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GLENGARRY
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*Ontario's Celtic Heartland
Le centre celtique de l'Ontario*

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The Township of North Glengarry

Glen Robertson Well Supply System

2017 Annual and Summary Report

In compliance with O. Reg 170/03, section 11 and O. Reg 170/03 schedule 22

Contents

Section 1: Introduction

Section 2: System Description

Section 3: Process and Equipment Description

Section 4: Flow Summary

Section 5: Sampling and Laboratory Analysis Summary

Section 6: Significant Expenses Incurred

Section 7: Compliance with Licenses, Permits, Approvals and Orders

Section 8: Non-Compliance with Licenses, Permits, Approvals and Orders

Section 9: Township of North Glengarry Endorsement of Summary

Section 10: Contacts

Appendix A: 2017 Glen Robertson Treated Flows

Appendix B: 2017 Glen Robertson Maximum Instantaneous Flows

Appendix C: Comparison of Average and Maximum Monthly Flow Rates for Glen Robertson Treatment Facility

Appendix D: Public Works Committee Motion

Section 1: Introduction

This report is an annual summary of water quantity, quality system information, system operations and major expenditures for the Glen Robertson Well Supply during the reporting period of January 1, 2017 to December 31, 2017. It was prepared in accordance with section 11 and schedule 22 of the of Ontario's Drinking Water Systems Regulation O. Regulation 170/03.

Section 2: System Description

The Glen Robertson Well Supply System is located on Irwin St within the hamlet of Glen Robertson, which is approximately 11 kms northeast of the Town of Alexandria. This system uses groundwater as its source to supply the residents with treated water and has a rated capacity of 224 m³/day. It is categorized as a small municipal residential drinking water system. In 2010 the source was deemed to be groundwater under the direct influence of surface water (GUDI), and upgrades were implemented to strengthen the treatment processes.

Section 3: Process and Equipment Description

Supply Well

One 300 mm diameter drilled well located on 3342 Irwin St., *UTM Easting: 538506 UTM Northing: 5022689 (NAD 83, accuracy +/- 10m)*. It is equipped with a submersible well pump rated at 5.1L/sec (67 IGPM), attached to a 50mm diameter discharge pipe.

Pumping Station

All equipment is stored within a single-story brick building, approximately 17.4m², (4.7m x 3.7m), located at the Irwin St address.

Treatment Equipment

The raw water is pumped from the well into 50 mm piping. The water is directed towards 3 ultraviolet light systems (UV), 2 in service 1 in stand-by mode. The water passed through a 5-micron filter and a 1 micron filter prior to going through the UV system.

The water is then directed past the sodium hypochlorite injection point.

The chlorination system utilizes two diaphragm sodium hypochlorite metering pumps with rated capacities of 0.4L/hr, which discharges into the well discharge piping. The pumps have automatic switchover capabilities and will switch over if a problem develops with the lead pump during operation. There are 2 sodium hypochlorite storage tanks with capacities of 20L and are contained within a secondary containment tanks.

One diaphragm sodium silicate metering pump with rated capacity of 0.4L/hr at 680kPa. This product is no longer in use, but the pump is still in place at the facility.

Located outside the building but on the property, is an underground chlorine contact chamber consisting of 52m of 300mm piping. It is complete with a flushing port and a treated water sample line which feeds the on-line analyzers located in the water treatment plant.

Monitoring Equipment

The monitoring system consists of a free chlorine analyzer directly after the chlorine injection, a flow meter after chlorination but prior to the contact chamber a free chlorine analyzer and an on-line turbidity analyzer for the treated water as it leaves the contact chamber and enters the distribution. The analyzers and meter are charted (7-day chart) for data retention and the system is connected to an automatic dialler system for alarms should any measurement surpass a set limit.

The UV units are connected to an monitor that displays real time readings. Currently this unit is not equipped with recording capabilities, but the UV units are connected to the alarm system, so if problems occur an alarm will be initiated.

System Pressure Equipment

The well pump will start, run or stop based on the system pressure, which can be observed in the water plant prior to sodium hypochlorite injection. There are five 400 L pneumatic pressure tanks operating between 275 to 400 kPa to maintain the system pressure at all times.

Emergency Power

A 17-kW natural gas generator, equipped with auto start, is used to provide power to the water treatment building in the event of an outage. It is located outside the building on the southwest wall.

Additional Equipment.

All piping, valves, controls and appurtenances along with associated mechanical and electrical equipment not mentioned in the description, but are utilized to make up the system.

Monitoring Wells

2 drilled monitoring wells are located on the property where the treatment plant is located. One being located northeast of the building and one located southwest of the building

Section 4: Flow Summary

In order to assess the rated capacity of the WTP in terms of meeting existing and planned uses of the system, a summary of the treated flow rates during this period covered by this report was prepared and is presented below. In accordance with License #181-102 the Glen Robertson Well Supply shall not be operated to exceed the rated of the treatment system. Both the Permit to Take Water (PTTW) and the License requirements allow for a maximum of 224 m³ total daily for raw and treated water.

The average treated daily flow for 2017 is calculated to be 23.3 m³ and the maximum daily flow for the year was reported to be 51.1 m³. This represents 10.4% of the total plant rated capacity. Refer to the appendices for full 2017 data summary

<u>2017 Treated Flow Summary</u>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maximum Daily Flow (m ³)	43.9	41.5	33.5	23.9	36.7	27.8	51.1	36.6	27	31.9	36.1	30.3
Monthly Average Flow (m ³)	24.9	27.8	25.6	19.8	22.7	22.2	30.7	20.4	20.7	20.8	20.2	23.4
Monthly Average Daily Maximum Instantaneous Flow (L/s)	1.33	1.93	2.00	1.31	1.82	1.60	1.52	1.93	1.30	1.40	1.29	1.20
Rated Maximum Daily Treated Flow for the approved system										224 m ³ /day		
Rated Maximum Instantaneous Treated Flow										2.6 L/s		

Section 5: Sampling and Laboratory Analysis Summary

The Township of North Glengarry uses Cadouceon Laboratories as the primary provider for all sample analysis. Cadouceon Laboratories is an accredited laboratory under the Ministry of the Environment and Climate Control requirements. Refer to table below for all results as required.

2017 Microbiological Testing Completed as per Schedule 10, 11 and/or 12 of O. Reg 170/03					
<i>Location</i>	<i>Number of Samples</i>	<i>Range of E. Coli or Fecal Results (#-#)</i>	<i>Range of Total Coliform Results (#-#)</i>	<i>Number of HPC Samples</i>	<i>Range of HPC Results (#-#)</i>
Raw	52	0 - 4	0 - 1	0	
Treated	52	0 - 0	0 - 0	52	< 2 - 30
Distribution	108	0 - 0	0 - 0	105	< 2 - 42

2017 Operational Testing as per Schedule 7, 8 and or 9 of O. Reg 170/03		
<i>Parameter</i>	<i>Number of Grab Samples</i>	<i>Range of Results unit of measure is mg/L unless otherwise indicated (#-#)</i>
Turbidity	249	0.11 ntu – 3.62 ntu
Chlorine	251	1.08 – 2.14
Fluoride <i>(If the DWS provides fluoridation)</i>		n/a

Additional Sampling or Testing in Accordance with System Approval Requirement or Order				
<i>Date of Order or Approval Amendment</i>	<i>Parameter</i>	<i>Date Sampled</i>	<i>Result</i>	<i>Unit of Measure</i>
n/a				

2017 Summary of Inorganic Parameters Tested					
<i>Annual sampling or most recent result</i>					
<i>(1ppm = 1mg/L)</i>					
<i>Parameter</i>	<i>Sample Date</i>	<i>Standard (maximum concentration)</i>	<i>Result Value</i>	<i>Unit of Measure</i>	<i>Exceedance</i>
<i>Antimony</i>	June 19, 2017	0.006 mg/L	< 0.0001	mg/L	No
<i>Arsenic</i>	June 19, 2017	0.01 mg/L	0.0007	mg/L	No
<i>Barium</i>	June 19, 2017	1.0 mg/L	0.173	mg/L	No
<i>Boron</i>	June 19, 2017	5.0 mg/L	0.023	mg/L	No
<i>Cadmium</i>	June 19, 2017	0.005 mg/L	< 0.000014	mg/L	No
<i>Chromium</i>	June 19, 2017	0.05 mg/L	< 0.002	mg/L	No
<i>Lead</i>	September 14, 2017	0.01mg/L	0.00162	mg/L	No
<i>Mercury</i>	June 19, 2017	0.001mg/L	0.00003	mg/L	No
<i>Selenium</i>	June 19, 2017	0.01 mg/L	< 0.001	mg/L	No
<i>Uranium</i>	June 19, 2017	0.02 mg/L	0.00054	mg/L	No
<i>Fluoride</i>	June 19, 2017	1.5 mg/L	< 0.1	mg/L	No
<i>Nitrite</i>	January 15, 2018	1.0 mg/L	< 0.1	mg/L	No
<i>Nitrate</i>	January 15, 2018	10.0 mg/L	0.4	mg/L	No

2017 Summary of Lead Testing							
(1ppm = 1mg/L)							
Location/ Type	Number of Samples	Range of Lead Results (#-#)	Unit of Measure	Range of Alkalinity Results (#-#)	Unit of Measure	Average pH	Exceedance
Residential Plumbing							
Non-Residential Plumbing							
Distribution	3	0.0006 – 0.0016	mg/L	341 - 364	mg/L	7.1	0

2017 Summary of Organic Parameters Tested					
Annual sampling or most recent result					
(1ug/L = 0.001mg/L)					
Parameter	Sample Date	Standard (maximum concentration)	Result Value	Unit of Measure	Exceedance
Alachlor	June 19, 2017	0.005 mg/L	< 0.3	ug/L	No
Atrazine + N-dealkylated metabolites	June 19, 2017	0.005 mg/L	< 0.5	ug/L	No
Azinphos-methyl	June 19, 2017	0.02 mg/L	< 1	ug/L	No
Benzene	June 19, 2017	0.001 mg/L	< 0.5	ug/L	No
Benzo(a)pyrene	June 19, 2017	0.00001 mg/L	< 0.005	ug/L	No
Bromoxynil	June 19, 2017	0.005 mg/L	< 0.3	ug/L	No
Carbaryl	June 19, 2017	0.09 mg/L	< 3	ug/L	No
Carbofuran	June 19, 2017	0.09 mg/L	< 1	ug/L	No
Carbon Tetrachloride	June 19, 2017	0.002 mg/L	< 0.2	ug/L	No
Chlorpyrifos	June 19, 2017	0.09 mg/L	< 0.5	ug/L	No
Diazinon	June 19, 2017	0.02 mg/L	< 1	ug/L	No
Dicamba	June 19, 2017	0.12 mg/L	< 5	ug/L	No
1,2-Dichlorobenzene	June 19, 2017	0.2 mg/L	< 0.1	ug/L	No
1,4-Dichlorobenzene	June 19, 2017	0.005 mg/L	< 0.2	ug/L	No
1,2-Dichloroethane	June 19, 2017	0.005 mg/L	< 0.1	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	June 19, 2017	0.014 mg/L	< 0.1	ug/L	No
Dichloromethane	June 19, 2017	0.05 mg/L	< 0.3	ug/L	No
2-4 Dichlorophenol	June 19, 2017	0.9 mg/L	< 0.1	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	June 19, 2017	0.1 mg/L	< 5	ug/L	No
Diclofop-methyl	June 19, 2017	0.009 mg/L	< 0.5	ug/L	No
Dimethoate	June 19, 2017	0.02 mg/L	< 1	ug/L	No
Diquat	June 19, 2017	0.07 mg/L	< 5	ug/L	No
Diuron	June 19, 2017	0.15 mg/L	< 5	ug/L	No

2017 Summary of Organic Parameters Tested Annual sampling or most recent result (1ug/L = 0.001mg/L)					
<i>Parameter</i>	<i>Sample Date</i>	<i>Standard</i> <small>(maximum concentration)</small>	<i>Result Value</i>	<i>Unit of Measure</i>	<i>Exceedance</i>
<i>Glyphosate</i>	June 19, 2017	0.28 mg/L	< 25	ug/L	No
<i>Haloacetic Acid</i>	January 15, 2018		6.13	ug/L	No
<i>Malathion</i>	June 19, 2017	0.19 mg/L	< 5	ug/L	No
<i>2 Methyl-4 Chlorophenoxyacetic (MCPA)</i>	June 19, 2017	0.1 mg/L	< 0.00012	mg/L	No
<i>Metolachlor</i>	June 19, 2017	0.05 mg/L	< 3	ug/L	No
<i>Metribuzin</i>	June 19, 2017	0.08 mg/L	< 3	ug/L	No
<i>Monochlorobenzene</i>	June 19, 2017	0.08 mg/L	< 0.2	ug/L	No
<i>Paraquat</i>	June 19, 2017	0.01 mg/L	< 1	ug/L	No
<i>Pentachlorophenol</i>	June 19, 2017	0.06mg/L	< 0.1	ug/L	No
<i>Phorate</i>	June 19, 2017	0.002 mg/L	< 0.3	ug/L	No
<i>Picloram</i>	June 19, 2017	0.19 mg/L	< 5	ug/L	No
<i>Polychlorinated Biphenyls (PCB)</i>	June 19, 2017	0.003 mg/L	< 0.05	ug/L	No
<i>Prometryne</i>	June 19, 2017	0.001 mg/L	< 0.1	ug/L	No
<i>Simazine</i>	June 19, 2017	0.01 mg/L	< 0.5	ug/L	No
<i>THM</i>	January 15, 2018	0.100 mg/L	11.95	ug/L	No
<i>Terbufos</i>	June 19, 2017	0.001 mg/L	< 0.3	ug/L	No
<i>Tetrachloroethylene</i>	June 19, 2017	0.03 mg/L	< 0.2	ug/L	No
<i>2,3,4,6-Tetrachlorophenol</i>	June 19, 2017	0.1 mg/L	< 0.1	ug/L	No
<i>Triallate</i>	June 19, 2017	0.23 mg/L	< 10	ug/L	No
<i>Trichloroethylene</i>	June 19, 2017	0.005 mg/L	< 0.1	ug/L	No
<i>2,4,6-Trichlorophenol</i>	June 19, 2017	0.005 mg/L	< 0.1	ug/L	No
<i>Trifluralin</i>	June 19, 2017	0.045 mg/L	< 0.5	ug/L	No
<i>Vinyl Chloride</i>	June 19, 2017	0.002 mg/L	< 0.2	ug/L	No

Inorganic or Organic Parameters that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards			
<small>Only complete if category is large municipal residential, small municipal residential, large municipal non-residential, small municipal non-residential, large non-municipal non-residential</small>			
Parameter	Result Value	Unit of Measure	Date of Sample
n/a			

Section 6: Significant Expenses Incurred

No significant expenses were

- Install required equipment
- Repair required equipment
- Replace required equipment
- None during this period

Section 7: Compliance with Licenses, Permits, Approvals and Orders

The system is an approved system through the accreditation process that was rolled out by the Ministry of the Environment and Climate Control in 2011. The operating authority strives to remain compliant with the Drinking Water Quality Management Standard, the Safe Drinking Water Act and all associated procedures or a guideline. This approach is utilized to creating a multi-barrier approach to ensure safe drinking water.

The following table is a listing of all permits and or licenses that apply to this system:

<i>Description</i>	<i>Number</i>	<i>Version</i>	<i>Issue Date</i>	<i>Expiry Date</i>
Water Works License	181-102	2	March 22, 2016	March 21, 2021
Water Works Permit	181-202	2	March 22, 2016	March 21, 2021
Permit to Take Water	3330-9UNQ2Q		March 20, 2015	March 16, 2025

This system actively engages in all required internal and external auditing, as per the Drinking Water Management Standard. The latest external third-party surveillance audit was completed on December 6, 2017. The results indicated an effective system with 2 minor opportunities for improvement.

During this period, all raw water flows were compliant with the permit to take water and all flows were well within the rated capacity for the system, currently at 10.4% of the allowable limits. Furthermore, no operational limits were exceeded during this reporting timeframe.

All UV disinfection equipment was operated in such a manner that all license requirements were met at all times. The treatment system was operated at all times to ensure compliance with the Procedure for Disinfection of Drinking Water in Ontario.

All equipment was maintained as per operations manuals and/or calibrated annually by a certified technician.

Section 8: Non-Compliance with Licenses, Permits, Approvals and Orders

There was 1 instance of non-compliance in regard to regulatory requirements. All other licensing, permit and/or approval requirements were met during this reporting period. Furthermore, there were no orders or additional requirements issued to this system. A resample was not required by the Health Unit, as this has been an on-going issue in the system throughout many years.

2017 Reported Incident in accordance to subsection 18(1) of the Safe Drinking Water Act or Schedule 16 of O. Reg 170/03					
<i>Incident Date</i>	<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Corrective Action</i>	<i>Corrective Action Date</i>
21-Jun-2017	Sodium	118	mg/L	Distribute letter to residents from Eastern Ontario Health Unit	September 20, 2017

Section 9: Township of North Glengarry Endorsement of Summary Report

A copy of the report was presented to all members of the municipal Council through the Public Works Committee meeting held on February 20, 2018, see appendix D for motion. The report was also made available to the public through the Township of North Glengarry website or upon request at the Main office, located at 90 Main St South in Alexandria, or at the Public Works Office, located at 63 Kenyon St West in Alexandria

This report has been endorsed by Ryan Morton, Director of Public Works on behalf of Township of North Glengarry Council.

Section 10: Contact

All efforts have been made to provide accurate and up to date information in a relevant format. In the event that additional information is required please submit all verbal requests by phone at 613-525-3087; in writing by mail to 63 Kenyon St West. P.O. Box 700, Alexandria Ontario, K0C 1A0; or in writing by email to dean@northglengarry.ca

Appendix A:

2017 Glen Robertson Treated Flow (m3)

	January	February	March	April	May	June	July	August	September	October	November	December
1	24.4	20.6	26.5	21.0	21.1	21.6	25.8	19.0	18.7	21.3	36.1	19.0
2	25.3	22.0	26.6	21.2	17.9	20.5	27.7	17.0	19.8	20.9	21.9	23.2
3	22.6	25.0	26.3	19.0	18.3	24.8	26.3	16.7	17.2	20.4	18.5	21.2
4	23.8	28.3	30.8	17.8	24.5	22.1	29.9	27.9	22.1	17.3	24.2	19.8
5	22.8	27.7	32.7	19.2	22.0	18.9	30.5	36.6	21.7	19.7	22.9	18.6
6	23.9	25.8	29.4	18.3	21.5	20.7	30.0	28.8	18.9	20.7	19.8	18.2
7	23.9	23.7	28.8	18.3	36.7	18.6	26.7	20.7	19.8	21.1	18.1	18.7
8	26.5	23.6	27.2	22.7	23.5	19.7	25.8	17.0	22.7	21.2	20.0	18.9
9	26.0	30.0	26.5	20.2	20.1	18.9	17.5	21.8	26.6	19.5	17.1	21.7
10	23.2	36.6	27.5	19.8	21.9	23.0	19.3	18.4	24.7	24.0	17.9	24.8
11	43.9	41.5	30.6	17.2	19.6	25.7	26.0	18.9	21.6	31.9	23.5	23.0
12	23.0	38.5	33.5	16.5	24.1	27.0	26.5	16.8	23.2	20.7	20.6	21.2
13	24.2	35.2	27.3	17.3	24.3	23.4	29.3	20.8	23.9	20.7	19.0	21.2
14	25.9	23.6	28.5	19.8	23.0	25.7	27.6	15.9	17.1	21.1	15.7	20.4
15	26.0	26.6	28.4	22.6	22.9	27.8	33.5	19.0	17.2	21.2	16.0	21.7
16	23.1	24.2	27.7	23.0	20.2	19.6	29.1	18.0	20.6	21.0	20.8	25.0
17	23.3	26.2	29.3	21.9	30.2	22.7	25.2	17.0	19.4	16.0	18.2	23.9
18	25.4	26.6	29.2	21.6	19.4	22.7	28.8	34.8	18.2	19.7	21.8	22.4
19	22.4	27.8	31.9	17.8	20.4	18.7	30.0	20.6	17.0	17.4	22.1	23.2
20	23.7	29.5	30.0	19.6	28.8	16.6	39.0	22.3	27.0	18.4	19.4	23.8
21	27.4	26.7	19.9	20.2	22.3	19.6	33.0	17.0	19.3	21.9	18.2	23.4
22	26.6	27.4	19.1	21.5	24.3	18.3	37.1	18.7	19.1	21.5	17.9	25.7
23	22.1	25.8	18.3	23.0	20.4	21.1	51.1	17.1	22.7	21.5	17.4	26.9
24	24.6	23.9	18.1	17.5	21.5	21.0	48.1	18.1	21.9	18.7	17.6	26.5
25	22.0	27.4	23.0	17.6	19.9	23.1	44.7	17.1	26.0	19.0	21.6	26.6
26	24.2	31.9	19.7	18.6	20.1	23.2	38.5	25.0	18.9	18.7	21.3	25.9
27	21.8	24.6	16.5	18.8	24.0	23.2	34.2	19.7	18.9	22.0	24.4	28.6
28	27.2	27.4	18.5	18.0	22.4	25.6	27.9	16.6	16.6	23.2	18.2	25.9
29	26.4		23.0	21.0	20.3	25.6	36.6	17.9	20.8	23.2	18.8	27.2
30	23.5		22.8	23.9	25.9	26.5	28.8	18.9	20.0	21.5	18.0	30.3
31	24.2		16.0		22.2		17.0	17.7		18.7		29.7
<i>Minimum</i>	21.8	20.6	16.0	16.5	17.9	16.6	17.0	15.9	16.6	16.0	15.7	18.2
<i>Maximum</i>	43.9	41.5	33.5	23.9	36.7	27.8	51.1	36.6	27.0	31.9	36.1	30.3
<i>Average</i>	24.9	27.8	25.6	19.8	22.7	22.2	30.7	20.4	20.7	20.8	20.2	23.4
<i>Total</i>	773.3	778.1	793.6	594.9	703.7	665.9	951.5	631.8	621.6	644.1	607.0	726.6

2017 Treated Flows Summary Annual Summary
15.7
51.1
23.3
8492.1

Appendix B:

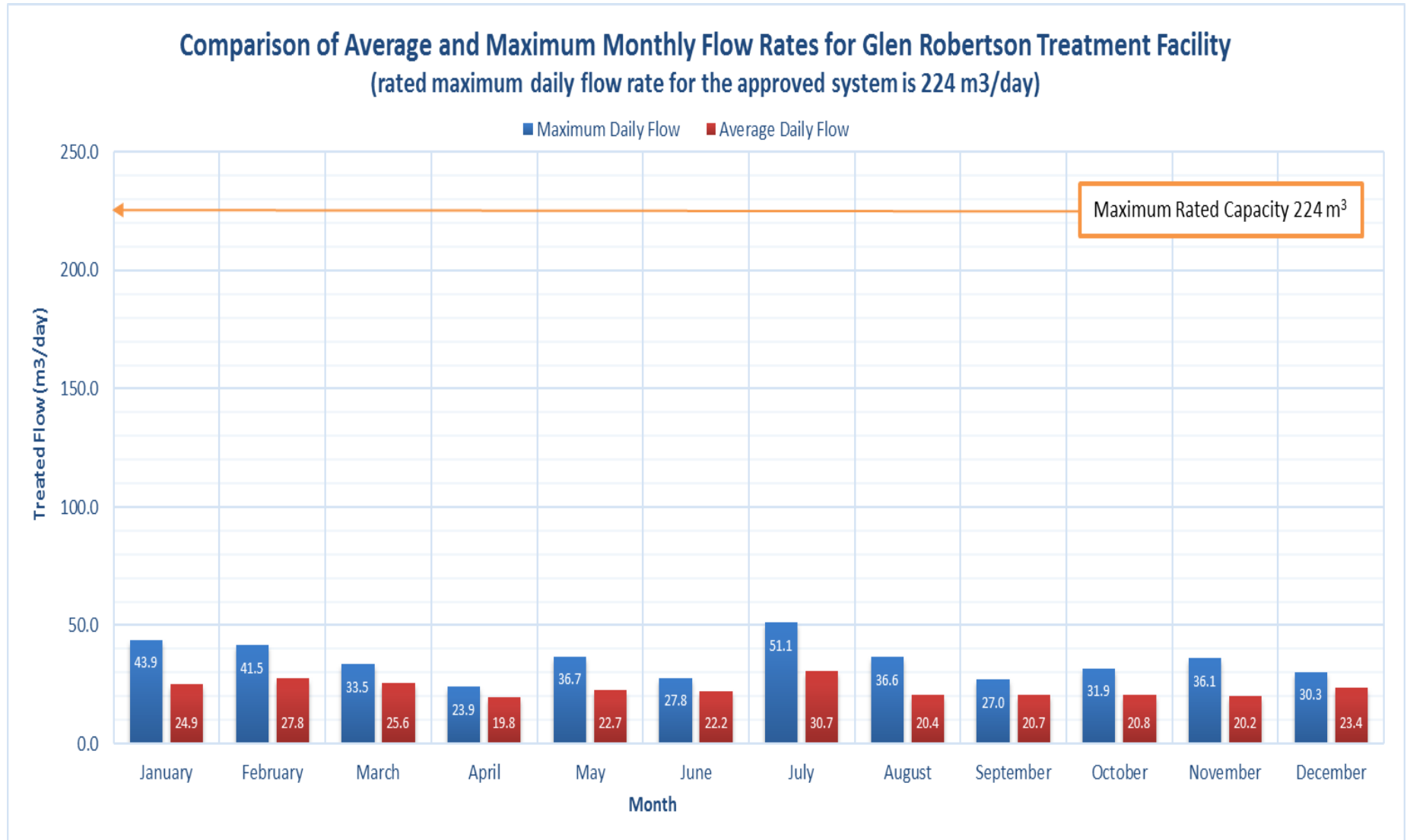
2017 Glen Robertson Maximum Instantaneous Flows(L/s)

	January	February	March	April	May	June	July	August	September	October	November	December
1	1.22	1.15	1.15	1.11	1.01	0.97	1.07	1.03	0.91	1.11	1.05	0.87
2	1.01	1.15	1.02	1.09	1.08	1.01	1.12	1.20	0.90	1.06	1.20	1.20
3	1.21	1.93	1.10	0.99	1.82	1.07	1.14	1.08	0.91	1.11	0.90	0.93
4	0.90	1.20	1.07	1.04	1.13	1.12	1.03	1.06	1.00	1.03	1.12	0.96
5	1.10	1.04	1.23	0.26	1.02	1.05	1.30	1.21	1.09	0.89	1.07	1.05
6	1.04	1.10	0.98	1.05	1.21	1.01	1.29	1.52	1.11	0.95	0.98	0.90
7	1.08	1.25	1.15	1.02	1.30	1.16	0.99	1.06	1.19	1.24	1.04	0.87
8	1.02	1.06	1.01	1.23	1.42	1.25	1.07	1.03	1.11	0.99	1.27	1.02
9	1.25	1.04	1.02	1.05	0.99	1.21	0.96	0.87	1.11	0.96	1.04	1.04
10	1.02	1.17	1.05	1.00	1.10	1.06	1.20	1.17	1.00	1.40	0.91	1.17
11	1.02	1.20	1.10	1.05	0.86	1.16	1.07	1.12	0.97	1.20	1.29	1.09
12	1.07	1.17	1.25	1.01	1.18	1.34	1.12	0.85	1.03	0.91	0.99	0.95
13	1.00	1.16	1.11	0.95	1.24	1.38	1.18	1.07	1.11	0.95	1.15	0.99
14	1.07	1.06	1.20	1.14	1.10	1.33	1.11	1.10	0.97	1.24	0.87	0.95
15	1.33	1.09	1.08	1.00	1.05	1.12	1.33	1.03	1.13	0.99	0.91	0.99
16	1.28	0.98	1.16	1.08	1.04	0.93	1.34	1.04	0.99	0.96	0.97	1.12
17	1.05	1.13	1.06	1.00	1.32	1.04	1.14	1.17	1.03	0.91	0.88	1.01
18	1.16	1.24	1.03	1.19	0.98	1.14	1.17	1.02	1.26	0.99	1.00	1.03
19	1.02	1.48	1.22	1.01	0.86	1.40	1.24	1.16	1.03	0.98	0.93	1.07
20	0.93	1.36	1.21	1.16	1.40	0.89	1.09	1.08	1.19	1.11	0.86	1.05
21	1.21	1.24	2.00	0.93	1.11	1.60	1.11	1.10	1.00	1.12	1.02	1.16
22	1.19	1.09	1.06	1.31	1.34	0.92	1.23	1.93	1.14	1.27	0.99	0.11
23	0.95	1.03	1.07	1.14	0.99	1.03	1.30	0.89	1.04	1.17	0.82	1.04
24	1.15	1.05	0.97	0.91	1.14	1.08	1.30	0.88	1.02	1.04	0.90	1.03
25	1.10	1.20	1.12	0.83	0.97	1.03	1.29	0.95	1.30	1.02	1.13	0.97
26	0.94	1.41	1.12	0.99	0.96	0.99	1.41	1.23	1.14	1.13	1.21	1.04
27	1.14	1.17	1.11	0.98	1.21	0.89	1.08	1.14	1.03	0.96	0.98	1.12
28	1.22	1.05	1.19	0.86	1.13	0.94	1.06	1.04	1.00	1.08	1.02	0.97
29	1.09		1.18	1.01	1.09	1.08	1.21	1.09	0.97	1.07	0.92	0.21
30	1.14		1.00	1.02	1.13	1.07	1.52	1.16	1.06	1.17	0.91	1.13
31	1.16		0.92		1.34		1.07	0.93		1.04		0.19

Maximum	1.33	1.93	2.00	1.31	1.82	1.60	1.52	1.93	1.30	1.40	1.29	1.20
Average	1.10	1.19	1.13	1.01	1.15	1.11	1.18	1.10	1.06	1.07	1.01	0.94

2017 Treated Flows Summary Annual Summary
2.00
1.09

Appendix C



Appendix D

Township of North Glengarry
Public Works Committee
MOTION

Moved by: Mike Sopratto

Seconded by: Janie MacDonald

Date: Feb 20/18

Subject: 2017 Annual and Summary Reports

Be it resolved;

THAT the Public Works Committee of the Township of North Glengarry, hereby receives the Water Works Alexandria and Glen Robertson 2017 Annual and Summary Reports presented by Angela Cullen.

Unanimous Carried Defeated Ayes Nays

Motion number: 2018 - 08

Brian Caddell, Committee Chair

Brian Caddell