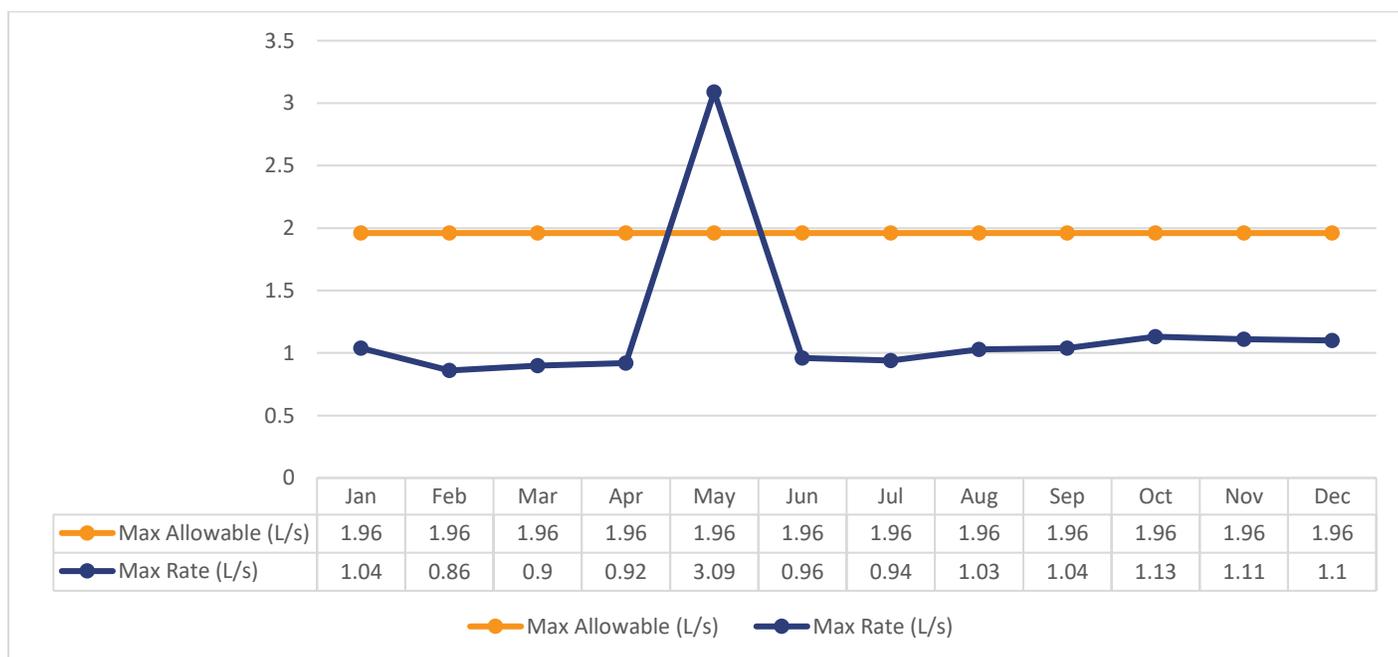
Note: The above table shows there were exceedances in instantaneous peak flow rate (L/s) but these exceedances were short in duration. Spikes recorded by on-line instrumentation were a result of air bubbles and various maintenance/calibration activities. The significant spike in May

was due to scheduled flow meter calibration. All spikes are reviewed for compliance with O. Reg. 170/03.

Graph 3. Total Monthly Flows (m³/d) – Well #3 (Max Allowable PTTW)



Graph 4. Monthly Rated Flows (L/s) – Well #3 (Max Allowable Rate PTTW)

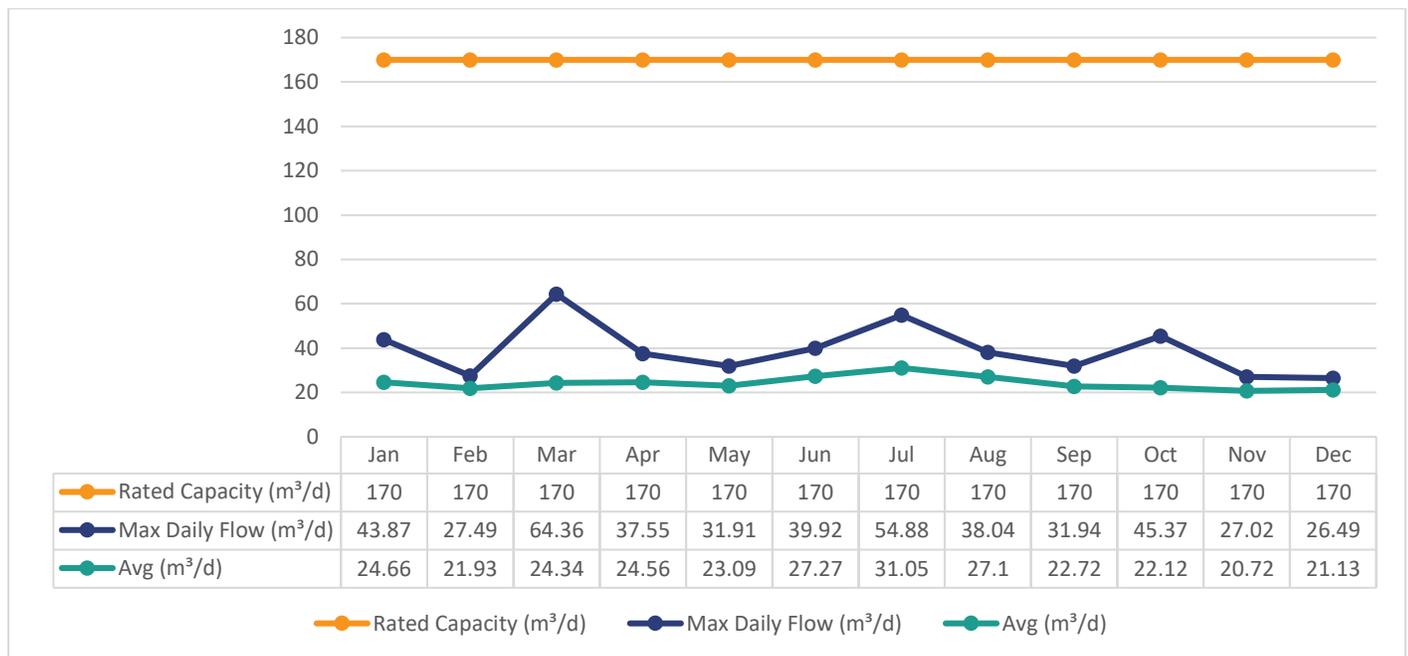


Note: The above table shows there were exceedances in instantaneous peak flow rate (L/s) but these exceedances were short in duration. Spikes recorded by on-line instrumentation were a result of air bubbles and various maintenance/calibration activities. The significant spike in May was due to scheduled flow meter calibration. All spikes are reviewed for compliance with O. Reg. 170/03.

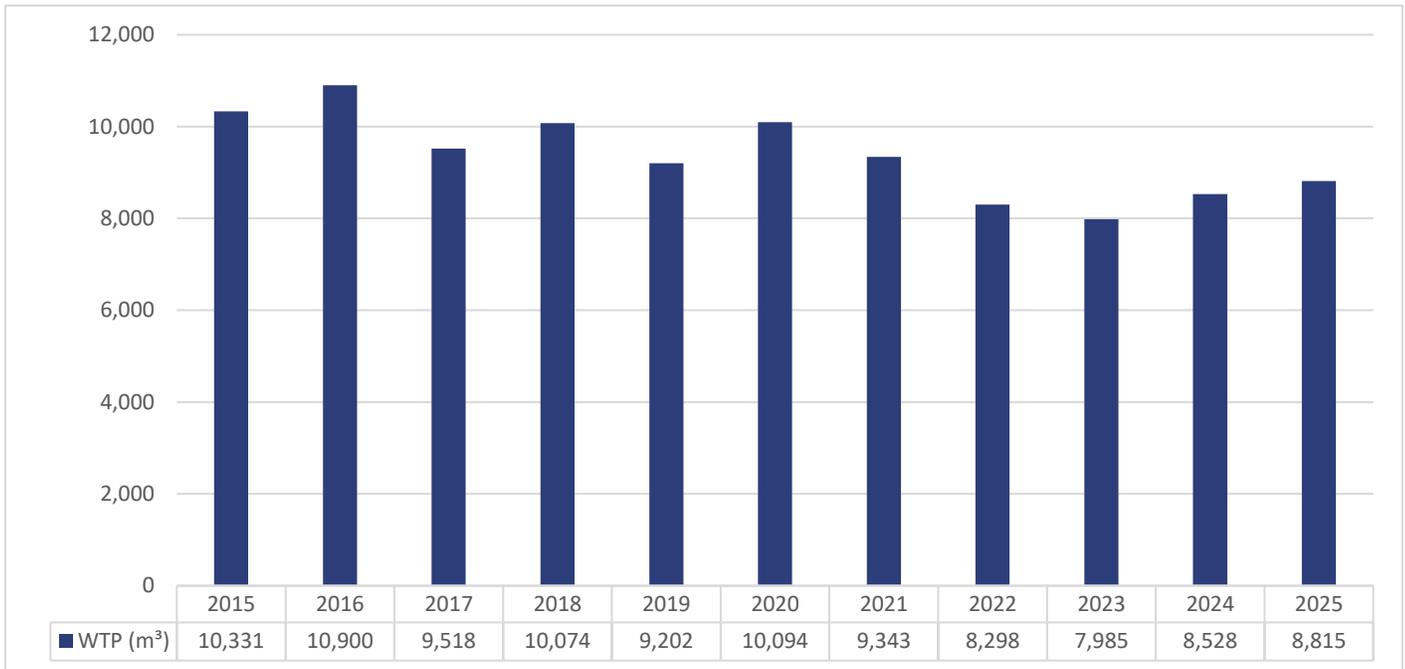
Treated Water Flows

The Treated Water flows are regulated under the Municipal Drinking Water Licence 141-107.

Graph 5. Monthly Rated Flows (m³/d) – Rated Capacity - MDWL



Graph 6. Annual Total Flow Comparison (m³)



Regulatory Sample Results Summary

Microbiological Testing

Table 4. Microbiological Test Results

	No. of Samples Collected	Range of E. Coli Results		Range of Total Coliform Results		Range of HPC Results	
		Min	Max	Min	Max	Min	Max
Raw Well 1	52	0	0	0	2	N/A	N/A
Raw Well 3	52	0	0	0	0	N/A	N/A
Treated	52	0	0	0	0	0	7
Distribution	52	0	0	0	0	0	12

OG = Overgrowth

HPC = Heterotrophic Plate Count

Operational Testing

Table 5. Operational Test Results

Parameter	Number of Samples Collected	Range of Results Minimum	Range of Results Maximum
Turbidity Well 1 (NTU)	12	0.35	6.91
Turbidity Well 3 (NTU)	12	0.15	10.8
Chlorine	8760	0	2.63
Fluoride (If the DWS provides fluoridation)	N/A	N/A	N/A

Note: Record the unit of measurement if it is **not** milligrams per litre.

Note: For continuous monitors 8760 is used as the number of samples. Spikes recorded by online instrumentation were a result of air bubbles and various maintenance/calibration activities. All spikes are reviewed for compliance with O. Reg. 170/03.

Inorganic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. Sodium and Fluoride are required to be tested every five years. Nitrate and Nitrate are tested quarterly and the metals are tested every five years as required under O. Reg. 170/03. In the event any of the parameters listed in Schedule 23 or 24 of O. Reg. 170/03 exceed half of the maximum allowable concentration the parameter is required to be samples quarterly. Based on the latest test results no additional testing is required.

Table 6. Inorganic Parameters Test Results

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Treated Water					
Antimony	2025 08 05	<MDL 0.6	µg/L	6.0	No
Arsenic	2025 08 05	0.3	µg/L	10.0	No
Barium	2025 08 05	124.0	µg/L	1000.0	No
Boron	2025 08 05	14.0	µg/L	5000.0	No
Cadmium	2025 08 05	<MDL 0.003	µg/L	5.0	No
Chromium	2025 08 05	0.18	µg/L	50.0	No
Mercury	2025 08 05	<MDL 0.01	µg/L	1.0	No
Selenium	2025 08 05	<MDL 0.04	µg/L	50.0	No
Uranium	2025 08 05	0.696	µg/L	20.0	No
Additional Organics					
Fluoride	2023 01 04	0.08	mg/L	1.5	No
Nitrite	2025 01 20	<MDL 0.003	mg/L	1.0	No
Nitrite	2025 04 07	<MDL 0.003	mg/L	1.0	No
Nitrite	2025 07 07	<MDL 0.003	mg/L	1.0	No
Nitrite	2025 10 06	<MDL 0.003	mg/L	1.0	No

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Nitrate	2025 01 20	0.122	mg/L	10.0	No
Nitrate	2025 04 07	0.118	mg/L	10.0	No
Nitrate	2025 07 07	0.111	mg/L	10.0	No
Nitrate	2025 10 06	0.096	mg/L	10.0	No
Sodium	2023 12 11	12.6	mg/L	20*	No

MAC = Maximum Allowable Concentration as per O. Reg. 169/03

MDL = Method Detection Limit

*There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. Sodium results exceeding 20 mg/L are to be reported to the Medical Officer of Health as per Schedule 16-3 (8) of O. Reg. 170/03.

Schedule 15 Sampling (Lead)

The Schedule 15 sampling is required under O. Reg. 170/03. This system is under reduced sampling. Only distribution samples were collected, and no plumbing samples were collected.

Table 7. Schedule 15 Test Results (Lead)

	Number of Sampling Points	Number of Samples	Range of Results Minimum	Range of Results Maximum	MAC (µg/L)	Number of Exceedances
Alkalinity (mg/L)	1	2	277	288	N/A	N/A
pH	1	2	7.65	7.67	N/A	N/A
Lead (µg/L)	0	0	N/A	N/A	N/A	N/A

Organic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. In the event any of the parameters listed in Schedule 23 or 24 of O. Reg. 170/03 exceed half of the maximum allowable concentration the parameter is required to be samples quarterly. Based on the latest test results no additional testing is required.

Table 8. Organic Parameters Test Results

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Treated Water					
Alachlor	2025 08 05	<MDL 0.02	µg/L	5.0	No
Atrazine + N-dealkylated metabolites	2025 08 05	<MDL 0.01	µg/L	5.0	No
Azinphos-methyl	2025 08 05	<MDL 0.05	µg/L	20.0	No
Benzene	2025 08 05	<MDL 0.32	µg/L	1.0	No
Benzo(a)pyrene	2025 08 05	<MDL 0.004	µg/L	0.01	No
Bromoxynil	2025 08 05	<MDL 0.33	µg/L	5.0	No
Carbaryl	2025 08 05	<MDL 0.05	µg/L	90.0	No
Carbofuran	2025 08 05	<MDL 0.01	µg/L	90.0	No
Carbon Tetrachloride	2025 08 05	<MDL 0.17	µg/L	2.0	No
Chlorpyrifos	2025 08 05	<MDL 0.02	µg/L	90.0	No
Diazinon	2025 08 05	<MDL 0.02	µg/L	20.0	No
Dicamba	2025 08 05	<MDL 0.2	µg/L	120.0	No
1,2-Dichlorobenzene	2025 08 05	<MDL 0.41	µg/L	200.0	No
1,4-Dichlorobenzene	2025 08 05	<MDL 0.36	µg/L	5.0	No
1,2-Dichloroethane	2025 08 05	<MDL 0.35	µg/L	5.0	No
1,1-Dichloroethylene	2025 08 05	<MDL 0.33	µg/L	14.0	No
Dichloromethane (Methylene Chloride)	2025 08 05	<MDL 0.35	µg/L	50.0	No
2,4-Dichlorophenol	2025 08 05	<MDL 0.15	µg/L	900.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2025 08 05	<MDL 0.19	µg/L	100.0	No
Diclofop-methyl	2025 08 05	<MDL 0.40	µg/L	9.0	No
Dimethoate	2025 08 05	<MDL 0.06	µg/L	20.0	No
Diquat	2025 08 05	<MDL 1.0	µg/L	70.0	No
Diuron	2025 08 05	<MDL 0.03	µg/L	150.0	No
Glyphosate	2025 08 05	<MDL 1.0	µg/L	280.0	No
Malathion	2025 08 05	<MDL 0.02	µg/L	190.0	No
2-Methyl- 4chlorophenoxyacetic Acid (MCPA)	2025 08 05	<MDL 0.00012	mg/L	0.1	No
Metolachlor	2025 08 05	<MDL 0.01	µg/L	50.0	No
Metribuzin	2025 08 05	<MDL 0.02	µg/L	80.0	No
Monochlorobenzene (Chlorobenzene)	2025 08 05	<MDL 0.3	µg/L	80.0	No
Paraquat	2025 08 05	<MDL 1.0	µg/L	10.0	No
PCB	2025 08 05	<MDL 0.04	µg/L	3.0	No
Pentachlorophenol	2025 08 05	<MDL 0.15	µg/L	60.0	No
Phorate	2025 08 05	<MDL 0.01	µg/L	2.0	No
Picloram	2025 08 05	<MDL 1.0	µg/L	190.0	No
Prometryne	2025 08 05	<MDL 0.03	µg/L	1.0	No

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Simazine	2025 08 05	<MDL 0.01	µg/L	10.0	No
Terbufos	2025 08 05	<MDL 0.01	µg/L	1.0	No
Tetrachloroethylene	2025 08 05	<MDL 0.35	µg/L	10.0	No
2,3,4,6- Tetrachlorophenol	2025 08 05	<MDL 0.2	µg/L	100.0	No
Triallate	2025 08 05	<MDL 0.01	µg/L	230.0	No
Trichloroethylene	2025 08 05	<MDL 0.44	µg/L	5.0	No
2,4,6-Trichlorophenol	2025 08 05	<MDL 0.25	µg/L	5.0	No
Trifluralin	2025 08 05	<MDL 0.02	µg/L	45.0	No
Vinyl Chloride	2025 08 05	<MDL 0.17	µg/L	1.0	No
Distribution Water					
Trihalomethane Total Annual Average Q1	2025 01 20	11	µg/L	100.0	No
Trihalomethane Total Annual Average Q2	2025 04 07	9.8	µg/L	100.0	No
Trihalomethane Total Annual Average Q3	2025 07 07	13	µg/L	100.0	No
Trihalomethane Total Annual Average Q4	2025 10 06	14	µg/L	100.0	No
HAA Total Annual Average Q1	2025 01 20	5.3	µg/L	80.0	No
HAA Total Annual Average Q2	2025 04 07	5.3	µg/L	80.0	No
HAA Total Annual Average Q3	2025 07 07	5.3	µg/L	80.0	No
HAA Total Annual Average Q4	2025 10 06	5.3	µg/L	80.0	No

MAC = Maximum Allowable Concentration as O. Reg. 169/03

MDL = Method Detection Limit

Additional Legislated Samples

There were no additional legislated samples required to report during this reporting period.

Major Maintenance Expense (above \$10,000)

Under Section 11 of O. Reg. 170/03, a description of any major expenses incurred during this reporting period to install, repair or replace required equipment must be included in the annual report. The details of the major expenses for this drinking water system are as follows:

SCADA System Upgrades – \$63,800

- replacement and upgrades to SCADA system components that have reached end of life.

APPENDIX A

WTR Submission Confirmation



Ministry of the Environment,
Conservation and Parks

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Location: [WTRS](#) / [WT DATA](#) / [Input WT Record](#) WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 1246-AWTJXZ
Permit Holder: THE CORPORATION OF THE CITY OF KAWARTHA LAKES.
Received on: Jan 6, 2026 3:39 PM

This confirmation indicates that your data has been received by the Ministry, but should not be construed as acceptance of this data if it differs from that specified on the Permit Number, assigned to the Permit Holder stated above.

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