



Administration and Operations Committee Report

To: The Chair and Members of the Administration and Operations Committee
From: Amanda Dubeckyj, Manager of Compliance and Quality
Andrea Bazzard, Director of Environmental Services
Date: December 10, 2024
Report #: RPT-0420-24
Subject: 2024 Drinking Water Quality Management System Annual Update
Purpose: For Information

Recommendation

Whereas the Ontario Safe Drinking Water Act requires that the Owners of Drinking Water Systems develop and implement a Quality Management System for each system based on the requirements of the Drinking Water Quality Management Standard (DWQMS), and;

Whereas the Ontario Drinking Water Quality Management Standard requires that Owners (Council) of the Drinking Water System are provided with a report of findings from the Annual drinking water system Infrastructure Review (Element 14) and the results of the Annual Management Review (Element 20) by the Operating Authority (Environmental Services).

That RPT-0420-24 2024 Drinking Water Quality Management System Annual Update be received as information.

Executive Summary

The Safe Drinking Water Act (SDWA) requires all Operating Authorities to provide Drinking Water System Owners with a report of their findings from the Annual Infrastructure Review (Element 14) and Annual Management Review (Element 20).

The annual Infrastructure Review ensures that the necessary infrastructure is in place to support the drinking water systems for continued operation and maintenance, includes discussion on increasing operational redundancy, reliability and safety and ensures that adequate infrastructure is available and aligned with the future plans for the organization and communities it serves. The annual Management Review provides updates on compliance, consumer feedback, operational performance, and audit feedback for the continual improvement of the operation.

The Infrastructure Review and Management Review findings, outlined herein, are provided to the Owners for informational purposes and have been used by staff to support the development of the 2025 Operating and Capital budgets.

Strategic Plan Priority

Strategic Priority 2 - Effective Communication

Strategic Priority 4 - Reliable Infrastructure

Impacts and Mitigation

Social Impacts

Providing the residents of the County with clean, safe and reliable drinking water, from source to tap.

Environmental Impacts

Ensuring that all regulatory and legislative requirements are met, and the environment is protected as outlined by related regulations and legislation.

Economic Impacts

The summary and recommendation of the Annual Infrastructure Review and the Annual Management Review are used to support the development of the 2025 Operating and Capital Budget requests to be considered by Council.

Report

Background

The Safe Drinking Water Act (2002) outlines the Statutory Standard of Care which extends legal responsibility to people with decision-making authority over municipal drinking water systems. This Standard of Care legislation applies to municipal Councils and management and requires that those with authority over the drinking water system exercise a level of care, diligence and skill, as well as due diligence, honesty, and integrity when making decisions that affect the drinking water system. Effective and continued communication is key to ensuring that decision makers have relevant information to inform the decision making process. The Operations Department, Environmental Services Division communicates with Council on a consistent and frequent basis, as outlined in Attachment 1, Drinking Water Systems Operational Communications with Council.

The County's Drinking Water Quality Management System Operational Plan requires the Operating Authority to complete specific reviews annually, and to report the results to the Owners. This includes the review of specific items related to the condition and capacity of the County's drinking water systems infrastructure components (Element 14 – Review and Provision of Infrastructure). The purpose of the annual review of drinking water systems infrastructure is to review what infrastructure is necessary to operate and maintain the subject system, and to determine if that infrastructure is in place as needed. This review helps to ensure that adequate infrastructure is available and is part of the organization's plans. Sharing the findings of this meeting with the Owner ensures that they are regularly informed of the infrastructure needs so that they may plan accordingly through the annual Operating and Capital budget process.

As part of the County's Drinking Water Quality Management System Operational Plan, it is also required to annually review and report on specific items in relation to the management of the drinking water systems (Element 20 – Management Review). This review includes, but is not limited to, the topics of compliance, consumer feedback, operational performance, audit information and is intended to involve Senior Leadership in the Quality Management Systems (QMS) cycle.

Analysis

The DWQMS Element 14 – Review and Provision of Infrastructure meeting was held September 27, 2024, and included representation from Environmental Services Division and Engineering and Infrastructure Planning Division within the Operations Department. The DWQMS Element 20 Management Review meeting was held October 7, 2024, and included attendance from the Operations Department Senior Leadership Team. A summary of key items from both the Infrastructure Review and Management Review are provided below.

All systems:

- The most recent DWQMS Surveillance Audit (Third Party) identified no non-conformances. Opportunities for improvement included continual improvement suggestions related to policy communication and best management practice opportunities.
- The 2023 Internal Audit on the Drinking Water Quality Management System Operational Plan identified no non-conformances.
- Risk Assessment identified the opportunity to monitor, improve and implement control measures for the SCADA system and data security.
- It has been identified that there is a need to develop a more robust Backflow Prevention Program. Staff will plan to conduct a review and gap analysis of the current practices and policy, as well as a municipal comparison and best management practice review.

Airport Drinking Water System

- It has been identified that an extension of the water distribution system along Oakhill Drive would be beneficial to improve reliability. The timing of this project will be developer driven.

Cainsville Drinking Water System

- Watermain replacement and upgrades are required for the main feed from Brantford to improve system capacity, redundancy and support community growth. Design will commence in 2025.
- Additional water servicing plans to support development on the south lands will be included in the Cainsville Premier Employment Hub Comprehensive Land Use Strategy. Conceptual design will begin in 2025.

- Storage upgrades are required to support community growth and improve fire flow for the planned employment lands. This is in the three (3) to five (5) year planning horizon.

Mt. Pleasant Drinking Water System

- System capacity has been an ongoing concern for the Mt. Pleasant DWS. It is anticipated that the transition of the Tutela Heights Water Distribution System (WDS) to the City of Brantford, planned to be complete by the end of 2024, will alleviate pressures on system capacity.
- Watermain replacements along Burtch Road, Cockshutt Road, Phelps Road and War Road are planned to begin in 2025. This will improve system operation and reliability for this portion of the community once the Tutela Heights WDS is transitioned.
- As the community grows attention will be given to the primary watermain feed along Ellis Ave to ensure reliability of water distribution. This will include the potential for water storage and will be developer driven.

St. George Drinking Water System

- St. George Elevated tank maintenance planned for 2025
- Design and construction of a new municipal well, water treatment plant and storage facility on Howell Road are required to support growth and improve system redundancy. Design is planned to begin in 2026, subject to land acquisition.
- Watermain replacements will be considered along Beverly Street and St. George Road and will be aligned with sewer replacements and road reconstruction over the next three (3) to five (5) years.

Paris Drinking Water System

- Condition Assessment of the North Paris Elevated Tank identified safety upgrades. Planned to be completed in 2025
- Ongoing watermain replacements are planned to support growth and address aging infrastructure.
- Paris Master Servicing Plan will be reviewed and updated to investigate options to provide redundancy for the Gilbert WTP and servicing options for Zone 4.
- There is a substantial demand on bulk fill stations in Mt. Pleasant and St. George on high-demand days. Consideration of a bulk fill station in south Paris would be beneficial.

Summary and Recommendations

The outcomes and key items identified as part of the Infrastructure Review, as well as the Management Review meetings have been used by staff to support the development of the 2025 Operating and Capital budgets.

It is recommended that the Owners of the Drinking Water Systems receive this report for informational purposes.

Attachments

- 1. Drinking Water Systems Operational Communications with Council

Reviewed By

- A. Bazzard, Director of Environmental Services
- R. Walton, General Manager of Operations

Copied To

- M. Maxwell, Director of Engineering and Infrastructure Planning
- M. Biggin, Environmental Services Manager – Water Operations

By-law and/or Agreement

By-law Required	No
Agreement(s) or other documents to be signed by Mayor and /or Clerk	No