THE CORPORATION OF THE TOWN OF

GANANOQUE

Canadian Gateway to the 1000 Islands

2025 Annual Water Quality Report

Manager of Public Works, David Armstrong
Utilities Compliance Coordinator, Christine Brennan

January 27, 2026

EXECUTIVE SUMMARY

The Corporation of the Town of Gananoque's Public Utilities Division is pleased to provide the 2025 Annual Drinking Water Quality Report. The purpose of this report is to keep the public and Council informed regarding the quality of the Town's drinking water and the performance and maintenance of the water treatment and distribution system.

The Town of Gananoque is dedicated to delivering a safe and reliable drinking water supply while remaining compliant with all regulatory requirements. Achievement of those commitments is supported by a risk-based process evaluation, staff competency, effective communication, and appropriate contingency/incident response measures. The managers and employees of the Town of Gananoque who are directly involved in the production and delivery of safe drinking water are committed to and share the responsibilities for implementing, maintaining, and contributing to the continual improvement of the drinking water system. The water delivered to the consumers in the Town of Gananoque continues to meet all drinking water quality regulatory standards.

This Annual Drinking Water Quality Report is prepared in accordance with the Municipal Drinking Water Licence, Drinking Water Works Permit and the Ontario Regulation 170/03, Section 11 and Schedule 22. Included with this report is the analytical data, flows, adverse water quality incidents and corrective action resolutions, as well as a process flow schematic of the facility.

David Armstrong
Manager of Public Works

Christine Brennan
Utilities Compliance Coordinator

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LIST OF ACRONYMS & DEFINITIONS

AWQI	Adverse Water Quality Incidents Examples of adverse water results: ▪ An analytical result that exceeds a health-based water quality standard ▪ Any evidence that disinfection may not have been effective ▪ Low chlorine residuals
C of A	Certificate of Approval
CFU	Colony Forming Units
CGSB	Canadian General Standards Board
DWQMS	Drinking Water Quality Management Standard
GUDI	Groundwater Under the Direct Influence of Surface Water
L/s	litres per second
m^3/d	cubic meters per day
mg/L	milligrams per litre
mL	milliliter
ML/d	Mega (million) litres per day
MECP	Ministry of the Environment, Conservation and Parks (Ontario)
MOH	Medical Officer of Health
PVC	Poly Vinyl Chloride
O. Reg.	Ontario Regulation
PTTW	Permit to Take Water
R.R.O.	Revised Regulations Ontario (1990)
SCADA	Supervisory Control and Data Acquisition
SDWA	Safe Drinking Water Act, 2002
WTP	Water Treatment Plant

1. Introduction

This 2025 Annual Water Quality Report represents the period from January 1st to December 31st, 2025 and includes reporting for both the municipal water treatment plant and distribution system. The Town of Gananoque is the Owner and Operating Authority of the James W. King Drinking Water System.

This report contains three different reports required for the James W. King Drinking Water System:

- ✓ Annual Report, as per Section 11 of O. Reg. 170/03.
- ✓ Summary Report as per Schedule 22 of O. Reg. 170/03.
- ✓ Summary of the raw water values submitted to the Ministry of the Environment, Conservation and Parks under O. Reg. 387/04.

The 2025 Annual Water Quality Report is available to the public at no charge at the following locations:

- ✓ Town of Gananoque's website - https://www.gananoque.ca/
- ✓ Town Hall – 30 King Street East Gananoque

2. Legislated Requirements

2.1 Drinking-Water Systems Regulation (O. Reg. 170/03)

Under Schedule 22 of the Drinking Water Systems Regulation (O. Reg. 170/03), summary reports for municipalities, annual reports to the Owners of large municipal residential systems and small municipal systems are required. The Summary Report must be submitted no later than March 31st of each year to the members of Council. The contents must list the requirements of the *Safe Drinking Water Act, 2002*, the regulations, the system's approval and any order that the system failed to meet at any time during the reporting period covered, specifically the duration of the failure, and the measures taken to correct the failure.

In addition, the report must include a summary of the quantities and flow rates of the water supplied during the period covered by the report. This includes monthly averages, maximum daily flows and daily instantaneous peak flows. The summary must be compared to the rated capacity and flows provided in the system's Municipal Drinking Water Licence.

2.2 Summary of Regulatory Requirements

Regulated systems must meet the requirements of Ontario's *Safe Drinking Water Act, 2002*. Most notably, the Drinking Water Systems Regulation provides the treatment and testing requirements for all categories of regulated water systems, including small non-municipal and seasonal operations.

In the Part Two Report of the Walkerton Inquiry, Justice O'Connor recommended that the Ontario government enact the *Safe Drinking Water Act, 2002* to regulate matters related to the treatment and distribution of drinking water. As articulated by Justice O'Connor, the purpose of the *Safe Drinking Water Act, 2002* is to gather all legislation and regulations relating to the treatment and distribution of drinking water in one document.

Table 1: Summary of Provincial Water Legislation

ACT	O. Reg.
WATER OPPORTUNITIES and WATER CONSERVATION ACT	
➢ Water Opportunities and Water Conservation Act, 2010	**Bill 72**

CLEAN WATER ACT, 2006	
➢ Source Protection Areas and Regions	O. Reg. 284/10
➢ Source Protection Committees	O. Reg. 288/10
➢ Terms of Reference	O. Reg. 287/07

SAFE DRINKING WATER ACT, 2002	
➢ Drinking Water Systems Regulation	O. Reg. 170/03
➢ Certification of Drinking-Water System Operators and Water Quality Analysts	O. Reg. 128/04
➢ Drinking Water Testing Services - relating to laboratory licensing	O. Reg. 248/03
➢ Schools, private schools and day nurseries	O. Reg. 243/07
➢ Compliance and Enforcement Regulation	O. Reg. 242/05
➢ Ontario Drinking Water Quality Standards	O. Reg. 169/03
➢ Definitions of Words and Expressions Used in the Act	O. Reg. 171/03
➢ Definition of Deficiency and Municipal Drinking Water System	O. Reg. 172/03
➢ Licensing of Municipal Drinking-Water Systems	O. Reg. 188/07
➢ Financial Plans	O. Reg. 453/07

ONTARIO WATER RESOURCES ACT	
➢ Licensing of Sewage Works Operators	O. Reg. 129/04
➢ Approval Exemption	O. Reg. 525/98
➢ Wells	R.R.O. 1990, Reg. 903
➢ Revoking Ontario Regulation 459/00	O. Reg. 175/03
➢ Revoking Ontario Regulation 505/01	O. Reg. 176/03
➢ Water Taking	O. Reg. 387/04
➢ Charges for Industrial and Commercial Water Users	O. Reg. 450/07

ENVIRONMENTAL PROTECTION ACT	
➢ Certificate of Approval Exemptions - Air	O. Reg. 524/98

ENVIRONMENTAL BILL OF RIGHTS ACT	
➢ Prescribing the Safe Drinking Water Act, 2002	O. Reg. 257/03

3. Annual Water Quality Summary for 2025

The Town of Gananoque's Public Utilities Division is responsible for the James W. King Drinking Water System under O. Reg. 170/03. The staff's primary responsibility is to ensure the treatment and distribution process of water is following all applicable legislation, the Municipal Drinking Water Licence and the Drinking Water Works Permit. Routine water quality testing and continuous monitoring of water quality and quantity is conducted to ensure compliance is maintained. All data from SCADA, process control point data, in-house laboratory results and external laboratory results are all captured in WaterTrax, a data management system.

3.1 Water Quality Data

Raw and treated water is sampled and tested for chemical, physical and microbiological parameters in accordance with the requirements of O. Reg. 170/03 and the individual municipal licences and permits. Sampling is also conducted in the distribution system primarily for bacteriological indicators and evidence of sustained chlorine residuals. Enhanced sampling programs are also defined by the Public Utilities Division, and testing procedures followed and where necessary submitted to external accredited laboratory for analysis. This level of water quality monitoring ensures public health and public confidence in the water supply.

The majority of the analysis is conducted by an external accredited laboratory, with some specialized analysis contracted to other accredited laboratories. In accordance with Schedule 16 of O. Reg. 170/03, all required notifications of adverse water quality incidents are provided to the Spills Action Centre and Medical Officer of Health.

Table 2: Operational Testing

The following table is a summary of the operational testing completed in 2025 (as per O. Reg. 170/03, Schedules 6 and 7).

PARAMETER TESTED:	# of Grab Samples	RANGE OF RESULTS:	
		Minimum	Maximum
Turbidity – Raw (NTU)	Continuous monitoring	0.00	0.09
Turbidity – Filter 1 (NTU)	Continuous monitoring	0.050	0.559
Turbidity – Filter 2 (NTU)	Continuous monitoring	0.020	0.820
Pre-Chlorination (mg/l)	Continuous monitoring	0.00	0.79
Post Chlorination (mg/l)	Continuous monitoring	1.49	3.63
Distribution Free Chlorine (mg/l)	524 Grab Samples	0.14	3.02
Distribution Total Chlorine (mg/l)	524 Grab Samples	0.30	3.45

Table 3: Microbiological Testing

Completed under Schedule 10 of O. Reg. 170/03 during 2025 reporting period.

Sample Description:	Number of Samples	Range of E. coli Or Fecal Results CFU/100ml		Range of Total Coliform Results CFU/100ml		Number of HPC Samples	Range of HPC Results CFU/ml	
		Min.	Max.	Min.	Max.		Min.	Max.
Raw	52	0	8	0	68	n/a	n/a	n/a
Treated	52	0	0	0	0	52	<10	50
Distribution	208	0	0	0	0	208	<10	450

Table 4: Schedule 23 Testing

Summary of Inorganic parameters tested during the 2025 reporting period.

Parameter	Sample Date	Result Value	Unit of Measure	Exceeded the Standard	Exceeded Half the Standard
Antimony	Jan. 14/25	<0.0001	mg/l	No	No
Arsenic	Jan. 14/25	<0.0001	mg/l	No	No
Barium	Jan. 14/25	0.021	mg/l	No	No
Boron	Jan. 14/25	0.020	mg/l	No	No
Cadmium	Jan. 14/25	<0.000015	mg/l	No	No
Chromium	Jan. 14/25	<0.0010	mg/l	No	No
Fluoride	Jan. 14/25	<0.1	mg/l	No	No
Lead	Jan. 14/25	<0.00002	mg/l	No	No
Mercury	Jan. 14/25	<0.00002	mg/l	No	No
Selenium	Jan. 14/25	<0.001	mg/l	No	No
Sodium	Jan. 14/25	14.8	mg/l	No	n/a
Uranium	Jan. 14/25	<0.00005	mg/l	No	No
Nitrite	Quarterly (Displaying Max)	<0.05	mg/l	No	No
Nitrate	Quarterly (Displaying Max)	0.35	mg/l	No	No

n/a – not applicable

Table 5: Schedule 24 Testing

Summary of Organic parameters sampled during the 2025 reporting.

Parameter	Sample Date	Result Value	Unit of Measure	Exceeded the Standard	Exceeded Half the Standard
Alachlor	Jan. 14/25	<0.3	ug/l	No	No
Atrazine + N-dealkylated metabolites	Jan. 14/25	<0.5	ug/l	No	No
Azinphos-methyl	Jan. 14/25	<1	ug/l	No	No
Benzene	Jan. 14/25	<0.5	ug/l	No	No
Benzo(a)pyrene	Jan. 14/25	<0.006	ug/l	No	No
Bromoxynil	Jan. 14/25	<0.5	ug/l	No	No
Carbaryl	Jan. 14/25	<3	ug/l	No	No
Carbofuran	Jan. 14/25	<1	ug/l	No	No
Carbon Tetrachloride	Jan. 14/25	<0.2	ug/l	No	No
Chlorpyrifos	Jan. 14/25	<0.5	ug/l	No	No
Diazinon	Jan. 14/25	<1	ug/l	No	No
Dicamba	Jan. 14/25	<1.0	ug/l	No	No
1,2-Dichlorobenzene	Jan. 14/25	<0.5	ug/l	No	No

1,4-Dichlorobenzene	Jan. 14/25	<0.5	ug/l	No	No
1,2-Dichloroethane	Jan. 14/25	<0.5	ug/l	No	No
1,1-Dichloroethylene	Jan. 14/25	<0.5	ug/l	No	No
Dichloromethane	Jan. 14/25	<5	ug/l	No	No
2-4 Dichlorophenol	Jan. 14/25	<0.2	ug/l	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan. 14/25	<1.0	ug/l	No	No
Diclofop-methyl	Jan. 14/25	<0.9	ug/l	No	No
Dimethoate	Jan. 14/25	<1	ug/l	No	No
Diquat	Jan. 14/25	<5	ug/l	No	No
Diuron	Jan. 14/25	<5	ug/l	No	No
Glyphosate	Jan. 14/25	<25	ug/l	No	No
Malathion	Jan. 14/25	<5	ug/l	No	No
2-Methyl-4-Chlorophenoxyacetic acid (MCPA)	Jan. 14/25	<10	ug/l	No	No
Metolachlor	Jan. 14/25	<3	ug/l	No	No
Metribuzin	Jan. 14/25	<3	ug/l	No	No
Paraquat	Jan. 14/25	<1	ug/l	No	No
Pentachlorophenol	Jan. 14/25	<0.2	ug/l	No	No
Phorate	Jan. 14/25	<0.3	ug/l	No	No
Picloram	Jan. 14/25	<5.0	ug/l	No	No
Polychlorinated Biphenyls (PCB)	Jan. 14/25	<0.1	ug/l	No	No
Prometryne	Jan. 14/25	<0.1	ug/l	No	No
Simazine	Jan. 14/25	<0.5	ug/l	No	No
THM (NOTE: shows latest annual average)	Quarterly (4 samples)	40.75	ug/l	No	No
HAA's (NOTE: shows latest annual average)	Quarterly (4 samples)	20.52	ug/l	No	No
Terbufos	Jan. 14/25	<0.5	ug/l	No	No
Tetrachloroethylene	Jan. 14/25	<0.5	ug/l	No	No
2,3,4,6-Tetrachlorophenol	Jan. 14/25	<0.5	ug/l	No	No
Triallate	Jan. 14/25	<10	ug/l	No	No
Trichloroethylene	Jan. 14/25	<0.5	ug/l	No	No
2,4,6-Trichlorophenol	Jan. 14/25	<0.2	ug/l	No	No
Trifluralin	Jan. 14/25	<0.5	ug/l	No	No
Vinyl Chloride	Jan. 14/25	<0.2	ug/l	No	No

Table 6: Winter Lead Sampling

Sampling Period – Winter (December 15th 2024 to April 15th 2025)	Residential	Non-Residential	Distribution
Number of individual samples	6	2	1
Number of sample points (locations)	3	1	1
Number of individual sample exceedances	0	0	0
Number of sample points with an exceedance during the period	0	0	0
Percentage of sample points with an exceedance	0%	0%	0%
Is the system required to have a Corrosion Control Plan prepared?	No (Requires a Lead Replacement Plan)		
Do the reduced sampling & frequency requirements apply to the system?	No		
Do the plumbing sample exemptions apply to the system?	No		

Table 7: Summer Lead Sampling

Sampling Period - Summer (June 15th 2025 October 15th 2025)	Residential	Non-Residential	Distribution
Number of individual samples	6	2	1
Number of sample points (locations)	3	1	1
Number of individual sample exceedances	0	0	0
Number of sample points with an exceedance during the period	0	0	0
Percentage of sample points with an exceedance	0%	0%	0%
Is the system required to have a Corrosion Control Plan prepared?	No (Requires a Lead Replacement Plan)		
Do the reduced sampling & frequency requirements apply to the system?	No		
Do the plumbing sample exemptions apply to the system?	No		

See **Appendix A** for the 2025 Lead Evaluation Report.

4. Gananoque Drinking Water System

4.1 Water System Description

The Town of Gananoque's Water Treatment Plant is a Class II direct filtration facility located at 110 Kate Street, on the St. Lawrence River and serves a population of 5,500.

The treatment process has a design maximum flow rate of 10.22 ML/d and is composed of a number of sub-units:

- Low lift pumping
- Coagulation and flocculation using aluminum sulfate
- Pre/post-filter disinfection with chlorine gas
- Two multi-media granular activated carbon filters
- High lift pumping

Table 8: Water Treatment Plant Identification

Drinking-Water System Number:	220001254
Drinking-Water System Name:	Gananoque Drinking Water System
Drinking-Water System Owner:	Town of Gananoque
Accredited Operating Authority:	Town of Gananoque
Municipal Drinking Water Licence:	156-101
Drinking Water Works Permit:	156-201
Permit to Take Water:	85-P-4065
Drinking-Water System Category:	Large Municipal
Design Capacity:	10.2 ML/D
Treatment:	Direct Filtration Class II
Local Distribution:	Class II
Source Water:	St Lawrence River
Population Served:	5,500

4.1.1 Treatment Chemicals Used

All chemicals used in the operation of the drinking water system meet comply with the applicable standards set by both the American Water Works Association ("AWWA") and the American National Standards Institute ("ANSI") safety criteria standards NSF/60 and NSF/61.

Chemical	Application	Supplier
Chlorine Gas	Pre, Post Filter (Primary Disinfection)	Brenntag Canada
Aluminum Sulfate	Pre-Filter (Coagulant)	Kemira Water Solutions

4.1.2 Water Distribution System

The Town of Gananoque's Class II Distribution System consists of underground pipes ranging in size from 100 mm in diameter to 400 mm diameter and are made of a variety of materials including, cast iron, ductile iron, poly vinyl chloride, concrete, steel, HDPE and asbestos cement. In addition, there are over 2,810 service connections, 238 fire hydrants and 350 valves. The system also consists of an elevated treated water storage tower.

- Elevated Storage Tank (Water Tower)
  1,327 m^3 overhead storage tank located on Charles Street North. It is a single cell, steel, non-baffled treated water storage tank.

4.2 2025 Flow Summary

In 2025 the maximum or peak daily raw water flow was 200 L/s which occurred on December 23rd, 2025. This is below the permitted maximum amount of 233 L/s as indicated in the table below. In addition, the maximum average daily raw water flow to the WTP was 3,072 m3/day on June 12th, 2025, also below the maximum approved limit on the permit to take water which is 10,220 m3/day.

Table 9: Maximum Permitted Water Taking

Condition:	Maximum Permitted Water Taking
Maximum Amount of Water Taken per Minute	233 (L/sec)
Maximum Amount of Water Taken per Day	10,220 (m3/d)

The summary of the volume of water taken and the flows of the water supplied during the 2025 calendar year is provided in **Appendix B**.

4.3 Adverse Water Quality Incidents

In accordance with Schedule 16 of O. Reg. 170/03, all required notifications of adverse water quality incidents (AWQI's) are reported to the Medical Officer of Health (MOH) and the Spills Action Centre (SAC). There were no AWQI's which occurred in 2025.

4.4 Operator Certification

The *Certification of Drinking-Water System Operators and Water Quality Analysts* (O. Reg. 128/04) requires Owners to ensure that every Operator employed in the facility holds a licence applicable to that type of facility. All Operators in the Public Utilities Division hold the required certifications for water treatment and water distribution.

4.5 Capital Projects

The *2025 Capital Project Highlights* can be found in **Appendix C** of this report. All works are subject to the annual budget process and approval by Council. A 10-year capital replacement plan has been developed which includes an extensive breakdown of all capital equipment that requires allocated funds for refurbishment or replacement.

5. Conclusion

The Corporation of the Town of Gananoque serves approximately 5,500 residents. One of the Town's most important responsibilities is to protect the public health by providing its residents with clean, safe drinking water. Routine water quality testing and continuous monitoring of the water quality and quantity is completed by the Public Utilities Division at the Water Treatment Plant and throughout the distribution system. This demonstrates that the Town consistently meets the required standards set by the MECP.

In Ontario, water taking, treatment and distribution are governed by a number of Acts and Regulations. This report fulfills the reporting requirements of the Drinking Water System Regulation (O. Reg. 170/03) made under the *Safe Drinking Water Act, 2002* for the municipal drinking water system, and covers the period from January 1st to December 31st 2025. As required under this same regulation, the report is prepared prior to March 31st and is filed for review and approved by Council.

The contents of this report highlight the requirements of the Safe Drinking Water Act's regulations, and the systems' approval including any reportable events and the corresponding corrective actions undertaken in 2025. In addition, the report also includes a summary of the quantities and flow rates of the water supplied during the calendar year, including monthly averages, maximum daily flows, and daily instantaneous peak flow rates. The summaries are compared to the rated capacity and flow rates in the system approvals.

The Corporation of the Town of Gananoque has taken all necessary steps to comply with all regulatory requirements in the production and distribution of safe drinking water and to conform to the requirements of implementing and maintaining a Drinking Water Quality Management System.

6. Key Contacts

David Armstrong
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Email: pwmanager@gananoque.ca

Matthew Hoult
Utilities Superintendent
Phone: 613-382-2149 ext. 1118
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Christine Brennan
Utilities Compliance Coordinator
Phone: 613-382-2149 ext. 1612
Email: utilitycompliance@gananoque.ca

Appendix A

November 11, 2025

Mr. Aziz Ahmed, P.Eng.
Municipal Water and Wastewater Permissions,
Environmental Permissions Branch,
Ministry of the Environment, Conservation and Parks,
40 St. Clair Avenue West,
Toronto, Ontario, M4V 1M2.

Dear Mr. Ahmed:

RE: 2025 Lead Evaluation Report

This Evaluation Report is in response to the requirements under Schedule D: Lead Regulatory Relief, Section 1.4 of the Municipal Drinking Water License (156-101 Issue 6) effective May 21st, 2024. This report covers both of the lead sampling periods from December 15th, 2024 to April 15th, 2025 and June 15th, 2025 to October 15th, 2025.

Interest Free Loan

In May 2017, Council approved a *Lead Water Service Line Replacement Interest Free Loan Program* to assist residents with the replacement of lead service pipes on their property. Communication to all customers is provided on the water bill, directing homeowners to the information on the Town's website.

Lead Service Replacement

In preparation for reconstruction projects, residents within the area of reconstruction are provided with the *Lead Water Service Line Replacement Interest Free Loan Program* documentation. The homeowners are able to apply to have the contractors completing the reconstruction project replace the private side of their lead service line, while the Town replaces the municipal side.

The 10-year capital plan includes the reconstruction of Arthur Street, Wellington Street, Tanner Street, Dempster Drive, North Street, Birch Street and Sydenham Street. All municipal lead services will also be replaced when encountered.

The Town will continue to implement a Lead Service Replacement Program:

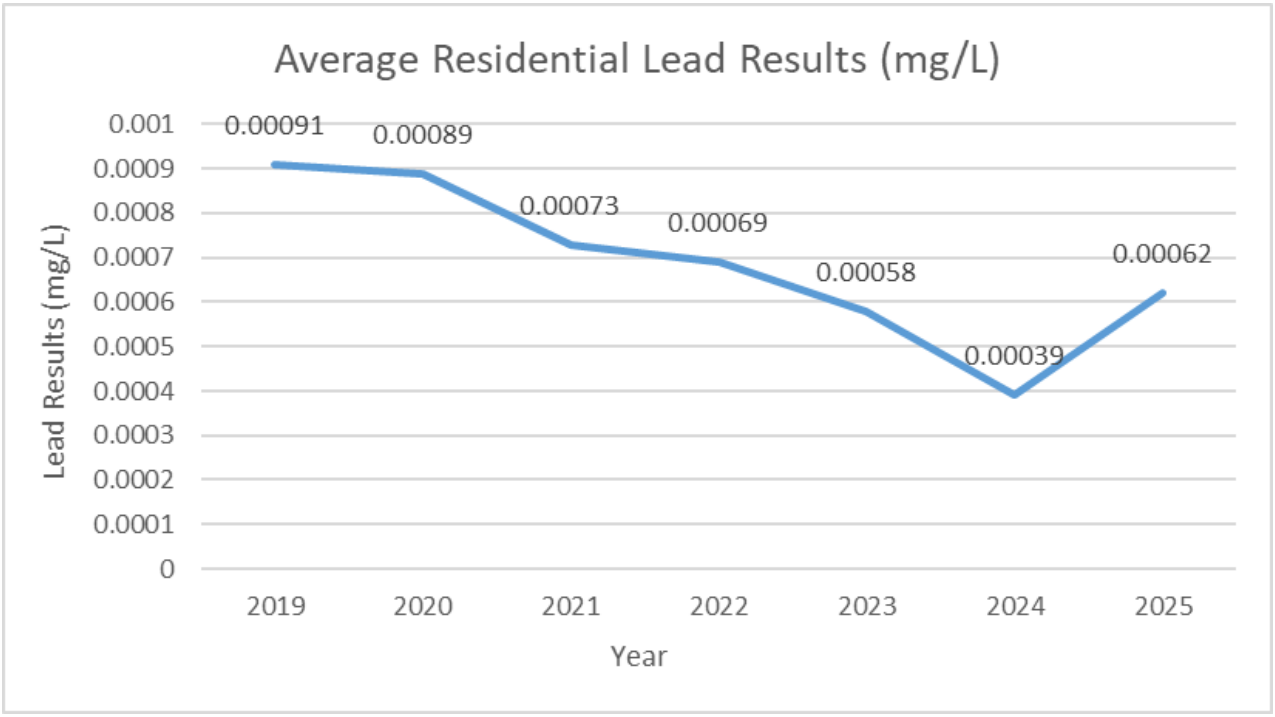
- ✓ During full reconstruction projects, lead services have been and will continue to be removed on the municipal side.
- ✓ The 10-year capital plan will include $25,000 for lead service replacements.
- ✓ Lead service identification will continue through the lead sampling program.

Sample Locations and Results

The below results will also be displayed in the 2025 Annual Report.

December 15 2024 to April 15 2025					
Date	Sample Location	Address	Distribution / Non Residential / Residential	Sample 1 Results	Sample 2 Results
2025-01-31	Kitchen Tap	176 Wellington Street	Residential	0.00058	0.00067
2025-04-04	Kitchen Tap	160 Victoria Avenue	Residential	0.00055	0.00057
2025-04-08	Kitchen Tap	385 Elizabeth Drive	Residential	0.00366	0.00051
2025-03-18	Stone Street Pumping Station	420 Stone Street North	Non-Residential	0.00034	0.00007
2025-03-18	Fire Hydrant #152	257 First Street	Distribution	0.00242	Alkalinity - 91

June 15 2025 to October 15 2025					
Date	Sample Location	Address	Distribution / Non-Residential	Sample 1 Results	Sample 2 Results
2025-07-08	Kitchen Tap	176 Wellington Street	Residential	0.00044	0.00043
2025-07-11	Kitchen Tap	160 Georgiana Street	Residential	0.00023	0.00012
2025-09-22	Kitchen Tap	31-545 Emma Street	Residential	0.00005	0.00004
2025-10-01	Stone Street Pumping Station	420 Stone Street North	Non-Residential	0.00005	0.00002
2025-10-01	Fire Hydrant #318	463 Stone Street North	Distribution	0.00042	Alkalinity - 94



Lead Exceedances

There were no lead exceedances within the spring and fall sampling periods in 2025.

Summary

The Town of Gananoque will continue to focus on known lead service locations and will replace the municipal lead services when encountered during reconstruction projects. Municipal lead service line replacements will also occur when the homeowners replace their private service outside of reconstruction projects.

Sincerely,

Christine Brennan

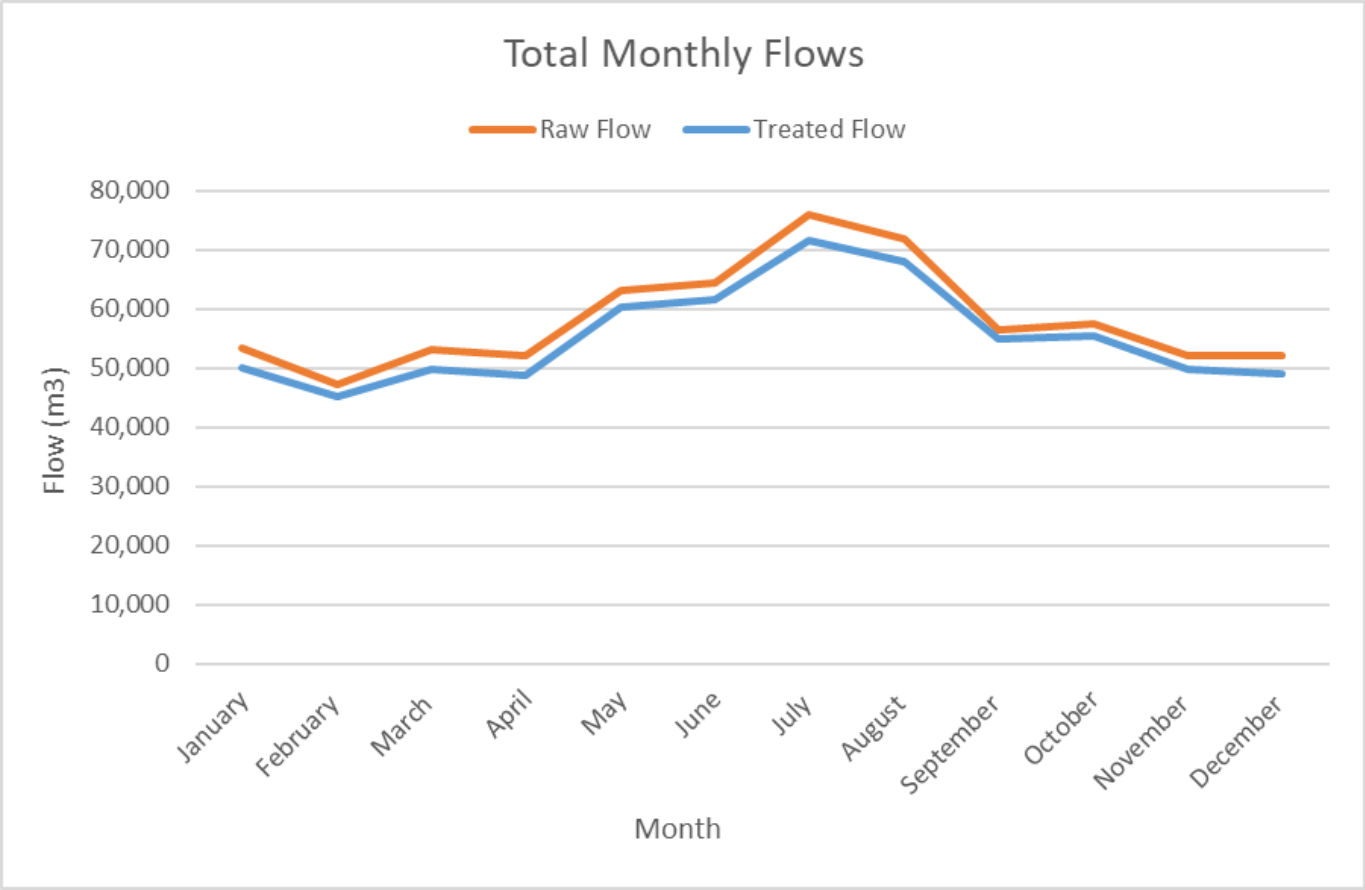
Christine Brennan,
Utilities Compliance Coordinator
(613) 382-2149 Ext 1612

Appendix B

2025 Flow Report

The below charts are the summaries of the raw and treated water flows during the 2025 calendar year.

1. 2025 Total Monthly Raw and Treated Water Flows

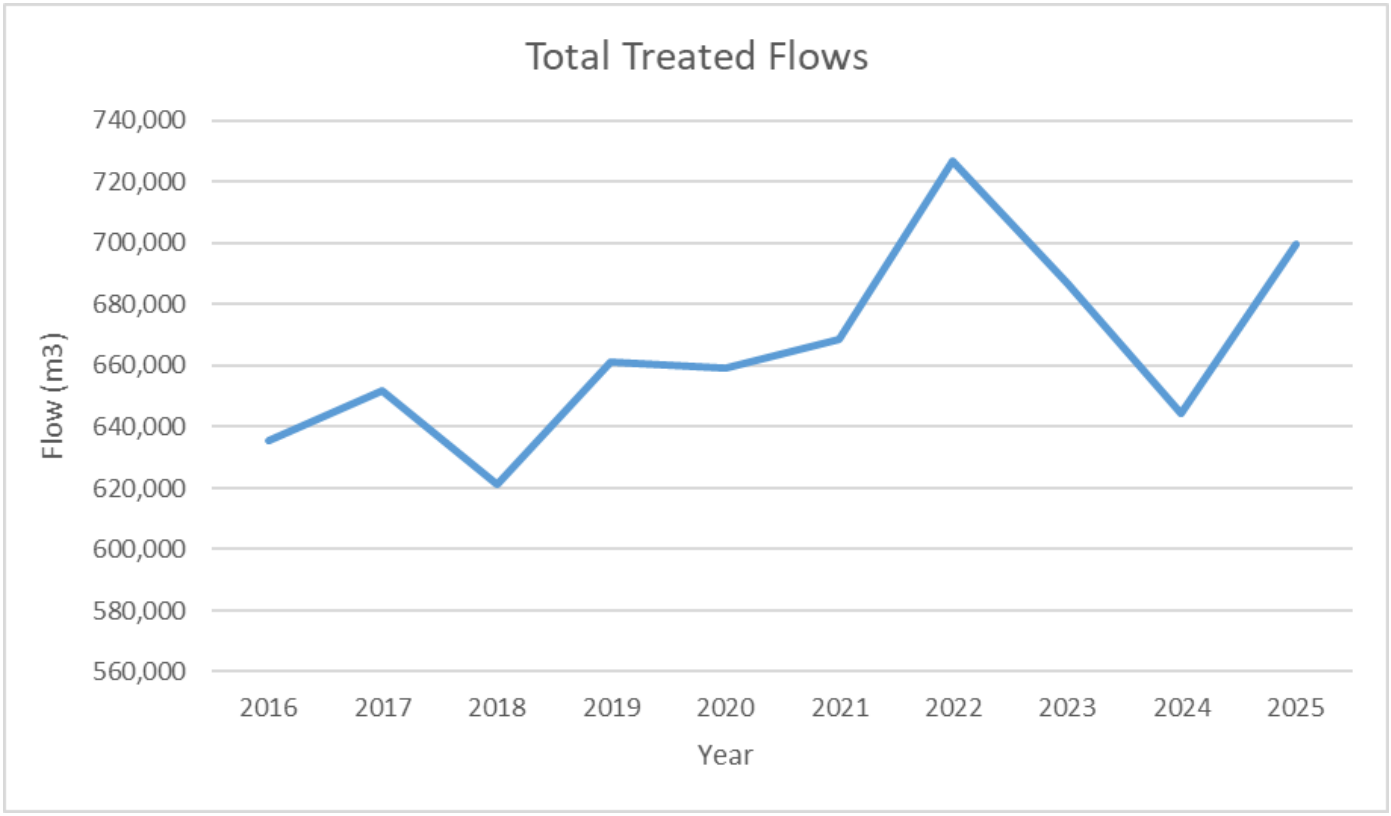


2. 2025 Flow Summaries

Month	Raw Flow Rated Capacity 10,220 (m3/day), 233 (l/sec)				Treated Flow Rated Capacity 10,220 (m3/day)			
	Ave m3/d	Max m3/d	Max l/s	Total	Ave m3/d	Max m3/d	Max l/s	Total
January	1,723	2,306	146	53,425	1,618	2,036	158	50,150
February	1,691	2,409	143	47,344	1,611	2,102	81	45,110
March	1,715	2,208	146	53,170	1,604	2,261	81	49,734
April	1,735	2,046	145	52,048	1625	2066	94	48752
May	2,037	2,731	165	63,162	1,942	2,586	172	60,210
June	2,150	3,072	179	64,492	2,051	3,108	79	61,528
July	2,447	2,858	200	75,867	2,311	2,828	79	71,646
August	2,317	2,744	200	71,821	2,197	2,687	78	68,099
September	1,885	2,353	200	56,535	1,833	2,287	78	54,988
October	1,855	2,664	184	57,494	1,786	2,437	88	55,351
November	1,738	2,305	190	52,139	1,663	2,574	81	49,899
December	1,487	2,141	200	52,031	1,372	1,936	80	49,059

3. Historical Annual Treated Water Volume

Year	Total Treated Flow (m3)
2016	635,769
2017	651,715
2018	621,249
2019	661,014
2020	659,379
2021	668,525
2022	726,968
2023	686,916
2024	644,611
2025	699,528


Total Treated Flows
740,000
720,000
700,000
680,000
660,000
640,000
620,000
600,000
580,000
560,000
Flow (m3)
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Year

Appendix C

2025 Capital Projects Summary – Water

This 2025 Capital Projects Summary identifies the water infrastructure projects undertaken during the 2025 reporting year.

Project Summary

Project	Status
WTP SCADA Renewals	Completed in 2025
WTP Electrical / Instrumentation Renewals	Completed in 2025
WTP Low Lift Pump and Rapid Mixer Renewals	Completed in 2025
WTP Backwash / Air Scour Renewals	In Progress – Completion Expected 2026
WTP High Lift Pump Renewals	Completed in 2025
WD Water Meter Renewals	Ongoing
WD Hydrant Replacement Program	Ongoing
WD Lead Service Replacement Program	Ongoing
WD Curbstop Replacement Program	Ongoing

Project Details

WTP SCADA Renewals

Status: Completed in 2025

Description: The SCADA renewals project involved upgrading the Water Treatment Plant's monitoring and control system with a new server and computer infrastructure. Historical operational data, daily and monthly reports and the alarm systems were successfully transferred and tested to ensure proper operation. The remote monitoring was also updated, improving system reliability and operational oversight.

WTP Electrical / Instrumentation Renewals

Status: Completed in 2025

Description: The electrical and instrumentation renewals included upgrades and routine maintenance to improve measurement and monitoring at the water treatment plant. Voltage to the raw water sample pump was upgraded from 120V to 240V and annual calibrations were complete for flow meters and pressure sensors throughout the plant.

WTP Low Lift Pump and Rapid Mixer Renewals

Status: Completed in 2025

Description: As part of the WTP Low Lift Pump and Rapid Mixer Renewals, Low Lift Pumps 1 and 2 were refurbished. Each pump was removed and had key components replaced as required. Suction piping and couplings were upgraded with new materials and the pumps were disinfected, painted to match existing equipment, reinstalled and properly aligned. Following the rebuilds, the pumps were commissioned and tested, including a vibration analysis.

WTP Backwash / Air Scour Renewals

Status: In Progress – Completion Expected 2026

Description: The WTP Backwash Pump and Air Scour renewals are in progress to improve the

operation and reliability of the plant's filter systems. Upgrades to the filter control panels have been completed.

WTP High Lift Pump Renewals

Status: Completed in 2025

Description: The WTP high lift pump renewals included significant electrical and mechanical upgrades to improve the operational efficiency of High Lift Pumps 4 and 5. The project involved replacing the motor control equipment with a variable frequency drive (VFD) system, along with upgrades to electrical breakers. High Lift Pumps 4 and 5 were fully refurbished and then returned to service. The control system programming and monitoring software were updated to support the new equipment. Following installation, the pumps were fully tested and commissioned to confirm safe operation.

WD Water Meter Renewals

Status: Ongoing

Description: Water meter renewals involve replacing older water meters as they are identified and completing repairs when required. These upgrades help improve the accuracy of monitoring water used and support the tracking of the Town's water system.

WD Hydrant Replacement Program

Status: Ongoing

Description: The WD Hydrant Replacement Program includes annual inspections of all fire hydrants throughout the Town of Gananoque, along with seasonal flushing in the spring and fall. These activities help ensure hydrants are operating properly and ready for use when needed. If any deficiencies are identified during inspections or flushing, the hydrants are repaired.

WD Lead Service Replacement Program

Status: Ongoing

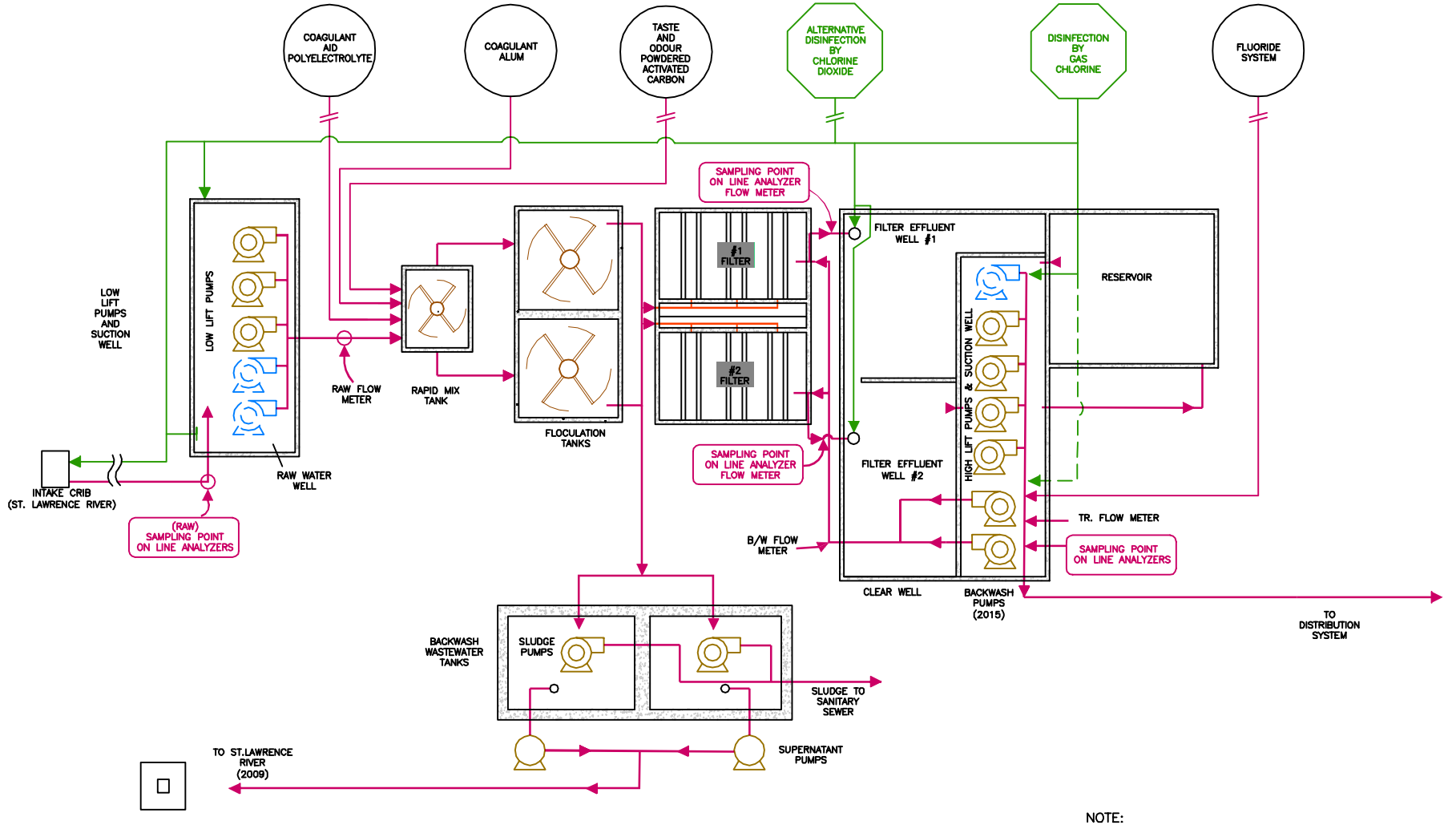
Description: The Lead Service Replacement Program supports the identification and reduction of lead in drinking water in accordance with the provincial regulations. The program includes the testing of residential and commercial plumbing, to identify the presence of lead services and concentration levels. Where lead service lines are confirmed, the Town offers support through an interest-free loan program to assist property owners with their replacement.

WD Curbstop Replacement Program

Status: Ongoing

Description: The Curbstop Replacement Program involves repairing or replacing curb stops as they are identified through service requests, water shut-offs, or routine operations. When a curb stop is found to be damaged or not functioning properly, it is added to the replacement list and repaired to maintain reliable water service control.

Appendix D



NOTE:
UPDATED FROM TSH/AECOM PROCESS FLOW DIAGRAM
PROJECT NO. 108466 – 6/16/2009

*DASHED LINES FOR FUTURE USE.

NOT IN SERVICE OR REMOVED

PROJECT:

WATER TREATMENT FACILITIES

GANANOQUE, ONTARIO

DRAWING:

PROCESS FLOW DIAGRAM

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DESIGN:	SS/OTHERS
DRAWN:	KTK/OTHERS
CHECKED:	
JLR #:	27038-07

DRAWING #:

FIGURE 1

File Location: R:\27000\27038-06 Gananoque Assest Inventory\JLR DWG\Civil\Process Flow Chart.dwg

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