

Date: February 24, 2025

To: Mayor and Council

Author: Kyle Davis, Water Operations and Compliance Technician

RE: 2024 Drinking Water Summary Report

INFORMATION REPORT

BACKGROUND

The purpose of this report is to inform stakeholders and 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. In conjunction with the Annual Reports submitted by Union Water Supply System (UWSS) found as 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:

Municipal Drinking Water License & Drinking Water Works Permit Renewal

The Town of Kingsville's Municipal Drinking Water License (MDWL) and Drinking Water Works Permit (DWWP) were due for renewal in 2024. The MDWL and DWWP are a set of special conditions that are specific to Kingsville's distribution system and dictate procedures and policies required by the MECP to maintain the distribution system. This process triggered the necessity to review and possibly update the Town's water rates through 2034. This ensures the municipality can continue to fund the maintenance required to supply potable water to its residents. In September the renewals were received and are valid until 2029.

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 documented in the Operational Plan. For each non-conformance, root cause analysis is performed to determine the underlying cause of the issue and methods for addressing them within specified completion dates.

External Conformance Audit Results

Intertek - SAI Global conducted an annual conformance Audit on May 31, 2024. The audit was intended to gather the information necessary for Intertek - SAI Global to assess whether accreditation of the DWQMS can continue. This is conducted on a five (5) year cycle and requires management to gather a multitude of documents. During this inspection, the auditor identified Six (6) Major non-conformities related to Document and Records Control, and three (3) Major non-conformities related to Continual Improvement. To address each issue, a root cause analysis was done, and then staff made improvements to all of the relative documents. The final step to closing the non-conformities to the auditor's satisfaction was to analyze each NCR's for their effectiveness in solving the issues. The auditor was satisfied prior to the end of 2024 with all aspects of closing out the identified non-conformities therefore the auditor determined that Kingsville's Operational Plan is effectively implemented and meets the requirements of the DWQMS.

Internal Audit Results

Internal audits are designed to assess the effectiveness of operations, identify non-conformities, and assist in the continual improvement of Kingsville's Operational Plan. Kingsville's Internal QMS Audit Report was completed on December 16, 2024, with assistance from Ontario Clean Water Agency (OCWA). The auditor did not identify any non-conformities and three (3) OFI's. Management will attend to the improvements when time allows. The audit determined that Kingsville's quality management processes can consistently produce and distribute drinking water that meets applicable standards.

Management Review

As specified in Kingsville's Operational Plan, administration must complete an annual review of system activities and share the results with the system owner (Council). The Management Review was completed on November 18, 2024. A copy of the meeting minutes and associated action items can be reviewed in Appendix B. To summarize system maintenance activities in 2024, work was done on our assets to help prevent failure, improve efficiency, and extend the life of our infrastructure. This

maintenance can generally be performed by our operators while the system is in operation. We have created an Annual Maintenance schedule which tracks Valve Operating, Fire Hydrant Maintenance and Dead-End Flushing.

Risk Assessments & Infrastructure Planning

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 dangerous events and how they may affect drinking water quality or supply. Risk Assessments include reviewing processes, procedures, sample results, service interruptions, and emergency response procedures. The annual Risk Assessment and Infrastructure review meeting was completed by management and staff on June 12, 2024, and there were no deviations from critical control points or hazardous events within the distribution system that posed a threat to the public which included the newly added cyber security threat assessment. As a result, it was determined that Kingsville's risk assessment protocols are up-to-date and effective. The minutes from the June 12, 2024, meeting are attached as Appendix C.

The DWQMS also requires municipalities to incorporate Risk Assessment outcomes into infrastructure capital planning. It is 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. Public Operations in consultation with the 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 2024 and those identified for future rehabilitation are as follows:

Year	Projects	Risk Assessment Analysis
2024	Owenwood Dr/James Ave/Katrishe Cr/Heritage Rd (Greenway to Main)	Aging infrastructureLow Pressure
2025	Woodfern Ave/Peach Dr/Willow Dr	Aging infrastructureLow Pressure
2026	Queen Blvd/Prince St/Lee Rd	Aging infrastructureLow Pressure
2027	Victoria St (Cty Rd 34 to Fox St)/Heritage Rd/Herrington to Bayview and Queen in between	- Aging Infrastructure
2028	Cherrywood Ave/Melbourne St/Elm St	- Pipeline/water main break
2029	Palmer/Westlawn/Cameron, Laurel (Elm to Mill) Elm (Division to McDonald)	Aging InfrastructureHistory of watermain breaks

^{**}Note: The table above is taken from Kingsville's 5-Year Capital Planning and is subject to change as underground infrastructure deteriorates and funding levels fluctuate. Some projects may be postponed to a later date, while others may be prioritized as urgent.

In 2024 there were six (6) watermain breaks in Kingsville's standalone water distribution system, none of these events caused MECP or Health Unit Advisories to be put in place. The six (6) watermain breaks caused approximately 42.5 hrs of total service interruption to approximately 180 total residences. Also in 2024, there were six (6) Watermain breaks in the UWSS owned watermain. Two (2) of these watermain breaks caused one (1) "Boil Water Advisory" affecting approximately 75 Kingsville residents from July 25th until July 29th.

MECP Compliance Inspection

The primary purpose of an MECP inspection is to confirm compliance with relevant legislation and evaluate conformance with Ministry drinking water policies and guidelines. Inspections include reviewing treatment processes, distribution system components, operations, manuals, consumer relations, staff certification, and overall water quality. Provincial officers may enter municipal property at any reasonable time to conduct these inspections. Traditionally, the MECP conducts them annually, with an unannounced inspection occurring once every three (3) years.

The MECP has not completed their 2024 inspection to date. We anticipate it will take place in the first half 2025.

FINANCIAL CONSIDERATIONS

The Re-accreditation audit performed by SAI Global/Intertek cost \$3,163.95, and support from OCWA to complete the Internal Audit cost \$950.00.

ENVIRONMENTAL CONSIDERATIONS

None

CONSULTATIONS

Environmental Services Staff SAI Global Ltd. Ontario Clean Water Association Union Water Supply System

PREPARED BY:

Kyle Davis, C.Tech.

Water Operations and Compliance Technician

REVIEWED BY:

Erica Allen, C.Tech.

Manager of Public Works and Environmental Services

REVIEWED BY:

Shaun Martinho, HBSc, MBA

Director of Public Operations

John Norton

Chief Administrative Officer