



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	March 22, 2021
SUBJECT/REPORT NO:	2020 Annual Drinking Water Report (PW21009) (City Wide)
WARD(S) AFFECTED:	City Wide
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SUBMITTED BY:	Andrew Grice Director, Hamilton Water 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 (City) five (5) Drinking Water Systems (DWS) (as identified below):

Drinking Water System
Hamilton DWS (Woodward and Fifty Road Subsystems)
Freelton DWS
Greenville DWS
Carlisle DWS
Lynden DWS

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

This Information Report provides a summary of annual reporting requirements and highlights key information for the:

- *Safe Drinking Water Act, Ontario Regulation 170/03, Section 11, Drinking Water Reports,*
- *Safe Drinking Water Act, Ontario Regulation 170/03, Schedule 22, Summary Report for Municipalities, and*
- *Drinking Water Quality Management System (DWQMS) - Summary Report.*

More detailed information is provided in Appendices “A” and “B” to Report PW21009.

2020 Annual Drinking Water Quality Reports (Appendix “A” attached to Report PW21009):

As per the *Safe Drinking Water Act, Ontario Regulation, 170/03, Section 11*, the Owner of a DWS shall ensure that an annual report is prepared and made available to the public no later than February 28th of each year. The 2020 reports have been prepared in accordance with the requirements as defined in Section 11, for each of the City of Hamilton’s DWSs and form part of Appendix “A” attached to Report PW21009. The reports are available on the City of Hamilton website and upon request, free of charge.

2020 Annual Summary Report for Municipalities (Appendix “A” attached to Report PW21009):

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 2020 summary report has been prepared in accordance with the requirements as defined in Schedule 22, for each of the City of Hamilton’s five (5) DWSs.

There were no Provincial Officer’s Orders issued in relation to any of the City’s DWSs. All Adverse Test Results and Reportable Incidents were reported to the Ontario Ministry of Environment, Conservation and Parks (MECP) Spills Action Centre (SAC) and Public Health Services (PHS) and are summarized in Appendix “A” attached to Report PW21009. 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 (5) DWSs is also provided in Appendix “A” attached to Report PW21009.

The Drinking Water and Environmental Compliance Division of the MECP conducts regular and rigorous inspections of our Drinking Water Systems. As of writing this report, one (1) of the April 1, 2020 to March 31, 2021 inspections has been completed and the others remain pending. Any additional findings from the 2020 to 2021

inspections will be included in the 2021 Annual Drinking Water Report. The ratings for the completed 2018 - 2019 to 2020 - 2021 inspections, are as follows:

Drinking Water System	2018 - 2019 Inspection Rating	2019 - 2020 Inspection Rating	2020 - 2021 Inspection Rating
Hamilton DWS - Woodward	94.85%	100%	Pending in 2021
Hamilton DWS - Fifty Road	100%	99.10%	93.6%
Freelton	96.74%	100%	Pending in 2021
Greenville	99.36%	100%	Pending in 2021
Carlisle	94.40%	100%	Pending in 2021

2020 Drinking Water Quality Management System (DWQMS) Summary Report (Appendix “B” attached to Report PW21009):

The submission of the DWQMS Summary Report satisfies the requirements of the Provincial DWQMS Standard V2.0.

The purpose of the DWQMS Summary Report is to inform the Owner (Mayor and Council) of the performance and major milestones achieved in the City’s DWQMS. Specifically, the Operating Authority (Hamilton Water Division) 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 DWQMS audits, infrastructure and management reviews. The DWQMS Summary Report exceeds these requirements and includes additional information relating to other milestones of the DWQMS.

Risk Assessment and Review and Provision of Infrastructure:

On an annual basis, Hamilton Water (HW) undertakes formal risk assessment and infrastructure review processes. While these processes satisfy the requirements of the DWQMS Standard, more importantly they ensure that any potential hazards are identified, required control measures are in place and that risks to our drinking water system are considered as part of an overall determination of infrastructure adequacy.

The 2020 Risk Assessment and Review and Provision of Infrastructure processes concluded that although vertical and horizontal infrastructure is generally found to be adequate and available when needed, we are not keeping up with required renewals and replacements of our aging infrastructure. This results in an increased demand on maintenance staff and resources as assets remain in operation beyond their intended life cycle. It was also found that there are appropriate control measures and action plans in place for the significant risks identified. While risks associated with a pandemic were previously included in the Risk Assessment, it was updated in the 2020 review to reflect

the unique conditions of the COVID-19 pandemic and potential additional hazards were identified.

DWQMS Audits:

The DWQMS accreditation process requires both third Party Accreditation Audits and annual internal audits by the Operating Authority. In 2020, QMI-SAI Global conducted an off-site systems audit. There were no non-conformances and one opportunity for improvement (OFI). The OFI was closed in 2020. In 2021, QMI-SAI Global will conduct a document review followed by an on-site verification audit in order to recommend the City's DWQMS to be re-accredited.

Annually, the Operating Authority must also conduct internal audits to evaluate the conformity of the DWQMS with the requirements of the DWQMS Standard and its procedures. The results of the annual DWQMS internal audits conducted throughout 2020 demonstrated that the City of Hamilton's DWQMS is a mature system and that opportunities to improve the DWQMS continue to be identified.

With the timely completion of the corrective actions issued as a result of these audits, the overall conformance to V2.0 of the DWQMS Standard and the City of Hamilton's DWQMS is suitable, the audit process is adequate, and the implementation and maintenance effective.

In 2021, a number of process audits will be conducted throughout the year. The 2021 Audit Plan will be reviewed and approved by the HW Senior Management Team prior to implementation.

Management Review:

The DWQMS Standard requires that Top Management participate in a management review of the DWQMS at least once annually. The Management Review is a formal presentation of compliance, operational, water quality, communication and infrastructure data.

In 2020, the DWQMS Top Management Review (TMR) was held on September 30th. Attendees included Top Management (General Manager of Public Works and Director of Hamilton Water), Directors, Section Managers, Overall Responsible Operators (OROs) for treatment and distribution, the System Management Representative and staff from the Compliance Support Group.

Overall, Top Management, Directors and Section Managers concluded that the DWQMS is suitable, adequate and effective.

Standard of Care Training:

Standard of Care requirements for Owners and Managers of municipal DWSs 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) have received Standard of Care training.

Financial Plan:

The need to prepare a Water Infrastructure Financial Plan is, in part, a regulatory compliance issue specific to the water licensing requirements defined within the DWQMS and more specifically detailed under Regulation 453/07 - Financial Plans made under the *Safe Drinking Water Act, 2002*. The required Financial Plan for water systems must address a minimum six (6)-year time-frame and be approved by council prior to submission to the Province of Ontario. The resulting plans must also be made freely available to the general public. The City of Hamilton Water Infrastructure Financial Plan is available on the City's DWQMS Web Page or a printed copy is available at the City of Hamilton Water Customer Service Area upon request. Water Infrastructure Financial Plans for Hamilton have typically been developed to cover a ten-year period of time in order to reflect consistency with the current rate budget process. The first Financial Plan was created in 2010 and revised in 2014. The latest revision was approved by Council on July 12, 2018. This most current plan was also sent to the Ministry of Municipal Affairs and Housing on November 22, 2018. The next revision of the Financial Plan is due in 2023.

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.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW21009 - 2020 City of Hamilton Drinking Water Systems Annual Water Quality and Summary Report

Appendix "B" to Report PW21009 - 2020 Drinking Water Quality Management System (DWQMS) - Summary Report