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The Township of North Glengarry

Glen Robertson Well Supply System

2020 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: Glen Robertson 2020 Daily Treated Flows

Appendix B: Glen Robertson 2020 Maximum Instantaneous Flows

Appendix C: 2020 Comparison Monthly Treated Flow Rates

Appendix D: Council Resolution of Receipt

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, 2020 to December 31, 2020. 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 followed by 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 1.3L/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 is 1 sodium hypochlorite storage tank, with 30L capacity that feeds both pumps and is contained within a secondary containment vessel.

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.

The sodium silicate metering pump was removed in 2019 to make room for the new sodium hypochlorite pump panel. This product was no longer in use, after the initial trial period in the early 2000's. Steps have begun to ensure this product is removed from the Drinking Water Works permit and license.

Monitoring Equipment

Two free chlorine analyzers are used for regulatory monitoring, one measures chlorine residuals directly after sodium hypochlorite injection point and one measures the residual at the end of the contact chamber as the treated water enters the distribution system. A flow meter is installed directly after the sodium hypochlorite injection and an on-line turbidity analyzer measures the treated water as it leaves the contact chamber and enters the distribution system. All the equipment described above are all connected to 7-day chart recorders, and a plc.

with 7 days retention for recording purposes. An automated alarm/dialler system is also in place to alert operational staff to any limit exceedances, but currently there is no remote monitoring system in place for this facility.

The UV units are connected to a monitor that displays real time readings. Currently this unit is not equipped with recording capabilities, but the UV units are connected to the alarm/dialler system, so if problems occur the unit is equipped with an automatically shut down preventing water from exiting the UV and 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 on a gauge in the water plant prior to sodium hypochlorite injection. The start and stop point are manually set on the well pump pressure switch and can be adjusted within the threshold if required. There are always also five 400 L pneumatic pressure tanks operating between 275 to 400 kPa to maintain the system pressure.

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 2020 is calculated to be 22.1 m³ and the maximum daily flow for the year was reported to be 42.9 m³. This represents 9.8% of the total plant rated capacity. Refer to the appendices for full 2020 data summary.

<u>2020 Treated Flow Summary</u>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maximum Daily Flow (m ³)	20.8	25.6	26.6	27.4	34.6	36.9	42.9	42.3	37.9	25.9	25.2	39.1
Monthly Average Flow (m ³)	17.2	16.8	19.0	20.2	24.5	26.0	28.2	25.3	22.6	21.4	21.1	23.1
Monthly Average Daily Maximum Instantaneous Flow (L/s)	0.24	0.30	0.31	0.32	0.40	0.43	0.50	0.49	0.44	0.30	0.29	0.45
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 Caduceon Laboratories as the primary provider for all sample analysis. Caduceon Laboratories is an accredited laboratory under the Ministry of the Environment and Climate Control requirements. Refer to table below for all results as required.

2020 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 – 0	0 - 0	0	
Treated	52	0 – 0	0 - 0	52	< 2 - 2
Distribution	104	0 – 0	0 - 0	105	< 2 - 86

2020 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>
Raw Turbidity	247	0.08 ntu – 0.90 ntu
Treated Free Chlorine	Continuous	0.30 – 2.35
Distribution Free Chlorine	282	0.83 – 2.21
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				

2020 Summary of Inorganic Parameters Tested					
<i>Annual sampling or most recent result (1ug/L = 0.001mg/L; RAA=Rolling Annual Average)</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>
Antimony	December 17, 2018	0.006 mg/L	< 0.0001	mg/L	No
Arsenic	December 17, 2018	0.01 mg/L	0.0001	mg/L	No
Barium	December 17, 2018	1.0 mg/L	0.141	mg/L	No
Boron	December 17, 2018	5.0 mg/L	0.020	mg/L	No
Cadmium	December 17, 2018	0.005 mg/L	< 0.000015	mg/L	No
Chromium	December 17, 2018	0.05 mg/L	< 0.002	mg/L	No
Lead	September 8, 2020	0.01mg/L	0.00161	mg/L	No
Mercury	December 17, 2018	0.001mg/L	< 0.00002	mg/L	No
Selenium	December 17, 2018	0.01 mg/L	< 0.001	mg/L	No
Uranium	December 17, 2018	0.02 mg/L	0.00049	mg/L	No
Fluoride	June 19, 2017	1.5 mg/L	< 0.1	mg/L	No
Nitrite	January 18, 2021	1.0 mg/L	< 0.1	mg/L	No
Nitrate	January 18, 2021	10.0 mg/L	0.7	mg/L	No

2020 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	2	0.00152-0.00161	mg/L	314-320	mg/L	7.15	0

2020 Summary of Organic Parameters Tested					
Annual sampling or most recent result					
(1ug/L = 0.001mg/L; RAA=Rolling Annual Average)					
Parameter	Sample Date	Standard (maximum concentration)	Result Value	Unit of Measure	Exceedance
Alachlor	December 17, 2018	0.005 mg/L	< 0.3	ug/L	No
Atrazine + N-dealkylated metabolites	December 17, 2018	0.005 mg/L	< 0.5	ug/L	No
Azinphos-methyl	December 17, 2018	0.02 mg/L	< 1	ug/L	No
Benzene	December 17, 2018	0.001 mg/L	< 0.5	ug/L	No
Benzo(a)pyrene	December 17, 2018	0.00001 mg/L	< 0.005	ug/L	No
Bromoxynil	December 17, 2018	0.005 mg/L	< 0.3	ug/L	No
Carbaryl	December 17, 2018	0.09 mg/L	< 3	ug/L	No
Carbofuran	December 17, 2018	0.09 mg/L	< 1	ug/L	No
Carbon Tetrachloride	December 17, 2018	0.002 mg/L	< 0.2	ug/L	No
Chlorpyrifos	December 17, 2018	0.09 mg/L	< 0.5	ug/L	No
Diazinon	December 17, 2018	0.02 mg/L	< 1	ug/L	No
Dicamba	December 17, 2018	0.12 mg/L	< 5	ug/L	No
1,2-Dichlorobenzene	December 17, 2018	0.2 mg/L	< 0.1	ug/L	No
1,4-Dichlorobenzene	December 17, 2018	0.005 mg/L	<0.2	ug/L	No
1,2-Dichloroethane	December 17, 2018	0.005 mg/L	< 0.1	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	December 17, 2018	0.014 mg/L	< 0.1	ug/L	No
Dichloromethane	December 17, 2018	0.05 mg/L	< 0.3	ug/L	No
2-4 Dichlorophenol	December 17, 2018	0.9 mg/L	< 0.1	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	December 17, 2018	0.1 mg/L	< 5	ug/L	No
Diclofop-methyl	December 17, 2018	0.009 mg/L	< 0.5	ug/L	No
Dimethoate	December 17, 2018	0.02 mg/L	< 1	ug/L	No
Diquat	December 17, 2018	0.07 mg/L	< 5	ug/L	No
Diuron	December 17, 2018	0.15 mg/L	< 5	ug/L	No

2020 Summary of Organic Parameters Tested Annual sampling or most recent result (1ug/L = 0.001mg/L; RAA=Rolling Annual Average)					
<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>Glyphosate</i>	December 17, 2018	0.28 mg/L	< 25	ug/L	No
<i>Haloacetic Acid (RAA)</i>	January 18, 2021	0.08mg/L	< 5.3	ug/L	No
<i>Malathion</i>	December 17, 2018	0.19 mg/L	< 5	ug/L	No
<i>2 Methyl-4 Chlorophenoxyacetic (MCPA)</i>	December 17, 2018	0.1 mg/L	< 0.10	ug/L	No
<i>Metolachlor</i>	December 17, 2018	0.05 mg/L	< 3	ug/L	No
<i>Metribuzin</i>	December 17, 2018	0.08 mg/L	< 3	ug/L	No
<i>Monochlorobenzene</i>	December 17, 2018	0.08 mg/L	< 0.2	ug/L	No
<i>Paraquat</i>	December 17, 2018	0.01 mg/L	< 1	ug/L	No
<i>Pentachlorophenol</i>	December 17, 2018	0.06mg/L	< 0.1	ug/L	No
<i>Phorate</i>	December 17, 2018	0.002 mg/L	< 0.3	ug/L	No
<i>Picloram</i>	December 17, 2018	0.19 mg/L	< 5	ug/L	No
<i>Polychlorinated Biphenyls (PCB)</i>	December 17, 2018	0.003 mg/L	< 0.05	ug/L	No
<i>Prometryne</i>	December 17, 2018	0.001 mg/L	< 0.1	ug/L	No
<i>Simazine</i>	December 17, 2018	0.01 mg/L	< 0.5	ug/L	No
<i>THM (RAA)</i>	January 18, 2021	0.100 mg/L	14.5	ug/L	No
<i>Terbufos</i>	December 17, 2018	0.001 mg/L	< 0.3	ug/L	No
<i>Tetrachloroethylene</i>	December 17, 2018	0.03 mg/L	< 0.2	ug/L	No
<i>2,3,4,6-Tetrachlorophenol</i>	December 17, 2018	0.1 mg/L	< 0.1	ug/L	No
<i>Triallate</i>	December 17, 2018	0.23 mg/L	< 10	ug/L	No
<i>Trichloroethylene</i>	December 17, 2018	0.005 mg/L	< 0.2	ug/L	No
<i>2,4,6-Trichlorophenol</i>	December 17, 2018	0.005 mg/L	< 0.1	ug/L	No
<i>Trifluralin</i>	December 17, 2018	0.045 mg/L	< 0.5	ug/L	No
<i>Vinyl Chloride</i>	December 17, 2018	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 Only complete if category is large municipal residential, small municipal residential, large municipal non-residential, small municipal non-residential, large non-municipal non-residential			
Parameter	Result Value	Unit of Measure	Date of Sample
n/a			

Section 6: Significant Expenses Incurred

There were no capital works or planned equipment replacement at the water treatment facility during the 2020 budgetary period. All significant expenses were regarding to unplanned equipment replacement, as described below. In the distribution system, the only capital works completed was the replacement of 2 air relief valves.

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

Briefly Describe Incident and/or Expenses Incurred:

No.	Project Name	Description	Cost
1	Misc. Sodium Hypochlorite Parts	replacement due to age/wear & tear	\$ 5,250
2	Air Relief Valve	Replacement of both units	\$3,500 or \$7,000

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, Conservation, and Parks 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:

Description	Number	Version	Issue Date	Expiry Date
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

License renewals for this system were applied for in September 2020, as pre requirements due to the upcoming expiry in March 2021. The Township has been actively engaged in the process of internal and external auditing, but due to COVID have surpassed some of the timelines for the audits being completed. The QMS representative is actively working at bringing these items back into conformance.

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 9.8% of the allowable limits. Furthermore, no operational limits were exceeded, sampling or testing results were adverse or on-site non-compliance observations were noted during this reporting timeframe.

All 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 were no instances of non-compliance in regard to regulatory requirements. All license permit and/or approval requirements were met during this reporting period. Furthermore, there were no orders or additional requirements issued to this system.

2020 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>

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 17, 2020, 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 Dean McDonald, Acting 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: Glen Robertson 2020 Daily Treated Flows (m³)

	January	February	March	April	May	June	July	August	September	October	November	December	
1	19.3	17.5	18.0	20.6	25.6	21.7	26.7	25.9	21.1	22.7	21.0	20.6	
2	19.3	17.5	20.5	19.0	25.6	22.5	24.3	25.9	19.6	23.6	21.8	17.9	
3	20.1	16.2	18.4	17.4	25.6	19.9	38.9	25.9	19.6	23.6	21.6	18.6	
4	10.1	18.0	18.4	17.4	23.1	22.1	38.9	26.5	21.3	23.6	17.5	18.4	
5	20.1	11.0	13.6	17.4	28.3	23.9	38.9	18.0	20.9	25.9	20.1	18.4	
6	20.6	17.7	20.5	17.5	18.1	23.9	42.9	24.0	20.9	20.0	20.8	18.4	
7	17.9	16.1	20.5	20.6	20.6	23.9	29.5	23.2	20.9	20.6	20.8	18.9	
8	20.3	16.1	20.5	19.1	20.5	25.7	26.5	23.2	24.1	19.7	20.8	16.9	
9	20.8	16.1	20.2	21.4	20.5	21.9	29.5	23.2	24.1	20.2	19.9	16.9	
10	16.2	15.6	20.9	21.4	20.5	21.5	24.9	24.1	19.6	22.3	19.5	16.9	
11	16.2	17.6	19.4	22.7	23.7	24.3	24.9	32.7	22.2	22.3	24.4	20.6	
12	16.2	12.4	18.0	22.7	24.8	26.4	24.9	21.7	22.2	22.3	15.9	20.6	
13	16.4	12.4	19.4	12.3	24.8	26.4	27.1	42.3	22.2	22.7	23.9	20.6	
14	14.8	25.6	19.4	20.7	21.6	26.4	21.3	29.1	20.9	22.7	23.9	21.6	
15	17.5	14.5	19.4	20.3	22.6	27.3	22.9	29.1	21.6	16.4	23.9	21.4	
16	15.3	14.5	18.4	25.8	26.0	23.9	27.3	29.1	21.6	23.4	19.9	17.3	
17	18.5	14.5	22.0	19.2	26.0	27.8	27.9	23.9	15.5	23.4	20.1	14.9	
18	18.5	19.2	26.6	19.2	26.0	28.0	27.9	23.9	22.8	23.4	22.1	24.0	
19	19.7	16.9	18.9	19.2	23.8	34.0	27.9	23.4	22.8	15.9	25.2	24.0	
20	19.9	18.6	18.9	25.5	23.5	34.0	21.1	27.1	23.8	23.8	23.2	24.0	
21	16.1	17.8	18.9	25.6	21.7	34.0	35.3	26.3	32.4	17.0	23.2	25.7	
22	12.7	17.8	18.9	13.2	27.4	31.0	29.8	26.3	37.9	17.0	23.2	39.1	
23	15.9	17.8	19.7	19.1	27.4	36.9	18.5	26.3	16.3	22.9	17.9	20.7	
24	17.4	18.1	17.4	22.0	27.4	23.4	28.2	20.7	23.0	22.9	17.9	36.4	
25	17.4	16.6	16.5	22.0	26.2	22.2	28.2	29.1	24.9	22.9	20.2	36.4	
26	17.4	13.4	16.6	22.0	24.2	24.3	28.2	17.0	24.9	19.0	20.2	26.6	
27	15.5	21.7	19.1	20.9	27.5	24.3	30.7	21.0	24.9	20.0	23.1	26.6	
28	14.7	18.0	19.1	27.4	34.6	24.3	27.0	24.0	23.3	20.0	23.1	26.6	
29	14.7	18.0	17.4	13.4	24.1	28.2	21.1	24.0	21.6	20.7	23.1	28.4	
30	17.5		17.0	20.8	24.1	26.7	23.8	24.0	21.6	21.0	14.0	30.5	
31	17.5		15.9		24.1		30.9	22.8		21.0		28.5	
Minimum	10.1	11.0	13.6	12.3	18.1	19.9	18.5	17.0	15.5	15.9	14.0	14.9	10.1
Maximum	20.8	25.6	26.6	27.4	34.6	36.9	42.9	42.3	37.9	25.9	25.2	39.1	42.9
Average	17.2	16.8	19.0	20.2	24.5	26.0	28.2	25.3	22.6	21.4	21.1	23.1	22.1
Total	534.6	486.8	588.1	605.6	759.6	780.5	875.6	783.7	678.5	662.9	632.2	716.4	8104.4

Annual Treated Flows Summary
10.1
42.9
22.1
8104.4

Appendix B: Glen Robertson 2020 Treated Maximum Instantaneous Flows (L/s)

	January	February	March	April	May	June	July	August	September	October	November	December
1	0.22	0.20	0.21	0.24	0.30	0.25	0.31	0.30	0.24	0.26	0.24	0.24
2	0.22	0.20	0.24	0.22	0.30	0.26	0.28	0.30	0.23	0.27	0.25	0.21
3	0.23	0.19	0.21	0.20	0.30	0.23	0.45	0.30	0.23	0.27	0.25	0.21
4	0.12	0.21	0.21	0.20	0.27	0.26	0.45	0.31	0.25	0.27	0.20	0.21
5	0.23	0.13	0.16	0.20	0.33	0.28	0.45	0.21	0.24	0.30	0.23	0.21
6	0.24	0.20	0.24	0.20	0.21	0.28	0.50	0.28	0.24	0.23	0.24	0.21
7	0.21	0.19	0.24	0.24	0.24	0.28	0.34	0.27	0.24	0.24	0.24	0.22
8	0.23	0.19	0.24	0.22	0.24	0.30	0.31	0.27	0.28	0.23	0.24	0.20
9	0.24	0.19	0.23	0.25	0.24	0.25	0.34	0.27	0.28	0.23	0.23	0.20
10	0.19	0.18	0.24	0.25	0.24	0.25	0.29	0.28	0.23	0.26	0.23	0.20
11	0.19	0.20	0.22	0.26	0.27	0.28	0.29	0.38	0.26	0.26	0.28	0.24
12	0.19	0.14	0.21	0.26	0.29	0.31	0.29	0.25	0.26	0.26	0.18	0.24
13	0.19	0.14	0.22	0.14	0.29	0.31	0.31	0.49	0.26	0.26	0.28	0.24
14	0.17	0.30	0.22	0.24	0.25	0.31	0.25	0.34	0.24	0.26	0.28	0.25
15	0.20	0.17	0.22	0.24	0.26	0.32	0.26	0.34	0.25	0.19	0.28	0.25
16	0.18	0.17	0.21	0.30	0.30	0.28	0.32	0.34	0.25	0.27	0.23	0.20
17	0.21	0.17	0.25	0.22	0.30	0.32	0.32	0.28	0.18	0.27	0.23	0.17
18	0.21	0.22	0.31	0.22	0.30	0.32	0.32	0.28	0.26	0.27	0.26	0.28
19	0.23	0.20	0.22	0.22	0.28	0.39	0.32	0.27	0.26	0.18	0.29	0.28
20	0.23	0.22	0.22	0.30	0.27	0.39	0.24	0.31	0.28	0.28	0.27	0.28
21	0.19	0.21	0.22	0.30	0.25	0.39	0.41	0.30	0.38	0.20	0.27	0.30
22	0.15	0.21	0.22	0.15	0.32	0.36	0.35	0.30	0.44	0.20	0.27	0.45
23	0.18	0.21	0.23	0.22	0.32	0.43	0.21	0.30	0.19	0.27	0.21	0.24
24	0.20	0.21	0.20	0.25	0.32	0.27	0.33	0.24	0.27	0.27	0.21	0.42
25	0.20	0.19	0.19	0.25	0.30	0.26	0.33	0.34	0.29	0.27	0.23	0.42
26	0.20	0.16	0.19	0.25	0.28	0.28	0.33	0.20	0.29	0.22	0.23	0.31
27	0.18	0.25	0.22	0.24	0.32	0.28	0.36	0.24	0.29	0.23	0.27	0.31
28	0.17	0.21	0.22	0.32	0.40	0.28	0.31	0.28	0.27	0.23	0.27	0.31
29	0.17	0.21	0.20	0.16	0.28	0.33	0.24	0.28	0.25	0.24	0.27	0.33
30	0.20		0.20	0.24	0.28	0.31	0.28	0.28	0.25	0.24	0.16	0.35
31	0.20		0.18		0.28		0.36	0.26		0.24		0.33
Maximum	0.24	0.30	0.31	0.32	0.40	0.43	0.50	0.49	0.44	0.30	0.29	0.45
Average	0.20	0.19	0.22	0.23	0.28	0.30	0.33	0.29	0.26	0.25	0.24	0.27

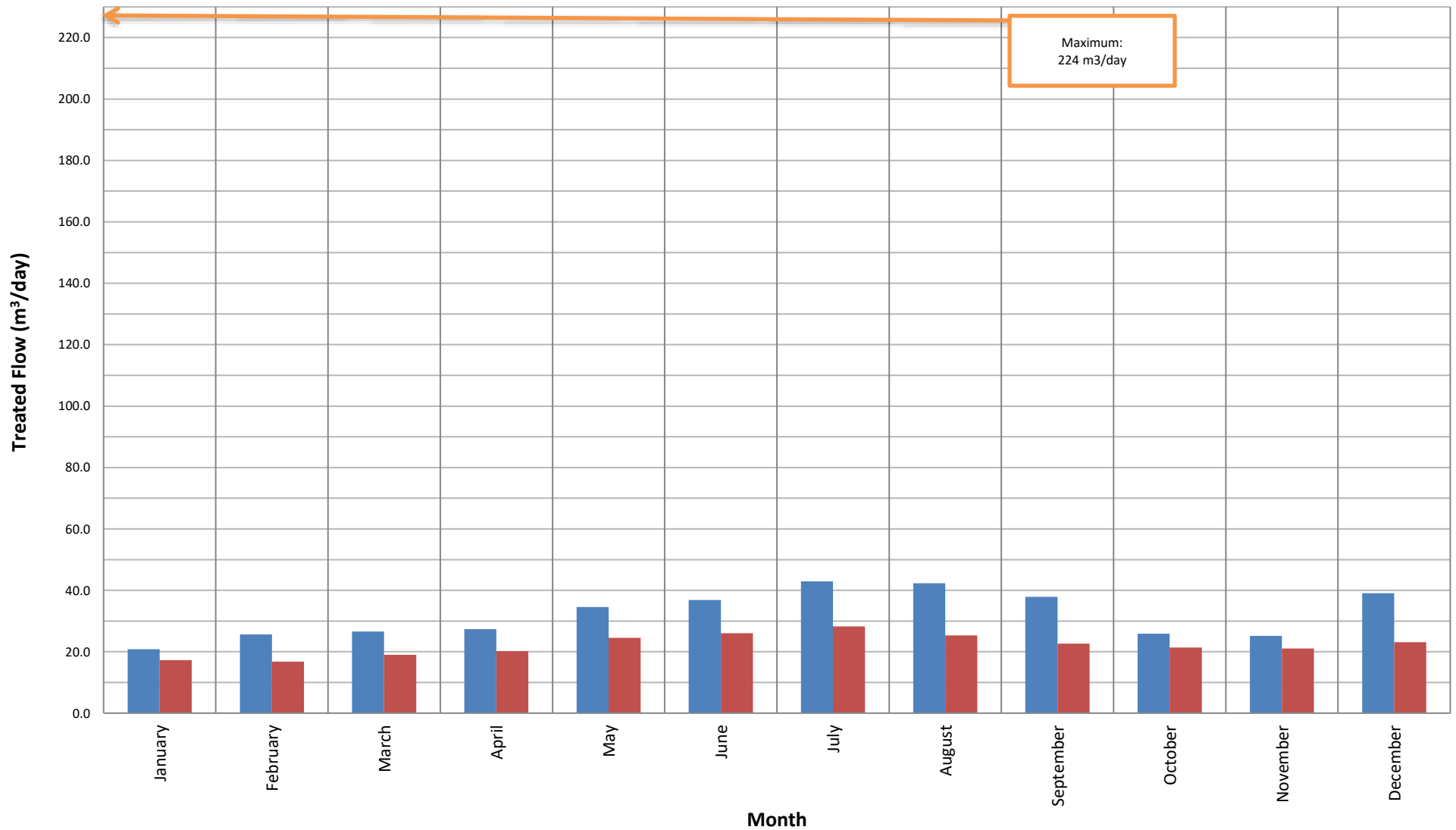
Annual Treated Flows Summary
0.50
0.26

Appendix C: 2020 Comparative Monthly Treated Flows Rates

Comparison of Maximum Monthly Flows and Monthly Average Flows Rates

(rated maximum daily flow rate for the approved system is 224 m³/day)

■ Max Daily Flow ■ Avg. Daily Flow



Appendix D: Council Resolution of Receipt



STAFF REPORT TO THE COMMITTEE OF THE WHOLE Report No: PW 2021-05

February 17, 2021

From: Angela Cullen – Water Wastewater Compliance Coordinator

RE: 2020 Waterworks Annual Reports

Recommended Motion:

THAT the Committee of the Whole receives Staff Report No. PW 2021-05, 2020 Waterworks Annual Reports for information purposes only.

Background / Analysis:

Staff have prepared the 2020 Drinking Water System Annual Reports for the Glen Robertson Drinking Water Systems and the Maxville Wastewater Systems.

The attached drinking water annual summary reports will be sent to the Ministry of Environment as part of the Township's obligation under Ontario Regulation 170/03., and posted to the Township website for public access.

The attached wastewater annual report will be sent to the Ministry of Environment as part of the Township's obligation within the Environmental Compliance Approval, under the Environmental Protection Act, and posted to the Township website for public access.

Alternatives:

N/A

Financial Implications:

N/A

Attachments & Relevant Legislation:

- Glen Robertson Well Supply Annual and Summary Report
- Glen Robertson Drinking Water System Council Presentation
- Maxville Wastewater System Annual Report
- Maxville Waste Water System Council Presentation

Others Consulted:

Dean McDonald, Acting Director of Public Works

Reviewed and Approved by:
Sarah Huskinson, CAO/Clerk