



## MEMORANDUM

To: Mayor and Members of Council

From: Brenda Librecz, Commissioner, Community & Fire Services,  
Phoebe Fu, Director, Environmental Services

Prepared by: Vincent Feng, QMS Coordinator, Environmental Services

Date: June 10, 2020

Re: **Markham's Drinking Water Distribution System – An Overview on Compliance Inspections and other Regulatory and Water Quality Activities**

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### RECOMMENDATION:

1. That the memo dated June 10, 2020 titled “Markham’s Drinking Water Distribution System – An Overview on Compliance Inspections and other Regulatory and Water Quality Activities” be received.

### PURPOSE:

The purpose of the memorandum is to provide Members of Council an overview on compliance inspections and other regulatory and internal measures taken, as it relates to water quality in Markham’s drinking water distribution system. This memo is a follow-up to the discussions made at the June 1 General Committee pertaining to the remote inspection of Markham’s Water Distribution System conducted by the Ontario Ministry of the Environment, Conservation and Parks (MECP), as part of the MECP’s new “Remote Inspection Pilot” project.

### DISCUSSION:

There are 4 key activities completed to ensure compliance with drinking water legislation and standards:

- MECP Compliance Inspection (annually)
- Municipal Drinking Water License submission (every 5 years)
- Accreditation Audit by a third-party auditor approved by the MECP (every year)
- Various internal activities (every year)

#### MECP Compliance Inspections (conducted annually by MECP Staff)

- Markham's drinking water distribution system is subject to the legislative requirement of the Safe Drinking Water Act, 2002 (SDWA). MECP regulatory inspections are conducted in accordance with Section 81 of the SDWA.
- Primary focus of the MECP water inspection is to confirm a water system's compliance with regulatory requirements contained within the SDWA, or any associated regulations.
- Provincial officers may at any reasonable time enter a water system's premise to conduct a regulatory inspection. Traditionally, the MECP conducts an on-site inspection of Markham's water system every year and can have an unannounced visit generally every three years. The inspector would conduct a documentation review both on-site and in the field, and will speak with staff as required.
- For the 2019-2020 period, the inspection was announced and Markham's system was assessed remotely by the MECP on January 29, 2020. This is part of the new "Remote Inspection Pilot" project. Markham's system was selected for the pilot based on its past record of high performance and ability to meet MECP criteria, and there were no deficiencies with O. Reg. 172/03 over the past three years.
- The remote pilot followed the same protocol as on-site inspections.
- It is primarily a documentation review of Waterworks procedures, policies and records since their last inspection which was held on January 9, 2019. The inspection reviewed all documentation remotely and contacted staff to review critical elements and key compliance issues.

#### Municipal Drinking Water License submission (every 5 years)

- City of Markham maintains its license to operate a municipal residential water system through the Municipal Drinking Water License (MDWL) program. License is valid for five years and updated information needs to be submitted to MECP for renewal.
  - Submitted information includes an updated financial plan, quality management system (QMS) operational plan and evidence of accreditation as an Operating Authority.
- Accreditation is granted after a certified third-party organization verifies that the QMS meets the provincial standard for drinking water quality. The City of Markham received an updated Certificate of Accreditation on January 3, 2020 from SAI Global to verify the conformance of its QMS to the Ontario DWQMS Version 2, 2017 standard. The certificate is valid until January 3, 2022.

#### Accreditation Audit by a third-party auditor approved by the MECP (every year)

- As part of this accreditation, an annual external audit of the QMS is conducted by a third-party approved by the MECP. Remote surveillance audits are conducted annually followed by an on-site 2-day audit every three years.
- Similar to MECP compliance inspections, external audits also review documents and records related to water quality activities to ensure conformance to DWQMS v.2, and its requirements have been effectively implemented or maintained.

## Various internal activities (every year)

### *Internal QMS Audit*

- Additionally, there are a number of internal activities conducted within Markham's drinking water distribution system to protect water quality and supply. For example, internal audits are conducted by volunteer staff annually to evaluate the conformance and effectiveness of operational and water quality activities.

### *Risk Assessment*

- A full risk assessment is conducted every 36 months with staff and management to identify and evaluate drinking water hazards. A review of the risk assessment is completed every year by staff to evaluate any impact to the system through changes in design, operations or regulations.

### *Management Review*

- Management Reviews are conducted with Top Management members at least once a year to review the performance of the QMS, and the results are brought to Council.

### *Water Quality Report*

- The annual Water Quality Report is also prepared for Council every year and posted on the City of Markham website to be publicly available.

## **Summary:**

- The 2019-2020 MECP Compliance Inspection was conducted remotely, however the scope of its documentation review was consistent with previous years.
- In addition to compliance inspections, MECP also reviews information related to Markham's water distribution system through the Municipal Drinking Water License program to ensure accreditation and conformance to water quality standards and expectations.
- Internal activities are completed on an annual basis to review various aspects of the water distribution system and to ensure water quality requirements are implemented and effective.
- Together with compliance inspections, there are other regulatory and internal activities completed to ensure City of Markham's water quality requirements are met.