



2017 Schedule 22 Annual Summary Report

Geraldton Drinking-Water System

March 2018

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 2017. 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 2018.

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 2017, the average monthly raw flow rate was 41547.25 m³; the average raw daily flow rate was 1367.22 m³, with a maximum raw daily flow rate of 1965.00 m³.

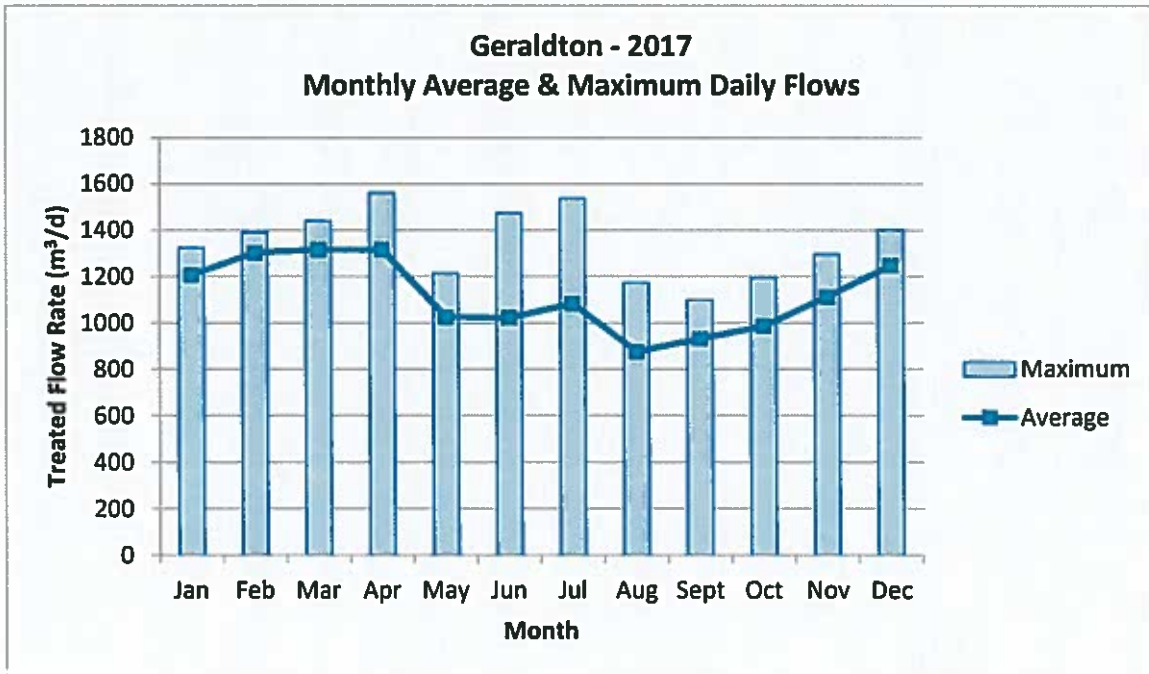
In 2017, the average monthly treated flow rate was 34028.58 m³; the average daily treated flow was 1120.00 m³ and the maximum daily treated flow for the year was 1564.00 m³; this represents 25.9 % of the allowable daily volume.

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 2017

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	1454.39	1656.00	1205.52	1324.00	37371.00
February	1561.18	1924.00	1303.18	1390.00	36489.00
March	1573.71	1800.00	1317.32	1440.00	40837.00
April	1622.33	1965.00	1317.63	1564.00	39529.00
May	1287.42	1817.00	1026.94	1215.00	31835.00
June	1267.53	1873.00	1023.67	1476.00	30710.00
July	1369.45	1903.00	1084.94	1538.00	33633.00
August	1160.39	1464.00	877.61	1175.00	27206.00
September	1139.70	1365.00	933.63	1101.00	28009.00
October	1183.32	1591.00	987.42	1196.00	30610.00
November	1327.23	1567.00	1113.63	1297.00	33409.00
December	1460.03	1754.00	1248.55	1403.00	38705.00
2017 Total Treated Flows (m³)				408343.00	



Section 4: System Failures and Correction

The Ministry of Environment conducted an *unannounced inspection* of the Geraldton Drinking-Water System on January 24, 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 2017, there were two adverse water quality incident (AWQI) reports filed as summarized below.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
28-Jul-17	Other Observation – water leak at valve/main. Water shut off for repairs.	-	-	Repair main and take two sets of bacteriological samples.	3-Aug-17
10-Aug-17	Other Observation – water leak at corporation stop at main line between Wardrope Ave and Barton Ave. 15-20 homes, 1 business affected.	-	-	Disinfection restored, main flushed and two sets of bacteriological samples taken more than 24 hours apart.	14-Aug-17

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 2017, 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.