



February 19, 2019

Mayor Renald Beaulieu and Council
The Corporation of the Municipality of Greenstone
P.O. Box 70
Geraldton, Ontario
P0T 1M0

Re: 2018 Annual Summary Report for the Beardmore Drinking-Water System
2018 Annual Summary Report for the Caramat Drinking-Water System
2018 Annual Summary Report for the Geraldton Drinking-Water System
2018 Annual Summary Report for the Longlac Drinking-Water System
2018 Annual Summary Report for the Nakina Drinking-Water System

Ontario's Drinking-Water Systems Regulation (O.Reg.170/03), made under the *Safe Drinking Water Act, 2002*, requires that the owner of a drinking water system prepare an annual summary for municipalities on the operation of the system and the quality of its water.

The annual summary must cover the period of January 1st to December 31st in a year and must *be prepared not later than March 31st* of the following year. Pursuant to the legislative requirements, enclosed for your records is the 2018 Annual Summary for the Greenstone Drinking-Water Systems.

Pursuant to the legislative requirements, *Schedule 22 Summary Reports for Municipalities*, the annual summary must:

- (a) list the requirements of the Act, the regulations, the system's approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report; and,
- (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure."

- O. Reg. 170/03 s. 22 (2)

"The report must also include the following information for the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and planned uses of the system:

1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an

agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement.”

-O. Reg. 170/03 s. 22 (3)

In addition, Section 12 (1) - 4 - gives the direction that a copy of the annual summary for the system is given, without charge, to every person who requests a copy and be made available for inspection by any member of the public during normal business hours. The reports should be made available at the office of the municipality, or at a location that is accessible to the users of the water system.

These reports were prepared by the Ontario Clean Water Agency on behalf of the Corporation of the Municipality of Greenstone and are based on information kept on record by OCWA at each specific water treatment plant. The report covers the period January 1st through to December 31st 2018.

Yours truly,



Bradley McMahon
Senior Operations Manager
Northwestern Ontario Regional Hub

Copy to: Mark Wright - CAO
Brian Aaltonen – Director of Public Services
Operations Staff – Beardmore WTP
Operations Staff – Caramat WTP
Operations Staff – Geraldton WTP
Operations Staff – Longlac WTP
Operations Staff – Nakina WS

2018 Schedule 22 Annual Summary Report

Geraldton Drinking-Water System

February 2019

Prepared by the



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

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Section 1: Introduction

This report is a summary of water quality information for the Geraldton Drinking-Water System, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1st to December 31st 2018. The Geraldton Drinking-Water System is categorized as a Large Municipal Residential Drinking Water System.

This report is prepared by The Ontario Clean Water Agency on behalf of the Corporation of the Municipality of Greenstone – Geraldton Ward. A copy of the Summary Report is to be provided to the members of the municipal council by March 31st 2019.

Section 2: What Does This Report Contain?

"The report must,

- (a) list the requirements of the Act, the regulations, the system's approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report; and,
- (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure."

- O. Reg. 170/03 s. 22 (2)

"The report must also include the following information for the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and planned uses of the system:

1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement."

-O. Reg. 170/03 s. 22 (3)

Section 3: Daily Flow Rates

In accordance with the **Municipal Drinking Water Licence 225-104 Schedule C: System – Specific Conditions 1.0 Performance Limits**, the Geraldton Drinking-Water system shall not be operated to exceed the rated capacity for maximum flow rate from the treatment subsystem to the distribution system of **6045 m³ / day**.

The drinking water system may be operated temporarily at a rate above the rated capacity where necessary for:

- (i) the purposes of fighting a large fire or,
- (ii) the maintenance of the drinking-water system

In 2018, the average monthly raw flow rate was 46790.08 m³; the average raw daily flow rate was 1537.84 m³, with a maximum raw daily flow rate of 2288.00 m³.

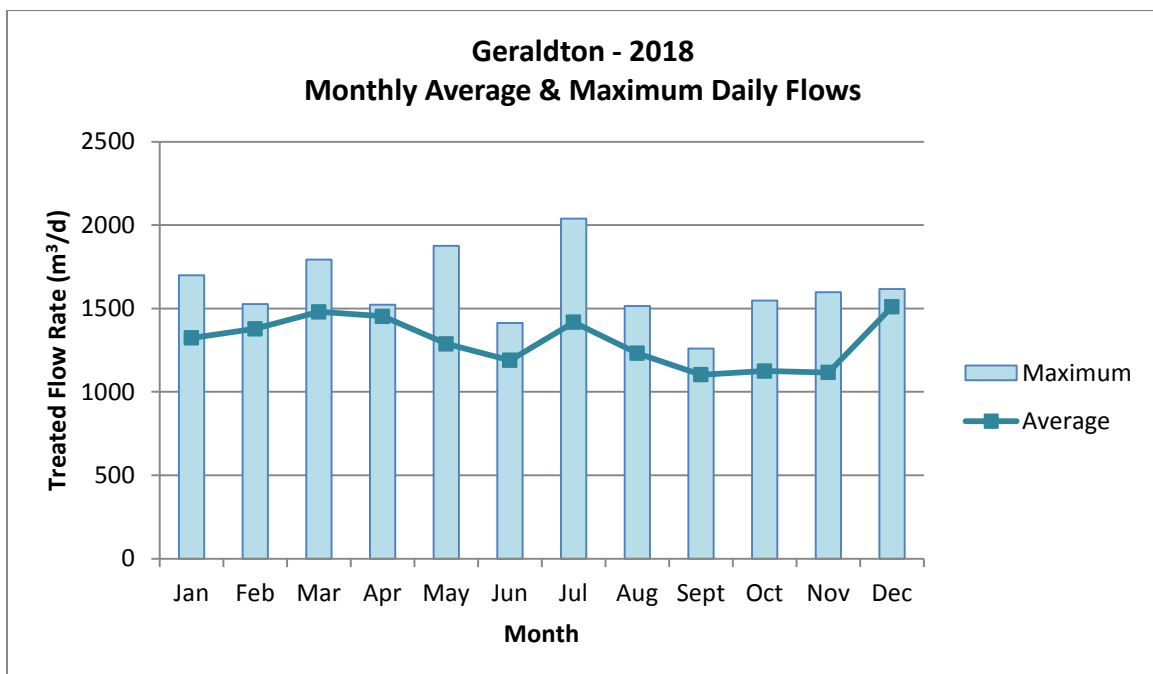
In 2018, the average monthly treated flow rate was 39599.75 m³; the average daily treated flow was 1301.60 m³ and the maximum daily treated flow for the year was 2038.00 m³; this represents 33.7% of the allowable daily volume.

A summary of raw and treated flows, including maximum raw flow into the treatment system as well as treated average, maximum and total flow rates are included in the tables below.

The quantity of raw water supplied during the reporting period did not exceed the terms and conditions of the *Permit to Take Water* nor did the treated flows directed to the distribution system exceed the rated capacity for this system.

Monthly Raw & Treated Flow Rates for 2018

Month	Average Daily Raw Flow Rate (m ³ /d)	Maximum Daily Raw Flow Rate (m ³ /d)	Average Daily Treated Flow Rate (m ³ /d)	Maximum Daily Treated Flow Rate (m ³ /d)	Total Monthly Treated Flow Rate (m ³ /month)
January	1536.97	1922.00	1323.77	1699.00	41037.00
February	1596.11	1824.00	1378.46	1527.00	38597.00
March	1701.48	2189.00	1480.45	1794.00	45894.00
April	1656.30	2010.00	1453.17	1522.00	43595.00
May	1457.16	2211.00	1288.48	1875.00	39943.00
June	1363.00	1793.00	1189.07	1413.00	35672.00
July	1645.06	2288.00	1417.94	2038.00	43956.00
August	1463.84	1787.00	1231.58	1515.00	38179.00
September	1376.23	1656.00	1103.40	1260.00	33102.00
October	1390.03	1776.00	1125.29	1548.00	34884.00
November	1410.23	1901.00	1116.50	1597.00	33495.00
December	1857.61	2047.00	1511.06	1617.00	46843.00
2018 Total Treated Flows (m ³)				475197.00	



Section 4: System Failures and Correction

The Ministry of Environment conducted an *announced inspection* of the Geraldton Drinking-Water System on January 25, 2018 with a final inspection rating of 100%.

Item	Non-Compliance Identified	Compliance Date	Action Being Taken to Address item	Status
N/A	N/A	N/A	N/A	N/A

Section 5: Conclusion

In the reporting year of 2018, there were eleven adverse water quality incident (AWQI) reports filed as summarized below.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
21-Feb-2018	Other Observation – Low pressure for 4 homes and hospital to install backflow to hospital.	-	-	Boil water advisory for affected uses and two sets of bacteriological samples.	23-Feb-2018
08-Mar-2018	Other Observation – Low pressure for 9 homes and 9 businesses to repair water main.	-	-	Boil water advisory for affected users and two sets of bacteriological samples.	12-Mar-2018
25-Mar-2018	Physical/Chemical – Turbidity meter failed; missing turbidity data.	-	-	Sample turbidity every 15 minutes. New controller installed.	27-Mar-2018
02-May-2018	Other Observation – Hydrant replacement affecting 7 homes on Mosher Street. Water restored at 15:05.	-	-	Boil water advisory for affected users. Bacteriological samples, flush mains/pipes and restore disinfection.	05-May-2018
15-May-2018	Other Observation – Loss of pressure. Valve and hydrant replacement water main shutdown affecting 26 homes and 1 restaurant/motel on Edith Ave.	-	-	Boil water advisory issued, restore disinfection, flush mains/pipes and sample two sets of bacteriological samples.	22-May-2018
18-May-2018	Other Observation – Water main break affecting 20 homes and 9 businesses on Rosedale Pt.	-	-	Boil water advisory issued, restore disinfection, flush mains/pipes and sample two sets of bacteriological	20-May-2018

				samples.	
14-Jun-2018	Other Observation – Loss of pressure. Hydrant repair, water main shutdown affecting 7 homes and 1 business on Tombill.	-	-	Boil water advisory issued, restore disinfection, flush mains/pipes and sample two sets of bacteriological samples.	20-Jun-2018
27-Jun-2018	Other Observation – Loss of pressure. Hydrant removal water main shutdown affecting 1 home and 1 bed and breakfast on East St.	-	-	Boil water advisory issued, restore disinfection, flush mains/pipes and sample two sets of bacteriological samples.	30-Jun-2018
28-Jun-2018	Other Observation – Water break requiring main line shutdown at approximately 13:15. Loss of pressure affecting 2 homes: 318 and 319 Clarke Ave. SE	-	-	Boil water advisory issued, resample and test, restore disinfection, flush mains/pipes.	05-Jul-2018
18-Oct-2018	Other Observation – Loss of pressure. Repair water break, main shutdown affecting 11 homes and 2 businesses on Main, Draper, 1 st E and Clarke.	-	-	Boil water advisory issued, resamples and test, restore disinfection, flush mains/pipes.	22-Oct-2018
29-Oct-2019	Other Observation – Loss of pressure. Install new waterline main shutdown affecting 10 homes and 1 business on Tombill.	-	-	Boil water advisory issued, resample and test, restore disinfection, flush mains/pipes.	02-Nov-2018

The inspection found the plant to be producing good quality water. The treated water samples at the plant were shown to be free of bacteriological contaminants and met the Ontario Drinking Water Quality Standards.

For the operating year of 2018, the Geraldton Drinking-Water System was able to meet the demand of water use within the town without exceeding the Municipal Drinking Water Licence and Permit to Take Water.