

March 31, 2020

Mayor Jody Davis and Council  
The Corporation of the Township of Terrace Bay  
P.O. Box 40  
TERRACE BAY, Ontario.  
POT 2W0

**Re: 2019 Annual Summary Report for the Terrace Bay 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 1<sup>st</sup> to December 31<sup>st</sup> in a year and must *be prepared not later than March 31<sup>st</sup>* of the following year. Pursuant to the legislative requirements, enclosed for your records is the 2019 Annual Summary for the Terrace Bay Drinking-Water System.

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:

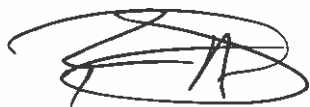
1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water 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.

This report was prepared by the Ontario Clean Water Agency on behalf of the Township of Terrace Bay and is based on information kept on record by OCWA at the Terrace Bay WTP. The report covers the period January 1<sup>st</sup> to December 31<sup>st</sup> 2019.

Yours truly,

A handwritten signature in black ink, appearing to read 'Patrick Albert', enclosed within a circular scribble.

Patrick Albert  
Operations Manager  
Ontario Clean Water Agency  
North Western Ontario Regional Hub

Copy to: John Hall – CAO  
Terry Hanley – Public Works Supervisor  
Operations Staff – Terrace Bay WTP

# 2019 Schedule 22 Annual Summary Report

## Terrace Bay Drinking-Water System

March 2020

Prepared by the



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

## *Table of Contents*

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

## ***Section 1: Introduction***

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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 2019. 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 2020.

## ***Section 2: What Does This Report Contain?***

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"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

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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 m<sup>3</sup> / 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 m<sup>3</sup> / day in 2019. The average monthly raw flow rate was 48951.67m<sup>3</sup>; the average raw daily flow rate was 1608.58m<sup>3</sup>, with a maximum raw daily flow rate of 2249m<sup>3</sup>.

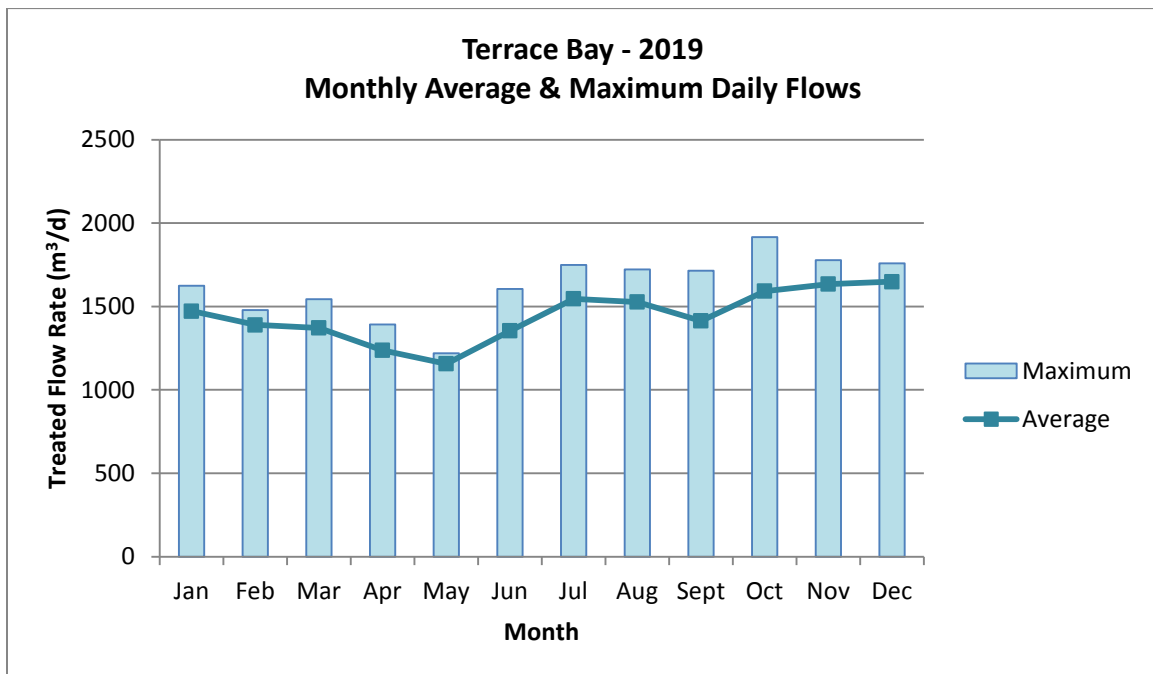
In 2019, the average monthly treated flow rate was 43030.39m<sup>3</sup>; the average daily treated flow rate was 1445.19m<sup>3</sup>; and the maximum daily treated flow rate for the year was 1915.45m<sup>3</sup> representing 49.27% of the allowable daily volume.

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 2019

Month	Average Daily Raw Flow Rate (m <sup>3</sup> /d)	Maximum Daily Raw Flow Rate (m <sup>3</sup> /d)	Average Daily Treated Flow Rate (m <sup>3</sup> /d)	Maximum Daily Treated Flow Rate (m <sup>3</sup> /d)	Total Monthly Treated Flow Rate (m <sup>3</sup> /month)
January	1644.48	1939.00	1472.07	1625.26	45634.29
February	1580.25	2063.00	1389.45	1478.96	38904.68
March	1550.52	1786.00	1371.17	1542.89	42506.15
April	1434.47	1942.00	1236.78	1392.92	37103.49
May	1344.23	1849.00	1156.92	1219.55	35864.48
June	1533.37	1865.00	1353.98	1605.27	40619.54
July	1757.94	2168.00	1546.14	1748.77	47930.41
August	1762.81	2194.00	1527.11	1721.59	47340.44
September	1615.53	2088.00	1413.42	1714.62	42402.55
October	1774.71	2249.00	1592.05	1915.45	49353.65
November	1646.80	1812.00	1634.17	1778.40	37586.00
December	1657.84	1977.00	1649.00	1757.80	51119.00
2019 Total Treated Flows (m <sup>3</sup> )				<b>516,364.68</b>	



## **Section 4: System Failures and Correction**

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The Ministry of Environment conducted an *announced* inspection of the Terrace Bay Drinking Water System on May 1, 2019. The final inspection report identified two non-conformance as summarized in the table below.

The 2019 final inspection rating record for the Terrace Bay Drinking Water System was 96.12%.

Item	Non-Compliance Identified	Compliance Date	Action Being Taken to Address item	Status
1	<p><b>Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was not performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and/or was not recording data with the prescribed format.</b></p> <p>In accordance with the Table in O. Reg. 170/03, Schedule 6, section 6-5, the time, date, sampling location and test result must be recorded every 5 minutes for final effluent chlorine and every 15 minutes for filter effluent turbidity. Typically, final effluent chlorine data and filter effluent data is relayed from the continuous analyzers to the SCADA system and a record is made at one minute intervals; however, on June 11, 2018, as a result of a CPU changeover, data was lost for the period of 14:07 to 14:35. During that period of time, only high lift pump number 3 was operating. During the period of data loss, chlorine and turbidity alarms remained active through the WTP PLC computer and there was no indication that primary disinfection was compromised.</p>	Not Specified	Changed SCADA CPU and lost/missed continuous monitoring data for 28 min.	In Progress
2	<p><b>The following instance(s) of non-compliance were also noted during the inspection:</b></p> <p>1. Ontario Water Resources Act, Section 34. The Amended Permit to Take Water no. 5887-8JHPXU permit authorizes the taking of water from the four groundwater wells as an alternate source for a maximum of 10 days per year. For this inspection review period, records indicate that three of the four groundwater wells (wells no. 1, 3, and 4) were used as an alternate source for 55 days in calendar year 2018. Well no. 2 has been off-line. Following last year's inspection, the Owner submitted an application to seek approval to amend the PTTW to allow for greater use of the four groundwater wells as an alternate source. The application is still in the review stage with the Ministry.</p>	Not Specified	1. Awaiting PTTW amendment.	In Progress



2. Section 26 of O. Reg 128/04 (Certification of Drinking Water System Operators and Water Quality Analysts) outlines the responsibilities of an Operator-in-Charge (OIC). A review of the logbook entries found that more than one operator was being recorded as OIC on August 29, 2018 for the same subsystem. On that day, the logbook indicates the operator usually on-site in Terrace Bay made all the logbook entries for the day for processes that she was responsible for. There are no records to indicate what the other OIC was responsible for.

## Section 5: Conclusion

In the reporting year of 2019, there were four 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
20-Feb-19	Other Observation - Water Break - Isolated section of Radison Ave. causing loss of pressure and water outage affecting 11 service connections to various businesses			Feb 20 - Isolated CIBC service connection break and opened WM-valve at Radison/Selkirk intersection to flush and restore water service, to all affected expect CIBC. Flushed, chlorine residual 1.14mg/L. Collected bacti samples, one upstream and one downstream. Feb 21 - Set up and reduce WM pressure to 40psi monitoring and regulating with Fire Hall hydrant to complete repairs. CIBC water service restored and flushed, chlorine residual 1.33mg/L/ WM pressure returned to normal and hydrant shut down. Feb 22- Received AWQI results, rescind boil water advisory.	22-Feb-19
3-Apr-19	Lead - 42 Parkway Place	12	ug/L	-	-
3-Apr-19	Lead - 25 Selkirk Ave	11.5	ug/L	-	-
20-Jul-19	Other Observation - Loss of distribution pressure due to generator failure.			Superior Propane technician on site Aug 1st, technician adjusted ISC line as it was loose and reset ISC valve, and propane pressure maintained pressure, burner cycling on and off as needed. Performed transfer test, test completed with no issues	28-Aug-19

For the operating year of 2019, 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.