



ANNUAL SUMMARY REPORT

THE TOWNSHIP OF HAMILTON

HAMILTON TOWNSHIP STAND-ALONE DRINKING WATER SYSTEM

Prepared by Lakefront Utility Services Inc. (2021)

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1. PURPOSE

The purpose of the Annual Water Quality 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 water quality report is prepared by Lakefront Utility Services Inc. (operating authority) on behalf of The Township of Hamilton (owner).

Scope

This annual water quality 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, 2020 to December 31, 2020. *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 342 people. Copies of this annual water quality 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 be distributed to municipal council no later than March 31 of each year. Hamilton Township must provide LUSI with a copy of 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 TWSP 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 TWSP 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, the Hamilton TWSP is treated like an extension of Cobourg's distribution system. Note: Components of this report will reference the Cobourg Drinking Water System 2020 Annual Summary report.

3. TOWN OF COBOURG DRINKING WATER SYSTEM

The Cobourg Water Treatment Plant (WTP) takes water from Lake Ontario through an 860m-long intake pipe. Raw water is pre-chlorinated for zebra-muscle 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 an 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 6240m³ in-ground reservoir, from where it is then pumped to the distribution system.

The 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 1332m³. The booster station, located at the boundary of the two zones, supplies water to the zone 2 tower, with a holding capacity of 3734m³. Zone 1 tower, zone 2 tower and the booster station are all equipped with *sodium hypochlorite* and rechlorination equipment to maintain proper disinfection.

4. 2020 COMPLIANCE

4.1 MECP INSPECTION

The Hamilton Township Stand-alone Distribution System ("Hamilton Township Distribution System") underwent an announced MECP compliance inspection starting July 22, 2020 and achieved an inspection rating of 100.00%. No non-compliance with regards to regulatory requirements, or recommendation and best practice issues were identified in the 2020 MECP inspection.

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 and Drinking Water Works Permit in 2020.

4.3 ADVERSE WATER QUALITY INCIDENT(S)

There were no adverse water quality incidents in the Hamilton Township Distribution System in 2020.

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.

In 2020 there were no major expenses incurred in the Hamilton Township Distribution System. Major expenses incurred in the donor system, the Cobourg DWS, are listed in the Cobourg Drinking Water System 2020 Annual Summary Report.

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 2020 Annual Summary Report.

6.1 LEAD SAMPLING

| PERIOD 1 | | | |
|----------------------------------|--|------------|--------------|
| | Residential | Commercial | Distribution |
| # of Samples Taken | 0 | 0 | 1 |
| Concentration Range, µg/L | N/A - System was subject to the Plumbing Exemption only pH & Alkalinity were sampled | | |
| PERIOD 2 | | | |
| | Residential | Commercial | Distribution |
| # of Samples Taken | 0 | 0 | 1 |
| Concentration Range, µg/L | N/A - System was subject to the Plumbing Exemption only pH & Alkalinity were sampled | | |