

For the period of January 1st, 2023 to December 31st, 2023

Prepared for the Corporation of the Township of Essa by the Ontario Clean Water Agency





Drinking Water System Regulation: O. Reg 170/03

Schedule 22 Summary Report: January 1, 2023 to December 31, 2023

Township of Essa: Baxter Distribution System

This report was prepared in accordance with the requirements of <u>O.Reg 170/03, Schedule 22, Summary Reports for Municipalities</u> for the following system and reporting period:

Drinking-Water System Name:
Drinking-Water System Name:
Drinking-Water System Owner:
Drinking-Water System Category:
Drinking-Water System Owner:
Drinking-Water System Owner:
Drinking-Water System Owner:
Drinking-Water System Owner:
Drinking-Water System Name:
Drinking-Water System Name:
Drinking-Water System Owner:
Drinking-Water System Category:
Drinkin

1. Issue(s) of Non-Compliance

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on May 11, 2023 for the period covering May 1, 2022 to May 11, 2023. September 27, 2023 the Inspection Report was issued. An Inspection Summary Rating Record (IRR) of 100% was received.

The following is a summary of non-compliances noted in the MECP Inspection Report, as well as the duration and the measures that were taken to correct the non-compliance. If any self-reported non-compliances were included in the inspection report, they will be noted in Table 1.

Table 1. Non-Compliances and Corrective Actions noted in the 2022/2023 MECP Inspection Report

Non-Compliance(s)	Duration	Required Actions & Corrective Actions
N/A	N/A	N/A

The following table (Table 2) is a summary of any incidents that the Operating Authority interpreted as a instances where any requirements of the Act, the regulations, the system's approval, drinking water works permit (DWWP), municipal drinking water licence (MDWL), and any orders applicable were not met. The Operating Authority reported the following incidents to the MECP and confirmation of whether the incidents are considered non-compliances are noted in the MECP Inspection Report and included in Table 1.

Table 2. Self-Reported Incidents and Corrective Actions for the Reporting Period

Incident	Duration	Corrective Actions
N/A	N/A	N/A

For information on any Adverse Water Quality Incident(s) that may have occurred during the reporting period, please refer to the Baxter Distribution System Annual Report (Section 11).

2. Assessment of Flowrates and Quantity of Water Supplied

In 2017, Baxter Drinking Water System became a stand-alone distribution system receiving treated water from the Raymond A. Ultrafiltration Plant owned by the Town of Collingwood. Treated water is transported via a water transmission main (pipeline) that stretches from the Town of Collingwood to Alliston, in the Township of New Tecumseth. The Township of Essa has

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an agreement with the Township of New Tecumseth to receive 100 m³/day from the pipeline. The balance of the 100m³/day that is not taken by the Baxter DS is sent to the Mill Street Pumphouse in Angus, Ontario. Since treated water is supplied to the distribution system, Baxter DS does not have a Permit to Take Water as it does not draw from a raw water source.

In September, 2023 OCWA began preparing for the new Baxter Booster Station to come online, as part of pre-approved works to the system. Work included filling the two (2) on-site grade level water storage tanks for sampling and testing. On December 6, 2023 the old pumphouse on Marshall Avenue was decommissioned and the treated water from the pipeline began entering the newly commissioned Baxter Booster Station on Murphy Road in Baxter and in turn conveyed water to the distribution system.

The following tables (Table 3 and 4) summarize the quantities and flowrates of water received from the New Tecumseth Pipeline and then supplied to the Baxter Distribution System during the reporting period, including average and maximum day volumes as well as a comparison to the allowable takings approved in the system's approval, DWWP or MDWL.

2.1 Treated Water

Municipal Drinking Water License (MDWL):	118-102 (Issue Number: 4)	
Allowable Rated Capacity:	Not Applicable	
Allowable Flowrate into Treatment System:	Not Applicable	

The applicable MDWL does not contain an allowable rated capacity or allowable flowrate into the treatment system. Rated capacity is assessed based on the contractual agreement between the Township of Essa and the Township of New Tecumseth, which stipulates that the Baxter Distribution System may take up to 100 m³/day of treated water from the transmission pipeline.

Table 3. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to the New Tecumseth Pipeline Allowable Daily Takings and Total Volume for 2023

Timeframe	Average Daily Takings (m³/day)	Maximum Daily Takings (m³/day)	Total Volume Taken (m³)
January	25.67	32.60	795.9
February	26.10	36.60	730.9
March	26.39	31.20	818.2
April	29.00	97.30	870.1
May	36.71	58.50	1138
June	46.67	87.10	1400.2
July	34.45	59.20	1068
August	27.64	38.30	856.99
September	42.71 ^{3B}	115.60 ^{3A}	1,281.30 ^{3A}

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Timeframe	Average Daily Takings (m³/day)	Maximum Daily Takings (m³/day)	Total Volume Taken (m³)
October	39.22 ^{3B}	60.00 ^{3B}	888.46 ^{3B}
November	36.36 ^{3B}	42.00 ^{3B}	1,090.80 ^{3B}
December	32.65 ^{3B}	71.00 ^{3B}	1,012.15 ^{3B}
2023	28.03	115.60 ^{3A}	9,362.04

^{3B}Note that from September 13 to December 7, 2023 the incoming (pipeline) flowmeter was not functioning at the new Baxter DS Booster Station. Flows were calculated based on the flows to the distribution system, plus the two free chlorine analyser flows (6m³/day each).

A review of flow information for the reporting period indicates that the Baxter distribution system operated within the allowable taking volume (100 m³/day) stipulated in the contract between the Township of Essa and the Township of New Tecumseth, with the exception of:

• September 12, 2023- flow exceedance was a result of filling the new water storage tanks at the new Baxter Booster Station. To accommodate the increased takings on September 12, 2023 no water was taken from the pipeline on September 13, 2023.

2.2 Distribution Water

Table 4. Distribution Water Annual and Monthly Average and Total Flow for 2023

2023 Flow from the Baxter Pumphouse to the Distribution System			
Timeframe	Average Daily Flow (m³/day)	Total Flow (m³/day)	
January	23.00	713.00	
February	22.93	642.00	
March	23.55	730.00	
April	26.07	782.00	
May	36.35	1,127.00	
June	41.97	1,259.00	
July	30.03	931.00	
August	25.06	777.00	
September	34.37	1,031.00	
October	27.23	844.00	
November	24.37	731.00	
December	13.77	426.98	
2023	27.38	9,993.98	

The applicable MDWL and contact do not list a maximum allowable limit for flow or flowrate of water that flows into the distribution system.