

# **Janetville Drinking Water System**

## **2024 Annual Water Report**

Drinking Water System Number: 220006455

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

Drinking Water System Category: Large Municipal Residential

Reporting Period: January 1 – December 31, 2024



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# 2024 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:** 220006455

**Drinking Water System Name:** Janetville Drinking Water System

**Drinking Water System Owner:** City of Kawartha Lakes

**Drinking Water System Category:** Large Municipal Residential

**Reporting Period:** January 1, 2024 – December 31, 2024

## Compliance Summary

**Table 1. Drinking Water Compliance Summary**

	Number of Events	Date	Details
Ministry (MECP) Inspections	1	June 25, 2024	Announced Detailed Drinking Water Inspection – Final Inspection Rating of 100%
Adverse Water Quality Incidents (AWQIs)	1	March 26, 2024	1 Total Coliform in one treated water sample
Non-Compliances	0		
Boil Water Advisories	0		
Health and Safety	0		

## Drinking Water System Description

The Janetville drinking water system is a large municipal residential drinking water system that serves Hamlet of Janetville, in the City of Kawartha Lakes. The drinking water system is classified as a Class II Water Distribution and Supply subsystem under O. Reg. 128/04

### Source Water

The water supply for the system comes from three groundwater wells: Well #3, Well #4 and Well #5. The wells are designated as non-GUDI (groundwater under the direct influence).

### Water Treatment Facility

The treatment system consists of the following: a sodium hypochlorite disinfection system, an iron sequestering system using sodium silicate system for iron removal, online continuous monitoring for chlorine and turbidity, a reservoir/clearwell, hydropneumatic tanks and a high lift pumping system.

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

### Distribution System

The distribution system has approximately four and a half (4.5) kilometers of watermains and is not rated for fire protection. The watermains in the Janetville Distribution System are all PVC. There is no storage, chlorine boosting, secondary disinfection 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 Technologies
Sodium Silicate	Iron Sequestering	Jutzi Water Technologies

## Summary of Non-Compliance

### Adverse Water Quality Incidents

**Table 3. Adverse Water Quality Incidents**

Date	AWQI #	Location	Problem	Details	Legislation	Corrective Action Taken
2024 03 26	164690	Distribution	Total Coliforms	1 Total Coliform in one treated water sample	O. Reg. 169/03	Flush lines, disinfection met, resample. Results all clear on resamples.

## 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.

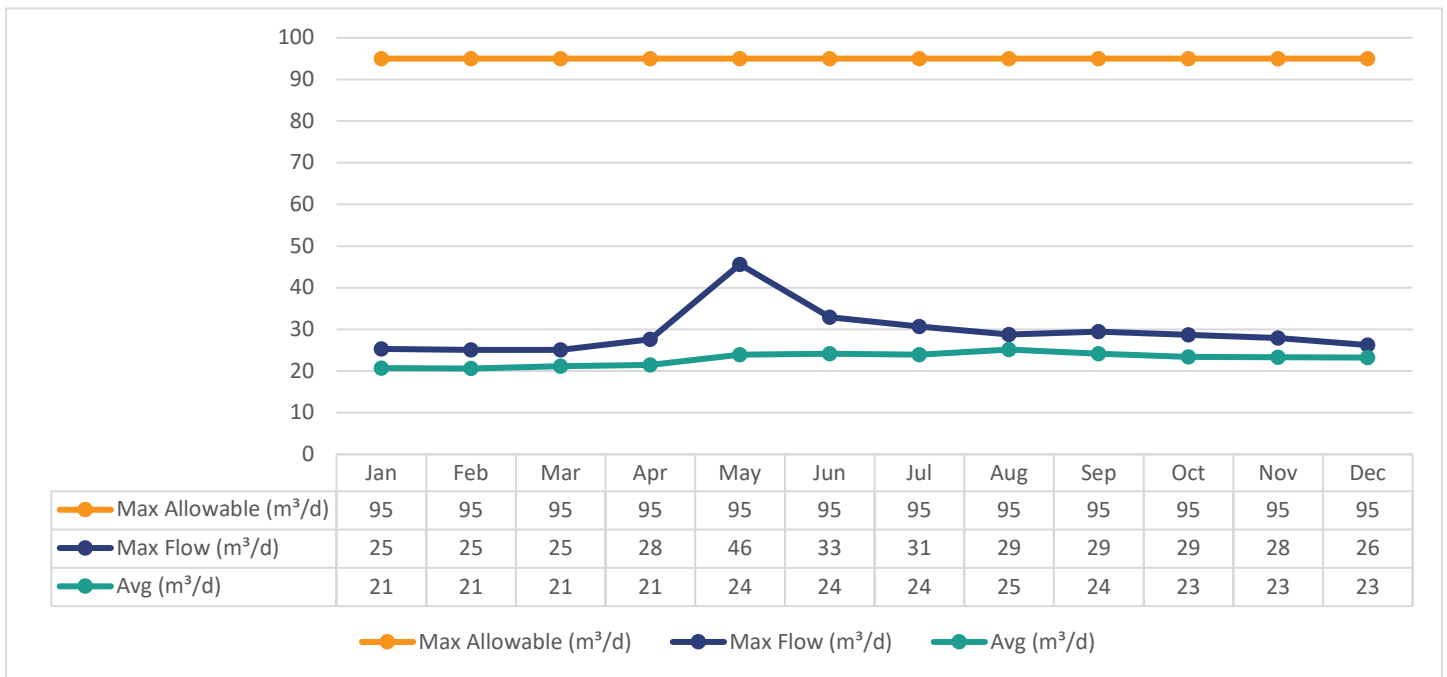
## Flows

The Janetville Drinking Water System is operating on average under half the rated capacity. The rated capacity of the system (treated water flows) is 449 m<sup>3</sup>/day.

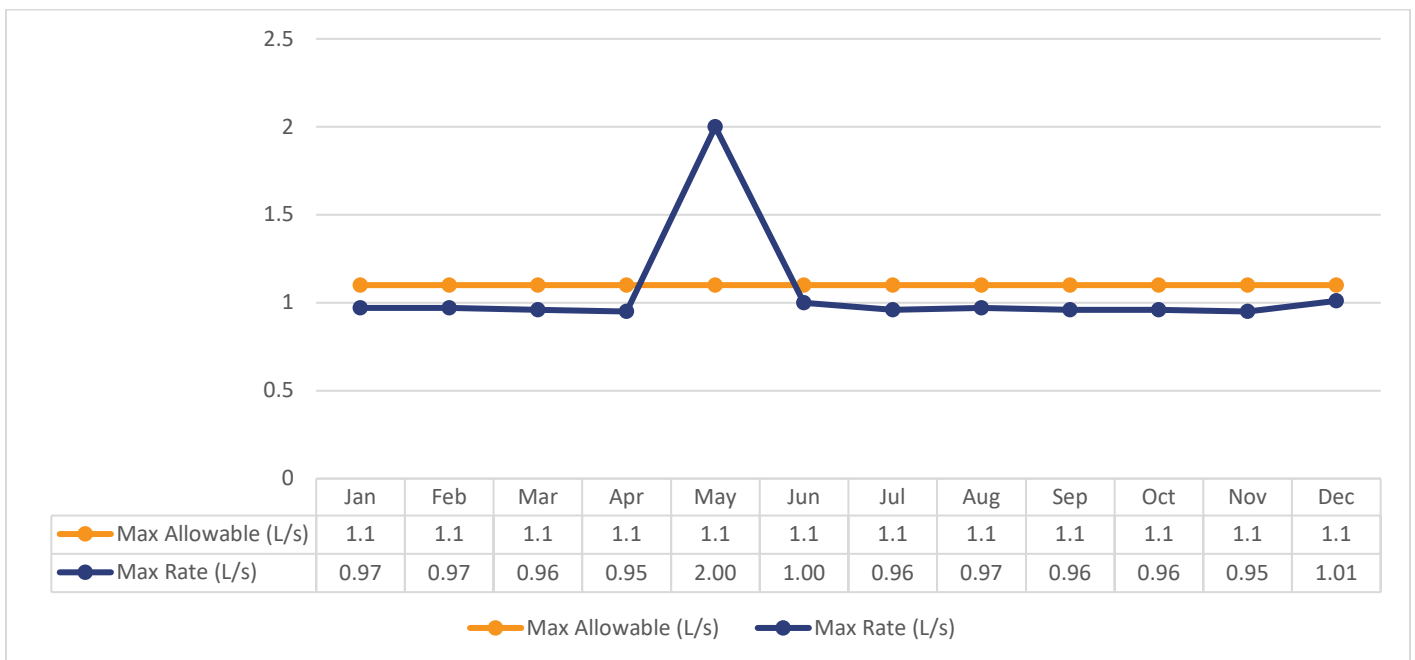
## Raw Water Flows

The raw water flows are regulated under the Permit to Take Water. Raw flow data for 2024 was submitted to the Ministry of Environment, Conservation and Parks (MECP) electronically under permit #5583-AQFKVW. 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 #3 (Max Allowable PTTW)**

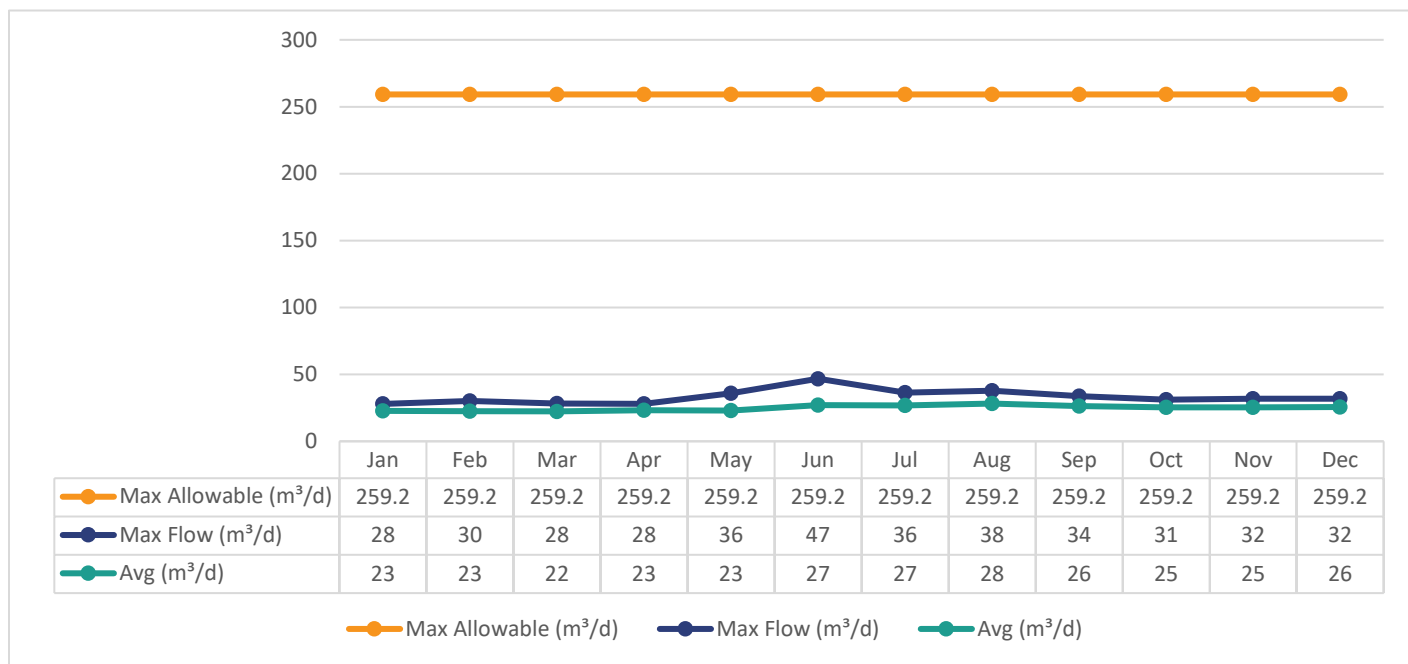


**Graph 2. Monthly Rated Flows (L/s) – Well #3 (Max Allowable Rate PTTW)**

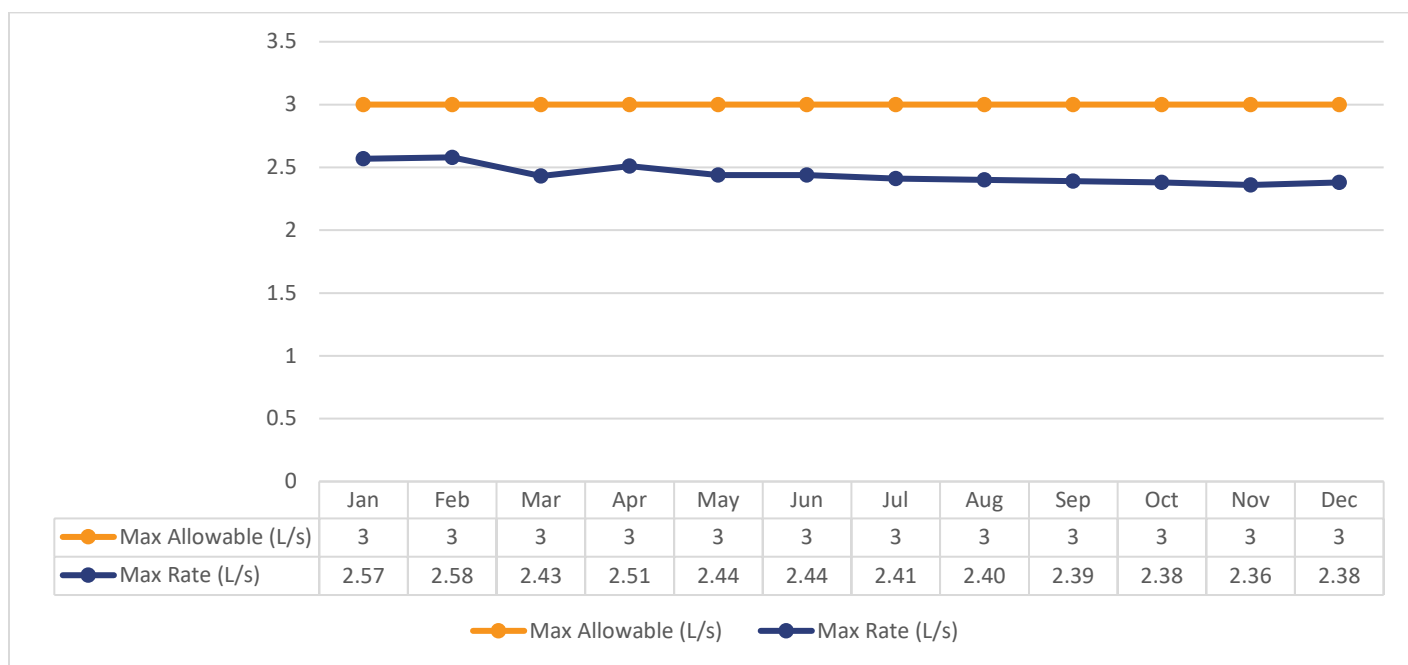


**Note:** Certain operational circumstances could cause results to be temporarily outside of the allowable rates. In May 2024, the allowable rate was momentarily surpassed as a result of annual calibration of the flow meter and did not indicate a true exceedance. All spikes are reviewed for compliance with O. Reg. 170/03, any true exceedance would be documented within the report.

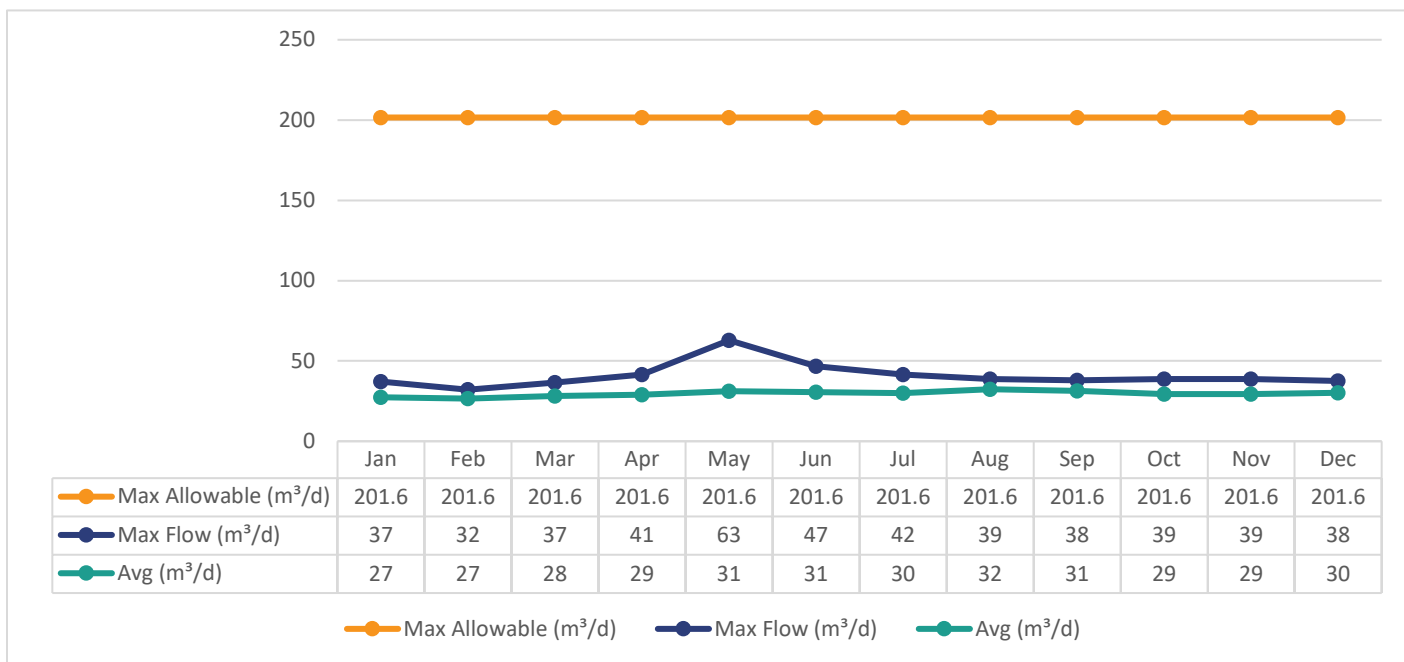
**Graph 3. Total Monthly Flows (m³/d) – Well #4 (Max Allowable PTTW)**



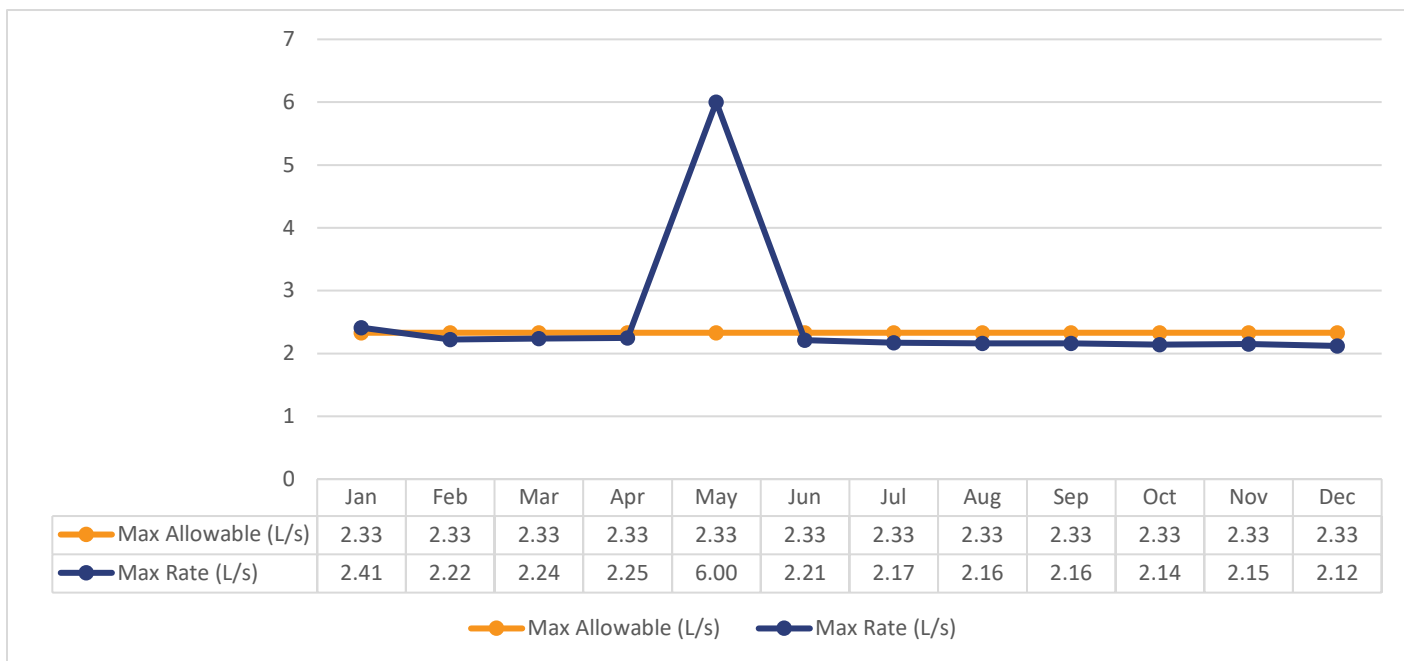
**Graph 4. Monthly Rated Flows (L/s) – Well #4 (Max Allowable Rate)**



**Graph 5. Total Monthly Flows (m<sup>3</sup>/d) – Well #5 (Max Allowable PTTW)**



**Graph 6. Monthly Rated Flows (L/s) – Well #5 (Max Allowable Rate)**



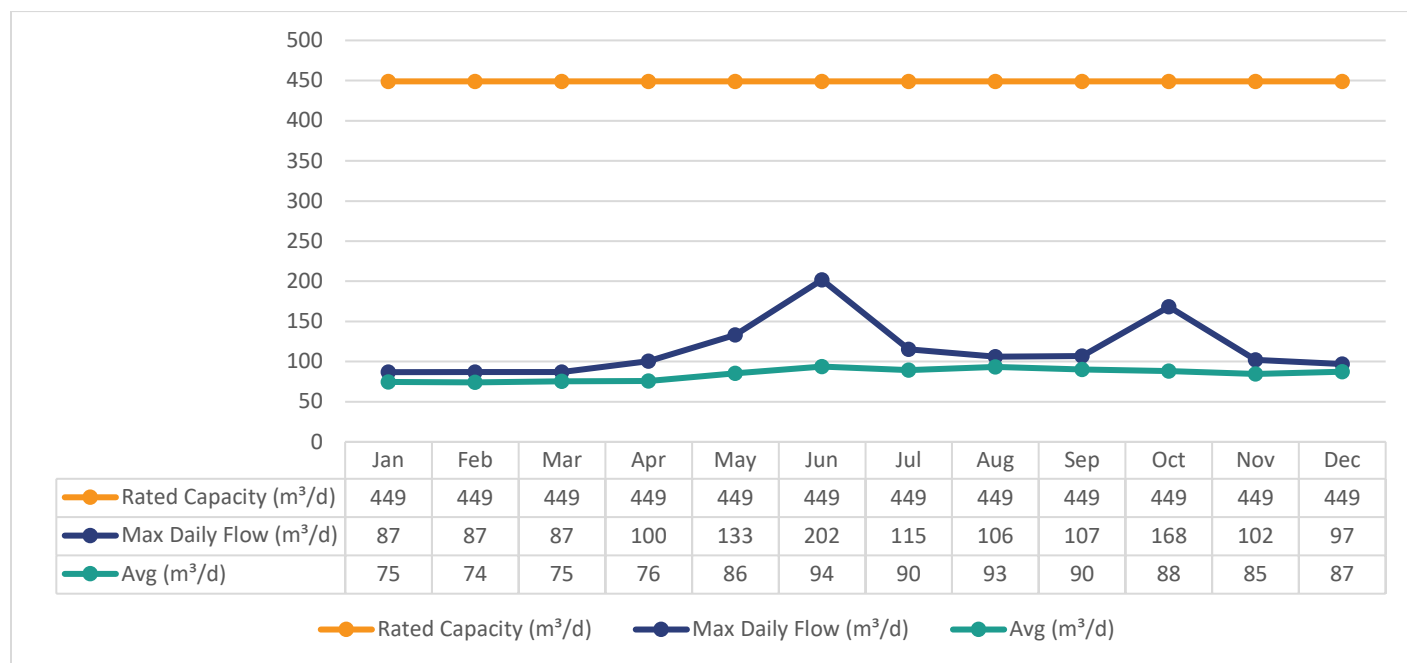
**Note:** Certain operational circumstances could cause results to be temporarily outside of the allowable rates. In May 2024, the allowable rate was momentarily surpassed as a result of annual calibration of the flow meter and did not indicate a true exceedance. All spikes are reviewed for compliance with O. Reg. 170/03, any true exceedance would be documented within the report.



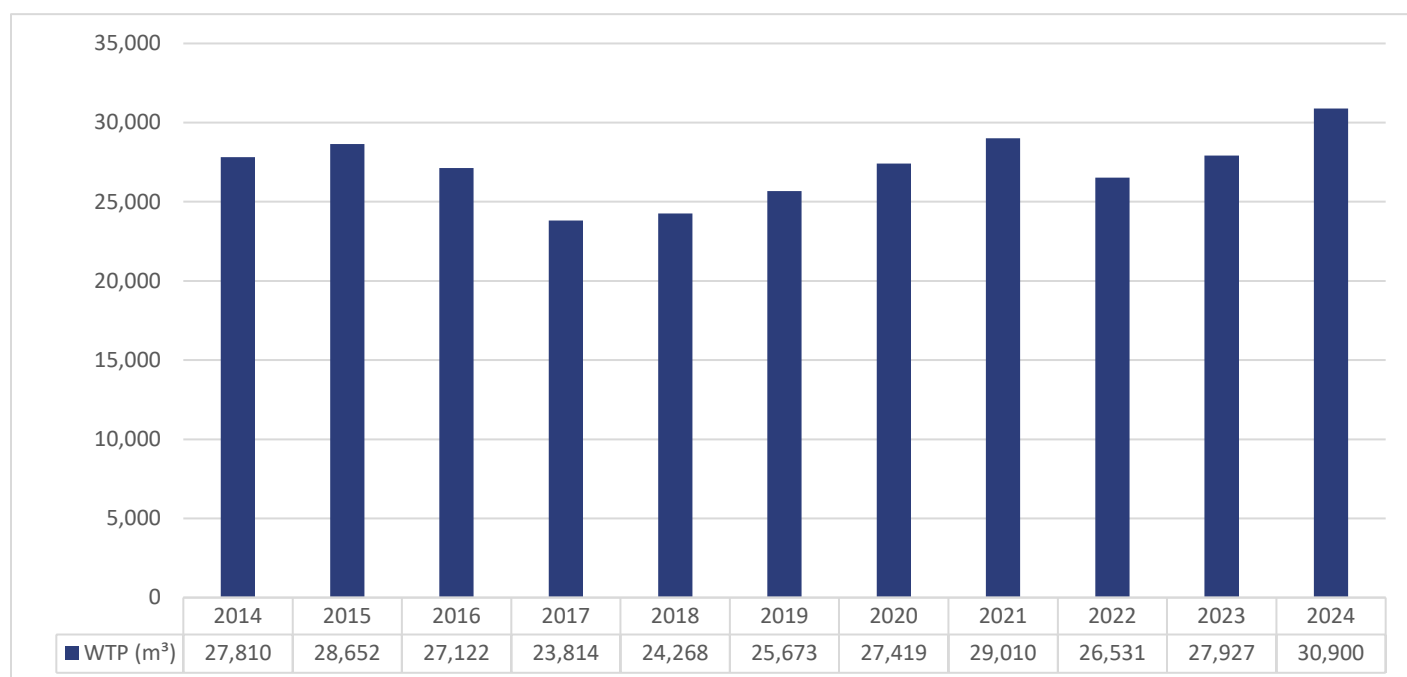
## Treated Water Flows

The Treated Water flows are regulated under the Municipal Drinking Water Licence 141-111.

### Graph 7. Monthly Rated Flows (m<sup>3</sup>/d) – Rated Capacity - MDWL



### Graph 8. Annual Total Flow Comparison (m<sup>3</sup>)



# Regulatory Sample Results Summary

## Microbiological Testing

**Table 4. Microbiological Test Results**

	No. 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
<b>Raw Well 3</b>	54	0	0	0	10	N/A	N/A
<b>Raw Well 4</b>	56	0	0	0	1	N/A	N/A
<b>Raw Well 5</b>	54	0	0	0	0	N/A	N/A
<b>Treated</b>	54	0	0	0	1	0	4
<b>Distribution</b>	161	0	0	0	0	0	4

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
<b>Turbidity Well 3 (NTU)</b>	12	0.38	0.85
<b>Turbidity Well 4 (NTU)</b>	12	0.38	1.88
<b>Turbidity Well 5 (NTU)</b>	12	0.24	0.90
<b>Turbidity – TW (NTU)</b>	8760	0	2
<b>Chlorine</b>	8760	0.93	2.86
<b>Fluoride</b> (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 three 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
<b>Treated Water</b>					
Antimony	2023 01 03	<MDL 0.6	µg/L	6.0	No
Arsenic	2023 01 03	<MDL 0.2	µg/L	10.0	No
Barium	2023 01 03	66.7	µg/L	1000.0	No
Boron	2023 01 03	10.0	µg/L	5000.0	No
Cadmium	2023 01 03	<MDL 0.003	µg/L	5.0	No
Chromium	2023 01 03	0.43	µg/L	50.0	No
Mercury	2023 01 03	<MDL 0.01	µg/L	1.0	No
Selenium	2023 01 03	0.1	µg/L	50.0	No
Uranium	2023 01 03	1.38	µg/L	20.0	No
<b>Additional Organics</b>					
Fluoride	2023 01 03	0.17	mg/L	1.5	No
Nitrite	2024 01 02	<MDL 0.003	mg/L	1.0	No
Nitrite	2024 04 08	<MDL 0.003	mg/L	1.0	No
Nitrite	2024 07 02	<MDL 0.003	mg/L	1.0	No
Nitrite	2024 10 07	<MDL 0.003	mg/L	1.0	No
Nitrate	2024 01 02	0.029	mg/L	10.0	No
Nitrate	2024 04 08	0.028	mg/L	10.0	No
Nitrate	2024 07 02	0.015	mg/L	10.0	No
Nitrate	2024 10 07	0.017	mg/L	10.0	No
Sodium	2023 01 03	8.31	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	224	224	N/A	N/A
pH	1	2	7.87	7.87	N/A	N/A
Lead (µg/L)	N/A	N/A	N/A	N/A	10.0	

## 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
<b>Treated Water</b>					
Alachlor	2023 01 03	<MDL 0.02	µg/L	5.0	No
Atrazine + N-dealkylated metabolites	2023 01 03	<MDL 0.01	µg/L	5.0	No
Azinphos-methyl	2023 01 03	<MDL 0.05	µg/L	20.0	No
Benzene	2023 01 03	<MDL 0.32	µg/L	1.0	No
Benzo(a)pyrene	2023 01 03	<MDL 0.004	µg/L	0.01	No
Bromoxynil	2023 01 03	<MDL 0.33	µg/L	5.0	No
Carbaryl	2023 01 03	<MDL 0.05	µg/L	90.0	No
Carbofuran	2023 01 03	<MDL 0.01	µg/L	90.0	No
Carbon Tetrachloride	2023 01 03	<MDL 0.17	µg/L	2.0	No

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Chlorpyrifos	2023 01 03	<MDL 0.02	µg/L	90.0	No
Diazinon	2023 01 03	<MDL0.02	µg/L	20.0	No
Dicamba	2023 01 03	<MDL 0.2	µg/L	120.0	No
1,2-Dichlorobenzene	2023 01 03	<MDL 0.41	µg/L	200.0	No
1,4-Dichlorobenzene	2023 01 03	<MDL 0.36	µg/L	5.0	No
1,2-Dichloroethane	2023 01 03	<MDL 0.35	µg/L	5.0	No
1,1-Dichloroethylene	2023 01 03	<MDL 0.33	µg/L	14.0	No
Dichloromethane (Methylene Chloride)	2023 01 03	<MDL0.35	µg/L	50.0	No
2,4-Dichlorophenol	2023 01 03	<MDL 0.15	µg/L	900.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2023 01 03	<MDL 0.19	µg/L	100.0	No
Diclofop-methyl	2023 01 03	<MDL 0.4	µg/L	9.0	No
Dimethoate	2023 01 03	<MDL 0.06	µg/L	20.0	No
Diquat	2023 01 03	<MDL 1.0	µg/L	70.0	No
Diuron	2023 01 03	<MDL 0.03	µg/L	150.0	No
Glyphosate	2023 01 03	<MDL 1.0	µg/L	280.0	No
Malathion	2023 01 03	<MDL 0.02	µg/L	190.0	No
2-Methyl- 4chlorophenoxyacetic Acid (MCPA)	2023 01 03	<MDL 0.12	µg/L	100.0	No
Metolachlor	2023 01 03	<MDL 0.01	µg/L	50.0	No
Metribuzin	2023 01 03	<MDL 0.02	µg/L	80.0	No
Monochlorobenzene (Chlorobenzene)	2023 01 03	<MDL 0.3	µg/L	80.0	No
Paraquat	2023 01 03	<MDL 1.0	µg/L	10.0	No
PCB	2023 01 03	<MDL 0.04	µg/L	3.0	No
Pentachlorophenol	2023 01 03	<MDL 0.15	µg/L	60.0	No
Phorate	2023 01 03	<MDL 0.01	µg/L	2.0	No
Picloram	2023 01 03	<MDL 1.0	µg/L	190.0	No
Prometryne	2023 01 03	<MDL 0.03	µg/L	1.0	No
Simazine	2023 01 03	<MDL 0.01	µg/L	10.0	No
Terbufos	2023 01 03	<MDL 0.01	µg/L	1.0	No
Tetrachloroethylene	2023 01 03	<MDL 0.35	µg/L	10.0	No
2,3,4,6- Tetrachlorophenol	2023 01 03	<MDL 0.2	µg/L	100.0	No
Triallate	2023 01 03	<MDL 0.01	µg/L	230.0	No
Trichloroethylene	2023 01 03	<MDL 0.44	µg/L	5.0	No
2,4,6-Trichlorophenol	2023 01 03	<MDL0.25	µg/L	5.0	No
Trifluralin	2023 01 03	<MDL 0.02	µg/L	45.0	No
Vinyl Chloride	2023 01 03	<MDL 0.17	µg/L	1.0	No
<b>Distribution Water</b>					

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Trihalomethane Total Annual Average Q1	2024 01 02	22.5	µg/L	100.0	No
Trihalomethane Total Annual Average Q2	2024 04 08	22.25	µg/L	100.0	No
Trihalomethane Total Annual Average Q3	2024 07 02	22.75	µg/L	100.0	No
Trihalomethane Total Annual Average Q4	2024 10 07	24.5	µg/L	100.0	No
HAA Total Annual Average Q1	2024 01 02	5.4	µg/L	80.0	No
HAA Total Annual Average Q2	2024 04 08	5.4	µg/L	80.0	No
HAA Total Annual Average Q3	2024 07 02	5.4	µg/L	80.0	No
HAA Total Annual Average Q4	2024 10 07	7.38	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.

### Minor Maintenance

- Generator gate/sound fence repair
- Well #4 air line/back feeding repair



### 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



Ministry of the Environment,  
Conservation and Parks

| [WT DATA](#) | [USER PROFILE](#) | [CONTACT US](#) | [HELP](#) | [HOME](#) | [LOGOUT](#) |

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

**Water Taking Data submitted successfully.**

**Confirmation:**

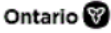
Thank you for submitting your water taking data online.

Permit Number: 5583-AQFKVW  
Permit Holder: THE CORPORATION OF THE CITY OF KAWARTHA LAKES.  
Received on: Feb 12, 2025 11:54 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 | 2025/02/12  
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