



2024
Annual Drinking Water Report
and
Summary Report for Municipalities

Glen Walter Water Treatment

Version 2.0

Prepared by:

A handwritten signature in dark ink, appearing to read "Dillen Seguin", is positioned above a horizontal line.

Dillen Seguin
Director of Water and Wastewater

February 18, 2025

Date

Approved by:

A handwritten signature in dark ink, appearing to read "Sarah McDonald", is positioned above a horizontal line.

Sarah McDonald, P. Eng.
General Manager, Infrastructure Services

February 18, 2025

Date

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Regulations

Annual Report

O. Reg. 170/03 – Section 11

Summary Report for Municipalities

O. Reg. 170/-3 – Schedule 22

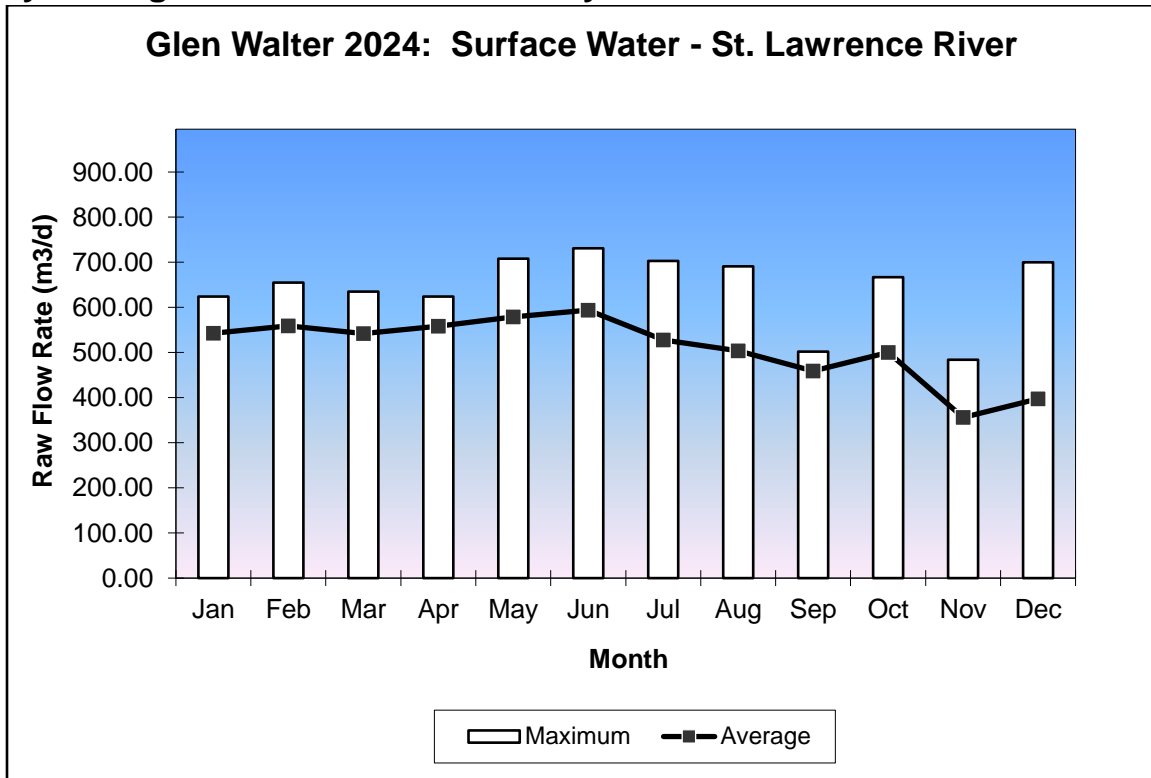
Revision History

Date	Description	Revision	Author
February 4, 2025	Initial Issue for Council Receipt	1.0	D. Seguin
February 18, 2025	Issued for Council Acceptance	2.0	D. Seguin

Glen Walter Water Treatment Plant – Annual Report

1. Flows

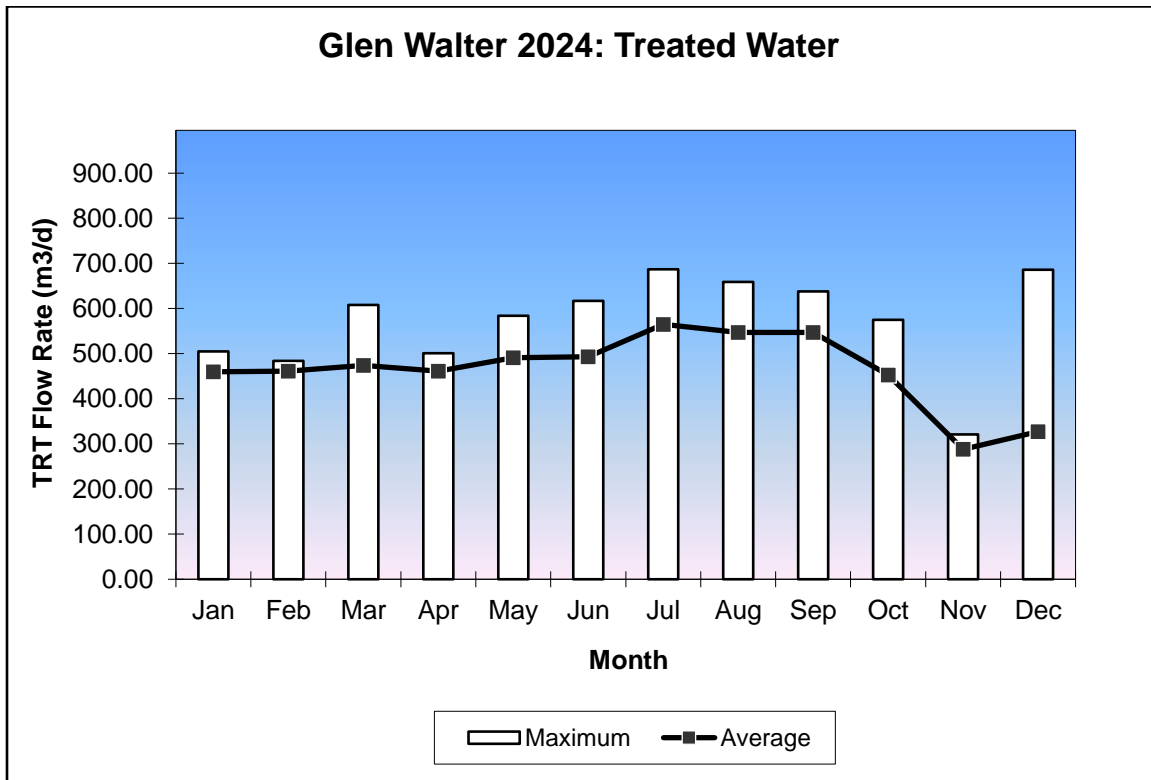
Daily Average and Maximum Raw Daily Flows



Permit To Take Water (3285-9TMQM2)

Max Allowable Raw Water Flow:	995m³/d
Year Max:	731m³/day

Daily Average and Maximum Treated Daily Flows



Municipal Drinking Water License Rated Capacity (185-102)

Max Allowable Raw Water Flow:	995m ³ /d
Year Max:	687m ³ /day

Item(s) of Note:

- November, Low Average due to leak located and fixed
- December, High Flow due to large distribution break (1 Day Peak Flow)

2. Compliance

A written report is prepared annually. This report is available for viewing at the Township of South Glengarry Municipal office, 6 Oak Street Lancaster or at the Glen Walter Water Treatment Plant located at 18352 County Road 2 in Glen Walter. A copy of the report is also available on the Townships website. A copy of the report is available free of charge to any resident requesting a copy. For more information on the Municipal water supply contact:

Township of South Glengarry
Water/Wastewater Division

Telephone: 613-931-3036

Fax: 613-931-3340

E-mail: infrastructure@southglengarry.com

The Township of South Glengarry commitment policy is to provide a safe and reliable supply of drinking water to all its customers, meet or exceed the requirements of all legislation and regulations applicable to drinking water and maintain and continually improve its quality management system.

3. System Description

Overview

The Township of South Glengarry Glen Walter Water Treatment Plant is located approximately two kilometers east of Cornwall along County Road 2. The water plant is a surface water treatment facility serving the community of Glen Walter. The water treatment plant has a rated capacity of 995 cubic meters of water per day for a design population of 1,080 people.

The Township of South Glengarry utilizes the following accredited laboratory to ensure safe and potable water to meet or exceed Ministry standards. Caduceon Laboratory Ottawa. We are also a participant in the Ministry Drinking Water Surveillance Program.

The Township of South Glengarry Operators are all certified under the Ministry of Environment regulation 128/04 for Utility Operators Licensing Program.

The Township of South Glengarry water system uses sodium hypochlorite chlorine for disinfection and Aluminum Sulphate for a coagulant.

Equipment

Raw water is consumed through a 300 millimeter intake pipe and intake crib approximately 390 meters off shore into the St. Lawrence River at a depth of approximately 12 meters. The water plant consists of two low lift pumps rated at 11.52 litres per second, one flocculation tank, two rapid sand filters, two carbon contactors, three compartment clear well reservoir, two high lift pumps rated at 16.44 litres per second and one backwash pump together with all associated piping, electrical and mechanical equipment, control and alarm systems all housed in a common building.

Process

Raw water is pumped from the low lift pumping chamber, which is pre-chlorinated. A liquid coagulant is introduced into an in-line flash mixer, then flows under pressure into a flocculation tank. When the coagulation flocculation process is complete the water flows through rapid sand filters in parallel, then through the carbon contactor series, which removes any taste and odour in the drinking water. Chlorine is added after the carbon contactors for post disinfection. The chlorinated (potable) water enters the three-compartment storage reservoir, which is pumped to the distribution via high lift pumps. To allow for safe and potable water sampling and testing to be completed on a regular basis.

Distribution

The distribution system is comprised of varying sized water pipes, valves, and fire hydrants all supplied from the two high lift pumps situated at the Glen Walter Water Plant. Fire flow cannot be utilized within the Glen Walter system.

4. Operation Summary

Upgrades and or operational issues noted within Major Maintenance list.

The major maintenance undertaken on the Glen Walter system is provided in the table below.

Table 1. Major Maintenance (2024)

2024	Details
Jan.	Backflow Preventer Tested (Annually)
Mar.	Filter 1 and 2 Gasket Replacement
Mar.	Alarm System Upgrade to LTE
Mar.	Phone System Upgrade
Apr.	Filter Media Addition
Apr.	Turbidity Meter Upgrades x 2 (TU5300)
Apr.	Hypo Line Replacement
May.	Valve Exercising Started
May.	Spring Hydrant Flushing
May.	Intake Inspection
Jun.	Generator Maintenance/Tests
Jun.	Analytical Calibrations Third Party
Jun.	New Raw Sample Pump Installed
Jul.	Alum Panel Installation Upgrade w/Alarms
Aug.	Scada Failure Corrupted Computer Drive
Sep.	Replace Scada Wire in PLC (Burnt Wire)
Sep.	Clean Chemical Pits
Oct.	Install Alum Pump Fail Timer in PLC
Oct	Fall Flush and Residual Checks
Oct.	Leak Detection
Oct.	Flow Meter Calibrations
Oct.	Winterize Hydrants
Dec.	Generator Maintenance/Load test
Dec.	Highlift Pump Leak Repaired
Dec.	BWA/Distribution Break and Repair

Glen Walter Water Treatment Plant – Summary Report

Ontario Drinking Water License #185-102

The Township of South Glengarry Water Treatment Department operated the Glen Walter Water Treatment Plant for the year 2024.

5. Non-Compliance

Adverse Water Quality Incidents

During the reporting year, there were no adverse water quality incidents (AWQI).

Incident #1

Incident Date:	-
Parameter:	-
Result:	-
Corrective Action:	-
Corrective Action Date:	-
Corrective Compliance:	-

Non-Compliance

During the reporting year, there was one (1) non-compliance in regard to a regulatory requirement.

Non-Compliance #1

Non-Compliance Date:	December 25 th , 2024
Parameter:	Low Pressure/Failure to Maintain Air Gap
Result:	<20 psi Distribution break caused low pressure to approximately 125 -150 homes
Corrective Action:	Fix break in distribution and return pressure back to normal range and issue boil water advisory for affected residents until water samples could be tested.
Corrective Action Date:	December 27 th , 2024
Corrective Compliance:	Boil Water Rescinded: January 2 nd , 2025

Non-Compliance Ministry Inspection

During the year 2024, there were no non-compliance from a ministry inspection within the Glen Walter Drinking Water System.

The ministry inspection occurred on and off site during the month of June. There were no issues of regulatory compliance identified in the report and the final inspection rating was 100%. A copy of the report is available at The Glen Walter Water Treatment Plant Office.

6. Regulatory Sample Results

Statistics for Flow and Chemicals

A total of 186,757m³ of raw water had been treated for the year 2024 with a monthly average of 510m³ per day and a maximum flow of 731m³/day for the year. Maximum flow is equivalent to 73% plant capacity.

The Glen Walter Water Treatment Plant uses sodium hypochlorite for disinfection. A total of 572.11kg of sodium hypochlorite had been utilized for the year at an average dosage rate of 3.14mg/litre.

The Glen Walter Water Treatment Plant also uses aluminum sulphate as a coagulant in the treatment process. A total of 3.132m³ of aluminum sulphate was used.

Attached is the data spread sheet, which identifies flows, laboratory results, number of samples taken and chemical use on a monthly basis.

Municipality: Township of South Glengarry
Project: Glen Walter W.T.P
DWS # 210001861

Annual Report Data
2024

Water Source: St. Lawrence River
Design Capacity: 0.995 x 1000 m3/D

Description: Pressure Filter System - Carbon Contactors - Alum Coagulation - Sodium Hypochlorite Disinfection

	Raw Water Flow			Treated Water Flow			Chemical Usage		Treated Water							Distribution Water							
	Total X 1000 m3	Average X 1000 m3	Maximum Daily X 1000 m3	Total X 1000 m3	Average X 1000 m3	Maximum Daily X 1000 m3	Cl2 Total Kg Used	Alum Total L Used	Free Cl2 Residual mg/L			Average Turbidity NTU	Average Colour TCU	Average Aluminum mg/L	Nitrate NO3 mg/L	Nitrite NO2 mg/L	Free Cl2 Residual mg/L			THM ug/L	Lead ug/L	Lead ug/L	
									Min.	Max.	Avg.							Min.	Max.	Avg.			
January	16.835	0.543	0.624	14.288	0.460	0.505	44.57	268.380	0.95	1.74	1.49	0.09		0.033	0.28	0.05	1.06	1.62	1.27	25.0			
February	16.214	0.559	0.655	13.370	0.461	0.484	41.15	260.040	1.35	1.74	1.60	0.11		0.017			0.40	1.50	1.33				
March	16.832	0.542	0.635	14.709	0.474	0.608	42.56	281.160	0.86	1.62	1.42	0.11		0.016			0.70	1.32	1.15				
April	16.753	0.558	0.624	13.840	0.461	0.501	47.84	253.260	1.15	2.06	1.43	0.10		0.028	0.28	0.05	0.90	1.30	1.20	22			
May	17.973	0.579	0.708	15.236	0.491	0.584	51.71	285.000	1.15	1.61	1.39	0.09		0.081			1.06	1.36	1.20				
June	17.847	0.594	0.731	14.812	0.493	0.617	56.90	287.760	0.57	1.50	1.30	0.09		0.070			0.50	1.22	1.06				
July	16.370	0.528	0.703	17.520	0.565	0.687	44.89	304.260	1.17	1.49	1.32	0.10		0.110	0.21	0.05	1.00	1.25	1.14	37.0			
August	15.654	0.504	0.691	16.981	0.547	0.659	66.41	292.710	0.97	1.28	1.62	0.10		0.151			0.74	1.34	0.99				
September	13.770	0.459	0.502	16.410	0.547	0.638	56.09	272.980	1.40	1.78	1.58	0.10		0.076			1.18	1.52	1.35				
October	15.507	0.500	0.667	14.046	0.453	0.575	54.25	264.000	0.94	1.52	1.42	0.10		0.052	0.12	0.05	0.66	1.24	1.15	36.0			
November	10.691	0.356	0.484	8.644	0.288	0.321	31.83	171.600	1.32	1.87	1.52	0.09		0.072			1.16	1.60	1.26				
December	12.311	0.397	0.700	10.155	0.327	0.686	33.91	191.400	1.43	1.79	1.52	0.09		0.042			1.18	1.32	1.26				
Total	186.757			170.011			572.11	3132.55															
Average	15.563	0.510	0.644	14.168	0.464	0.572	47.676	261.046	1.11	1.67	1.47	0.10		0.062	0.2225	0.050	0.88	1.38	1.20	30.0	#DIV/0!	#DIV/0!	
Criteria			0.995			0.995			0.2					0.1	10	1	0.05			100	10	10	
Maximum			0.731			0.687			0.57								0.40			30.0			
Compliance		Yes			Yes				Yes					Yes	Yes	Yes	Yes			Yes			

	Total # of Raw Samples	Raw Water Escherichia Coliform (cfu/100mL)			Raw Water Total Coliform (cfu/100mL)			Total # of Treated Samples	Treated Water Escherichia Coliform (cfu/100mL)		Treated Water Total Coliform (cfu/100mL)		Treated Water Heterotrophic Plate Count (cfu/100mL)		Total # of Dist. Samples	Distribution Water Escherichia Coliform (cfu/100mL)		Distribution Water Total Coliform (cfu/100mL)		Distribution Water Heterotrophic Plate Count (cfu/100mL)	
		Minimum	Maximum	Average	Minimum	Maximum	Average		Safe	Unsafe	Safe	Unsafe	Safe	Unsafe		Safe	Unsafe	Safe	Unsafe	Safe	Unsafe
January	5	0.0	0.0	0.0	0.0	0.0	0.0	5	5	0	5	0	5	0	15	15	0	15	0	15	0
February	4	0.0	0.0	0.0	0.0	0.0	0.0	4	4	0	4	0	4	0	12	12	0	12	0	12	0
March	4	0.0	0.0	0.0	0.0	0.0	0.0	4	4	0	4	0	4	0	12	12	0	12	0	12	0
April	5	0.0	0.0	0.0	0.0	1.0	0.2	5	5	0	5	0	5	0	15	15	0	15	0	15	0
May	4	0.0	0.0	0.0	0.0	0.0	0.0	4	4	0	4	0	4	0	12	12	0	12	0	12	0
June	4	0.0	1.0	0.3	6.0	10.0	4.0	4	4	0	4	0	4	0	12	12	0	12	0	12	0
July	5	0.0	0.0	0.0	0.0	2.0	0.4	5	5	0	5	0	5	0	15	15	0	15	0	15	0
August	4	0.0	0.0	0.0	0.0	2.0	0.5	4	4	0	4	0	4	0	12	12	0	12	12	12	0
September	4	0.0	6.0	1.5	0.0	33.0	8.3	4	4	0	4	0	4	0	12	12	0	12	0	12	0
October	5	0.0	5.0	1.2	2.0	28.0	7.2	5	5	0	5	0	5	0	15	15	0	15	0	15	0
November	4	1.0	14.0	6.5	6.0	140.0	45.3	4	4	0	4	0	4	0	12	12	0	12	12	0	12
December	5	0.0	4.0	2.2	2.0	260.0	58.0	5	5	0	5	0	5	0	22	22	0	22	0	22	0
Total	53							53							166						

Inorganic Parameters**GLEN WALTER WATER TREATMENT PLANT**

INORGANIC PARAMETERS					
PARAMETER	SAMPLE DATE	RESULT VALUE	MAC	UNIT OF MEASURE	EXCEEDANCE
ANTIMONY	Jan-02-24	0.000100	0.006	mg/L	No
ARSENIC	Jan-02-24	0.000300	0.025	mg/L	No
BARIUM	Jan-02-24	0.019000	1.0	mg/L	No
BORON	Jan-02-24	0.018000	5.0	mg/L	No
CADMIUM	Jan-02-24	0.000015	0.005	mg/L	No
CHROMIUM	Jan-02-24	0.001000	0.050	mg/L	No
LEAD	Year 2023	0.000065	10.0	ug/L	No
MERCURY	Jan-02-24	0.000020	0.001	mg/L	No
SELENIUM	Jan-02-24	0.001000	0.010	mg/L	No
SODIUM	Aug 22 2022	16.700000	200.0	mg/L	No
URANIUM	Jan-02-24	0.000240	0.020	mg/L	No
FLUORIDE	Aug 22 2022	0.100000	1.5	mg/L	No
NITRITE	Year 2024	0.050000	1.0	mg/L	No
NITRATE	Year 2024	0.222500	10.0	mg/L	No

Eastern Ontario Health Unit MAC					
Sodium	Aug 22 2022	16.7	20	mg/L	No

Organic Parameters

GLEN WALTER WATER TREATMENT PLANT

ORGANIC PARAMETERS					
PARAMETER	SAMPLE DATE	RESULT VALUE	MAC	UNIT OF MEASURE	EXCEEDANCE
ALACHLOR	Jan-02-24	0.30	5	ug/L	No
ATRAZINE + N-DEALKYLATED METOBOLITES	Jan-02-24	0.50	5	ug/L	No
AZINPHOS-METHYL	Jan-02-24	1.00	20	ug/L	No
BENZO(A)PYRENE	Jan-02-24	0.01	0.01	ug/L	No
BENZENE	Jan-02-24	0.50	5	ug/L	No
BROMOXYNIL	Jan-02-24	0.50	5	ug/L	No
CARBON TETRACHLORIDE	Jan-02-24	0.20	5	ug/L	No
CARBARYL	Jan-02-24	3.00	90	ug/L	No
CARBOFURAN	Jan-02-24	1.00	90	ug/L	No
CHLORPYRIFOS	Jan-02-24	0.50	90	ug/L	No
1,2-DICHLOROBENZENE	Jan-02-24	0.50	200	ug/L	No
1,4-DICHLOROBENZENE	Jan-02-24	0.50	5	ug/L	No
1,2-DICHLOROETHANE	Jan-02-24	0.50	5	ug/L	No
1,1-DICHLOROETHENE	Jan-02-24	0.50	1.4	ug/L	No
DICHLOROMETHANE	Jan-02-24	5.00	50	ug/L	No
DIAZINON	Jan-02-24	1.00	20	ug/L	No
DICAMBA	Jan-02-24	1.00	120	ug/L	No
2-4 DICHLOROPHENOL	Jan-02-24	0.20	900	ug/L	No
2,4-DICHLOROPHENOXY ACETIC ACID(2,4-D)	Jan-02-24	1.00	100	ug/L	No
DICLOFOP-METHYL	Jan-02-24	0.90	9	ug/L	No
DIMETHOATE	Jan-02-24	1.00	20	ug/L	No
DIQUAT	Jan-02-24	5.00	70	ug/L	No
DIURON	Jan-02-24	5.00	150	ug/L	No
GLYPHOSATE	Jan-02-24	25.00	280	ug/L	No
MALATHION	Jan-02-24	5.00	190	ug/L	No
METOLACHLOR	Jan-02-24	3.00	50	ug/L	No
METRIBUZIN	Jan-02-24	3.00	80	ug/L	No
PARAQUAT	Jan-02-24	1.00	10	ug/L	No
PENTACHLOROPHENOL	Jan-02-24	0.20	60	ug/L	No
PHORATE	Jan-02-24	0.30	2	ug/L	No
PICLORAM	Jan-02-24	5.00	190	ug/L	No
POLYCHLORINATED BIPHENYLS(PCB)	Jan-02-24	0.05	3	ug/L	No
PROMETRYNE	Jan-02-24	0.10	1	ug/L	No
SIMAZINE	Jan-02-24	0.50	10	ug/L	No
TETRACHLOROETHYLENE	Jan-02-24	0.50	30	ug/L	No
TRICHLOROETHYLENE	Jan-02-24	0.50	5	ug/L	No
TERBUFOS	Jan-02-24	0.50	1	ug/L	No
2,3,4,6-TETRACHOLOPHENOL	Jan-02-24	0.20	5	ug/L	No
TRIALATE	Jan-02-24	10.00	230	ug/L	No
2,4,6-TRICHLOROPHENOL	Jan-02-24	0.20	5	ug/L	No
TRIFLURALIN	Jan-02-24	0.50	45	ug/L	No
Vinyl Chloride	Jan-02-24	0.20	2	ug/L	No
MCPA	Jan-02-24	10.00	100	ug/L	No
THM (NOTE: SHOW LATEST ANNUAL AVERAGE)	Year 2024	30.0	100	ug/L	No
HAA	Year 2024	14.3	80	ug/L	No