

2018 Schedule 22 Annual Summary Report

Terrace Bay Drinking-Water System

February 2019

Prepared by the



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Table of Contents

Section 1: Introduction	2
Section 2: What Does This Report Contain?	2
Section 3: Daily Flow Rates	3
Section 4: System Failures and Corrections	5
Section 5: Conclusion	6

Section 1: Introduction

This report is a summary of water quality information for the Terrace Bay 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 Terrace Bay 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 Township of Terrace Bay. 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 237-101 Schedule C: System – Specific Conditions 1.0 Performance Limits*, the Terrace Bay 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 **3888 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

The Terrace Bay Drinking-Water facility operated below the rated capacity of 3888 m³ / day in 2018. The average monthly raw flow rate was 46499.08 m³; the average raw daily flow rate was 1528.63 m³, with a maximum raw daily flow rate of 2310.00 m³.

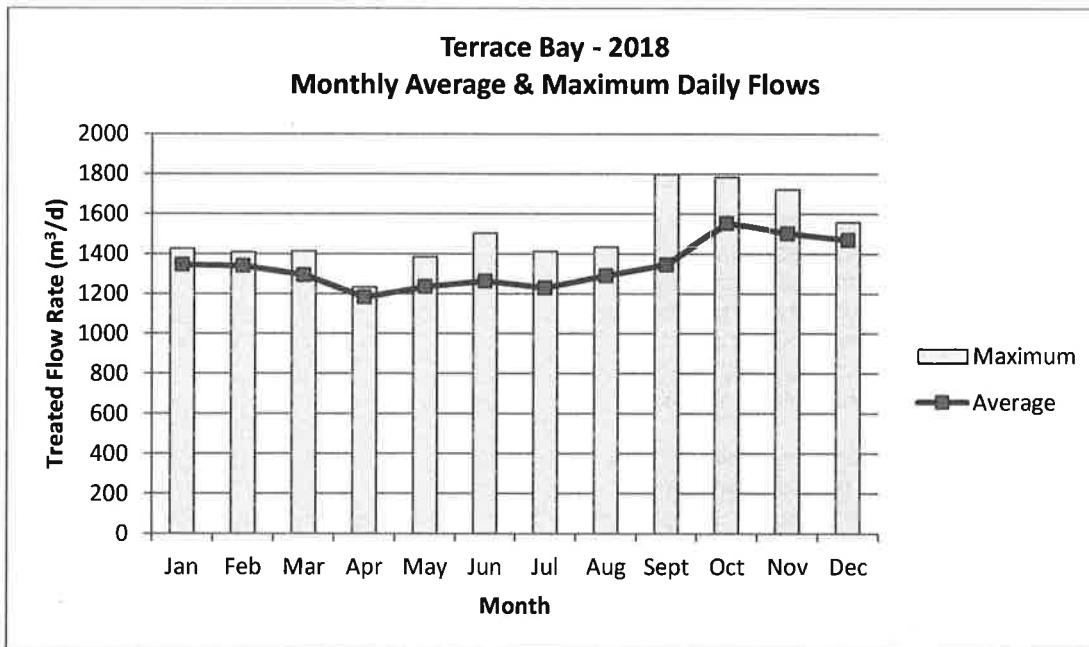
In 2018, the average monthly treated flow rate was 40679.74 m³; the average daily treated flow rate was 1337.28 m³; and the maximum daily treated flow rate for the year was 1797.72 m³ representing 46.2% of the allowable daily volume.

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 flows directed to the treatment 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	1543.13	1999.00	1344.79	1427.03	41688.55
February	1508.07	1643.00	1339.75	1408.29	37512.86
March	1469.65	1642.00	1293.55	1412.52	40099.99
April	1391.57	1675.00	1181.32	1233.67	35439.46
May	1423.06	1874.00	1235.22	1383.85	38291.91
June	1530.57	2310.00	1263.15	1503.77	37894.58
July	1409.48	1893.00	1229.79	1411.67	38123.54
August	1465.35	1982.00	1290.75	1434.07	40013.21
September	1528.93	2053.00	1345.28	1797.72	40358.34
October	1722.65	1962.00	1553.18	1782.87	48148.51
November	1684.23	2030.00	1502.12	1723.34	45063.70
December	1666.81	2306.00	1468.46	1559.13	45522.20
2018 Total Treated Flows (m ³)				488,156.85	



Section 4: System Failures and Correction

The Ministry of Environment conducted an *unannounced* inspection of the Terrace Bay Drinking Water System on May 29, 2018. The final inspection report identified one non-conformance as summarized in the table below.

The 2018 final inspection rating record for the Terrace Bay Drinking Water System was 96.5%.

Item	Non-Compliance Identified	Compliance Date	Action Being Taken to Address item	Status
1	<p>The owner was not in compliance with all conditions of the PTTW. The Permit allows the taking of water from the four groundwater wells as an alternate source for a period of 10 days per year. A review of records indicates that for calendar year 2017, groundwater wells 1, 3 and 4 were each used in excess of the permitted 10 days.</p> <p>By no later than August 12, 2018, the undersigned inspector must be advised whether application to amend the PTTW will be made.</p>	2018/08/12	<p>Application to amend the PTTW will be made with the help of KGS Consulting Engineers to determine if the wells can be drawn from for more than 10 days in a year.</p> <p>Notify inspector by August 12, 2018 whether the application to amend the PTTW will be made.</p>	In Progress
2	<p>All water quality monitoring requirements imposed by the Municipal Drinking Water Licence and/or Drinking Water Works Permit were not being met. Sampling to monitor the effectiveness of the corrosion control plan is listed in Schedule C of MDWL.</p> <p>The current MDWL sampling regime mirrors the recommended sampling regime specified in the corrosion control plan with one exception, that being, the frequency for lead analysis from the point of entry location. The CCP recommends this analysis to be conducted semi-annually; the MDWL requires this analysis to be conducted quarterly.</p> <p>Currently all monitoring is conducted following the CCP recommendation. The point of entry lead analysis was conducted semi-annually, as opposed to the MDWL requirement of quarterly.</p> <p>Action(s) Required: No action required. The MDWL is the process of undergoing an administrative amendment. This amendment will mirror the CCP monitoring plan.</p>	N/A	<p>No action required. The MDWL is in the process of undergoing an administrative amendment. This amendment will mirror the CCP monitoring plan.</p>	N/A

Section 5: Conclusion

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

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
05-Nov-2018	Other Observation – Watermain leak required localized water outage to complete repairs, affecting all of Southridge Crescent, 35 houses and part of Terrace Heights, 8 houses.	-	-	Two sets of bacteriological samples taken, disinfection restored, flushed main and boil water advisory issued. Chlorine residual of 1.14mg/L.	08-Nov-2018
06-Dec-2018	Physical/Chemical – Pressure loss for new connection affecting one seasonal building (Golf Club House), which is closed for the season.	-	-	Pressure restored and system flushed. Chlorine residual 1.16mg/L. Precautionary boil water advisory posted at building by township. MOH directed that bacteriological sampling to start after the weekend. No urgency due to no occupancy.	14-Dec-2018

For the operating year of 2018, the Terrace Bay 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.

