



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	March 2, 2015
SUBJECT/REPORT NO:	2014 Annual Drinking Water Report (PW15011) - (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Dan McKinnon Director of Hamilton Water (905) 546-2424, Extension 5941
SUBMITTED BY:	Gerry Davis, CMA General Manager Public Works Department
SIGNATURE:	

Council Direction:

Not Applicable

Information:

Under the Safe Drinking Water Act, there are several annual reporting requirements related to the operation and management of the City of Hamilton's five Drinking Water Systems (as identified below).

Licence Number	Drinking Water System (DWS)
005-101	Hamilton DWS
005-102	Freelton DWS
005-103	Greensville DWS
005-104	Carlisle DWS
005-105	Lynden DWS

This Information Report provides a summary of these requirements and highlights key information. More detailed information is provided in the attached two Appendices (A and B).

Summary Report for Municipalities (Appendix A)

As per the Safe Drinking Water Act, Ontario Regulation, 170/03, Schedule 22, Council must receive an annual drinking water summary report by March 31st of each year. This 2014 summary report has been prepared in accordance with the requirements as defined in Schedule 22, for each of the City of Hamilton's five Drinking Water Systems. Specifically provided are lists of major capital upgrades initiated in 2014 as well as those planned for 2015. There were no Provincial Officer's Orders issued. All confirmed Adverse Water Quality Incidents were reported to the Ontario Ministry of Environment and Climate Change's Spills Action Centre and Public Health Services and are provided in the report. All water taking quantities and flow rates were within approved rated capacities and provincial water taking limits. Data related to the water quantities, flow rates and monthly average and maximum daily flows (in comparison to approved flow rates) for the five drinking water systems is also provided.

Drinking Water Quality Management System - Summary Report (Appendix B)

The submission of the Drinking Water Quality Management System (DWQMS) Summary Report satisfies requirements of the Drinking Water Quality Management System Standard.

The purpose of the DWQMS Summary Report is to inform Mayor and Council (Owners) of the performance and major milestones achieved in the City's DWQMS. Specifically, the Hamilton Water Division (Operating Authority) is required to inform Top Management (General Manager of Public Works and Director of Hamilton Water Division) and the Owner of the outcomes of the infrastructure and management reviews. The DWQMS Summary Report (Appendix B) exceeds these requirements and includes additional information relating to DWQMS audits and other milestones of the DWQMS.

Corrosion Control Plan

The City of Hamilton requires a Corrosion Control Plan (CCP) for the Woodward drinking water sub-system because it has been identified that the Woodward DWS has over 10% of lead samples taken from residential and non-residential plumbing systems that exceeded 10µg/L in two subsequent sampling periods. A CCP was developed and accepted by the Ministry of the Environment (MOE) on June 7, 2011. In 2012 and 2013, the Operating Authority conducted a Pilot Loop Testing Project using pipe loops from recovered lead services to assess the effectiveness of alternative treatments. A Peer Review of the Pilot Loop Testing Project and recommendations was undertaken in 2014 by a third-party. An update to Owners (Mayor and Council) will be provided once the results of the Peer Review are received.

DWS Licences & Permits Approvals

Licences for each of our five Drinking Water Systems (DWS) were renewed in June 2014. Expiry dates are listed below.

System	Licence Number	Expiry Date
Hamilton DWS (includes Fifty Road)	005-101	May 29, 2019
Carlisle DWS	005-104	May 29, 2019
Greensville DWS	005-103	May 29, 2019
Freelton DWS	005-102	May 30, 2019
Lynden DWS	005-105	May 29, 2019

Financial Plan

The need to prepare a Financial Plan is, in part, a regulatory compliance issue specific to the water licensing requirements defined within the Drinking Water Quality Management System (DWQMS) and more specifically detailed under Regulation 453/07 - Financial Plans made under the Safe Drinking Water Act, 2002 (SDWA). The required Financial Plan must address a minimum six-year time-frame. Council approved a revised Financial Plan on January 29, 2014, covering a ten-year period. The plan was sent to the Ministry of Municipal Affairs and Housing on January 31, 2014.

Risk Assessment Review

The DWQMS Standard requires that the Risk Assessment be reviewed on an annual basis to verify the currency and validity of the information and that the risk assessment process and outcomes be re-evaluated every three years. A re-evaluation of the Risk Assessment scope, criteria, data fields and update of risk assessment data was conducted in 2014 as it was the three year “redo” milestone for the Risk Assessment and was required again in 2014. The 2014 Risk Assessment also reviewed the outcomes from 2013 and focused on new and upgraded infrastructure (e.g. horizontal, vertical, including wells). The DWQMS Summary Report summarizes the outcomes of the 2014 “redo” risk assessment process.

Infrastructure Review

The Operating Authority must ensure and verify, on an annual basis, the adequacy of water related infrastructure. In order to satisfy the requirements of the DWQMS Standard, the Operating Authority conducted a formal annual review of its vertical (water treatment, storage and pumping) and horizontal (watermains) infrastructure. The scope of the review also considered the operation, maintenance and replacement of existing infrastructure assets as well as new infrastructure planned for the immediate and long-term future.

The evaluation of programs indicates that appropriate processes are in place to identify infrastructure needs. Based on the results of the 2014 infrastructure review, it can be concluded that vertical and horizontal infrastructure is generally found to be available,

when needed, and maintained and improved, when necessary. The DWQMS Summary Report includes the major recommendations from the 2014 Infrastructure Review.

Audit Program

The DWQMS accreditation process requires both third party Accreditation Audits and annual internal audits by the Operating Authority.

Hamilton Water identified QMI-SAI Global as the new Accreditation Body for the DWQMS. In May 2014, QMI-SAI Global conducted an off-site documentation surveillance audit. There were no Non-conformances or Opportunities for Improvement. The next off-site documentation audit will take place March 2015 followed by an on-site reaccreditation audit in April 2015.

The Internal Audit Team conducted a full internal audit of the DWQMS from September 25 to October 27, 2014. The audit assessed the implementation of all 21 elements of the DWQMS Standard with an emphasis on communication. The audit found conformance with established communication processes and a need to reassess current document and record control systems. Root cause investigations will be undertaken early 2015 with corrective action plans being implemented where required.

Compliance & Regulations staff will be developing an Audit Plan for the 2015 DWQMS internal audit.

Management Review

The DWQMS Standard requires that Top Management participate in a management review of the DWQMS at least once per year. The Management Review is a formal presentation of compliance, operational, water quality, communication and infrastructure data. In 2014, the DWQMS Top Management Review was held on December 4th. Overall, meeting participants concluded that the DWQMS is suitable, adequate and effective. Continual improvement actions were identified and target dates for completion were determined. The DWQMS Summary Report (Appendix B) provides an overview of the results, a record of decisions and action items from the 2014 Management Review.

Standard of Care Training

Standard of Care requirements for Owners and Managers of municipal drinking water systems came into effect as of January 1, 2013. Standard of Care is a statutory due diligence requirement identified in Section 19 of the Safe Drinking Water Act. All Owners (Mayor and Council) received Standard of Care training in 2012. Training is required in the first quarter of 2015 for new Council members.

Update and Going Forward

The outcomes from the Management Review and internal and external DWQMS audits concluded that the DWQMS is adequate, suitable and effective and conforms to the requirements of the DWQMS Standard. Corrective action plans from audits and action items from the Management Review will be implemented to ensure continual improvement of the DWQMS. Major next steps related to the maintenance of the DWQMS in 2015 are included in Appendix B.