



Subject: Drinking Water Quality Management System (DWQMS) 1st Quarter Report

Report to: Thorold City Council

Recommendations

1. That Report PWCS 54-2023 **BE RECEIVED** for information purposes.

Key Facts

- The purpose of this report is to keep Council, (owners) informed and updated with the status of the drinking water system(s)
- There were zero adverse drinking water samples within the first quarter
- The drinking water system(s) are operating proficiently

Budgetary Status

N/A

Analysis

In accordance with the City's Drinking Water Systems Operations and Maintenance Manual, Staff is required to provide Council, owners of the system, quarterly reports of all "adverse water quality incidents" and the review of completed "Daily Log Sheets".

Quarterly and Annual reports help council obtain data on the City's water infrastructure and allows for more educated decisions when dealing with water issues. Any action required is described in recommendations above, most reports are informational only.

As always, additional data can be requested from staff and provided to council at any time.

Drinking water samples are taken on a weekly basis in accordance with Ontario Regulation 170/03. Daily Log Sheets are to be completed by designated operators at the end of each shift in accordance with Ontario Regulation 128/04. The following summary report includes the first quarter of 2023 for the period beginning January 1, to March 31, 2023.

Quarter 1

“Adverse Water Quality Incident Summary”

Total Number Drinking Water Samples Collected = 194

Total Number of Adverse Drinking Water Samples = 0

O.Reg 170/03, s. 8.3 The owner of a drinking water system that provides secondary disinfection and the operating authority for the system shall ensure that at least two distribution samples are taken each week in accordance with subsection (3.1) and are tested immediately for,

- (a) free chlorine residual, if the system provides chlorination and does not provide chloramination; or
- (b) combined chlorine residual, if the system provides chloramination

Total Number of Free Chlorine Residual Tests = 366

Total Number of Adverse Free Chlorine Residual Tests = 0

Highest Chlorine Residual Reading = 1.66

Lowest Chlorine Residual Reading = 0.38

“Review of completed Daily Log Sheets”

Reg 128/04, s. 27.(5) An operator-in-charge or a person authorized by an operator-in-charge shall record the following information in the logs or other record-keeping mechanisms in respect of each operating shift:

1. The date, the time of day the shift began and ended and the number or designation of the shift.
2. The names of all operators on duty during the shift.

3. Any departures from normal operating procedures that occurred during the shift and the time they occurred.
 4. Any special instructions that were given during the shift to depart from normal operating procedures and the person who gave the instructions.
 5. Any unusual or abnormal conditions that were observed in the subsystem during the shift, any action that was taken and any conclusions drawn from the observations.
 6. Any equipment that was taken out of service or ceased to operate during the shift and any action taken to maintain or repair equipment during the shift. O. Reg. 128/04, s. 27 (5).
- (6) The owner or operating authority shall ensure that logs and other record-keeping mechanisms are accessible at the subsystem,
- (a) for at least five years after the last entry in it was made, in the case of a log or record-keeping mechanism that is kept in a book or document form or kept on a similarly fixed basis; or
 - (b) for at least five years after each entry in it was made, in the case of a log or record-keeping mechanism that is kept on a loose-leaf or electronic basis or kept on a similarly continuous basis. O. Reg. 128/04, s. 27 (6).
- (7) The owner or operating authority shall submit to the Director copies or summaries of the records kept under this section when requested to do so by the Director. O. Reg. 128/04, s. 27 (7).

Total number of completed shifts = 64

Total number of daily log's **NOT** completed or not completed correctly = 0

"12 Month Surveillance Audit" Performed by SAI Global

SAI Global performed the 12 month surveillance audit for the City's Drinking Water Quality Management System.

A summary of their findings is outlined below:

" 0 " Major NCR (Major non-conformities) were found

" 0 " Minor NCR (Minor non-conformities) were found

“ 2 ”OFI (Opportunities for Improvement) were found

The 2 OFI's are suggestions on language in our internal SOP's and will be discussed at the next Water Top Management Meeting.

This report has been prepared for information purposes in accordance with Section E2 of the City's Drinking Water Systems Operation and Maintenance Manual, Quarterly Reporting Requirements.

Alternatives Reviewed

N/A

Relationship to Strategic Plan

- Responsible Growth and Infrastructure Planning

Other Pertinent Reports

N/A

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Appendices

None