

**THE CORPORATION OF THE CITY OF SARNIA**  
**People Serving People**

**ENGINEERING DEPARTMENT**

**OPEN SESSION REPORT**

TO: Mayor and Members of Council

FROM: David Jackson, General Manager of Engineering and Operations

DATE: February 13, 2023

SUBJECT: Summary Report for Sarnia Drinking Water Distribution System

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**Recommendation:**

For Council's Information

**Background:**

Under the Safe Drinking Water Act, O. Reg. 170/03, Schedule 22, City Council must be informed annually by the operators of their water distribution system on the status of their system. A summary report is prepared to highlight and expand upon the major points of the Annual Report, which is attached to this report, posted on the City of Sarnia's website and is also available in the Public Works Division offices at 651 Devine Street.

**Comments:**

This summary report is prepared for City Council as owners of the "Drinking Water System" in accordance with Schedule 22 of O. Reg. 170/03 and informs City Council that the Sarnia drinking water distribution system:

- a) is owned by the Corporation of the City of Sarnia and is located within the Municipality of the City of Sarnia.
- b) obtains drinking water from the Lambton Area Water Supply System supply/treatment/storage works with an additional connection fed through the St. Clair Water Distribution System.
- c) is a connected large municipal residential drinking water system as described in Sub Section 5 (I) of O. Reg. 170/03 and does not include water works for the collection, production, treatment, storage, or supply of water other than water distribution works

or in-distribution storage works whose sole purpose is water demand management.

Sampling and Monitoring Programs:

During the four quarters of 2022, 1288 Microbiological test samples, 328 HPC samples, 16 reportable lead distribution samples, 4 THM samples, 4 HAA and 1556 chlorine residual samples were taken on a demand of 11.4 million m<sup>3</sup>(cubic meters) of water.

**Table 1 - Annual volume record of the Lambton Area Water Supply System January 1, 2022 – December 31, 2022**

<b>Month/Year 2022</b>	<b>Volume (cubic meters)</b>
January	784,180
February	728,845
March	814,343
April	782,417
May	994,600
June	1,156,755
July	1,387,482
August	1,186,621
September	1,118,735
October	877,460
November	788,369
December	797,935
<b>2022 Year Total</b>	<b>11,417,742</b>
<b>2021 Year Total</b>	<b>10,998,346</b>

Ministry of the Environment Conservation and Parks (MECP) – Annual Inspection

There were two MECP inspections in the 2022 calendar year. The first inspection took place on January 20, 2022 and received a Final Inspection Rating of 90%. The second inspection took place on November 16, 2022 and received a Final Inspection Rating of 98.75%.

Non-Compliance with Regulatory Requirements:

One non-conformance from the January 20, 2022, inspection was cited, for improper recording of disinfection practices according to the MECP 2020 Watermain Disinfection Procedure. Forms from Engineering and Public Works were modified to better capture the recorded information required by the MECP 2020 Watermain Disinfection Procedure. Personnel from Engineering and Public Works were retrained in the MECP 2020 Watermain Disinfection Procedure.

One non-conformance from the November 16, 2022, inspection was cited, for Form 1 documents not being prepared in accordance with the Drinking Water Works Permit. For Capital Projects, a Quality Control Checklist will be implemented and need to be filled out before tendering. For Development projects, the Form 1 document will be required from contractors up front for all projects that touch a watermain.

### Lead Testing

A lead testing program is in progress as per the requirement by O. Reg. 170/03 s. 15.1. Sarnia remains under the relief from sampling requirements whereas distribution system sampling only is required. There were two sample periods in 2021 with a total of 16 sampling points in the distribution system. There was one lead exceedance within the Sarnia distribution system. Then resampled and found to be under the acceptable legal limit. During reconstruction projects and repair and maintenance operations the City of Sarnia replaces lead services as encountered.

The "Lead Removal Program" has replaced the "Corrosion Control Program" under the Municipal Drinking Water License as of November of 2022, with the City of Sarnia being able to remove all sampling and relief requirements under the Municipal Drinking Water License. Sampling programs will now be incorporated into the Lead Removal Program document and will be reduced in accordance with the removal of Lead Water Services in the Distribution System. A total of 53 combined/private lead water service lines and 41 city side lead water services have been removed since 2020.

### Drinking Water Quality Management Standard (DWQMS)

The Drinking Water Quality Management Standard is the Quality Management Standard approved under s. 21 of the Safe Drinking Water Act, 2002 (SDWA), and complements this legislative and regulatory framework by endorsing a proactive and preventive approach to assuring drinking water quality. This approach includes consideration of elements that are fundamental to ensuring the long-term sustainability of a Drinking Water System.

The DWQMS undergoes a surveillance audit (selected elements of the DWQMS) once every year and a reaccreditation audit (all elements of the DWQMS) once every three years.

SAI Global conducted a full onsite reaccreditation audit on December 8<sup>th</sup> & 9<sup>th</sup>, 2022. There were no non-conformances and only 4 OFI's "Opportunities for Improvement" were found for the City of Sarnia's Drinking Water Quality Management Standard 2.0.

**Consultation:**

The annual report has been posted on our website to fulfill a requirement of the Safe Drinking Water Act. The annual report is attached to this report.

**Financial Implications:**

There are no additional costs from this report. All costs associated with the supply, testing and reporting of the water system are included in the 2023 operating budget.

Reviewed by:

David Jackson  
General Manager of Engineering &  
Operations

Approved by:

Chris Carter  
Chief Administrative Officer

This report was prepared by Mark Suknandan, Environmental Compliance Coordinator

Attachment: 2022 Water Distribution Report Annual