



2022

ANNUAL SUMMARY REPORT

THE TOWNSHIP OF HAMILTON

HAMILTON TOWNSHIP DISTRIBUTION SYSTEM

Prepared by Lakefront Utility Services Inc. (2023)

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1. PURPOSE

The purpose of the Annual Summary Report is to provide information to residents and stakeholders of the Township of Hamilton. Furthermore, satisfying the regulatory requirements of the *Safe Drinking Water Act, 2002* including the Drinking Water Quality Management Standard (DWQMS) reports to Owner, and regulatory reporting required under *Ontario Regulation 170/03*. This annual water quality report fulfills all requirements of *Ontario Regulation 170/03* Section 11 Annual Reports and Schedule 22 Summary Reports for Municipalities.

The Annual Summary Report is prepared by Lakefront Utility Services Inc. (Operating Authority) on behalf of The Township of Hamilton (Owner).

Scope

This Annual Summary Report includes information pertaining to the Township of Hamilton's Stand-Alone Drinking Water System (Hamilton Township Distribution System) for the period of January 1, 2022 to December 31, 2022. *Ontario Regulation 170/03* requires reported information be provided to:

- **Drinking Water System Owners (Mayor and Council)**
- **Owner and Operating Authority Top Management**
- **The Public**

Availability

The Hamilton Township Distribution System is a large municipal residential system that serves approximately 114 metered customers. Copies of this Annual Summary Report are available online at <https://www.lakefrontutilities.com/regulatory-water/>. Hard copies are also available at the LUSI's office at 207 Division St, Cobourg ON, K9A 4L3.

Customers of the Hamilton Township Distribution System are notified that the annual water quality report is available via "What's New" <https://www.lakefrontutilities.com/whats-new/>, social media posts and "Stay Connected" LUSI bill insert.

Council Resolution

Ontario Regulation 170/03 requires Summary Reports to be distributed to the Municipal Council no later than March 31 of each year. Hamilton Township must provide LUSI with a copy of the council resolution indicating the report has been accepted.

2. HAMILTON TOWNSHIP DISTRIBUTION SYSTEM OVERVIEW

The Hamilton Township Distribution System is a standalone distribution system, which is supplied with potable water produced by the Cobourg Water Treatment Plant. The Hamilton Township distribution system consists of 19 fire hydrants and 36 distribution valves. There are no storage facilities, pressure boosting, re-chlorination facilities, or other external structures within in the system.

LUSI and Hamilton TWSP have an agreement to operate the Hamilton Township Distribution System in accordance with O. Reg 170/03 Section 5. (4)(b). This means, if a large municipal residential system obtains all of its' water from a drinking water system (Cobourg) and both parties have agreed in writing, Hamilton Township's attached system is treated as an extension of Cobourg's distribution system. Note: Components of this report will reference the Cobourg Drinking Water System 2022 Annual Summary report.

3. TOWN OF COBOURG DRINKING WATER SYSTEM

The Cobourg Water Treatment Plant (WTP) takes water from Lake Ontario through an 860 m-long intake pipe. Raw water is pre-chlorinated for zebra-mussel control before it enters a full conventional treatment process. The treatment process includes coagulation, flocculation, sedimentation, and filtration. *Aluminum sulphate* is used as the coagulation agent, with the addition of *Flowpam AN 934 PWG* (polymer) to aid in the process. Primary disinfection is achieved with *gaseous chlorine* after water undergoes an appropriate contact time, after which the water is stored in a 6,240m³ in-ground reservoir, from where it is then pumped to the distribution system.

The Cobourg distribution system consists of two pressure zones, with an elevated water storage tank in each of the zones. The Water Treatment Plant supplies water to the zone 1 tower, with a holding capacity of 1,332m³. The booster station, located at the boundary of the two zones, supplies water to the zone 2 tower, with a holding capacity of 3,734m³. Zone 1 tower, zone 2 tower and the booster station are all equipped with *sodium hypochlorite* and rechlorination equipment to maintain proper disinfection.

4. 2022 COMPLIANCE

4.1 MECP INSPECTION

The Hamilton Township Distribution System underwent an announced MECP compliance inspection starting July 15, 2022. A final inspection rating of 100% was achieved. There were no non-compliances with regulatory requirements, and no identified recommendations or issues related to best practices.

4.2 LICENSE & PERMIT COMPLIANCE

The Hamilton Township Distribution System maintained compliance with all applicable legislation, and all terms and conditions of the Municipal Drinking Water License (139-101, Issue 4, August 12, 2021) and Drinking Water Works Permit (139-201) in 2022.

4.3 ADVERSE WATER QUALITY INCIDENT(S)

There was one (1) adverse water quality incident in the Hamilton Township Distribution System in 2022 on October 27, 2022. During commissioning of a watermain following re-lining leakage was found and it was believed to be through curb stops into resident’s homes and from there into the temporary water main that was serving the customers during this time. The main was flushed and two (2) sets of samples were taken for E. Coli and total coliforms (24 hours apart). All samples showed no presence of E. Coli or total coliforms. Affected residents were advised by hand delivered notices to boil water or seek an alternative source until the results were received at which time they were advised that the advisory had ended.

5. CONTINUAL IMPROVEMENT

LUSI’s commitment to continual improvement requires investigating and investing in, where appropriate, methods and technologies to improve

- The quality of processes used to ensure production of ample clean water, and
- The quality and effectiveness of the distribution system.

During the 2022 reporting year, LUSI demonstrated this commitment by completing the activities listed in Table 1. Table 1 also satisfies O. Reg 170/03 requirement to describe major expenses that occurred during the reporting period.

<i>Hamilton Township Distribution System</i>		
	June St./Catherine St. cement relining	\$360,000.00
	Hydrant Replacement – 12 Oliver’s Lane	\$15,000.00

6. SAMPLING AND ANALYSIS

Sampling and analysis data as it may relate to the Hamilton Township Distribution System is presented in the Cobourg Drinking Water System 2022 Annual Summary Report.

6.1 LEAD SAMPLING

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
Plumbing	N/A - System was subject to the Plumbing Exemption only pH (6.90) & Alkalinity (81 mg/L) were sampled For Period 2			
Distribution	1	0.04	ug/L	0