

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee

From: Kelly Scherr, P.Eng., MBA, FEC
Managing Director, Environmental & Engineering Services
and City Engineer

Subject: 2020 External Audit of London's Drinking Water Quality
Management System and 2020 Management Review

Date: March 2, 2021

Recommendation

That, on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, the following report on the 2020 External Audit of London's Drinking Water Quality Management System, and the subsequent 2020 Management Review, **BE RECEIVED** for information.

Executive Summary

Purpose

Ontario's Safe Drinking Water Act, 2002, requires that operators of municipal drinking water systems conduct annual Management Reviews of their Quality Management Systems. The results of these reviews are required to be reported to the system owner.

This report satisfies that regulatory requirement and provides a summary of the June, 2020 On-site Verification Audit completed on London's drinking water quality management system.

Context

Ontario's municipal drinking water systems may only be operated by accredited Operating Authorities. Accreditation is achieved and maintained through the implementation of Quality Management Systems that comply with the provincial standard. Annual third-party external audits verify compliance, and annual Management Reviews are required in order to evaluate the continuing suitability, adequacy, and effectiveness of the Quality Management System.

Linkage to the Corporate Strategic Plan

This report supports the 2019 – 2023 Strategic Plan through the strategic focus area of Leading in Public Service, by demonstrating leadership and accountability in the management and provision of quality programs and services.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

2019 External Audit of London's Drinking Water Quality Management System and 2019 Management Review, Civic Works Committee, February 19, 2020.

1.2 Context

Quality Management Systems (QMSs) can be defined as sets of interrelated elements (e.g. policies and procedures) that direct and control the way a facility operates with regard to quality. A QMS is a way of ensuring that an organization is consistently in

control of the quality of the product or services that it supplies. The QMS for London's drinking-water system is documented in an Operational Plan.

In June 2020, an Off-site Surveillance Audit was conducted on London's Drinking Water Quality Management System by SAI Global Assurance Services. In November 2020, the Top Management of the Operating Authority for London's drinking-water system conducted the annual Management Review for the system.

2.0 Discussion and Considerations

2.1 Audit Findings

If auditors find instances where the water system is not being operated according to the approved Operational Plan, these are reported as either major or minor non-conformances. When non-conformances are identified in an audit report, the water system operators are required to submit Non-conformance Reports to the auditor, detailing the root cause of the non-conformance, the action(s) taken to correct the incident and contain the problem, and the systemic (long term) corrective action(s) planned or taken to eliminate the root cause in order to prevent recurrence.

No issues of non-conformance were identified in London's 2020 external audit.

In addition to instances of non-conformance, auditors also draw upon their expertise and experience to report Opportunities for Improvement (OFIs), which are suggestions as to how the Operational Plan might be improved. The 2020 audit report suggested three OFIs as follows:

- QMS-07 Risk Assessment – Consider summarizing changes associated with each annual review and 36-month assessment within QMS Table 08-01.
- QMS-08 Risk Assessment Outcomes – There is an opportunity to review QMS Table 08-02 to confirm the Re-chlorination Facilities at SM4 CCP which is not identified in QMS Table 08-01.
- QMS-20 Management Review – There is an opportunity to identify target completion dates for open actions identified on the 2019 Management Meeting Action Items Tracking Sheet.

The Operational Plan was subsequently updated to incorporate these suggested improvements.

2.2 Management Review

On November 3, 2020, the Top Management team for London's water system (the Director - Water and Wastewater, and the Division Managers of Water Engineering and Water Operations) held the annual Management Review for London's Drinking Water Quality Management System. The results of the Management Review are summarized in Appendix 'A'.

Conclusion

In June 2020, an Off-site Surveillance Audit was completed by a third-party auditor for the quality management system of London's drinking-water system. No incidents of non-conformance were identified in the audit report.

The Top Management team for London's water system held the required annual Management Review for London's Drinking Water Quality Management System in November 2020.

Prepared by: John Simon, P.Eng.
 Division Manager, Water Operations

Submitted by: Scott Mathers, MPA, P. Eng., Director, Water And Wastewater

Recommended by: Kelly Scherr, P. Eng., MBA, FEC
 Managing Director, Environmental and Engineering Services and City Engineer

CC: Dan Huggins, Water Quality Manager

Appendix A

RESULTS OF THE 2020 MANAGEMENT REVIEW	
Summary of Management Review	<p>The 2020 Management Review meeting was held on November 3, 2020. The meeting was attended by Scott Mathers, Director – Water and Wastewater, Aaron Rozentals, Division Manager – Water Engineering, John Simon, Division Manager – Water Operations, and Dan Huggins, Water Quality Manager and QMS Representative. The agenda items discussed were, a) Incidents of regulatory non-compliance, b) Incidents of adverse drinking water tests, c) Deviations from critical control point limits and response actions, d) Efficacy of the risk assessment process, e) Results of audits (internal and external), and effectiveness of recent corrective and preventive actions, f) Results of relevant emergency response testing, g) Operational performance, h) Drinking water quality trends, i) Follow-up action items from previous management reviews, j) Status of management action items identified between reviews, k) Changes that could affect the QMS, l) Summary of consumer feedback, m) Resources needed to maintain the QMS, n) Results of the infrastructure review, o) Operational Plan currency, content and updates, p) Summary of staff suggestions, and q) New Business.</p>
Action Items Identified	<ol style="list-style-type: none"> 1) Water Operations to develop a standardized form to record all of the required information prescribed by Section 4 of Ontario’s Watermain Disinfection Procedure relating to new watermain installations. These forms should clearly identify the disinfection methods employed, disinfection start and stop times, chlorine readings, percentage drop of chlorine concentration, and all other required elements. In addition, for pipe repairs, tapping etc., documentation related to the concentration of sodium hypochlorite used for these types of activities should be clearly noted (minimum 1%). 2) In 2021, the rechlorination facility at Springbank Reservoirs #1 & 2 to be upgraded to provide inflow chlorination capacity in addition to the current outflow chlorination

	<p>capacity to further improve the ability to provide stable chlorine levels.</p> <p>3) The City of London valve exercising program to be enhanced through incorporation into the anticipated Computerized Maintenance Management System.</p> <p>4) Coordinate with Corporate Security to discuss how the Alert London system could be used in the event of a drinking-water advisory or requests for reduction of water consumption in the event of a supply interruption.</p>
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