

**MUNICIPALITY OF LAKESHORE
TECUMSEH WATER SERVICE AREA
2023 ANNUAL & SUMMARY REPORT
MADE UNDER O.REG. 170/03**

The Municipality of Lakeshore is required to provide an *Annual Report* for each of its Ministry of the Environment Conservation and Parks (MECP) drinking water systems under Drinking Water Systems Regulation *O.Reg. 170/03* in accordance with the *Safe Drinking Water Act* (as amended). This *Annual Report* is due to be posted for public viewing by the end of February of the following year.

Under *Schedule 22 of Ontario Regulation 170/03*, a regulation made under the *Safe Drinking Water Act 2002*, requires that a large municipal residential drinking-water system must provide to its members of municipal council a Summary Report on various aspects of the system before March 31 of the following year. The Tecumseh Water Service Area is classed as a small municipal residential drinking-water system and is therefore subject to Schedule 22. The purpose of this letter and its attachments is to satisfy this requirement and report on dates from January 1, 2023, until December 31, 2023.

The Municipality of Lakeshore owns and operates four (4) separate drinking water systems under MECP jurisdiction. This letter focusses on the *Tecumseh Water Service Area (WSA)* which is registered having *Drinking Water System #260004982*. This drinking water system is deemed to be *Small Municipal Residential* having a mathematically assumed population of 159 having 57 service connections at the end of 2023.

The Tecumseh Water Service Area (TWSA) includes the area of Lakeshore generally bounded by County Rd.19, County Rd.42, Scott Side Road and Highway 401. The TWSA encompasses water service connections along the east side of County Rd.19 from County Rd.42 north to County Rd.22 including connections on Little Baseline Road. Through an agreement between the Municipality of Lakeshore and the Town of Tecumseh, the TWSA supplies water to approximately 157 residents located within the Municipality of Lakeshore. The Town of Tecumseh obtains its drinking water from the Windsor Utilities Commission water system. The TWSA distribution system is comprised of approximately 21km of watermains ranging in size from 50 to 200 millimeters in diameter. The distribution system disinfection residual is by free chlorine and includes Fluoride.

The Tecumseh WSA receives its water from the Windsor Utilities Commission WTP via Tecumseh. Because of this no WTP data is reported for this system by the Municipality of Lakeshore. The Municipality of Lakeshore maintains the distribution system and monitors Free Chlorine Residuals and Bacteriological Counts. This is required to ensure water remains disinfected in accordance with the Safe Drinking Water Act and its associated Regulations and Guidance Documents. The results of these distribution system samples are listed below in Table I & II

TABLE I
2023 OPERATIONAL TESTING
REGULATION 170/03 DURING 2023

	Number of Grab Samples	Range of Results (min #)-(max #)	Unit of Measure
Distribution Additional Residuals	417	0.57 – 1.78	Free CL mg/l

CL – Chlorine
 mg/l – milligram per litre

Under *Schedule 10* of *O.Reg. 170/03* the Municipality of Lakeshore is required to complete microbiological testing on distribution water. All these samples are required to be tested by a certified laboratory accredited for drinking water samples. Table II outlines these analytical results.

TABLE II
2023 MICROBIOLOGICAL TESTING DONE UNDER
SCHEDULE 10 OF REGULATION 170/03

	NUMBER OF SAMPLES	RANGE OF E.COLI OR FECAL RESULTS (MIN #)-(MAX #) cfu's	RANGE OF TOTAL COLIFORM RESULTS (MIN #)-(MAX #) cfu's	NUMBER OF HPC SAMPLES	RANGE OF HPC RESULTS (MIN #)-(MAX #) cfu's
Distribution	104	0 – 0	0 – 0	104	0 - 10

cfu – colony forming units
 HPC – heterotrophic plate count

Distribution water samples are taken for Trihalomethanes (THM) and Haloacetic Acids (HAA) which are sampled quarterly. Lead and alkalinity samples are taken in the distribution system bi-annually. The requirement to take and the amount of samples taken for these parameters falls under *O.Reg. 170/03* and is based on population served. In Tables III, IV and V shows the results satisfying the regulation.

TABLE III
2023 TRIHALOMETHANES & HALOACETIC ACIDS RESULTS
QUARTERLY DISTRIBUTION WATER REQUIREMENT
REGULATION 170/03

Parameter	Sample Schedule	Result	Unit of Measure	Exceedance
THM (Distribution RAA)	Quarterly	29	mg/l	NO
HAA (Distribution RAA)	Quarterly	15.58	mg/l	NO

mg/l – milligram per litre

RAA – Running Annual Average

TABLE IV
2022 LEAD & ALKALINITY RESULTS
BI-ANNUAL DISTRIBUTION WATER REQUIREMENT
REGULATION 170/03

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
Distribution (Lead)	4	<0.00002 – 0.00002	mg/l	NONE
Distribution (Alkalinity)	4	87 - 92	mg/l	NA

mg/l – milligram per litre

TABLE V
2023 FLOW DATA (Cubic Meters(m3))
Monthly total flows from the three separate metered areas

Consumption Month	County Rd 42	Scott Sideroad	Little Baseline	Total
January	308	503	121	932
February	309	487	121	917
March	411	657	147	1215
April	381	652	126	1159
May	491	869	138	1498
June	974	1365	204	2543
July	3103	795	138	4036
August	0	835	183	1018
September	0	845	173	1018
October	0	715	180	895
November	0	642	174	816
December	933	661	142	1736
Totals	6910	9026	1847	17783

Under the agreement between the Municipality of Lakeshore and the Town of Tecumseh, the TWSA supplies up to a maximum daily flow of 400,000 imperial gallons (1,818.4 m³) per day. A review of the monthly flow rates indicates that Lakeshore uses approximately 48.7 m³ per day, or 2.68% of the available aggregate maximum daily flow from the TWSA.

A water service area can require extensive maintenance annually. These costs are incurred to install new equipment and maintain the current assets. A brief description of any capital items is to be listed as part of this letter, however there were no large capital purchases made for the Tecumseh WSA in 2023.

Under *O.Reg.170/03* the Municipality is required to report notices submitted in accordance with the *Safe Drinking Water Act*, system approvals, Drinking Water Works Permit and Municipal Drinking Water License. There were no notices filed or reported to the *Spills Action Centre* by the Tecumseh WSA in 2023.

This report is made available to the public for viewing on the Municipalities website at <https://www.lakeshore.ca/en/municipal-services/plans-publications-and-reports.aspx#Drinking-Water-Annual-Reports> . The report is printed and available for viewing at 419 Notre Dame Street (Town Hall) & 492 Lakeview Dr, Belle River, Ontario. Both versions are available after February 29th 2024.