Kinmount Drinking Water System

2025 Annual Water Report

Drinking Water System Number: 260075231

Drinking Water System Operating Authorities: City of Kawartha Lakes and Ontario Clean Water Agency

Drinking Water System Category: Small Municipal Residential

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

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Annual Drinking Water Report
City of Kawartha Lakes

Kawartha Lakes
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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: 260075231
Drinking Water System Name: Kinmount 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 06 19	Unannounced, Detailed Drinking Water Inspection – Final Inspection Rating of 100%
Adverse Water Quality Incidents (AWQIs)	1	2025 07 24	Loss of pressure due to backup generator fault during a power outage
Non-Compliances	0		
Boil Water Advisories	1	2025 07 24	Issued for AWQI noted above
Health and Safety	0		

Drinking Water System Description

The Kinmount drinking water system is a small municipal residential drinking water system serving the Village of Kinmount, Ontario, within the City of Kawartha Lakes. The drinking water system is classified as a Class II Water Treatment and Class I Water Distribution subsystems in accordance with O. Reg. 128/04.

Source Water

The water supply for the system is obtained from the Burnt River, which is classified as a surface water source.

Water Treatment Facility

The Kinmount water treatment facility consists of a dual-train conventional filtration package system. Each treatment train includes a two-stage variable speed flocculator, a tube settler clarifier, and one dual-media rapid gravity filter. Sodium hypochlorite is utilized for both primary and secondary disinfection.

Chlorine contact time is achieved through a twin-cell clearwell. Treated water is pumped to the distribution system using four high lift vertical turbine pumps.

The backwash wastewater system includes a concrete settling tank that receives filter backwash wastewater and clarifier desludging wastes. A composite sampler monitors the quality of the supernatant prior to discharge to ensure compliance with applicable requirements.

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 2.3 kilometres of PVC watermain and is not rated for fire protection. There are no 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	Jutzi Water Technology
Polyaluminum Chloride	Flocculation	Univar Solutions
Polymer	Flocculation	Basf
Sodium Hydroxide	pH Adjustment	Not required in 2025

Summary of Non-Compliance

Adverse Water Quality Incidents

Table 3. Adverse Water Quality Incidents

Date (yyyy/mm/dd)	AWQI #	Location	Problem	Details	Legislation	Corrective Action Taken
2025 07 24	169164	Distribution	System pressure loss	Due to backup generator fault during a power outage	O. Reg. 170/03	Boil Water Order issued by MOH, BWA delivered to residents. Once power restored flushed, samples collected

Non-Compliance

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

Non-Compliance Identified in a Ministry Inspection

There were no non-compliances identified in a Ministry Inspection during this period.

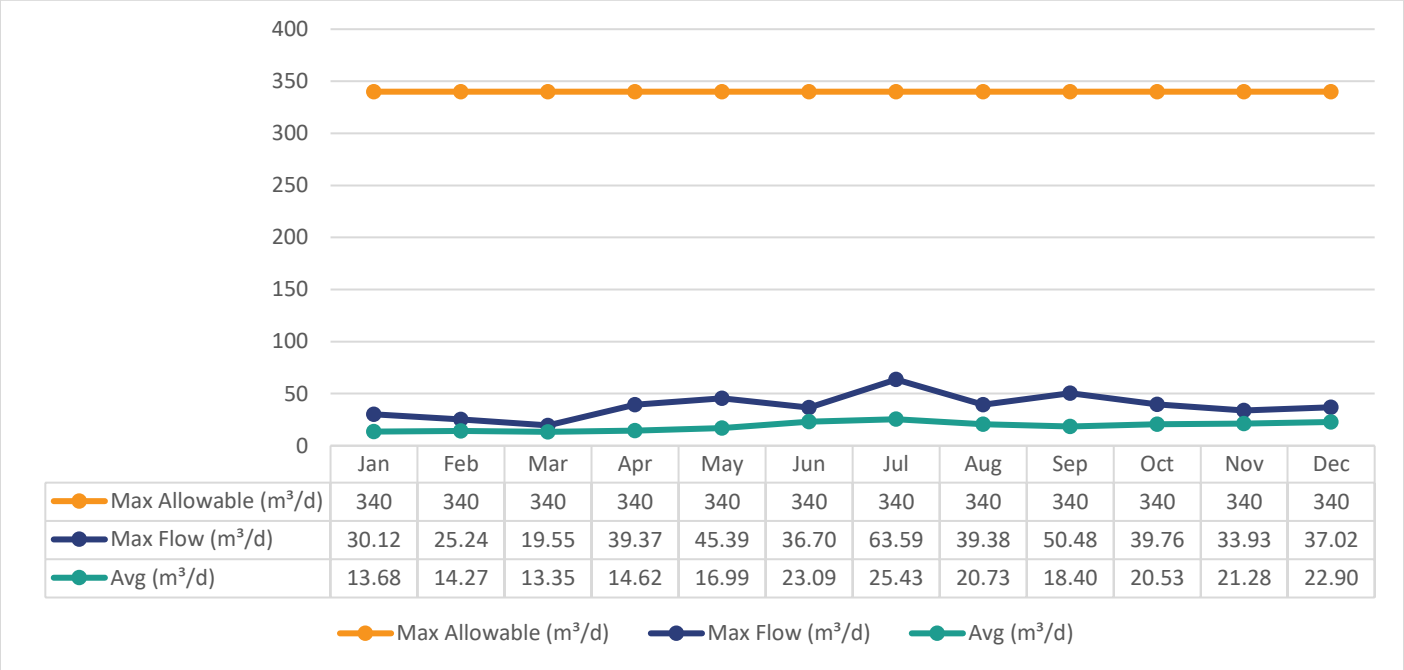
Flows

The Kinmount Drinking Water System is operating on average under half the rated capacity. The rated capacity of the system (treated water flows) is 340 m^3/day.

Raw Water Flows

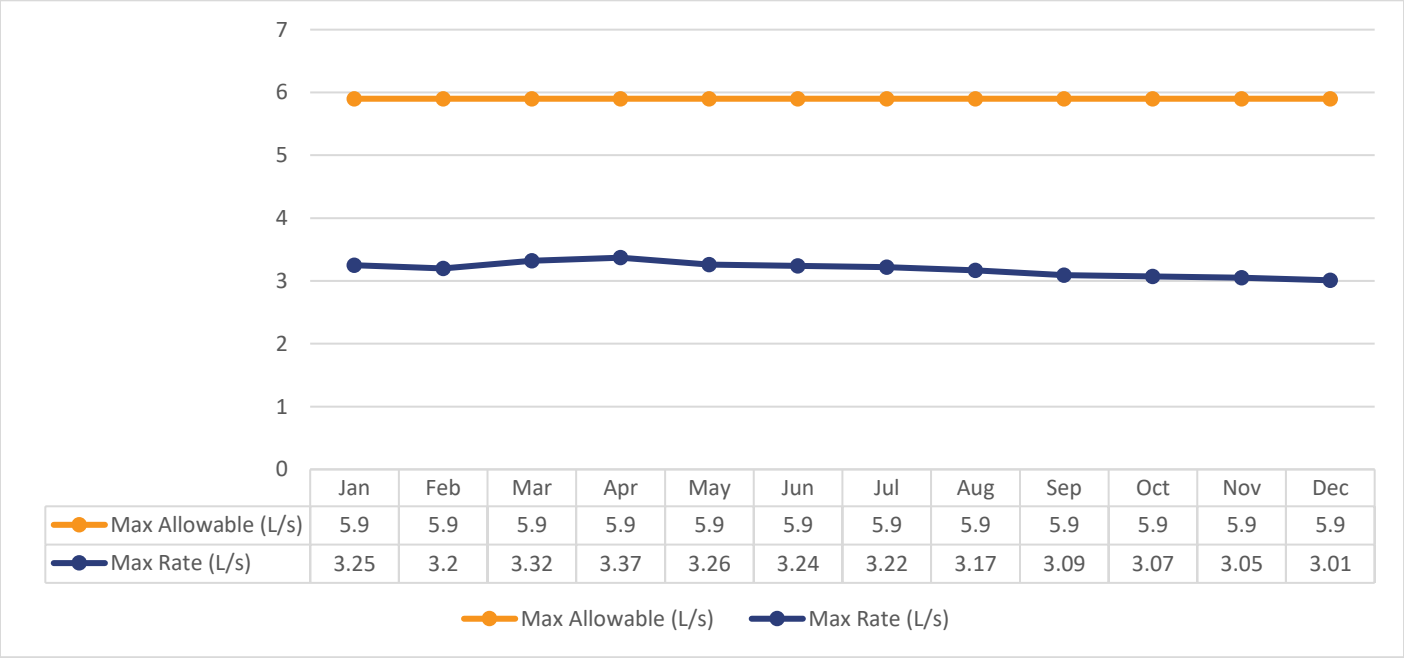
The raw water flows are regulated under the Permit to Take Water. Raw flow data for 2025 was submitted to the Ministry of Environment, Conservation and Parks (MECP) electronically under permit #2447-AWDJEA. The confirmation of the data that was submitted is attached in Appendix A.

Graph 1. Total Monthly Flows (m³/d) – Burnt River (Max Allowable PTTW)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (m³/d)	340	340	340	340	340	340	340	340	340	340	340	340
Max Flow (m³/d)	30.12	25.24	19.55	39.37	45.39	36.70	63.59	39.38	50.48	39.76	33.93	37.02
Avg (m³/d)	13.68	14.27	13.35	14.62	16.99	23.09	25.43	20.73	18.40	20.53	21.28	22.90

Graph 2. Monthly Rated Flows (L/s) – Burnt River (Max Allowable Rate PTTW)

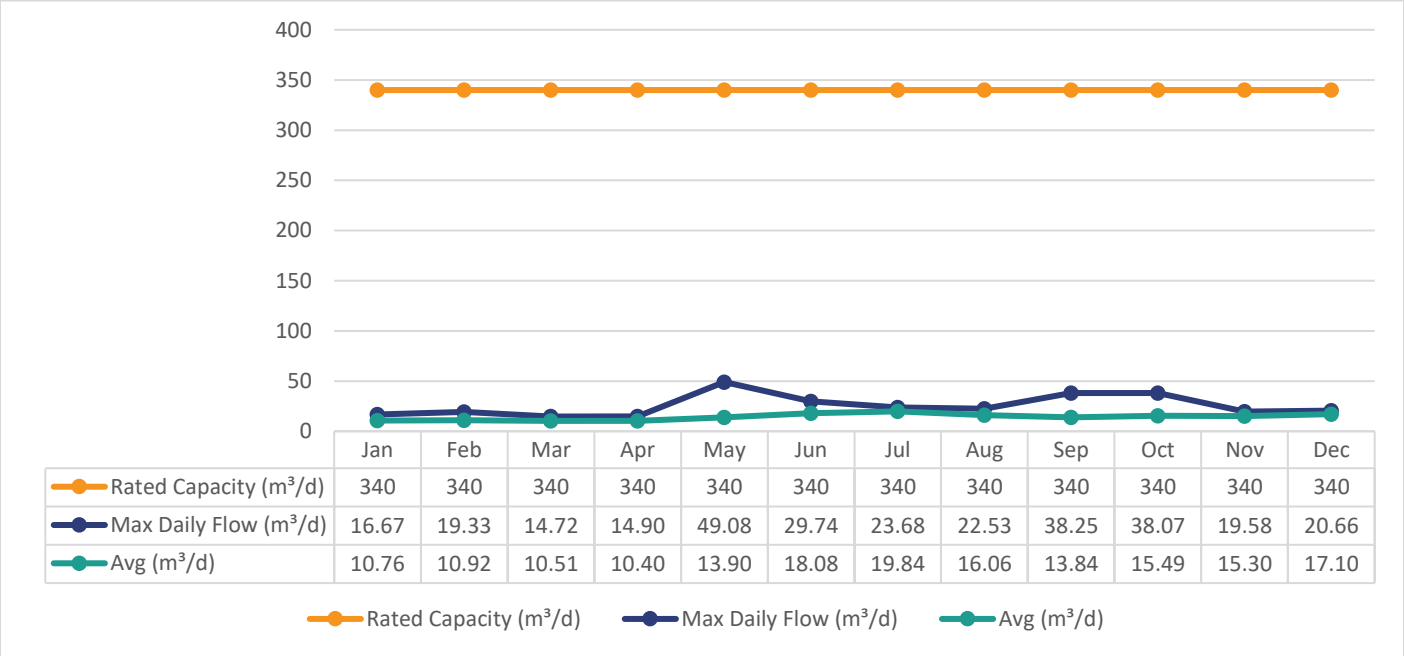


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (L/s)	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
Max Rate (L/s)	3.25	3.2	3.32	3.37	3.26	3.24	3.22	3.17	3.09	3.07	3.05	3.01

Treated Water Flows

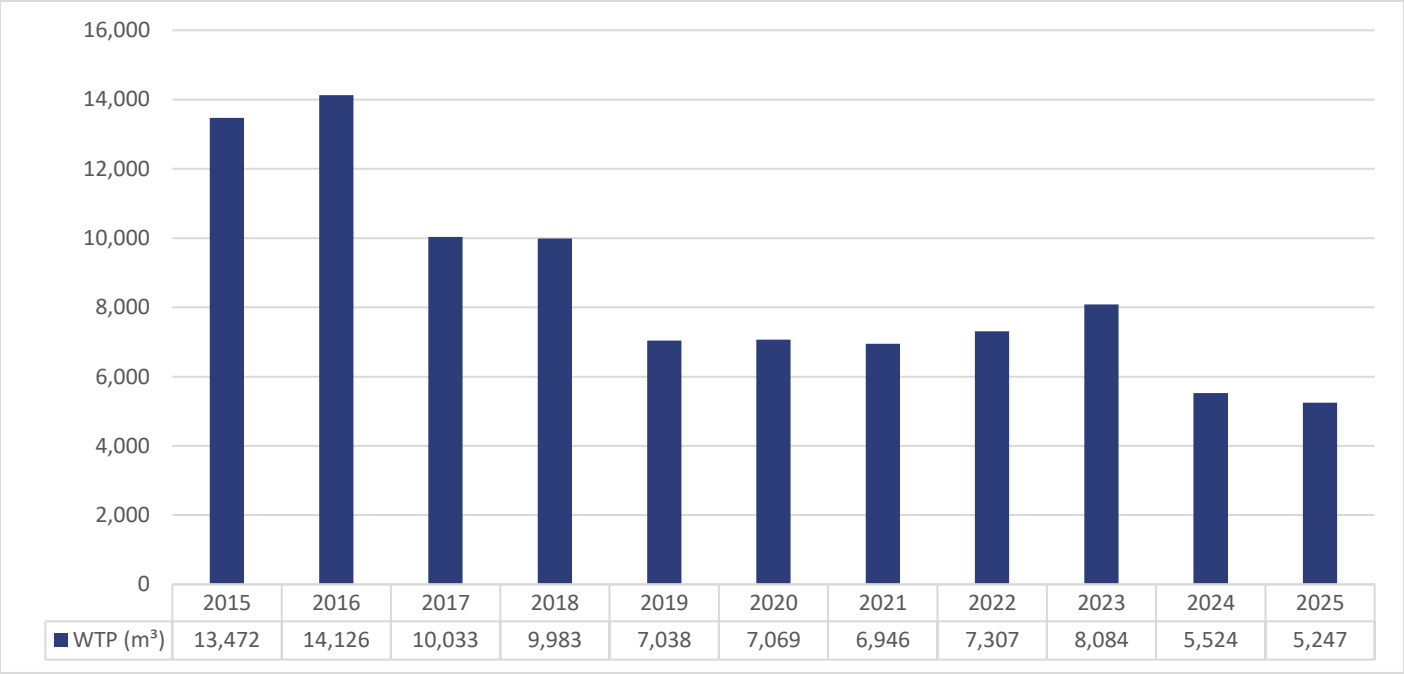
The Treated Water flows are regulated under the Municipal Drinking Water Licence 141-121.

Graph 3. Monthly Rated Flows (m³/d) – Rated Capacity - MDWL



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rated Capacity (m³/d)	340	340	340	340	340	340	340	340	340	340	340	340
Max Daily Flow (m³/d)	16.67	19.33	14.72	14.90	49.08	29.74	23.68	22.53	38.25	38.07	19.58	20.66
Avg (m³/d)	10.76	10.92	10.51	10.40	13.90	18.08	19.84	16.06	13.84	15.49	15.30	17.10

Graph 4. Annual Total Flow Comparison (m³)



	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
WTP (m³)	13,472	14,126	10,033	9,983	7,038	7,069	6,946	7,307	8,084	5,524	5,247

Regulatory Sample Results Summary

Microbiological Testing

Table 4. Microbiological Test Results

	Number of Samples Collected	Range of E. Coli Results	Range of E. Coli Results	Range of Total Coliform Results	Range of Total Coliform Results	Range of HPC Results	Range of HPC Results
		Min	Max	Min	Max	Min	Max
Raw	26	1	40	1	200	N/A	N/A
Distribution	54	0	0	0	0	0	2

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 Filter 1 (NTU)	8760	0.00	1.99
Turbidity Filter 2 (NTU)	8760	0.00	2.00
Chlorine	8760	0.00	2.36
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 01 27	<MDL 0.06	µg/L	6.0	No
Arsenic	2025 01 27	<MDL 0.2	µg/L	10.0	No
Barium	2025 01 27	17.3	µg/L	1000.0	No
Boron	2025 01 27	6.0	µg/L	5000.0	No
Cadmium	2025 01 27	<MDL 0.003	µg/L	5.0	No
Chromium	2025 01 27	0.2	µg/L	50.0	No
Mercury	2025 01 27	<MDL 0.01	µg/L	1.0	No
Selenium	2025 01 27	<MDL 0.04	µg/L	50.0	No
Uranium	2025 01 27	0.003	µg/L	20.0	No
Additional Inorganics					
Fluoride	2025 01 27	<MDL 0.06	mg/L	1.5	No
Nitrite	2025 01 06	<MDL 0.003	mg/L	1.0	No
Nitrite	2025 03 24	<MDL 0.003	mg/L	1.0	No
Nitrite	2025 04 14	<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
Nitrate	2025 01 06	0.092	mg/L	10.0	No
Nitrate	2025 03 24	0.149	mg/L	10.0	No
Nitrate	2025 04 14	0.146	mg/L	10.0	No
Nitrate	2025 07 07	0.071	mg/L	10.0	No
Nitrate	2025 10 06	0.032	mg/L	10.0	No
Sodium	2025 01 27	8.5	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	1	32	39	N/A	N/A
pH	1	1	7.12	7.23	N/A	N/A
Lead (µg/L)	N/A	N/A	N/A	N/A	10.0	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 01 27	<MDL 0.02	µg/L	5.0	No
Atrazine + N-dealkylated metabolites	2025 01 27	<MDL 0.01	µg/L	5.0	No
Azinphos-methyl	2025 01 27	<MDL 0.05	µg/L	20.0	No
Benzene	2025 01 27	<MDL 0.32	µg/L	1.0	No
Benzo(a)pyrene	2025 01 27	<MDL 0.004	µg/L	0.01	No
Bromoxynil	2025 01 27	<MDL 0.33	µg/L	5.0	No
Carbaryl	2025 01 27	<MDL 0.05	µg/L	90.0	No
Carbofuran	2025 01 27	<MDL 0.01	µg/L	90.0	No
Carbon Tetrachloride	2025 01 27	<MDL 0.17	µg/L	2.0	No
Chlorpyrifos	2025 01 27	<MDL 0.02	µg/L	90.0	No
Diazinon	2025 01 27	<MDL 0.02	µg/L	20.0	No
Dicamba	2025 01 27	<MDL 0.2	µg/L	120.0	No
1,2-Dichlorobenzene	2025 01 27	<MDL 0.41	µg/L	200.0	No
1,4-Dichlorobenzene	2025 01 27	<MDL 0.36	µg/L	5.0	No
1,2-Dichloroethane	2025 01 27	<MDL 0.35	µg/L	5.0	No
1,1-Dichloroethylene	2025 01 27	<MDL 0.33	µg/L	14.0	No

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Dichloromethane (Methylene Chloride)	2025 01 27	<MDL 0.35	µg/L	50.0	No
2,4-Dichlorophenol	2025 01 27	<MDL 0.15	µg/L	900.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2025 01 27	<MDL 0.19	µg/L	100.0	No
Diclofop-methyl	2025 01 27	<MDL 0.4	µg/L	9.0	No
Dimethoate	2025 01 27	<MDL 0.06	µg/L	20.0	No
Diquat	2025 01 27	<MDL 1.0	µg/L	70.0	No
Diuron	2025 01 27	<MDL 0.03	µg/L	150.0	No
Glyphosate	2025 01 27	<MDL 1.0	µg/L	280.0	No
Malathion	2025 01 27	<MDL 0.02	µg/L	190.0	No
2-Methyl-4chlorophenoxyacetic Acid (MCPA)	2025 01 27	<MDL 0.12	µg/L	100.0	No
Metolachlor	2025 01 27	<MDL 0.01	µg/L	50.0	No
Metribuzin	2025 01 27	<MDL 0.02	µg/L	80.0	No
Monochlorobenzene (Chlorobenzene)	2025 01 27	<MDL 0.3	µg/L	80.0	No
Paraquat	2025 01 27	<MDL 1.0	µg/L	10.0	No
PCB	2025 01 27	<MDL 0.04	µg/L	3.0	No
Pentachlorophenol	2025 01 27	<MDL 0.15	µg/L	60.0	No
Phorate	2025 01 27	<MDL 0.01	µg/L	2.0	No
Picloram	2025 01 27	<MDL 1.0	µg/L	190.0	No
Prometryne	2025 01 27	<MDL 0.03	µg/L	1.0	No
Simazine	2025 01 27	<MDL 0.01	µg/L	10.0	No
Terbufos	2025 01 27	<MDL 0.01	µg/L	1.0	No
Tetrachloroethylene	2025 01 27	<MDL 0.35	µg/L	10.0	No
2,3,4,6-Tetrachlorophenol	2025 01 27	<MDL 0.2	µg/L	100.0	No
Triallate	2025 01 27	<MDL 0.01	µg/L	230.0	No
Trichloroethylene	2025 01 27	<MDL 0.44	µg/L	5.0	No
2,4,6-Trichlorophenol	2025 01 27	<MDL 0.25	µg/L	5.0	No
Trifluralin	2025 01 27	<MDL 0.02	µg/L	45.0	No
Vinyl Chloride	2025 01 27	<MDL 0.17	µg/L	1.0	No
Distribution Water					
Trihalomethane Total Annual Average Q1	2025 01 06	82.25	µg/L	100.0	No
Trihalomethane Total Annual Average Q2	2025 04 14	85.50	µg/L	100.0	No
Trihalomethane Total Annual Average Q3	2025 07 07	83.00	µg/L	100.0	No

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Trihalomethane Total Annual Average Q4	2025 10 06	79.25	µg/L	100.0	No
HAA Total Annual Average Q1	2025 01 06	65.45	µg/L	80.0	No
HAA Total Annual Average Q2	2025 04 14	69.03	µg/L	80.0	No
HAA Total Annual Average Q3	2025 07 07	63.25	µg/L	80.0	No
HAA Total Annual Average Q4	2025 10 06	59.43	µg/L	80.0	No

MAC = Maximum Allowable Concentration as O. Reg. 169/03
MDL = Method Detection Limit

Additional Legislated Samples

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Harmful Algal Blooms monitoring is required as a condition within the Municipal Drinking Water Licence between June and October of each reporting year at a minimum. Treated and Raw samples are collected weekly during this time period and tested for Microcystin, which is an indicator for harmful algal blooms.

Table 9. Microcystin Sample Results

Municipal Drinking Water Licence	Collected Weekly June – Oct	Total Microcystin Raw Results Range (µg/L)	Total Microcystin Treated Water Results Range (µg/L)	Treated Water Total Microcystin Limit 1.5 µg/L Exceeded
Harmful Algal Blooms Monitoring	June	<0.1 - <0.1	<0.1 - <0.1	N
	July	<0.1 - <0.1	<0.1 - <0.1	N
	August	<0.1 - <0.1	<0.1 - <0.1	N
	September	<0.1 - <0.1	<0.1 - <0.1	N
	October	<0.1 - 0.1	<0.1 - <0.1	N
	November	<0.1 - <0.1	<0.1 - <0.1	N

Method Detection Limit is 0.1 µg/L

Table 10. Suspended Solids Sample Results

Municipal Drinking Water Licence	Date Collected	Suspended Solids to Sanitary Sewer (mg/L)	Free Chlorine Residual (mg/L)
Settling Tank Discharge Point	January	<2	0.02
	February	3	0.02
	March	<2	0.00
	April	<2	0.01
	May	<2	0.00
	June	16	0.01
	July	39	0.01
	August	38	0.03
	September	60	0.00
	October	2	0.01
	November	5	0.01
	December	2	0.01
	Average	14	

Note: The Suspended Solids 12 month running average limit is 25 mg/L.

Minor Maintenance

- Repair Breaker in Failed Transfer Switch
- Generator Battery Replacement
- Composite Sampler Motor Replacement
- Replace Backup Power Charging Module
- Replace Generator Radiator

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:

- PLC Upgrades

APPENDIX A

WTR Submission Confirmation