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**Ministère de l'Environnement,
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July 15, 2021

The Corporation of the Township of Hamilton
8285 Majestic Hills Dr.
Cobourg, Ontario K9A 4W5

Attention: William Cane, Mayor

RE: Hamilton Township Distribution System (260039208)

File: SI NO CO MA 540

Enclosed is a copy of the inspection report prepared for the Hamilton Township Distribution System under the Ministry's focused inspection protocol to assess compliance with Safe Drinking Water Act legislation. The report is based on conditions encountered at the time of inspection, and subsequent follow-up.

Any items under the heading "Non-Compliance with Regulatory Requirements and Actions Required" are linked to incidents of non-compliance with regulatory requirements contained within the Act, a regulation, or site-specific approvals, licenses, permits, orders or instructions.

Section 19 of the Safe Drinking Water Act (Standard of Care) creates several obligations for individuals who exercise decision-making authority over municipal drinking water systems. Please be aware that the Ministry has encouraged such individuals, particularly municipal councillors, to take steps to be better informed about the drinking water systems over which they have decision-making authority. These steps could include asking for a copy of this inspection report and a review of its findings. Further information about Section 19 can be found in "Taking Care of Your Drinking Water: A guide for members of municipal council" found under "Resources" on the Drinking Water Ontario website at www.ontario.ca/drinkingwater.

In order to measure individual inspection results, the Ministry has established an inspection compliance risk framework based on the principles of the Inspection, Investigation & Enforcement (II&E) Secretariat and advice of internal/external risk experts. The Inspection Summary Rating Record (IRR) provides the Ministry, the system owner and the local Public Health Unit with a summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance. IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspectors' Annual Report.

Please note that due to a change in IT systems, the IRR cannot be generated at the same time as the inspection report. The IRR will be sent separately and prior to any public release (typically within 1-2 month) of the completion of the inspection.

I would like to thank staff for the assistance afforded to me during this compliance assessment. If you have any questions or concerns please contact myself or Jacqueline Fuller, Water Compliance Supervisor, Peterborough District Office at 705-768-0436.

Yours truly,



Brittney Wielgos
Water Inspector
Ministry of the Environment, Conservation and Parks
Drinking Water and Environmental Compliance Division
300 Water Street, 2nd Floor South
Peterborough, ON K9J 3C7
705-768-8195

cc:

Larry Spyrka, Manager of Capital Projects, Lakefront Utility Services
Sarah Whitton, Water Compliance Coordinator, Lakefront Utility Services
Dr. Natalie Bocking, Medical Officer of Health, Haliburton, Kawartha, Pine Ridge District Health Unit
Linda Laliberte, CAO/Secretary – Treasurer, Ganaraska Region Conservation Authority
Jacqueline Fuller, Water Compliance Supervisor, Peterborough District Office, MECP



HAMILTON TOWNSHIP DISTRIBUTION SYSTEM

Inspection Report

System Number: 260039208
Inspection Start Date: 06/08/2021
Inspection End Date: 07/15/2021
Inspected By: Brittney Wielgos
Badge #: 754

A handwritten signature in cursive script, appearing to read "Brittney Wielgos".

(signature)

NON-COMPLIANCE/NON-CONFORMANCE ITEMS

This should not be construed as a confirmation of full compliance with all potential applicable legal requirement and BMPs. These inspection findings are limited to the components and/or activities that were assessed, and the legislative framework(s) that were applied. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

If you have any questions related to this inspection, please contact the undersigned Provincial Officer.

INSPECTION DETAILS

This section includes all questions that were assessed during the inspection.

Ministry Program: Regulated Activity: DRINKING WATER : DW Municipal Residential

Question ID	MRDW1001000	
Question	Question Type	Legislative Requirement
What was the scope of this inspection?	Information	Not Applicable
Observation		
<p>The primary focus of this inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks (MECP) legislation as well as evaluating conformance with ministry drinking water policies and guidelines during the inspection period. The ministry utilizes a comprehensive, multi-barrier approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as management practices.</p> <p>This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O.Reg. 170/03). This inspection has been conducted pursuant to Section 81 of the SDWA.</p> <p>This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements. The Hamilton Township Distribution System (the System) is owned by the Corporation of the Township of Hamilton and operated by Lakefront Utility Services Inc. (LUSI) and serves a population of approximately 342. The System obtains water produced by the Cobourg Water Treatment Plant. Treated water is directed to the Hamilton Township Distribution System through an extension of the Town of Cobourg's Distribution System serving Pressure Zone 2.</p> <p>The inspection includes a compliance assessment of applicable Ministry of Environment, Conservation and Parks (MECP) legislation, an inspection of the procedures used within the treatment and distribution system, and a review of records.</p> <p>Records reviewed in conjunction with this inspection include:</p> <ul style="list-style-type: none"> -Drinking Water Works Licence No. 139-101, dated: September 19, 2016 -Drinking Water Works Permit No. 139-201, dated: August 18, 2016 -Hamilton Township Signed Water Service Agreement, dated August 1, 2018 <p>This inspection was conducted pursuant to section 81 of the Safe Drinking Water Act in order to assess compliance with the requirements of Ontario Regulation 170/03 (O.Reg.170/03). The drinking water inspection included: interviews with operating authority staff and a review of relevant documents from the period of July 22, 2020 to July 7, 2021 (hereafter referred to as the "inspection review period").</p>		

Question ID	MRDW1000000	
Question	Question Type	Legislative Requirement
Does this drinking water system provide primary disinfection?	Information	Not Applicable
Observation		
This Drinking Water System provides for only secondary disinfection and distribution of water. Primary disinfection is undertaken by another regulated Drinking Water System which provides treated water to this Drinking Water System. DWS is a stand-alone distribution system directly connected to Cobourg DWS that is providing primary disinfection.		

Question ID	MRDW1018000	
Question	Question Type	Legislative Requirement
Has the owner ensured that all equipment is installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?	Legislative	SDWA 31 (1)
Observation		
The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit. The Hamilton Township Distribution System obtains water from the Cobourg Water Treatment Plant. There is no treatment equipment located within Hamilton Township. The system consists solely of distribution watermains.		
There have been no changes to the distribution system since the permit was issued on September 19, 2016.		

Question ID	MRDW1100000	
Question	Question Type	Legislative Requirement
Did any reportable adverse/exceedance conditions occur during the inspection period?	Information	Not Applicable
Observation		
There were no reportable adverse/exceedances during the inspection period.		

Question ID	MRDW1113000	
Question	Question Type	Legislative Requirement
Have all changes to the system registration information been provided to the Ministry within ten (10) days of the change?	Legislative	SDWA O. Reg. 170/03 10.1 (3)
Observation		
All changes to the system registration information were provided within ten (10) days of the change.		

Question ID	MRDW1054000		
Question	Question Type	Legislative Requirement	
For stand alone connected distribution systems, if the receiving system is claiming the exemptions to O. Reg. 170/03 available under subsection 5(4), does the agreement with the donor satisfy the requirements prescribed by subsection 5(4)?	Information	Not Applicable	
Observation			
<p>The receiving system was claiming exemptions to O. Reg. 170/03 available under subsection 5(4), and the agreement with the donor satisfied the requirements prescribed by subsection 5(4). The Hamilton Township Distribution System and the Cobourg Drinking Water System have a written agreement dated August 1, 2018, stating that the Hamilton Township Distribution System will be operated as an extension of the Cobourg Distribution System.</p> <p>The agreement satisfies the requirements prescribed by section 5(4) of O.Reg.170/03.</p>			

APPLICATION OF THE RISK METHODOLOGY USED FOR MEASURING MUNICIPAL RESIDENTIAL DRINKING WATER SYSTEM INSPECTION RESULTS



The Ministry of the Environment (MOE) has a rigorous and comprehensive inspection program for municipal residential drinking water systems (MRDWS). Its objective is to determine the compliance of MRDWS with requirements under the Safe Drinking Water Act and associated regulations. It is the responsibility of the municipal residential drinking water system owner to ensure their drinking water systems are in compliance with all applicable legal requirements.

This document describes the risk rating methodology, which has been applied to the findings of the Ministry's MRDWS inspection

results since fiscal year 2008-09. The primary goals of this assessment are to encourage ongoing improvement of these systems and to establish a way to measure this progress.

MOE reviews the risk rating methodology every three years.

The Ministry's Municipal Residential Drinking Water Inspection Protocol contains 15 inspection modules consisting of approximately 100 regulatory questions. Those protocol questions are also linked to definitive guidance that ministry inspectors use when conducting MRDWS inspections.

ontario.ca/drinkingwater

The questions address a wide range of regulatory issues, from administrative procedures to drinking water quality monitoring. The inspection protocol also contains a number of non-regulatory questions.

A team of drinking water specialists in the ministry assessed each of the inspection protocol regulatory questions to determine the risk (not complying with the regulation) to the delivery of safe drinking water. This assessment was based on established provincial risk assessment principles, with each question receiving a risk rating referred to as the Question Risk Rating. Based on the number of areas where a system is deemed to be non-compliant during the inspection, and the significance of these areas to administrative, environmental, and health consequences, a risk-based inspection rating is calculated by the ministry for each drinking water system.

It is important to be aware that an inspection rating less than 100 per cent does not mean the drinking water from the system is unsafe. It shows areas where a system's operation can improve. The ministry works with owners and operators of systems to make sure they know what they need to do to achieve full compliance.

The inspection rating reflects the inspection results of the specific drinking water system for the reporting year. Since the methodology is applied consistently over a period of years, it serves as a comparative measure both provincially and in relation to the individual system. Both the drinking water system and the public are able to track the performance over time, which encourages continuous improvement and allows systems to identify specific areas requiring attention.

The ministry's annual inspection program is an important aspect of our drinking water safety net. The ministry and its partners share a common commitment to excellence and we continue to work toward the goal of 100 per cent regulatory compliance.

Determining Potential to Compromise the Delivery of Safe Water

The risk management approach used for MRDWS is aligned with the Government of Ontario's Risk Management Framework. Risk management is a systematic approach to identifying potential hazards, understanding the likelihood and consequences of the hazards, and taking steps to reduce their risk if necessary and as appropriate.

The Risk Management Framework provides a formula to be used in the determination of risk:

$$\text{RISK} = \text{LIKELIHOOD} \times \text{CONSEQUENCE}$$

(of the consequence)

Every regulatory question in the inspection protocol possesses a likelihood value (L) for an assigned consequence value (C) as described in **Table 1** and **Table 2**.

TABLE 1:

Likelihood of Consequence Occurring	Likelihood Value
0% - 0.99% (Possible but Highly Unlikely)	L = 0
1 - 10% (Unlikely)	L = 1
11 - 49% (Possible)	L = 2
50 - 89% (Likely)	L = 3
90 - 100% (Almost Certain)	L = 4

TABLE 2:

Consequence	Consequence Value
Medium Administrative Consequence	C = 1
Major Administrative Consequence	C = 2
Minor Environmental Consequence	C = 3
Minor Health Consequence	C = 4
Medium Environmental Consequence	C = 5
Major Environmental Consequence	C = 6
Medium Health Consequence	C = 7
Major Health Consequence	C = 8

The consequence values (0 through 8) are selected to align with other risk-based programs and projects currently under development or in use within the ministry as outlined in **Table 2**.

The Question Risk Rating for each regulatory inspection question is derived from an evaluation of every identified consequence and its corresponding likelihood of occurrence:

- All levels of consequence are evaluated for their potential to occur
- Greatest of all the combinations is selected.

The Question Risk Rating quantifies the risk of non-compliance of each question relative to the others. Questions with higher values are those with a potentially more significant impact on drinking water safety and a higher likelihood of occurrence. The highest possible value would be 32 (4×8) and the lowest would be 0 (0×1).

Table 3 presents a sample question showing the risk rating determination process.

TABLE 3:

Does the Operator in Charge ensure that the equipment and processes are monitored, inspected and evaluated?

Risk = Likelihood × Consequence

C=1	C=2	C=3	C=4	C=5	C=6	C=7	C=8
Medium Administrative Consequence	Major Administrative Consequence	Minor Environmental Consequence	Minor Health Consequence	Medium Environmental Consequence	Major Environmental Consequence	Medium Health Consequence	Major Health Consequence
L=4 (Almost Certain)	L=1 (Unlikely)	L=2 (Possible)	L=3 (Likely)	L=3 (Likely)	L=1 (Unlikely)	L=3 (Likely)	L=2 (Possible)
R=4	R=2	R=6	R=12	R=15	R=6	R=21	R=16

Application of the Methodology to Inspection Results

Based on the results of a MRDWS inspection, an overall inspection risk rating is calculated. During an inspection, inspectors answer the questions related to regulatory compliance and input their “yes”, “no” or “not applicable” responses into the Ministry’s Laboratory and Waterworks Inspection System (LWIS) database. A “no” response indicates non-compliance. The maximum number of regulatory questions asked by an inspector varies by: system (i.e., distribution, stand-alone); type of inspection (i.e., focused, detailed); and source type (i.e., groundwater, surface water).

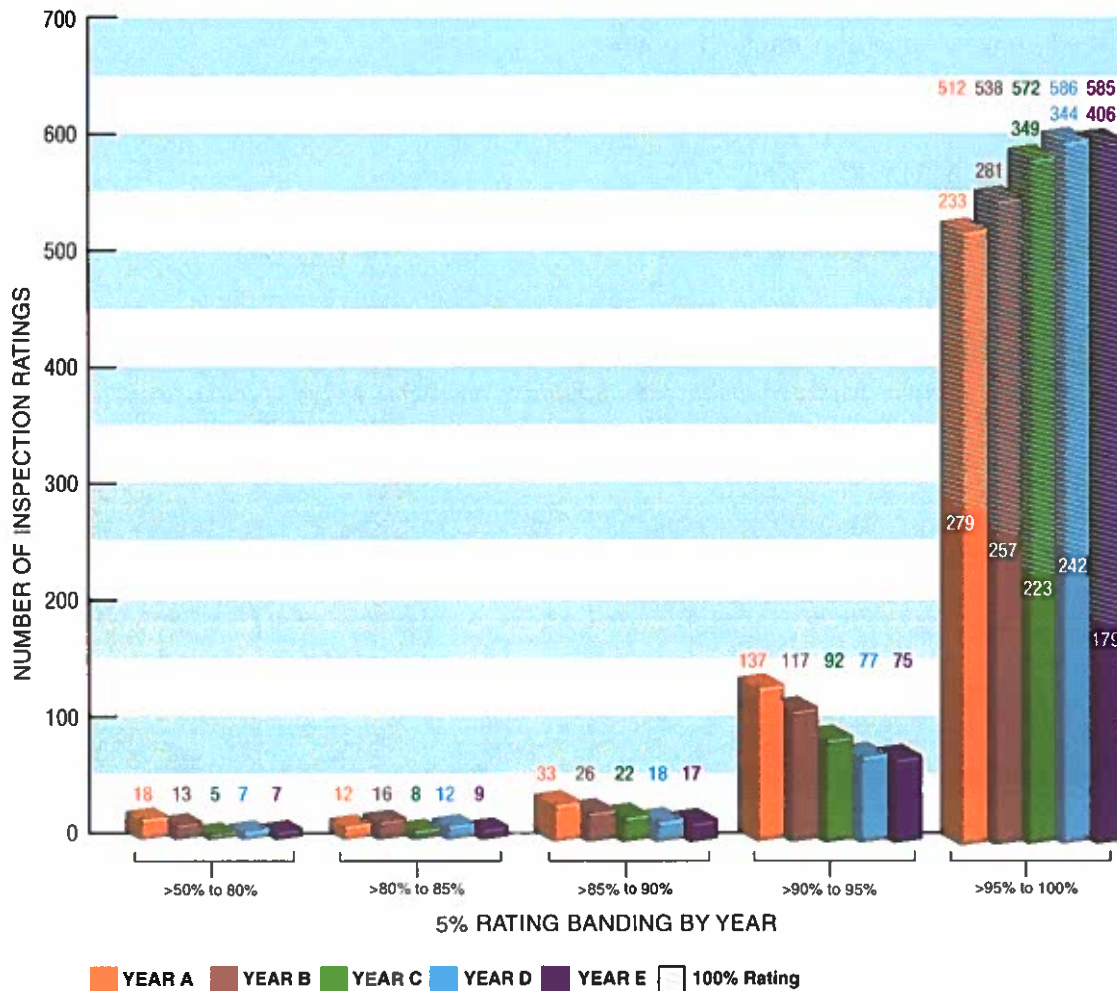
The risk ratings of all non-compliant answers are summed and divided by the sum of the risk ratings of all questions asked (maximum question rating). The resulting inspection risk rating (as a percentage) is subtracted from 100 per cent to arrive at the final inspection rating.

Application of the Methodology for Public Reporting

The individual MRDWS Total Inspection Ratings are published with the ministry's Chief Drinking Water Inspector's Annual Report.

Figure 1 presents the distribution of MRDWS ratings for a sample of annual inspections. Individual drinking water systems can compare against all the other inspected facilities over a period of inspection years.

Figure 1: Year Over Year Distribution of MRDWS Ratings



Reporting Results to MRDWS Owners/Operators

A summary of inspection findings for each system is generated in the form of an Inspection Rating Record (IRR). The findings are grouped into the 15 possible modules of the inspection protocol,

which would provide the system owner/operator with information on the areas where they need to improve. The 15 modules are:

- | | | | |
|-------------------------|---------------------------------|--|--|
| 1. Source | 5. Treatment Process Monitoring | 9. Logbooks | 13. Water Quality Monitoring |
| 2. Permit to Take Water | 6. Process Wastewater | 10. Contingency and Emergency Planning | 14. Reporting, Notification and Corrective Actions |
| 3. Capacity Assessment | 7. Distribution System | 11. Consumer Relations | 15. Other Inspection Findings |
| 4. Treatment Processes | 8. Operations Manuals | 12. Certification and Training | |

For further information, please visit www.ontario.ca/drinkingwater

Ministry of the Environment, Conservation and Parks - Inspection Summary Rating Record (Reporting Year - 2021-2022)

DWS Name: HAMILTON TOWNSHIP DISTRIBUTION SYSTEM
DWS Number: 260039208
DWS Owner: THE CORPORATION OF THE TOWNSHIP OF HAMILTON
Municipal Location: HAMILTON

Regulation: O.REG. 170/03
DWS Category: DW Municipal Residential
Type of Inspection: Focused
Inspection Date: Jun-8-2021
Ministry Office: Peterborough District Office

Maximum Risk Rating: 18

Inspection Module	Non Compliance Rating
Treatment Processes	0 / 14
Reporting & Corrective Actions	0 / 4
Overall - Calculated	0 / 18

Inspection Risk Rating: 0.00%

Final Inspection Rating: 100.00%

Ministry of the Environment, Conservation and Parks - Detailed Inspection Rating Record (Reporting Year - 2021-2022)

DWS Name: HAMILTON TOWNSHIP DISTRIBUTION SYSTEM
DWS Number: 260039208
DWS Owner Name: THE CORPORATION OF THE TOWNSHIP OF HAMILTON
Municipal Location: HAMILTON

Regulation: O.REG. 170/03
DWS Category: DW Municipal Residential
Type of Inspection: Focused
Inspection Date: Jun-8-2021
Ministry Office: Peterborough District Office

All legislative requirements were met. No detailed rating scores.

Maximum Question Rating: 18

Inspection Risk Rating: 0.00%

FINAL INSPECTION RATING: 100.00%