



**GLEN WALTER WATER TREATMENT
Annual Report 2018**

(as per O. Reg. 170/03 – Section 11)

and

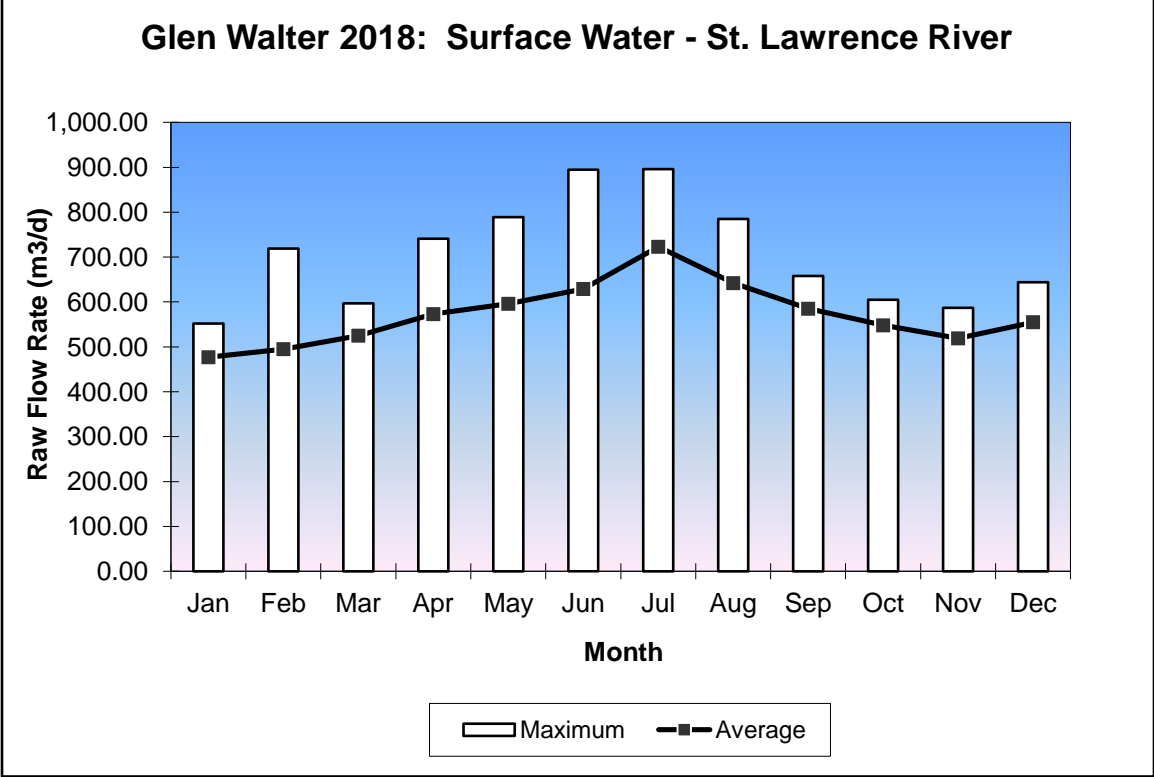
2018 Summary Report for Municipalities

(as per O. Reg. 170/03 – Schedule 22)

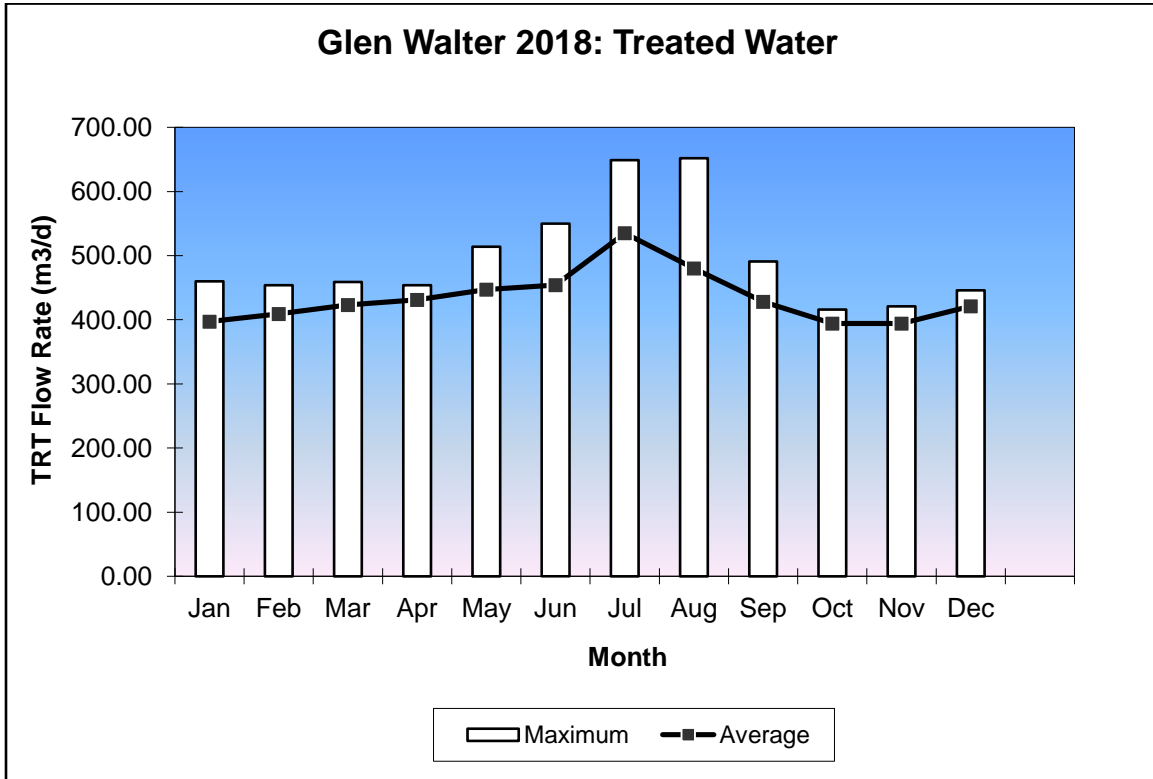
**Prepared by Shawn Killoran
Director of Water/Wastewater Operations**

Date Prepared/Submitted: February 12, 2019

**Comparison of
Daily Average and Maximum Raw Daily Flows for 2018**



**Comparison of
Daily Average and Maximum Treated Daily Flows for 2018**



**The Corporation of the Township of South Glengarry
Glen Walter Water Treatment Plant
2018 Annual Performance Report**

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 consist 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 and two high lift pumps rated at 16.44 litres per second 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 ensure safe and potable water sampling and testing is completed on a regular basis.

Upgrades

Installed new filter media for filter 1 and filter 2 (anthracite).

Operational Issues

Failed 1,4-Dichlorobenzene testing with 7.6ug/L (Criteria=5ug/l as per Ontario Drinking Water Quality Standards) On October 1st 2018

Reporting

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 web site. A copy of the report is available free of charge to any resident requesting a copy. For more information on your Municipal water supply contact the Township Of South Glengarry Water/Wastewater Department at 613-931-3036 or fax 613-931-3340.

Ontario Drinking Water License #185-102

The Township of South Glengarry Water Treatment Department operated the Glen Walter Water Treatment Plant for the year 2018 and met all terms of the Ontario Drinking Water System Regulation 170/03, under the Safe Drinking Water Act. The Township of South Glengarry commitment policy is to: Provide a safe and reliable supply of drinking water to all of 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.

A total of 209,286m³ of raw water had been treated for the year 2018 with a monthly average of 572m³ per day and a maximum flow of 896m³/day for the year. Maximum flow is equivalent to 90% plant capacity.

The Glen Walter Water Treatment Plant uses sodium hypochlorite for disinfection. A total of 703kg of sodium hypochlorite had been utilized for the year at an average dosage rate of 3.36mg/litre.

The Glen Walter Water Treatment Plant also uses aluminum sulphate as a coagulant in the treatment process. A total of 3.2m³ 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.

GLEN WALTER WATER TREATMENT PLANT

INORGANIC PARAMETERS

PARAMETER	SAMPLE DATE	RESULT VALUE	MAC	UNIT OF MEASURE	EXCEEDANCE	%
ANTIMONY	Jan-8-18	0.0001	0.006	mg/L	No	2
ARSENIC	Jan-8-18	0.0004	0.025	mg/L	No	2
BARIUM	Jan-8-18	0.014	1	mg/L	No	1
BORON	Jan-8-18	0.022	5	mg/L	No	0
CADMIUM	Jan-8-18	0.00002	0.005	mg/L	No	0
CHROMIUM	Jan-8-18	0.002	0.05	mg/L	No	4
LEAD	Year 2017	0.24	10	ug/L	No	2
MERCURY	Jan-8-18	0.00002	0.001	mg/L	No	2
SELENIUM	Jan-8-18	0.001	0.01	mg/L	No	10
SODIUM	Aug-8-17	19.2	200	mg/L	No	10
URANIUM	Jan-8-18	0.00018	0.02	mg/L	No	1
FLUORIDE	Aug-8-17	0.1	1.5	mg/L	No	7
NITRITE	Year 2018		1	mg/L	No	0
NITRATE	Year 2018		10	mg/L	No	0

Eastern Ontario Health Unit MAC

Sodium	Aug-8-17	19.2	20	mg/L	No	96
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GLEN WALTER WATER TREATMENT PLANT								
ORGANIC PARAMETERS								
PARAMETER	SAMPLE DATE	RESULT VALUE	MAC	UNIT OF MEASURE	EXCEEDANCE	%	MAC mg/L	
ALACHLOR	Jan-8-18	0.3	5	ug/L	No	6	0.005	
ATRAZINE + N-DEALKYLATED METOBOLITES	Jan-8-18	0.5	5	ug/L	No	10	0.005	
AZINPHOS-METHYL	Jan-8-18	1	20	ug/L	No	5	0.02	
BENZO(A)PYRENE	Jan-8-18	0.005	0.01	ug/L	No	50	0.00001	
BENZENE	Jan-8-18	0.5	5	ug/L	No	10	0.005	
BROMOXYNIL	Jan-8-18	0.3	5	ug/L	No	6	0.005	
CARBON TETRACHLORIDE	Jan-8-18	0.2	5	ug/L	No	4	0.005	
CARBARYL	Jan-8-18	3	90	ug/L	No	3	0.09	
CARBOFURAN	Jan-8-18	1	90	ug/L	No	1	0.09	
CHLORPYRIFOS	Jan-8-18	0.5	90	ug/L	No	1	0.09	
1,2-DICHLOROBENZENE	Jan-8-18	0.1	200	ug/L	No	0	0.2	
1,4-DICHLOROBENZENE	Jan-8-18	0.2	5	ug/L	No	4	0.005	
1,2-DICHLOROETHANE	Jan-8-18	0.1	5	ug/L	No	2	0.005	
1,1-DICHOETHENE	Jan-8-18	0.1	1.4	ug/L	No	7	0.0014	
DICHLOROMETHANE	Jan-8-18	0.3	50	ug/L	No	1	0.05	
DIAZINON	Jan-8-18	1	20	ug/L	No	5	0.02	
DICAMBA	Jan-8-18	5	120	ug/L	No	4	0.12	
2-4 DICHLOROPHENOL	Jan-8-18	0.1	900	ug/L	No	0	0.9	
2,4-DICHLOROPHENOXY ACETIC ACID(2,4-D)	Jan-8-18	5	100	ug/L	No	5	0.1	
DICLOFOP-METHYL	Jan-8-18	0.5	9	ug/L	No	6	0.009	
DIMETHOATE	Jan-8-18	1	20	ug/L	No	5	0.02	
DIQUAT	Jan-8-18	5	70	ug/L	No	7	0.07	
DIURON	Jan-8-18	5	150	ug/L	No	3	0.15	
GLYPHOSATE	Jan-8-18	25	280	ug/L	No	9	0.28	
MONOCHLOROETHYLENE	Jan-8-18	0.2	80	ug/L	No	0	0.08	
MALATHION	Jan-8-18	5	190	ug/L	No	3	0.19	
METOLACHLOR	Jan-8-18	3	50	ug/L	No	6	0.05	
METRIBUZIN	Jan-8-18	3	80	ug/L	No	4	0.08	
PARAQUAT	Jan-8-18	1	10	ug/L	No	10	0.01	
PENTACHLOROPHENOL	Jan-8-18	0.1	60	ug/L	No	0	0.06	
PHORATE	Jan-8-18	0.3	2	ug/L	No	15	0.002	
PICLORAM	Jan-8-18	5	190	ug/L	No	3	0.19	
POLYCHLORINATED BIPHENYLS(PCB)	Jan-8-18	0.05	3	ug/L	No	2	0.003	
PROMETRYNE	Jan-8-18	0.1	1	ug/L	No	10	0.001	
SIMAZINE	Jan-8-18	0.5	10	ug/L	No	5	0.01	
TETRACHLOROETHYLENE	Jan-8-18	0.2	30	ug/L	No	1	0.03	
TRICHLOROETHYLENE	Jan-8-18	0.1	5	ug/L	No	2	0.005	
TERBUFOS	Jan-8-18	0.3	1	ug/L	No	30	0.001	
2,3,4,6-TETRACHOLOPHENOL	Jan-8-18	0.1	5	ug/L	No	2	0.005	
TRIALATE	Jan-8-18	10	230	ug/L	No	4	0.23	
2,4,6-TRICHLOROPHENOL	Jan-8-18	0.1	5	ug/L	No	2	0.005	
TRIFLURALIN	Jan-8-18	0.5	45	ug/L	No	1	0.045	
Vinyl Chloride	Jan-8-18	0.2	2	ug/L	No	10	0.002	
THM (NOTE: SHOW LATEST ANNUAL AVERAGE)	Year 2018		100	ug/L	No	0	0.1	
MCPA	Year 2018		100	ug/L	No	0	0.1	
HAA	Year 2018		80	ug/L	No	0	0.08	