

Report To:	Chair and Members of the Planning and Public Works Committee
From:	Jim Harnum, Commissioner, Public Works
Date:	October 4, 2017
Report No. - Re:	PW-35-17 - Drinking Water Quality Management System 2017 Management Review and Systems Audit

## RECOMMENDATION

1. THAT Regional Council endorse the changes to the Drinking Water Quality Management System Operational Plan as set out in Attachment #1 to Report No. PW-35-17 re: "Drinking Water Quality Management System 2017 Management Review and Systems Audit".
2. THAT the Regional Chair be authorized to sign the Drinking Water Quality Management System Operational Plan as set out in Report No. PW-35-17 upon the passage of a By-law for that purpose and that the Director of Legal Services be authorized to prepare such a By-law.

## REPORT

### **Executive Summary**

- In April 2017, the Ministry of the Environment and Climate Change released version 2 of the Ontario Drinking Water Quality Management Standard (the Standard) under section 21 of the *Safe Drinking Water Act, 2002*.
- The revisions to the Standard are administrative in nature to clarify existing requirements and to ensure consideration is given to the potential impacts of climate change when the risks to a drinking water system are assessed. The Ministry's revisions to the Standard necessitated minor updates to Halton Region's Drinking Water Quality Management System Operational Plan (or Operational Plan).
- The Ministry of the Environment and Climate Change requires the drinking water system owner to endorse changes to the Operational Plan.
- Halton Region's Drinking Water Quality Management System is formally evaluated annually in accordance with the Ministry of the Environment and Climate Change's requirements under the *Safe Drinking Water Act, 2002*.

- This report summarizes the outcomes of the 2017 Management Review of Halton Region’s Drinking Water Quality Management System, the third-party system audit and the updates to the Operational Plan to meet revised requirements of the Standard.

## **Background**

The Ministry of the Environment and Climate Change’s licencing program requires each municipal residential drinking water system to establish a Quality Management System documented in an operational plan which conforms to the Ontario Drinking Water Quality Management Standard. The owner of the drinking water system must provide written endorsement of the operational plan.

An annual Management Review is required to ensure the continuing suitability, adequacy and effectiveness of the Quality Management System, to identify opportunities for improvement, and to further enhance the provision of safe drinking water through discussion of operational performance, trends in water quality, customer feedback and audit findings. An annual third-party audit assesses conformance of the Quality Management System to the Standard and is the basis for accreditation under the Ministry’s Municipal Drinking Water Licensing Program.

## **Discussion**

### ***Operational Plan Endorsement***

The Drinking Water Quality Management Standard Operational Plan was first endorsed by Regional Council through Report No. PWE11-08. In 2015, the Operational Plan was updated to reflect the organizational changes in Public Works and endorsed by Regional Council in Report No. PW-07-15.

In April 2017, the Ministry of the Environment and Climate Change posted its updated Drinking Water Quality Management Standard to clarify existing requirements and identified new requirements to ensure consideration is given to the potential impacts of climate change when the risks to a drinking water system are assessed. These revisions to the Standard necessitated minor updates to Halton Region’s Operational Plan, including:

- Section 7 Risk Assessment – Updated the Risk Assessment Process to consider additional prescribed hazards and hazardous events predominately associated with climate change as published in the Ministry’s document titled, “Potential Hazardous Events for Municipal Residential Drinking Water Systems” set out in Attachment #2.

- Section 14 Review and Provision of Infrastructure – Updated the Infrastructure Review Process to reflect the Asset Management Strategy and ensure consideration of outputs arising from the updated Risk Assessment Process.
- Section 21 Continual Improvement – Updated the Continual Improvement Process to ensure the review, consideration and implementation of Best Management Practices including any published by the Ministry of the Environment and Climate Change.
- Other minor administrative wording changes were made to:
  - Section 2 Quality Policy;
  - Section 15 Infrastructure Maintenance, Rehabilitation and Renewal; and
  - Section 20 Management Review.

These revisions to the Operational Plan require Council’s review and endorsement, with the signing authority for the Operational Plan delegated to the Regional Chair.

### ***Management Review***

An annual Management Review and third-party audit of Halton Region’s Drinking Water Quality Management System is required with the findings reported to Regional Council.

On February 22, 2017, the Commissioner of Public Works along with the Directors of Water and Wastewater Treatment, Water and Wastewater System Services, Engineering and Construction, and Infrastructure Planning and Policy, and various key support staff attended the Management Review. The continuing suitability, adequacy and effectiveness of the Quality Management System were evaluated.

Based on discussions at the Management Review, the following continual improvement activities were assigned to staff and are in progress:

- Consider reviewing the current Cross Connection Control compliance program and develop a work plan to address the issues based on risk and severity.
- Consider developing a status update dashboard on Corrective Action and Preventative Action Requests (CARs and PARs) for the 2018 Management Review presentation.

### ***Quality Management System Audit***

The third-party reaccreditation audit of Halton Region’s Drinking Water Quality Management System and four licenced drinking water systems was conducted by a Ministry approved auditing firm.

NSF International Strategic Registrations conducted an on-site audit on March 27 through March 29, 2017 to assess conformance with the Standard. The auditor identified

the following items as strengths of Halton Region's Drinking Water Quality Management System:

- Staff competency;
- Management review process;
- Internal audit process;
- Management commitment; and
- Risk assessment process.

Zero non-conformances with the Standard were identified as a result of the 2017 third-party surveillance audit. The successful third-party audit ensures continued accreditation of Halton's Drinking Water Quality Management System and satisfies the Ministry of the Environment and Climate Change's Municipal Drinking Water Licensing Program requirements.

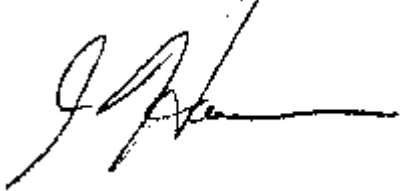
### ***Next Steps***

As part of the accreditation cycle, NSF International Strategic Registrations, or another Ministry of the Environment and Climate Change approved auditing organization, will administer a comprehensive off-site surveillance audit of Halton Region's Quality Management System in 2018. The audit outcomes will be provided to Council in a future report.

FINANCIAL/PROGRAM IMPLICATIONS

The cost of the Management Review and Accreditation audits are funded from the Rate Supported Operating Budget. Any additional funding required to address action items resulting from audit findings will be presented to Council with subsequent annual Budget and Business plans.

Respectfully submitted,



Jim Harnum  
Commissioner, Public Works

Approved by



Jane MacCaskill  
Chief Administrative Officer

If you have any questions on the content of this report,  
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Attachments: Attachment #1 – Halton Region Drinking Water Quality Management System Operational Plan  
Attachment #2 – Ministry of the Environment and Climate Change Hazardous Events to Consider in the Drinking Water Quality Management System Operational Plan