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The Regional Municipality of Durham Report

To:	Works Committee
From:	Commissioner of Works
Report:	#2023-W-1
Date:	January 11, 2023

Subject:

Operational Plan for Water Supply Systems to Comply with the Safe Drinking Water Act

Recommendation:

That the Works Committee recommends to Regional Council that in accordance with the requirements of the Ministry of Environment, Conservation and Parks (MECP) approvals framework for municipal drinking water systems, Regional Council acknowledge and endorse the Operational Plan for the Regional Municipality of Durham's Water Supply Systems.

Report:

1. Background

- 1.1 In Part Two (2) of the Report of the Walkerton Inquiry, Justice Dennis R. O'Connor recommended the implementation of a Water Quality Management System (WQMS) for any drinking water system. Justice O'Connor said, "The purpose of the quality management approach in the context of drinking water is to protect public health by achieving consistent good practice in managing and operating a water system".
- 1.2 The Ministry of the Environment, Climate Change and Parks (MECP) has mandated this recommendation under the Safe Drinking Water Act (SDWA) and Ontario Regulation (O. Reg.) 188/07 Licensing of Municipal Drinking Water Systems. The MECP has developed a "Made in Ontario" quality management standard that incorporates Justice O'Connor's recommendations known as the Drinking Water Quality Management Standard (DWQMS).

- 1.3 The DWQMS is part of the Municipal Drinking Water Licensing (MDWL) Program which is the approvals framework for municipal residential drinking-water systems. The requirements for this license are:
 - A drinking water works permit;
 - A permit to take water;
 - An approved operational plan;
 - An accredited operating authority; and
 - An approved financial plan, if required.
- 1.4 The DWQMS program, which is part of the Works Department Integrated Management System (IMS), provides the operational plan and the accredited operating authority. The Regional Municipality of Durham (Region) has had an approved operational plan since 2009 that includes both Plant Operations and Maintenance Operations with respect to the water systems. The original Operational Plan was acknowledged and endorsed by Regional Council in December 10, 2008 and has since been updated to reflect minor revisions and the new DWQMS 2.0 standard. There is no stated time at which the Operational Plan must be reviewed, updated, and endorsed. However, moving forward this will be done after each municipal election once all elected representatives of Regional Council have been officially sworn in for the term.
- 1.5 Twenty-one (21) elements are addressed in the Operational Plan which includes:
 - Quality Management System (QMS) Document a Quality Management System;
 - Quality Management System Policy Foundation for the Quality Management System;
 - Commitment and Endorsement Written endorsement of the Operational Plans;
 - QMS Representative Identification of the person to maintain the QMS;
 - Document and Records Control;
 - Drinking-Water System Description of the Drinking Water System;

- Risk Assessment and Risk Assessment Outcomes Identification and assessment of potential hazards to the Drinking Water System;
- Organizational Roles, Responsibilities and Authorities;
- Competencies Requirements for personnel whose duties may directly affect the drinking water quality;
- Personnel Coverage Procedures to ensure sufficient staffing;
- Communications Description of both Internal and External communications;
- Essential Supplies and Services List of suppliers that are essential to the supply of safe drinking water;
- Review and Provision of Infrastructure;
- Infrastructure Maintenance, Rehabilitation and Renewal Review of the adequacy of infrastructure;
- Sampling, Testing and Monitoring;
- Measurement and Recording Equipment Calibration and Maintenance;
- Emergency Management;
- Internal Audits;
- Management Review Review of the Operational Plans to ensure adequacy; and
- Continual Improvement.
- 1.6 There are specific responsibilities listed in the DWQMS for the different levels of management of the water supply systems as shown below, which must be listed in the Operational Plan.
 - a. Regional Municipality of Durham, Regional Chair and Regional Council (Owner)

The Region, represented by an elected Regional Chair and Council, is responsible for ensuring a safe and reliable water supply for the citizens of

the Region who are connected to the municipal water supply system. The Owner has the authority to delegate the management of the Water Supply System to qualified and competent staff.

- 1.7 In keeping with the legislated requirements, the DWQMS must identify the Top Management. This person or group of people is defined as the highest level of management who makes decisions about the Quality Management System and who will make recommendations about the water supply systems to the Owner. The identified Top Management group in the Operational Plan consists of the Director of Environmental Services, the Director of Transportation and Field Services, the Manager of Maintenance Operations and Fleet Services and the Manager of Plant Operations. This group has the following responsibilities listed in the Operational Plan:
 - a. Commissioner of Works

The Owner has delegated the overall responsibility for the management of the water systems to the Commissioner of Works. The Commissioner has the authority to ensure that competent staff is in place at the Director and Manager level to ensure safe and reliable drinking water and who will make decisions on the Quality Management System and recommendations to the Owner.

(Top Management)

b. Directors - Environmental Services and Transportation and Field Services

Through the approval of the Operational Plan and for the purposes of the DWQMS as indicated in the DWQMS Organizational Chart (Attachment #1), the Owner has delegated the responsibility for the management of the municipal water supply systems to this group who will report on the status of the Operational Plan to the Owner. The group is responsible for the overall management of the DWQMS and the water supply system. They have the authority to ensure that competent management staff is in place to ensure there is safe and reliable drinking water. They have the responsibility to guide and coach the staff to ensure they are kept current and up to date on changes in technology, legislation, and other matters that impact the water supply systems. They are responsible for signing the Commitment and Endorsement of the Operational Plan on behalf of

the Owner, the Quality Policy and the Notice of Appointment of the IMS Coordinator.

c. Managers – Plant Operations and Maintenance Operations

The Managers are responsible for ensuring that the Operational Plan and the DWQMS are implemented and maintained, as well as ensuring that there is competent management in place at the water supply plants and in the distribution systems. This will ensure a safe and reliable water supply and ensure compliance with regulations. Managers are responsible for maintaining long-term planning and budgets, and for reporting to the Directors on the status of the water supply. This group is responsible for administering, directing and improving the water supply to ensure its safe, efficient and cost-effective operation and maintenance. They are also responsible for reviewing and approving the policies and procedures in the IMS Manual.

- 1.8 As identified above, the responsibility for the overall management of the DWQMS lies with the Top Management Group. The Owner is responsible for ensuring a safe and reliable water supply for the users of the Region's municipal water supply systems and provides support, as required, to ensure that the system remains compliant with legislation. The Drinking Water Quality Management System Policy that defines the Region's commitment to water quality is included for reference (Attachment #2).
- 1.9 The Operational Plan has been included for reference (Attachment No. 3). The additional references in the Operational Plan can be located using the IMS drive <u>WORKS-IMS Home (sharepoint.com)</u>

2. Previous Reports and Decisions

2.1 Regional Council previously acknowledged and endorsed the Operational Plan as outlined in Report No. 2008-W-146 on December 10, 2008.

3. Relationship to Strategic Plan

- 3.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
 - a. Goal 1.4: Demonstrate leadership in sustainability and addressing climate change

b. Goal 5.3: Demonstrate commitment to continuous quality improvement and communicating results

4. Conclusion

- 4.1 In accordance with the requirements of the Ministry of Environment, Conservation and Parks approvals framework for municipal drinking water systems, Regional Council's acknowledgement and endorsement of the Operational Plan for the Regional Municipality of Durham's Water Supply Systems is recommended. Through this, Regional Council will give authority to the Directors of Environmental Services and Transportation and Field Services to sign the Commitment and Endorsement of the Operational Plan on their behalf.
- 4.2 For additional information, contact: Ian Mcilwham, Manager, Compliance, at 905-668-7711, extension 3736.

5. Attachments

- 5.1 Attachment #1: Drinking Water Quality Management System Organizational Chart
- 5.2 Attachment #2: Drinking Water Quality Management System Policy
- 5.3 Attachment #3: Link to the Operational Plan

Respectfully submitted,

Original signed by:

John Presta, P.Eng., MPA Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair Chief Administrative Officer

DWQMS ORGANIZATION CHART





Exhibit 03-b

Revision: 5

November 15, 2022

Drinking Water Quality Management System Policy

The Regional Municipality of Durham, Works Department, Plant Operations and Maintenance Operations Divisions are committed to:

- The maintenance and continual improvement of the Quality Management System.
- Providing safe drinking water to consumers
- Complying with applicable legislation and regulations
- Striving to reduce environmental impacts

This commitment to implement and continually strive to improve the effectiveness of the Quality Management System will be accomplished through the following quality objectives:

- To provide safe and reliable water treatment and distribution services in an efficient and effective manner that meet or exceeds Provincial water quality requirements.
- To provide a team oriented work environment that encourages personal development and continual improvement by ensuring that training and resources are available to all employees.
- To invest in infrastructure, technology and process improvement to enhance water service delivery.
- To measure the effectiveness of the Quality System through recording and tracking of incidents and their resolutions.

This commitment covers all the water systems that are owned and/or operated by the Regional Municipality of Durham.

Dated: November 15, 2022

Brad Øobson Acting Director of Environmental Services

Ramesh Jagannathan Director of Transportation and Field Services