



PUBLIC WORKS AND ENGINEERING

Staff Report

REPORT NO: PWE 2022-07

TO: Council

SUBMITTED BY: Jeff Molenhuis, P. Eng., Director of Public Works & Engineering

PREPARED BY: Chris Thorne, Supervisor of Operations, Water/Wastewater

REVIEWED BY: Sharon Chambers, CAO

DATE: March 14, 2022

SUBJECT: 2021 Annual and Summary Water Distribution Report

RECOMMENDATION:

THAT Report PW 2022-07 2021 Annual and Summary Water Distribution Report be received for information purposes.

SUMMARY:

The 2021 Annual and Summary Reports have been prepared in accordance with the Safe Drinking Water Act (2002).

The Annual Report must be prepared to include a brief description of the drinking water system; a summary of adverse water quality results; a summary of results of required tests; a description of corrective actions taken; a description of major expenses incurred; and the location of the report.

In addition to the Annual Report, a Summary Report must also be prepared and provided to the owner of the drinking water system not later than March 31, 2022. The Summary Report includes information regarding applicable legislation; a statement of compliance, including a summary of the latest inspection results; and a summary of water consumption and flow rates.

BACKGROUND:

The municipality is required under the Safe Drinking Water Act (SDWA), 2002 - O. Reg. 170/03 – Section 11 and Schedule 22 to provide Council and the public with an Annual Report and a Summary Report for the water systems owned by the Municipality. The Township owns and operates the following distribution systems:

- New Hamburg/Baden Distribution system – Large Municipal Residential
- Mannheim Distribution system – Large Municipal Residential
- St Agatha Distribution System - Large Municipal Residential
- New Dundee Distribution System – Large Municipal Residential

REPORT:

2021 Summary Report

This report satisfies the requirements of both the Safe Drinking Water Act (SDWA) and Ontario Regulation 170/03: Schedule 22, Summary Report. Further reporting details can be found on the Township website, and includes:

- list the requirements of the Safe Drinking Water Act, the regulations, the system's approval, Drinking Water Works Permit (DWWP), MDWL, and any orders applicable to the system that were not met at any time during the period covered by the report; and
- a summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.

The information in Attachment 1 – Water Usage summarizes the quantities of water used, and has been gathered using Region of Waterloo pumpage reports attached to monthly invoices sent to the Township. Baden and New Hamburg are considered one system; however, they are shown separately based on the Regional reports. As noted, this report can be found online on the Township website, or a hard copy is available if requested.

2021 Annual Report

This report satisfies the requirements of both the Safe Drinking Water Act (SDWA) and Ontario Regulation 170/03: - Section 11, Annual Reports. Further reporting details can be found on the Township website, and includes:

- a brief description of the drinking water systems;
- a list of water treatment chemicals used;
- a summary of the most recent water test results;
- a summary of adverse test results and other issues reported to the Ministry of the Environment and Climate Change (MOECC) including corrective actions taken;

- a description of major expenses incurred to install, repair or replace required equipment, if any; and
- the locations where this report is available for review and inspection

There were no orders issued against any of the systems in 2021. There were nine (9) adverse water quality incidents in 2021 within the Township system.

Date:	Location	Adverse condition	Corrective Action
June 1, 2021	Snyder's road Temp Main	Total Coliform present	Flushed and sampled
June 17, 2021	Snyder's road Temp Main	Total Coliform present	Flushed and sampled
June 24, 2021	Woodridge drive	Total Coliform present	Flushed and sampled
June 24, 2021	Charlotta street	Total Coliform present	Flushed and sampled
July 1, 2021	Snyder's road Temp Main	Total Coliform Present	Flushed and sampled
July 8, 2021	Strauss court	Total Coliform Present	Flushed and sampled
July 8, 2021	Charlotta street	Total Coliform Present	Flushed and sampled
July 9, 2021	Snyder's road Temp Main	Total Coliform Present	Flushed and sampled
July 29, 2021	Snyder's road Temp Main	Total Coliform Present	Flushed and sampled

The Snyder's Road temporary main adverse results were in the temporary construction of watermain within the Region of Waterloo contract for Snyder's Road reconstruction – Phase 1. All adverse test results were remediated by flushing and re-sampling according to OReg.170/03.

Statement of Compliance

Compliance with the requirements for ownership and operation of Wilmot's drinking water system is evaluated through an annual drinking water inspection by the MECP. Between the dates of December 3rd, 2021 & February 10th, 2022, the MECP conducted inspections of the drinking water distribution systems. The inspections included a compliance assessment with all applicable legal documents and a review of the maintenance records. The inspection period was from December 1, 2020 to November 30, 2021

The official 2021 inspection results were presented to staff with a compliance rating of 100% in all of the systems.

Drinking Water Quality Management System (DWQMS) – External Audit and Management Review

The Ontario Government implemented the Municipal Drinking Water Licensing Program in 2007 as recommended by Justice O'Conner as a result of the Walkerton Inquiry. The Ministry of the Environment developed the Drinking Water Quality Management System standard ("DWQMS") that applies to owners and operating authorities for municipal drinking water systems. The implementation of the DWQMS is mandated by the provincial government through the Safe Drinking Water Act, 2002.

Under the Safe Drinking Water Act, 2002 and Ontario Regulation 188/07, the Township of Wilmot is required to maintain licensing to operate the water distribution systems. The reporting required for this management system is available upon request, and a hard copy is located at the Township Public Works yard for public review.

The Township has drinking water permits and licenses to operate each of the Township's water distribution systems in compliance with the Safe Drinking Water Act 2002, Regulation 170/03, Regulation 169/03 and Regulation 188/07. The licenses and permits are posted for information on the Township website for public review. The DWQMS is an Operational document that is available for viewing in hard copy only due to the requirements of document and version control. It is not directly subject to Council approval; rather, the intent of the quality management system, to provide clean, safe drinking water, is subject to Council endorsement. The details of the Operational Plan are how Management and Staff structure, process and document their activities to achieve the goal of clean, safe drinking water.

The Drinking Water Quality Management Standard (DWQMS) requires the operating authority to develop Operational Plans that explain how the Township should operate the drinking water systems. This operational plan follows Ministry guidelines in the form of 21 elements. The 21 elements are based on a "plan, do, check", and continuous improvement principles. The DWQMS is a system that provides an understanding of the drinking water system, the roles and responsibilities associated with the system, and a commitment and endorsement by the owner to provide safe drinking water. The Operational Plan is a controlled administrative document that is available for viewing in hard copy only at the Township Public Works administrative building.

The purpose of a QMS is to:

- establish policy and objectives and achieve those objectives
- direct and control an organization with regard to quality

The operating authority is required to conduct annual internal and external audits on the effectiveness of the DWQMS. The internal audit is conducted by qualified staff. The external audit is conducted by an independent accredited third-party organization that reviews the operating authority conformance to the QMS. In 2021, NSF-ISR Management conducted the external audit. Both audits result in listings of Opportunities for Improvements or Corrective Actions Required, of which the Operating Authority must respond to or resolve. These findings are communicated in the Management Review. The 2021 audit findings were administrative in nature.

As per DWQMS, an annual Management review is to be conducted and findings conveyed to the owner. A Management review was conducted on December 9th, 2021. The review included findings from the internal and external audits, MECP inspections and other prescribed items. The minutes are attached in Attachment 2 – Management Review.

ALIGNMENT WITH THE TOWNSHIP OF WILMOT STRATEGIC PLAN:

The Township demonstrates Responsible Governance through active communications and reporting on services. The Annual and Summary Reports provide assurance to the Township of Wilmot's water system owner and its customers that safe, high quality drinking water is being provided.

ACTIONS TOWARDS UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS:

Goal 6: Clean Water and Sanitation
Goal 9: Industry, Innovation and Infrastructure

FINANCIAL CONSIDERATIONS:

The Township's water network is funded through user fees and falls outside of the general tax levy. The Council approved 2022 Municipal Budget includes total operating and staffing costs of \$3,169,620 to maintain the water network. This includes \$1,517,000 in regional flow charges and a transfer of \$514,500 to Infrastructure Reserve Funds.

ATTACHMENTS:

Attachment 1 – 2021 Water Usage
Attachment 2 – 2021 Management Review