Canadiana Shores Drinking Water System

2025 Annual Water Report

Drinking Water System Number: 220006491

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

Drinking Water System Category: Large Municipal Residential

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

OCWA

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Annual Drinking Water Report
City of Kawartha Lakes

Kawartha Lakes
Jump In

Table of Contents

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: 220006491
Drinking Water System Name: Canadiana Shores Drinking Water System
Drinking Water System Owner: City of Kawartha Lakes
Drinking Water System Category: Large 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 10 21	Announced Focused Drinking Water Inspection – Final Inspection Rating 100%
Adverse Water Quality Incidents (AWQIs)	1	2025 05 26	3 Total Coliform at one distribution sample location
Non-Compliances	0		
Boil Water Advisories	0		
Health and Safety	0		

Drinking Water System Description

The Canadiana Shores drinking water system is a large municipal residential drinking water system serving the subdivision located on Washburn Island 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 three groundwater wells identified as Well #2, Well #3, and Well #4. The wells are designated as Groundwater Under the Direct Influence of Surface Water (GUDI).

Water Treatment Facility

The Canadiana Shores treatment facility utilizes two dual-media gravity filters consisting of anthracite and silica sand. Filter effluent is directed to an equalization tank and booster pump which feeds a cartridge filtration system comprised of two treatment trains. Online turbidimeters are installed on each filter effluent line to continuously monitor turbidity.

The facility includes three-cell clearwell located beneath the treatment building. Disinfection is achieved using sodium hypochlorite applied within the clearwell. Free chlorine residual is continuously monitored by an online analyzer connected to the common highlift pump discharge header to ensure regulatory compliance.

The package treatment units are equipped with backwash equipment and a backwash waste storage and decant tank system to manage filter backwash water.

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 has approximately seven kilometres of PVC watermains 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 distribution system.

Table 2. Treatment Chemicals Used

Chemical Name	Use	Supplier
Sodium Hypochlorite	Disinfection	Jutzi Water Technologies

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 05 26	168383	Distribution	Total Coliforms	One distribution sample adverse for 3 Total Coliforms	O. Reg. 169/03	Flush and resample. Resample returned with clear results.

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.

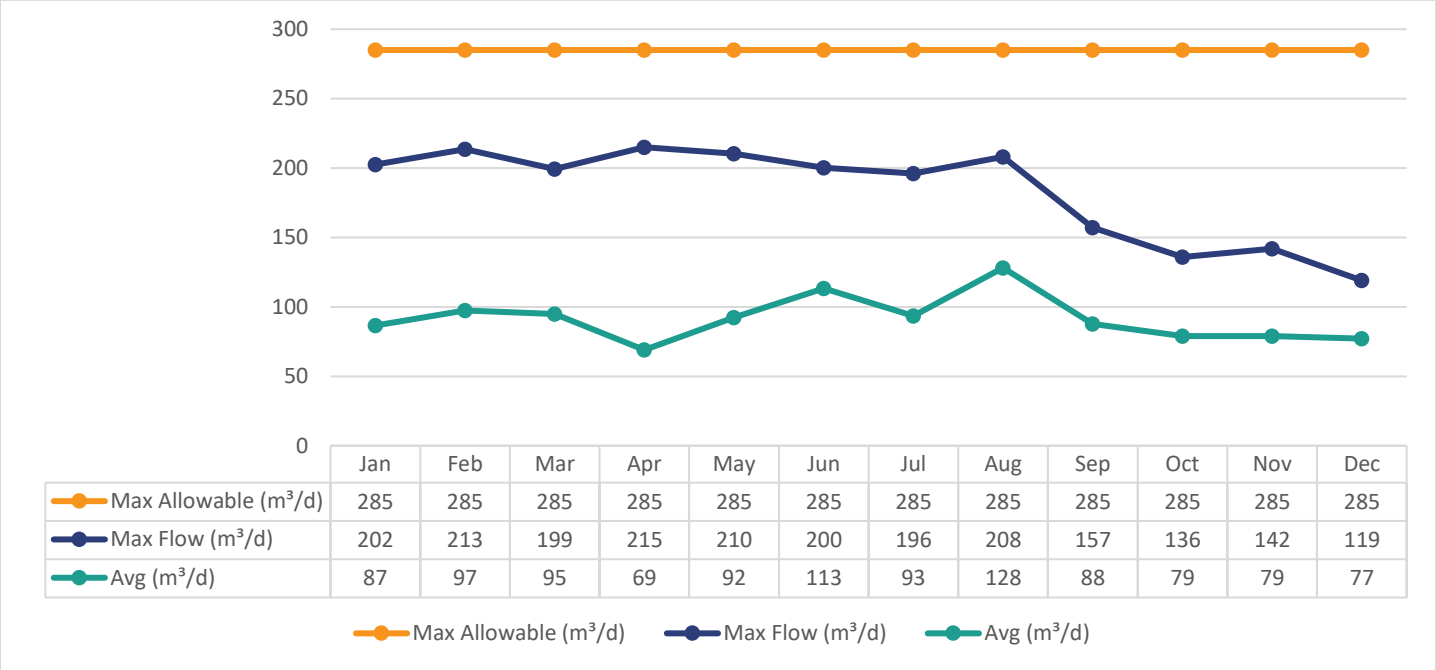
Flows

The Canadiana Shores Drinking Water System is operating on average under half the rated capacity. The rated capacity of the system (treated water flows) is 984 m^3/day.

Raw Water Flows

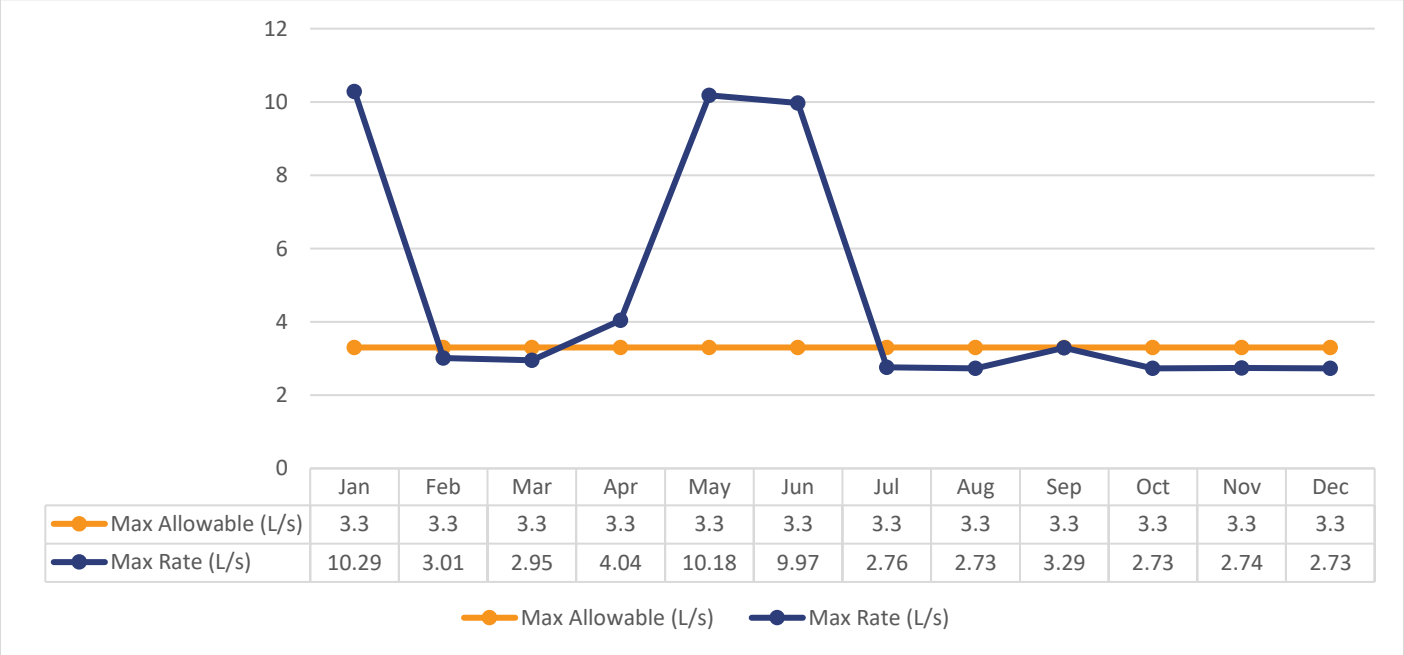
The raw water flows are regulated under the Permit to Take Water. Raw flow data for 2025 was submitted to the Ministry of Environment, Conservation and Parks (MECP) electronically under permit #1311-BMZH78. The confirmation of the data that was submitted is attached in Appendix A. The Permit to Take Water Compliance criteria is in litres per minute (L/min) but for the purposes of this report the flow rate is reported in litres per second (L/sec) based on industry standard for flow monitoring recording.

Graph 1. Total Monthly Flows (m³/d) – Well #2 (Max Allowable PTTW)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (m³/d)	285	285	285	285	285	285	285	285	285	285	285	285
Max Flow (m³/d)	202	213	199	215	210	200	196	208	157	136	142	119
Avg (m³/d)	87	97	95	69	92	113	93	128	88	79	79	77

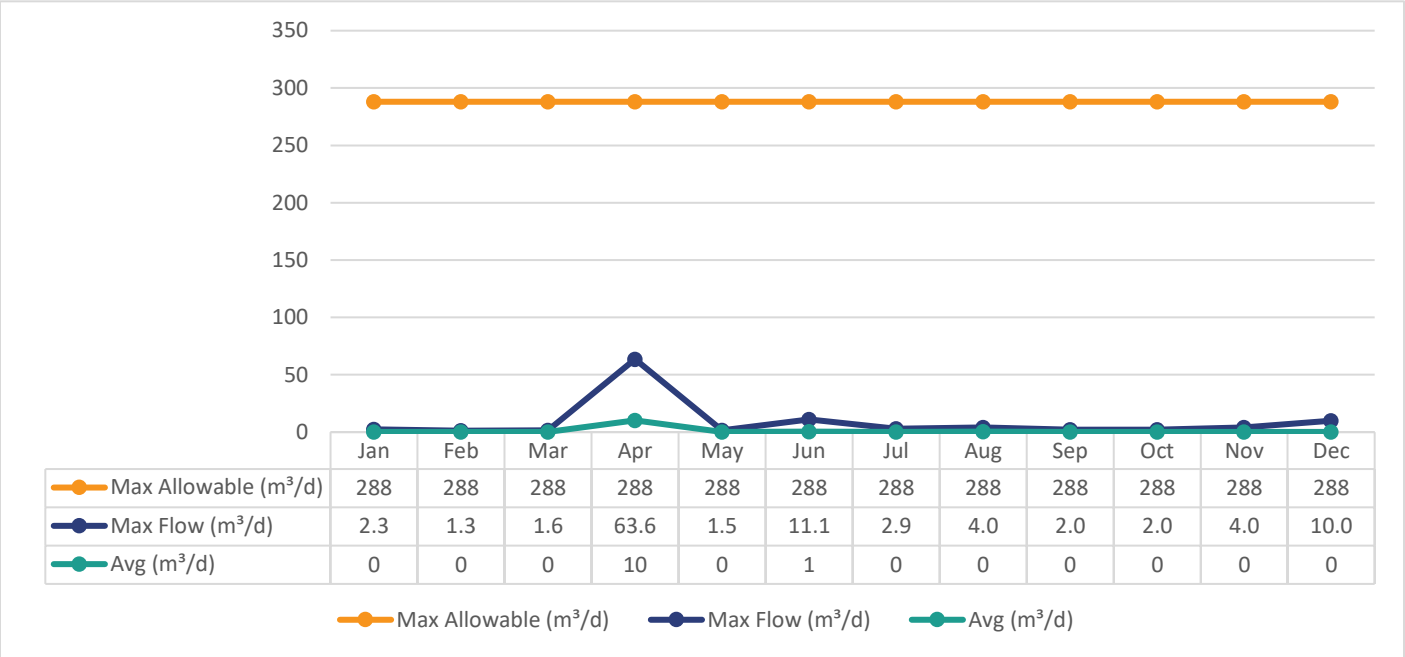
Graph 2. Monthly Rated Flows (L/s) – Well #2 (Max Allowable Rate PTTW)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (L/s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Max Rate (L/s)	10.29	3.01	2.95	4.04	10.18	9.97	2.76	2.73	3.29	2.73	2.74	2.73

Note: Certain operational circumstances could cause results to be temporarily outside of the allowable rates. In January 2025, the allowable rate was momentarily surpassed as a result of a power outage and did not indicate a true exceedance. In April 2025, the allowable rate was momentarily surpassed as a result of putting the well back into production and did not indicate a true exceedance. In May 2025, the allowable rate was momentarily surpassed as a result of power transfer during generator testing and did not indicate a true exceedance. In June 2025, the allowable rate was momentarily surpassed as a results of annual water meter calibration and did not indicate a true exceedance. All spikes are reviewed for compliance with O. Reg. 170/03, a true exceedance would be documented within this report.

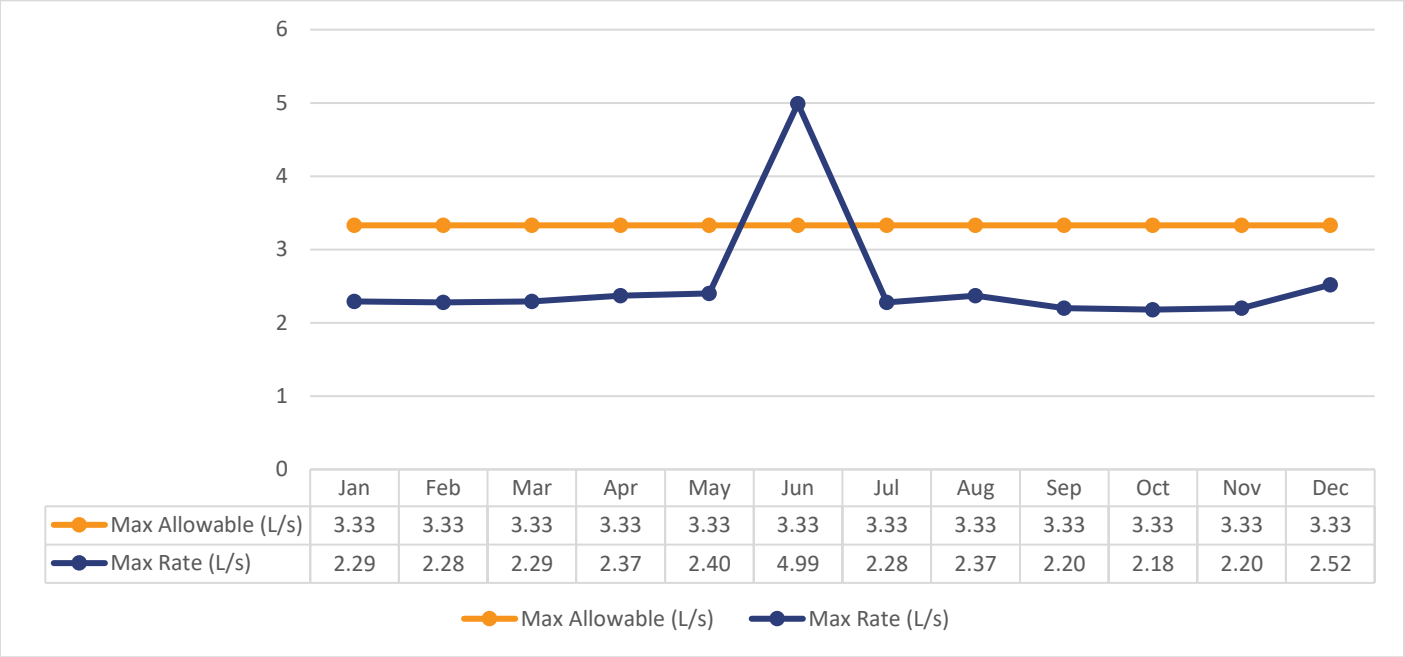
Graph 3. Total Monthly Flows (m³/d) – Well #3 (Max Allowable PTTW)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (m³/d)	288	288	288	288	288	288	288	288	288	288	288	288
Max Flow (m³/d)	2.3	1.3	1.6	63.6	1.5	11.1	2.9	4.0	2.0	2.0	4.0	10.0
Avg (m³/d)	0	0	0	10	0	1	0	0	0	0	0	0

Note: Well #3 was offline for the majority of the reporting period. Replacement included in 2026 capital budget plan. During April 2025, Well #3 was placed into production while Well #2 was offline for maintenance and Well#4 could not meet system demand on its own.

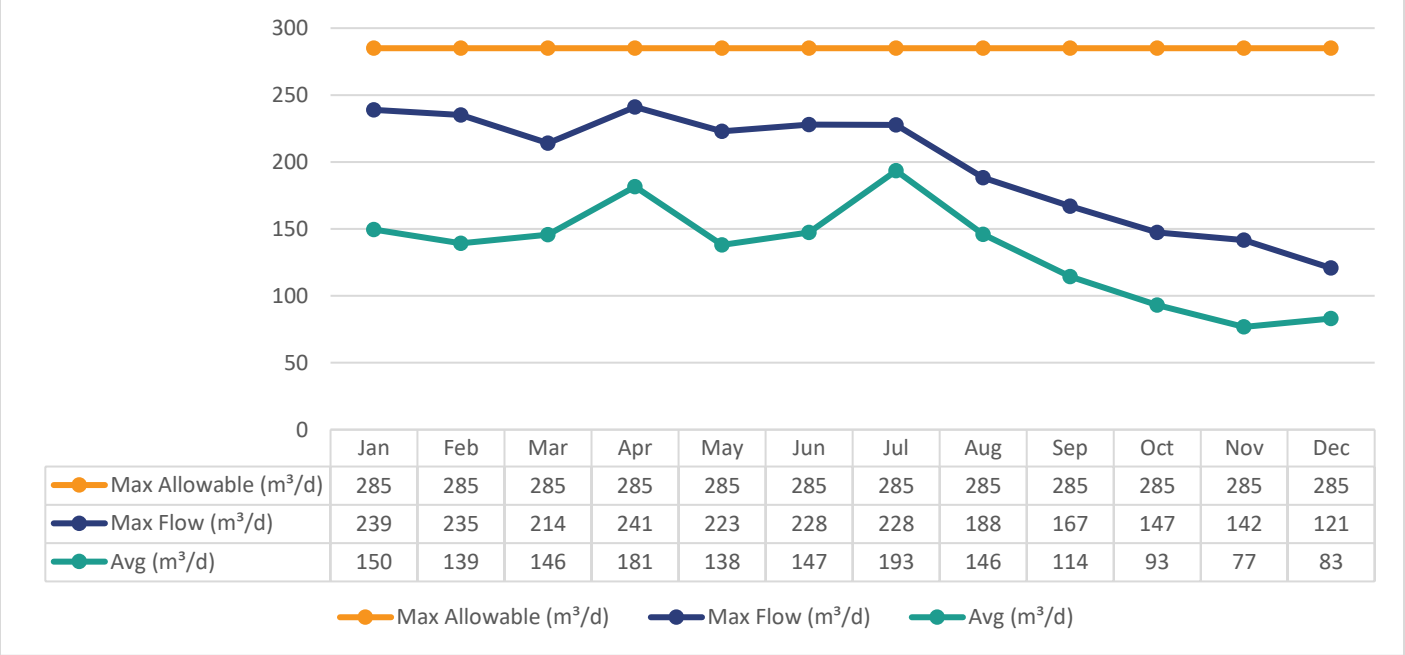
Graph 4. Monthly Rated Flows (L/s) – Well #3 (Max Allowable Rate



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (L/s)	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
Max Rate (L/s)	2.29	2.28	2.29	2.37	2.40	4.99	2.28	2.37	2.20	2.18	2.20	2.52

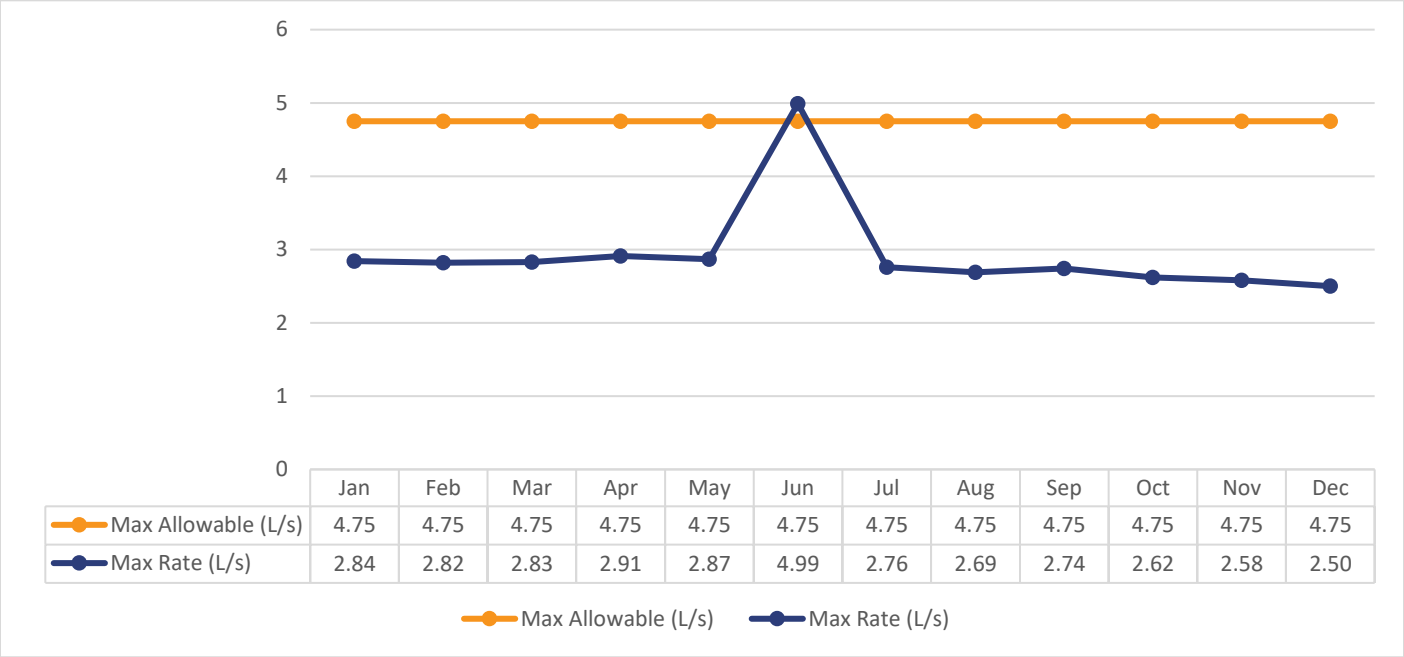
Note: Certain operational circumstances could cause results to be temporarily outside of the allowable rates. In June 2025, the allowable rate was momentarily surpassed as a result of annual water meter calibration and did not indicate a true exceedance. A true exceedance would be documented in this report.

Graph 5. Total Monthly Flows (m³/d) – Well #4 (Max Allowable PTTW)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (m³/d)	285	285	285	285	285	285	285	285	285	285	285	285
Max Flow (m³/d)	239	235	214	241	223	228	228	188	167	147	142	121
Avg (m³/d)	150	139	146	181	138	147	193	146	114	93	77	83

Graph 6. Monthly Rated Flows (L/s) – Well #4 (Max Allowable Rate



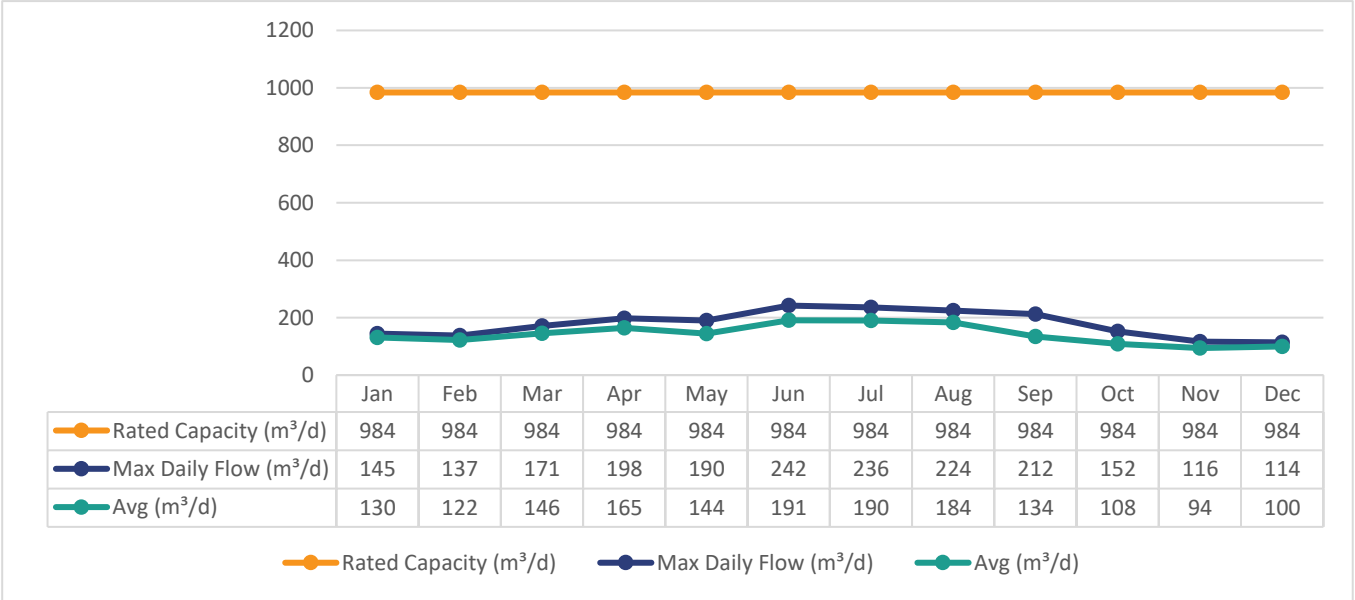
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (L/s)	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75
Max Rate (L/s)	2.84	2.82	2.83	2.91	2.87	4.99	2.76	2.69	2.74	2.62	2.58	2.50

Note: Certain operational circumstances could cause results to be temporarily outside of the allowable rates. In June 2025, the allowable rate was momentarily surpassed as a result of annual water meter calibration and did not indicate a true exceedance. A true exceedance would be documented in this report.

Treated Water Flows

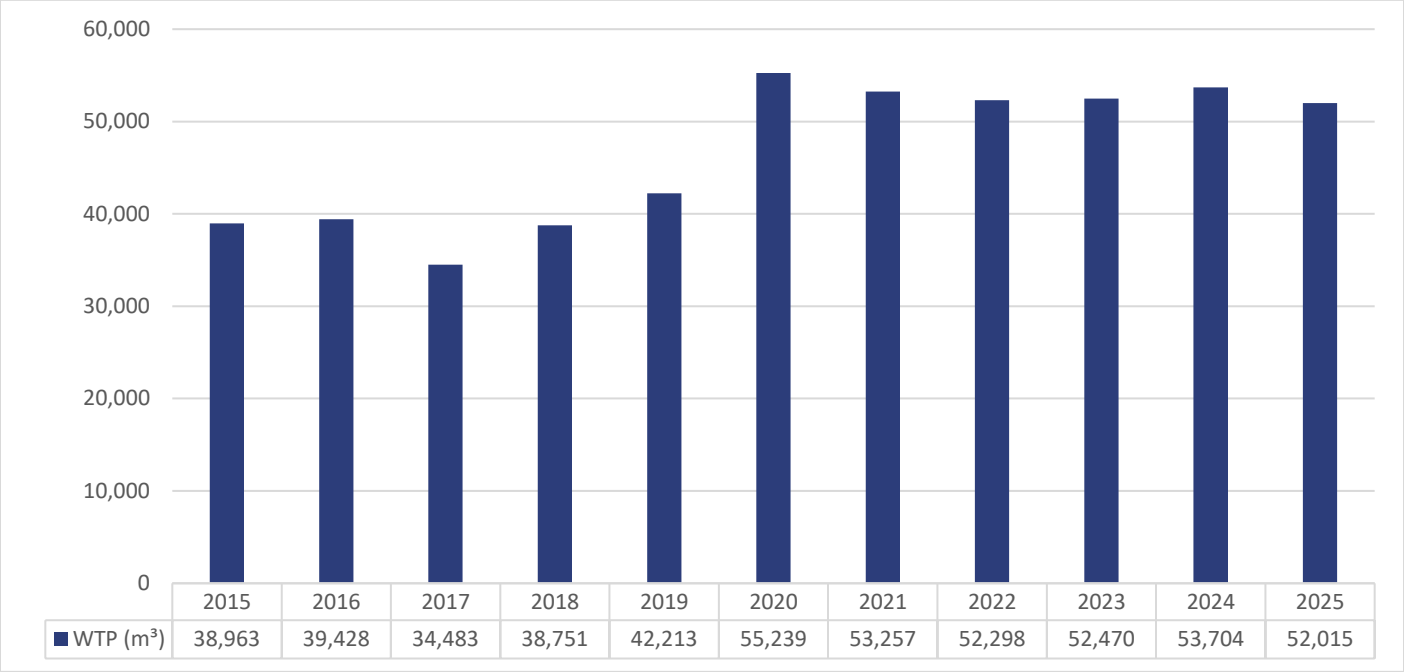
The Treated Water flows are regulated under the Municipal Drinking Water Licence 141-112.

Graph 7. Monthly Rated Flows (m³/d) – Rated Capacity - MDWL



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rated Capacity (m³/d)	984	984	984	984	984	984	984	984	984	984	984	984
Max Daily Flow (m³/d)	145	137	171	198	190	242	236	224	212	152	116	114
Avg (m³/d)	130	122	146	165	144	191	190	184	134	108	94	100

Graph 8. Annual Total Flow Comparison (m³)



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 Well 2	51	0	0	0	0	N/A	N/A
Raw Well 3	53	0	0	0	1	N/A	N/A
Raw Well 4	52	0	0	0	23	N/A	N/A
Treated	52	0	0	0	0	0	2
Distribution	159	0	0	0	3	0	150

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 2 (NTU)	12	0.11	0.37
Turbidity Well 3 (NTU)	12	0.09	0.16
Turbidity Well 4 (NTU)	12	0.10	0.22
Turbidity – Filter 1 (NTU)	8760	0.00	2.05
Turbidity – Filter 2 (NTU)	8760	0.00	2.00
Chlorine	8760	0.00	3.55
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 annually 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 07	<MDL 0.6	µg/L	6.0	No
Arsenic	2025 01 07	<MDL 0.2	µg/L	10.0	No
Barium	2025 01 07	125.0	µg/L	1000.0	No
Boron	2025 01 07	9.0	µg/L	5000.0	No
Cadmium	2025 01 07	<MDL 0.003	µg/L	5.0	No
Chromium	2025 01 07	0.15	µg/L	50.0	No
Mercury	2025 01 07	<MDL 0.01	µg/L	1.0	No
Selenium	2025 01 07	0.07	µg/L	50.0	No
Uranium	2025 01 07	5.65	µg/L	20.0	No

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Additional Organics					
Fluoride	2023 01 03	0.08	mg/L	1.5	No
Nitrite	2025 01 07	<MDL 0.003	mg/L	1.0	No
Nitrite	2025 04 15	<MDL 0.003	mg/L	1.0	No
Nitrite	2025 07 07	<MDL 0.003	mg/L	1.0	No
Nitrite	2025 10 14	<MDL 0.003	mg/L	1.0	No
Nitrate	2025 01 07	0.821	mg/L	10.0	No
Nitrate	2025 04 15	0.629	mg/L	10.0	No
Nitrate	2025 07 07	0.978	mg/L	10.0	No
Nitrate	2025 10 14	1.28	mg/L	10.0	No
Sodium	2023 01 03	16.7	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)	2	4	287	304	N/A	N/A
pH	2	4	7.47	7.66	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 07	<MDL 0.02	µg/L	5.0	No
Atrazine + N-dealkylated metabolites	2025 01 07	<MDL 0.01	µg/L	5.0	No
Azinphos-methyl	2025 01 07	<MDL 0.05	µg/L	20.0	No
Benzene	2025 01 07	<MDL 0.32	µg/L	1.0	No
Benzo(a)pyrene	2025 01 07	<MDL 0.004	µg/L	0.01	No
Bromoxynil	2025 01 07	<MDL 0.33	µg/L	5.0	No
Carbaryl	2025 01 07	<MDL 0.05	µg/L	90.0	No
Carbofuran	2025 01 07	<MDL 0.01	µg/L	90.0	No
Carbon Tetrachloride	2025 01 07	<MDL 0.17	µg/L	2.0	No
Chlorpyrifos	2025 01 07	<MDL 0.02	µg/L	90.0	No
Diazinon	2025 01 07	<MDL 0.02	µg/L	20.0	No
Dicamba	2025 01 07	<MDL 0.2	µg/L	120.0	No
1,2-Dichlorobenzene	2025 01 07	<MDL 0.41	µg/L	200.0	No
1,4-Dichlorobenzene	2025 01 07	<MDL 0.36	µg/L	5.0	No
1,2-Dichloroethane	2025 01 07	<MDL 0.35	µg/L	5.0	No
1,1-Dichloroethylene	2025 01 07	<MDL 0.33	µg/L	14.0	No
Dichloromethane (Methylene Chloride)	2025 01 07	<MDL 0.35	µg/L	50.0	No
2,4-Dichlorophenol	2025 01 07	<MDL 0.15	µg/L	900.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2025 01 07	<MDL 0.19	µg/L	100.0	No
Diclofop-methyl	2025 01 07	<MDL 0.4	µg/L	9.0	No
Dimethoate	2025 01 07	<MDL 0.06	µg/L	20.0	No
Diquat	2025 01 07	<MDL 1.0	µg/L	70.0	No
Diuron	2025 01 07	<MDL 0.03	µg/L	150.0	No
Glyphosate	2025 01 07	<MDL 1.0	µg/L	280.0	No
Malathion	2025 01 07	<MDL 0.02	µg/L	190.0	No
2-Methyl-4-chlorophenoxyacetic Acid (MCPA)	2025 01 07	<MDL 0.12	µg/L	100.0	No
Metolachlor	2025 01 07	<MDL 0.01	µg/L	50.0	No
Metribuzin	2025 01 07	<MDL 0.02	µg/L	80.0	No
Monochlorobenzene (Chlorobenzene)	2025 01 07	<MDL 0.3	µg/L	80.0	No
Paraquat	2025 01 07	<MDL 1.0	µg/L	10.0	No
PCB	2025 01 07	<MDL 0.04	µg/L	3.0	No
Pentachlorophenol	2025 01 07	<MDL 0.15	µg/L	60.0	No

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Phorate	2025 01 07	<MDL 0.01	µg/L	2.0	No
Picloram	2025 01 07	<MDL 1.0	µg/L	190.0	No
Prometryne	2025 01 07	<MDL 0.03	µg/L	1.0	No
Simazine	2025 01 07	<MDL 0.01	µg/L	10.0	No
Terbufos	2025 01 07	<MDL 0.01	µg/L	1.0	No
Tetrachloroethylene	2025 01 07	<MDL 0.35	µg/L	10.0	No
2,3,4,6-Tetrachlorophenol	2025 01 07	<MDL 0.2	µg/L	100.0	No
Triallate	2025 01 07	<MDL 0.01	µg/L	230.0	No
Trichloroethylene	2025 01 07	<MDL 0.44	µg/L	5.0	No
2,4,6-Trichlorophenol	2025 01 07	<MDL 0.25	µg/L	5.0	No
Trifluralin	2025 01 07	<MDL 0.02	µg/L	45.0	No
Vinyl Chloride	2025 01 07	<MDL 0.17	µg/L	1.0	No
Distribution Water					
Trihalomethane Total Annual Average Q1	2025 01 07	8.80	µg/L	100.0	No
Trihalomethane Total Annual Average Q2	2025 04 15	13.0	µg/L	100.0	No
Trihalomethane Total Annual Average Q3	2025 07 07	9.10	µg/L	100.0	No
Trihalomethane Total Annual Average Q4	2025 10 14	11.00	µg/L	100.0	No
HAA Total Annual Average Q1	2025 01 07	<MDL 5.3	µg/L	80.0	No
HAA Total Annual Average Q2	2025 04 15	<MDL 5.3	µg/L	80.0	No
HAA Total Annual Average Q3	2025 07 07	<MDL 5.3	µg/L	80.0	No
HAA Total Annual Average Q4	2025 10 14	<MDL 5.3	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.

Table 9. Suspended Solids (Composite) Test Results

Date Legal Instrument Issued	Parameter	Date Sampled	Result	Unit of Measure
April 21, 2021	Suspended Solids (Composite)	2025 01 31	10	mg/L
April 21, 2021	Suspended Solids (Composite)	2025 02 24	15	mg/L
April 21, 2021	Suspended Solids (Composite)	2025 03 31	10	mg/L
April 21, 2021	Suspended Solids (Composite)	2025 04 28	31	mg/L
April 21, 2021	Suspended Solids (Composite)	2025 05 26	2	mg/L
April 21, 2021	Suspended Solids (Composite)	2025 06 30	2	mg/L
April 21, 2021	Suspended Solids (Composite)	2025 07 31	2	mg/L
April 21, 2021	Suspended Solids (Composite)	2025 08 25	4	mg/L
April 21, 2021	Suspended Solids (Composite)	2025 09 29	2	mg/L
April 21, 2021	Suspended Solids (Composite)	2025 10 27	2	mg/L
April 21, 2021	Suspended Solids (Composite)	2025 11 24	2	mg/L
April 21, 2021	Suspended Solids (Composite)	2025 12 29	4	mg/L
Summary	**Suspended Solids (Composite) 12 Month Rolling Average**	**2025**	**Average: 7.2**	**mg/L**

Note: Suspended Solids Annual Average Concentration limit is 25 mg/L as per MDWL 141-112.

Minor Maintenance

- Well #2 – pump replacement
- UPS battery replacement
- SCADA – backwash counter resets when generator runs on load
- Facility washroom toilet repair
- Treated flow meter – repair/replace
- Troubleshoot low temp

- Filter covers replacement
- Singer valves – service
- Filter booster pump – replacement
- Miltronics – Clearwell level not gaining
- Dialer trouble – repair
- High Lift Pump – Singer valve leak – repair
- Relay fault in filter panel – replace

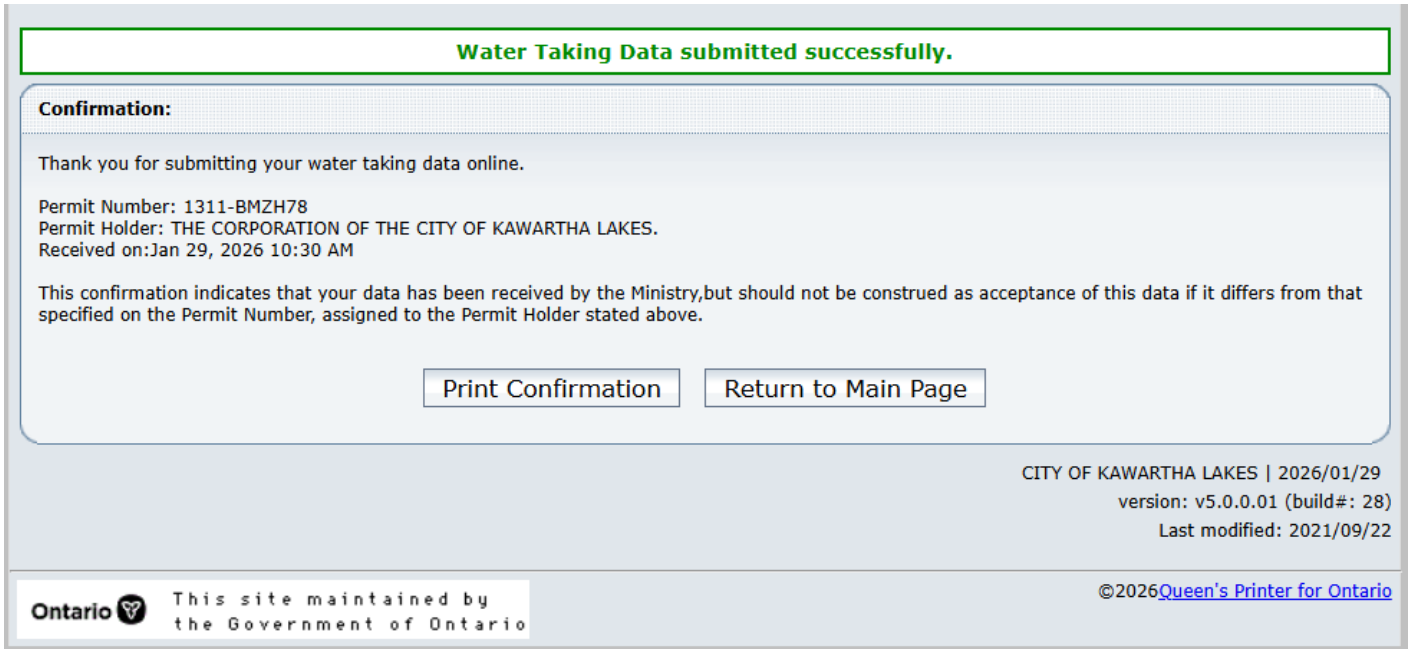
Major Maintenance Expense (above $10,000)

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:

Nothing to report for the reporting period.

APPENDIX A

WTR Submission Confirmation



Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 1311-BMZH78
Permit Holder: THE CORPORATION OF THE CITY OF KAWARTHA LAKES.
Received on:Jan 29, 2026 10:30 AM

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.

Print Confirmation | Return to Main Page

CITY OF KAWARTHA LAKES | 2026/01/29
version: v5.0.0.01 (build#: 28)
Last modified: 2021/09/22

Ontario This site maintained by the Government of Ontario