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To: Mayor and Council

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RE: 2020 DWQMS Annual Summary Report

Report No.: IED 2021- 03

AIM

The purpose of this report is to provide information to stakeholders and to satisfy the regulatory requirements of the Safe Drinking Water Act (SDWA) and O. Reg. 170/03-Drinking Water Systems Schedule 22. Specifically, that a report is presented to system owners no later than March 31 of each year, providing an overview of activities in the distribution system for the preceding calendar year.

BACKGROUND

A standard of care applies to all individuals tasked with providing safe and reliable potable water to their community. In the case of a drinking water system owned by a municipality, as decision-makers, members of Council share in this responsibility. As such, an annual report summarizing both regulatory and operational activities within Kingsville's Water Distribution System must be presented to Council each year. In conjunction with the Summary Reports submitted by Union Water (Appendix A), a comprehensive overview of Kingsville's potable water system will be presented.

DISCUSSION

As an accredited operating authority, Kingsville is required to develop and maintain an Operational Plan, which establishes policies, objectives, controls, and methods for delivering safe potable water. To ensure Kingsville is meeting the requirements of the Drinking Water Quality Management Standard (DWQMS) developed by the Ministry of Environment Conservation and Parks (MECP), a third party audit of its Operational Plan must be completed annually. In addition, the distribution system is also subject to a series of other mandatory audits, inspections and reviews. The following will summarize these activities:

Conformance Audits (Annual)

Conformance audits compare Kingsville's Operational Plan to the requirements of the Ministry's DWQMS. The objective of the audit is to ensure conformance with the standard and promote continuous improvement of the Operational Plan. During the inspection, an auditor may issue a non-conformance. This occurs when a deficiency is discovered between what is required under the DWQMS and what is actually documented and completed as part of the Operational Plan. For each non-conformance, a response is submitted to the auditor, which addresses the issue so that the item may be resolved and closed out. Auditors also identify Opportunities for Improvement that do not require a formal response. As such, they are not highlighted in this report.

External Audit Results

SAI Global conducted a system audit on June 16, 2020. During the inspection, the auditor identified the following minor-nonconformities:

- Standard forms, such as the Water Main Break and Fire Hydrant Inspection Sheets, are uncontrolled as per Element 5 Documents and Records Control.
- There was no evidence that new hires have received DWQMS orientation training as per Procedure 12:01 Communications.
- There was no evidence of ensuring the quality of essential supplies related to sampling and testing as per Procedure 13:01 Essential Supplies and Services.
- Records are inadequate to demonstrate emergency response training and testing requirements as per Procedure 18:01 Emergency Management.

Root cause analysis was completed on each of these nonconformities and the necessary corrections were in place within specified completion dates. As such, the auditor determined that Kingsville's Operational Plan is effectively implemented and maintained and meets the requirements of the DWQMS.

Internal Audit Results

The Ontario Clean Water Agency (OCWA) completed the internal audit on Kingsville's behalf September 11, 2020. Internal Audits are designed to assess the effectiveness of operations, identify non-conformities, and assist in the continual improvement of Kingsville's Operational Plan. Due to the pandemic, personnel were interviewed remotely and documentation was submitted electronically. The auditor identified no instances of nonconformance and determined that Kingsville's quality management processes are able to consistently produce and distribute drinking water that meets applicable requirements.

Management Review

As specified in Kingsville's Operational Plan, administration is required to complete an annual review of system activities and share the results with the system owner (Council).

The purpose of the Management Review is to evaluate the ongoing suitability, adequacy and effectiveness of the Towns Quality Management System. The review includes considerations such as adverse drinking water tests, instances of non-compliance, operational performance, drinking water quality trends, and the status of action items between reviews. The Management Review was completed on November 4, 2020. A copy of the meeting minutes and associated action items can be reviewed in Appendix B.

Risk Assessment (3-year Cycle/Annual Review)

The MECP maintains a list of hazardous events that have the potential to impact municipal drinking water systems. Kingsville’s Operational Plan establishes methods for identifying and evaluating the significance of these hazardous events and how they may affect drinking water quality or supply. Full risks assessments are conducted every three (3) years, with the last taking place in 2019. However, once every calendar year representatives must verify the currency and validity of the assumptions used as part of the risk assessment tool. This includes reviewing processes, procedures, sample results, service interruptions, and emergency response procedures. In 2020, there were no deviations from critical control points or hazardous events within the distribution system that posed a threat to the public. As a result, it was determined that Kingsville’s risk assessment protocols are up-to-date and effective.

In 2017, the MECP updated the DWQMS and included requirements for municipalities to incorporate risk assessment outcomes into infrastructure capital planning. It is now mandatory to forecast major infrastructure maintenance, rehabilitation, and renewal activities based on the severity and likelihood of the hazardous events identified within the risk assessment tool. This long-term forecast must be reviewed by administration once per calendar year. The Infrastructure and Engineering Department incorporated the risk assessment protocols outlined in Kingsville’s Operational Plan into the 5-year capital plan for buried infrastructure. Projects completed in 2020 and those identified for future rehabilitation are as follows:

Year	Projects	Risk Assessment Analysis
2020	Sumac Water Main Looping Project	- Failure to maintain secondary disinfection
2021	Clarke Street Water Main Replacement	- Aging infrastructure - Pipeline/water main break
2022	Stonehedge Dr/Coghill Dr Water Main Project	- Aging infrastructure - Pipeline/water main break
2022	Lorna St and Edith St Water Main Looping Projects	- Loss of Supply - Failure to maintain secondary disinfection
2023	Woodfern Ave/Queen Blvd/Peach Dr Water Main Replacement Project	- Aging infrastructure - Pipeline/water main break

MECP Compliance Inspection (Annual)

The primary purpose of a MECP inspection is to confirm compliance with relevant legislation as well as evaluating conformance with Ministry drinking water polices and guidelines. Inspections include a review of treatment processes, distribution system components, operations, manuals, consumer relations, staff certification, and overall water quality. Provincial officers may, at any reasonable time, enter onto municipal property to

conduct these inspections. Traditionally, the MECP conducts them annually, with an unannounced inspection taking place once every three (3) years.

Upon completion of the inspection, each municipality is assigned an Inspection Summary Rating Record (IRR), which provides the Ministry and Local Public Health Units with a summarized quantitative measure of the drinking water systems annual inspection and water quality testing performance. Due to concerns arising from the pandemic, administration participated in a virtual inspection on October 8, 2020. The Kingsville Distribution System received a rating of 100% during the inspection period (Appendix C).

Summary

The MECP encourages individuals, particularly municipal Councillors, to learn about the drinking water systems over which they have decision-making authority. Should any member of Council wish to review any of these reports in their entirety, please reach out to the Infrastructure and Engineering Department for assistance.

LINK TO STRATEGIC PLAN

To promote a safe community.

FINANCIAL CONSIDERATIONS

The external audit performed by SAI Global cost \$2712.00 and the internal audit performed by OCWA cost \$885.00. Staff in the Infrastructure and Engineering Department completed all other compliance and conformance activities in 2020.

CONSULTATIONS

Union Water Supply System
Environmental Services Department

RECOMMENDATION

There is no recommendation from administration, the information in the report is being provided to satisfy the regulatory requirements of the Safe Drinking Water Act.

Respectfully Submitted,

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