

Ministry of the
Environment,
Conservation
and Parks
Eastern Region
Peterborough
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Ministère de
l'Environnement,
de la Protection de
la nature
et des Parcs
Région de l'Est
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February 1, 2024

Scott Jibb
Mayor
The Corporation of the Township of Hamilton
8285 Majestic Hills Drive, Post Office Box Delivery 1060
Cobourg ON, K9A 4W5

RE: 2023/24 Camborne Drinking Water System Inspection Report 1-204083791

Please see the attached Ministry of the Environment, Conservation and Parks inspection report for the compliance inspection initiated for Camborne Drinking Water System on January 22, 2023.

A section of the report entitled **NON-COMPLIANCE** are typically linked to incidents of non-compliance with regulatory requirements contained within the Environmental Compliance Approval and its associated Acts and Regulations. It should be noted that there were no violations identified during this inspection. **Non-Conformance Items** convey information that the owner or operating authority should consider implementing to advance efforts already in place. Please note that items which appear as recommendations do not, in themselves, constitute violations.

Thank you for the assistance afforded to me during this compliance assessment. Please do not hesitate to call me at 905-449-9369 or Ms. Brittney Wielgos, Supervisor, Safe Drinking Water Branch 705-768-0436, should you have any questions or concerns regarding the above.

Yours truly,

Kayla Trofimczuk

Kayla Trofimczuk
Water Compliance Officer
Peterborough District Office

Enclosure

Cc: Anita Schoenleber, Water Operations Manager, Township of Hamilton
On Call Operator, Water Operator, Township of Hamilton
Sandra Winninger, CAO- Hamilton Conservation Authority
Brittney Wielgos, Water Compliance Supervisor, Peterborough District Office, MECP



CAMBORNE DRINKING WATER SYSTEM
23 FORD ST, HAMILTON TOWNSHIP, ON, L8N 2P4
INSPECTION REPORT

System Number: 220008113
Entity: THE CORPORATION OF THE
TOWNSHIP OF HAMILTON
Inspection Start Date: January 22, 2024
Inspection End Date: January 26, 2024
Inspected By: Kayla Trofimczuk
Badge #: 2111
Inspected By: Viktoria Light
Badge #: 1100

Kayla Trofimczuk

(signature)

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NON-COMPLIANCE

This should not be construed as a confirmation of full compliance with all potential applicable legal requirements. 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 signed Provincial Officer.

Draft

RECOMMENDATIONS

This should not be construed as a confirmation of full conformance with all potential applicable 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 signed Provincial Officer.

INSPECTION DETAILS

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

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

Question ID	DWMR1001000	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: What was the scope of this inspection?			
Compliance Response(s)/Corrective Action(s)/Observation(s): <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.</p> <p>An announced detailed inspection of the Camborne Drinking Water System (DWS) began January 22, 2024 by Provincial Officer, Kayla Trofimczuk. The inspection included the physical inspection of the works and a compliance assessment with all applicable legislation and legal documents.</p> <p>The Camborne DWS is owned and operated by the Corporation of the Township of Hamilton. The system consists of two (2) artesian wells, a plant that houses the treatment and pumping equipment and a distribution system. The system is categorized as a 'Small Municipal Residential System', it operates under DWS No. 220008113 and is classified as a Water Treatment System Class 1 and Water Distribution System Class 1. The drinking water system utilizes primary and secondary disinfection.</p> <p>Documents reviewed in association with this report included, but were not limited to:</p> <ol style="list-style-type: none"> 1. Ministry of the Environment, Conservation and Parks (MECP) Municipal Drinking Water License (MDWL), No. 139-103, dated August 12, 2021. 2. Ministry of the Environment, Conservation and Parks, Drinking Water Works Permit (DWWP), No. 139-203, dated August 12, 2023. 3. Other documents maintained by the owner/operating authority for the period of December 6, 			

2022 through to January 22, 2024, were also reviewed in conjunction with this inspection.

Question ID	DWMR1000000	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Does this drinking water system provide primary disinfection?			
Compliance Response(s)/Corrective Action(s)/Observation(s): This drinking water system provides for both primary and secondary disinfection and distribution of water.			

Question ID	DWMR1007000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 1-2 (1);			
Question: Is the owner maintaining the production well(s) in a manner sufficient to prevent entry into the well of surface water and other foreign materials?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner was maintaining the production well(s) in a manner sufficient to prevent entry into the well of surface water and other foreign materials.			

Question ID	DWMR1009000	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Are measures in place to protect the groundwater and/or GUDI source in accordance with any MDWL and DWWP issued under Part V of the SDWA?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Measures were in place to protect the groundwater and/or GUDI source in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part V of the SDWA. The owner is maintaining the two production wells, Well #1a and Well #2a in a manner sufficient to prevent entry into the well. Well #1a and Well #2a are contained in a concrete, below grade well chambers that are accessed through a secure/padlocked metal hatch. Section 16 of Schedule B of the current Municipal Drinking Water License (MDWL) requires the			

development of an inspection schedule for all wells associated with the water treatment system, well inspection and maintenance procedures for the entire well structure of each well and remedial action plans for situations where an inspection indicates non-compliance with respect to the regulatory requirements and/or risk to raw well water quality.

The DWS well inspection and maintenance procedure prescribes monthly inspection of the above grade components by the operation staff and recommends 5-year inspection of the below grade components by a licensed well technician.

A below grade cleaning of Well #1a was completed in May 2021 and Well #2a completed in July 2021 by Lotowater Technical Services Inc.

An above grade monthly inspection is done by a certified operator.

Question ID	DWMR1010000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Are trends in source water quality being monitored?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Trends in source water quality were being monitored.			

Question ID	DWMR1014000	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Is there sufficient monitoring of flow as required by the MDWL or DWWP issued under Part V of the SDWA?			
Compliance Response(s)/Corrective Action(s)/Observation(s): There was sufficient monitoring of flow as required by the Municipal Drinking Water Licence or Drinking Water Works Permit issued under Part V of the SDWA. Magnetic flow meters are installed at Well #1a and Well #2a raw water discharge lines and at the common treated water pump header. Daily monitoring of flow readings have been logged in the Camborne Logbook and confirmed from December 6, 2022 until January 22, 2024.			

Question ID	DWMR1015000	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			

Question:

Are the flow measuring devices calibrated or verified in accordance with the requirements of the MDWL issued under Part V of the SDWA?

Compliance Response(s)/Corrective Action(s)/Observation(s):

The flow measuring devices were calibrated or verified in accordance with the requirements of the MDWL issued under Part V of the SDWA.

The two flow meters for Well #1a and Well #2a were calibrated January 1, 2024.

Question ID	DWMR1016000	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Is the owner in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the MDWL issued under Part V of the SDWA?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Municipal Drinking Water Licence issued under Part V of the SDWA. Part 1.0 of Schedule C of the current Municipal Drinking Water License limits the maximum daily volume of treated water that flows from the treatment system to the distribution system to 415 m3/day. The DWS did not exceed the maximum daily limit from December 6, 2022 until January 22, 2024.			

Question ID	DWMR1017000	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Were appropriate records of flows and any capacity exceedances made in accordance with the MDWL issued under Part V of the SDWA?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Appropriate records of flows and any capacity exceedances were made in accordance with the Municipal Drinking Water Licence issued under Part V of the SDWA.			

Question ID	DWMR1013000	Question Type	Legislative
Legislative Requirement(s): OWRA 34 (3);			

Question:

Is the owner in compliance with all conditions of the PTTW?

Compliance Response(s)/Corrective Action(s)/Observation(s):

The owner was in compliance with all conditions of the PTTW.

1. O. Reg 387/04 (Water Taking and Transfer) requires all water takers to report daily water taking amounts to the Water Taking Reporting System (WTRS) electronic database.
2. Daily water taking must be reported on a calendar year basis.

Question ID	DWMR1018000	Question Type	Legislative
Legislative Requirement(s):			
SDWA 31 (1);			
Question:			
Has the owner ensured that all equipment is installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			
The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.			
The system consists of two groundwater wells and one treatment plant. The treatment plant uses greensand filters for iron and turbidity removal purposes, a sodium hypochlorite disinfection system for both oxidation and primary disinfection and sodium thiosulphate to aid with processed wastewater in filter backwash wastewater tank. There is a in-ground reservoir and a standby generator on site.			

Question ID	DWMR1023000	Question Type	Legislative
Legislative Requirement(s):			
SDWA O. Reg. 170/03 1-2 (2);			
Question:			
Do records indicate that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a DWWP and/or MDWL issued under Part V of the SDWA at all times that water was being supplied to consumers?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			
Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under O. Reg. 170/03 or a Drinking Water Works Permit and/or Municipal Drinking Water Licence issued under Part V of the SDWA at all times that water was being supplied to consumers.			
Records provided during the document review indicated that the Camorne DWS had been operated in a manner to meet the design capabilities required under O. Reg 170/03.			
Records reviewed included turbidities, chlorine residuals at the point where primary disinfection			

had been achieved, logbooks, certificates of analysis, secondary disinfection residuals, and operator certificates.

Question ID	DWMR1027000	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Does the owner have evidence indicating that all chemicals and materials which come in contact with water within the drinking water system have met all applicable AWWA and ANSI standards in accordance with the DWWP and MDWL issued under Part V of the SDWA?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner had evidence indicating that all chemicals and materials that come in contact with water within the drinking water system met the AWWA and ANSI standards in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part V of the SDWA.			

Question ID	DWMR1024000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 1-2 (2);			
Question: Do records confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated as required?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated so that at all times and all locations in the distribution system the chlorine residual was never less than 0.05 mg/l free or 0.25 mg/l combined. A review of free chlorine residual grab samples taken from the distribution system indicated that the free chlorine residual was greater than 0.05 mg/L at all times during the inspection review period. The minimum free chlorine residual measured during the inspection review period was 0.68 mg/L observed August 17, 2023 at the Kennedy Road North yard hydrant.			

Question ID	DWMR1034000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 7-2 (5); SDWA O. Reg. 170/03 7-2 (6);			
Question: Is the secondary disinfectant residual measured as required for the small municipal residential			

distribution system?

Compliance Response(s)/Corrective Action(s)/Observation(s):

The secondary disinfectant residual was measured as required for the small municipal residential distribution system.

The Camborne DWS serves 71 connections with a population of approximately 200 residential people. The system is classified as a small municipal residential drinking water system and the owner/operator for the system must ensure that at least two distribution samples are taken each week, 48 hours apart and tested immediately for free chlorine residual.

Question ID	DWMR1049000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Do records confirm that disinfectant residuals are routinely checked at the extremities and dead ends of the distribution system?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Records confirmed that disinfectant residuals were routinely checked at the extremities and dead ends of the distribution system.			

Question ID	DWMR1036000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-7 (1);			
Question: Where continuous monitoring equipment is not used for chlorine residual analysis, are samples tested using an acceptable portable device?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Samples for chlorine residual analysis were tested using an acceptable portable device.			

Question ID	DWMR1030000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 7-2 (1); SDWA O. Reg. 170/03 7-2 (2);			
Question: Is primary disinfection chlorine monitoring being conducted at a location approved by MDWL and/or DWWP issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Primary disinfection chlorine monitoring was conducted at a location approved by Municipal Drinking Water Licence and/or Drinking Water Works Permit issued under Part V of the SDWA,			

or at/near a location where the intended CT has just been achieved.

The System is equipped with one (1) continuous chlorine analyzer that measures primary disinfection chlorine. The analyzer is located at the treated water supply line upstream of the connection to the distribution system.

Question ID	DWMR1031000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Are operators aware of the operational criteria necessary to achieve primary disinfection within the drinking water system?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Operators were aware of the operational criteria necessary to achieve primary disinfection within the drinking water system.			

Question ID	DWMR1035000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10;			
Question: Are operators examining continuous monitoring test results and are they examining the results within 72 hours of the test?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.			

Question ID	DWMR1038000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-5 (1)1-4;			
Question: Is continuous monitoring equipment that is being utilized to fulfill O. Reg. 170/03 requirements performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format. It was confirmed during the inspection that SCADA logs chlorine residual data every minute.			

Question ID	DWMR1037000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10; SDWA O. Reg. 170/03 6-5 (1.1);			
Question: Are all continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or MDWL or DWWP or order, equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or Municipal Drinking Water Licence or Drinking Water Works Permit or order, were equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6.			

Question ID	DWMR1040000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10;			
Question: Are all continuous analysers calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.			

Question ID	DWMR1108000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10; SDWA O. Reg. 170/03 6-5 (1.1);			
Question: Where continuous monitoring equipment used for the monitoring of free chlorine residual, total chlorine residual, combined chlorine residual or turbidity, required by O. Reg. 170/03, an Order, MDWL, or DWWP issued under Part V, SDWA, has triggered an alarm or an automatic shut-off, did a qualified person respond in a timely manner and take appropriate actions?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Where required continuous monitoring equipment used for the monitoring of chlorine residual and/or turbidity triggered an alarm or an automatic shut-off, a qualified person responded in a timely manner and took appropriate actions.			

Question ID	DWMR1099000	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Do records show that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O. Reg. 169/03)?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Records showed that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O. Reg. 169/03).			

Question ID	DWMR1080000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 11-3 (1); SDWA O. Reg. 170/03 11-3 (3);			
Question: For SMR systems, are all microbiological water quality monitoring requirements for raw water samples prescribed by legislation being met?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All microbiological water quality monitoring requirements prescribed by legislation for raw water samples were being met. Section 11-3 of Schedule 11 of O. Reg. 170/03 requires that the Owner of a DWS and the Operating Authority for the system ensure that at least one raw water sample is taken once a month and tested for E. Coli and Total Coliforms. A review of sample records provided during the inspection period indicates that the distribution water sample was collected from the System each week.			

Question ID	DWMR1082000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 11-2 (1); SDWA O. Reg. 170/03 11-2 (2); SDWA O. Reg. 170/03 11-2 (6);			
Question: For SMR systems, are all microbiological water quality monitoring requirements for distribution samples prescribed by legislation being met?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All microbiological water quality monitoring requirements prescribed by legislation for distribution samples in a small municipal residential system were being met.			

Section 11-2 of Schedule 11 of O. Reg. 170/03 requires that the Owner of a DWS and the Operating Authority for the system ensure that at least one distribution water sample is taken every two weeks and tested for E. Coli, Total Coliforms and general bacteria population expressed as colony counts on a heterotrophic plate count.

A review of sample records provided during the inspection period indicates that the distribution water sample was collected from the System each week.

Question ID	DWMR1096000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-3 (1);			
Question: Do records confirm that chlorine residual tests are being conducted at the same time and at the same location that microbiological samples are obtained?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.			

Question ID	DWMR1084000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 13-2;			
Question: Are all inorganic water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency. Section 13-2 (1) of Schedule 13 of O.Reg. 170/03 states that the owner of a small municipal drinking water system and the operating authority for the system shall ensure that at least one water sample is taken every 60 months, if the system obtains water from a raw water supply that is ground water. The owner shall ensure that each of the samples taken is tested for every parameter set out in Schedule 23. Samples for Schedule 23 inorganic parameters were analyzed May 26, 2021. The next round of sampling should occur within 90 days of May 26, 2026.			

Question ID	DWMR1085000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 13-4 (1); SDWA O. Reg. 170/03 13-4 (2); SDWA O. Reg. 170/03 13-4 (3);			

Question:

Are all organic water quality monitoring requirements prescribed by legislation conducted within the required frequency?

Compliance Response(s)/Corrective Action(s)/Observation(s):

All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

Section 13-4 (1) of Schedule 13 of O.Reg. 170/03 states that the owner of a small municipal drinking water system and the operating authority for the system shall ensure that at least one water sample is taken every 60 months, if the system obtains water from a raw water supply that is ground water. The owner shall ensure that each of the samples taken is tested for every parameter set out in Schedule 24.

Samples for Schedule 24 organic parameters were analyzed May 26, 2021. The next round of sampling should occur within 90 days of May 26, 2026.

Question ID	DWMR1086000	Question Type	Legislative
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Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 13-6.1 | (1); SDWA | O. Reg. 170/03 | 13-6.1 | (2); SDWA | O. Reg. 170/03 | 13-6.1 | (3); SDWA | O. Reg. 170/03 | 13-6.1 | (4); SDWA | O. Reg. 170/03 | 13-6.1 | (5); SDWA | O. Reg. 170/03 | 13-6.1 | (6);

Question:

Are all haloacetic acid water quality monitoring requirements prescribed by legislation conducted within the required frequency and at the required location?

Compliance Response(s)/Corrective Action(s)/Observation(s):

All haloacetic acid water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.

Schedule 13-6.1 of O.Reg. 170/03 requires the owner of a drinking water system that provides chlorination or chlorination and the operating authority of the system shall ensure that at least one distribution sample is taken each calendar quarter, from a point in the drinking water system's distribution system, or plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of haloacetic acids.

Results provided by Hamilton Township indicate that sampling was conducted every three (3) months on March 6, 2023, June 5, 2023, September 12, 2023 and December 11, 2023.

Question ID	DWMR1087000	Question Type	Legislative
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Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 13-6 | (1); SDWA | O. Reg. 170/03 | 13-6 | (2); SDWA | O. Reg. 170/03 | 13-6 | (3); SDWA | O. Reg. 170/03 | 13-6 | (4); SDWA | O. Reg. 170/03 | 13-6 | (5); SDWA | O. Reg. 170/03 | 13-6 | (6);

Question:

Have all trihalomethane water quality monitoring requirements prescribed by legislation been conducted within the required frequency and at the required location?

Compliance Response(s)/Corrective Action(s)/Observation(s):

All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.

Section 13-6 of Schedule 13 of O. Reg. 170/03 requires that the owner of a drinking water system provides chlorination and the operating authority for the system ensure that at least one distribution sample is taken every three (3) months, from a point in the drinking water system's distribution system, or plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of trihalomethanes. Each sample shall be tested for trihalomethanes.

Results provided by Hamilton Township indicate that sampling was conducted every three (3) months on March 6, 2023, June 5, 2023, September 12, 2023 and December 11, 2023.

Question ID	DWMR1088000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 13-7;			
Question: Are all nitrate/nitrite water quality monitoring requirements prescribed by legislation conducted within the required frequency for the DWS?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency. Schedule 13-7 of Schedule 13 of O. Reg. 170/03 requires that the owner of a drinking water system and the operating authority for the system ensure that at least one water sample is taken every three (3) months and tested for nitrate and nitrite. Results provided by Hamilton Township indicate that sampling was conducted every three (3) months on March 6, 2023, June 5, 2023, September 12, 2023 and December 11, 2023.			

Question ID	DWMR1089000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 13-8;			
Question: Are all sodium water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All sodium water quality monitoring requirements prescribed by legislation were conducted			

within the required frequency.

Section 13-8 of Schedule 13 of O. Reg. 170/03 requires that the owner of a drinking water system and the operating authority for the system ensure that at least one water sample is taken every 60 months and tested for sodium.

Results provided by Hamilton Township indicate that sampling was completed June 1, 2022. The next round of sampling should occur within 90 days of June 1, 2027.

Question ID	DWMR1090000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 13-9;			
Question: Where fluoridation is not practiced, are all fluoride water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency. Section 13-9 of Schedule 13 of O. Reg. 170/03 requires that the owner of a drinking water system and the operating authority for the system ensure that at least one water sample is taken every 60 months and tested for fluoride. Results provided by Hamilton Township indicate that sampling was completed June 1, 2022. The next round of sampling should occur within 90 days of June 1, 2027.			

Question ID	DWMR1092000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-2;			
Question: Has the owner ensured that water samples are taken at the prescribed location?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner ensured that water samples were taken at the prescribed location.			

Question ID	DWMR1094000	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Are all water quality monitoring requirements imposed by the MDWL and DWWP being met?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			

All water quality monitoring requirements imposed by the MDWL or DWWP issued under Part V of the SDWA were being met.

Section 4.2, 4.3 and 4.4 of Schedule C of the MDWL 139-103 prescribes that the collection and analysis of backwash wastewater discharged to storm sewer.

Table 7 of Section 4.4 of Schedule C of the MDWL prescribes quarterly composite samples of backwash wastewater and analysis of suspended solids (TSS) and quarterly grab samples and measurement of chlorine residual. Section 1.5 of Schedule C prescribes that the annual average concentration of TSS shall not exceed 25 mg/L.

A review of records for the inspection period indicates that process wastewater TSS and chlorine residuals were monitored quarterly at the discharge point.

Question ID	DWMR1095000	Question Type	Legislative
Legislative Requirement(s):			
SDWA O. Reg. 170/03 15.1-10; SDWA O. Reg. 170/03 15.1-4 (1); SDWA O. Reg. 170/03 15.1-5 (1); SDWA O. Reg. 170/03 15.1-5 (10); SDWA O. Reg. 170/03 15.1-5 (11); SDWA O. Reg. 170/03 15.1-5 (12); SDWA O. Reg. 170/03 15.1-5 (2); SDWA O. Reg. 170/03 15.1-5 (3); SDWA O. Reg. 170/03 15.1-5 (4); SDWA O. Reg. 170/03 15.1-5 (5); SDWA O. Reg. 170/03 15.1-5 (6); SDWA O. Reg. 170/03 15.1-5 (7); SDWA O. Reg. 170/03 15.1-5 (8); SDWA O. Reg. 170/03 15.1-5 (9); SDWA O. Reg. 170/03 15.1-7 (1); SDWA O. Reg. 170/03 15.1-7 (2); SDWA O. Reg. 170/03 15.1-7 (3); SDWA O. Reg. 170/03 15.1-7 (4); SDWA O. Reg. 170/03 15.1-9 (1); SDWA O. Reg. 170/03 15.1-9 (2); SDWA O. Reg. 170/03 15.1-9 (3); SDWA O. Reg. 170/03 15.1-9 (4); SDWA O. Reg. 170/03 15.1-9 (5); SDWA O. Reg. 170/03 15.1-9 (6); SDWA O. Reg. 170/03 15.1-9 (7); SDWA O. Reg. 170/03 15.1-9 (8); SDWA O. Reg. 170/03 15.1-9 (9);			
Question:			
Have all lead sampling requirements prescribed by Schedule 15.1 of O. Reg. 170/03 been met?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			
All sampling requirements for lead prescribed by schedule 15.1 of O. Reg. 170/03 were being met.			
Historic lead sampling data from Summer 2011 and Winter 2012 was granted reduced sampling for the Township of Hamilton as per O. Reg. 170/03 Schedule 15.1-5 (9) and (10).			
Testing for pH and alkalinity is performed annually (Winter and Summer) in every 12 month period. Both tests were confirmed on January 13, 2023 and June 21, 2023.			
Testing of lead is performed every third 12 month period during Winter and Summer. The next lead sampling test will be done in 2025.			

Question ID	DWMR1097000	Question Type	Legislative
Legislative Requirement(s):			

SDWA | O. Reg. 170/03 | 7-3 | (1.1);

Question:

If the drinking water system obtains water from a ground water source, is turbidity being tested at least once every month from each well that is supplying water to the system?

Compliance Response(s)/Corrective Action(s)/Observation(s):

Turbidity was being tested at least once every month from each well that is supplying water to the system.

Question ID	DWMR1098000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 13 (1); SDWA O. Reg. 170/03 13 (2); SDWA O. Reg. 170/03 13 (3);			
Question: Has the owner indicated that the required records are kept and will be kept for the required time period?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner indicated that the required records are kept and will be kept for the required time period.			

Question ID	DWMR1107000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 15.1-9 (1); SDWA O. Reg. 170/03 15.1-9 (2); SDWA O. Reg. 170/03 15.1-9 (3); SDWA O. Reg. 170/03 15.1-9 (4); SDWA O. Reg. 170/03 15.1-9 (5); SDWA O. Reg. 170/03 15.1-9 (6); SDWA O. Reg. 170/03 15.1-9 (7); SDWA O. Reg. 170/03 15.1-9 (8); SDWA O. Reg. 170/03 15.1-9 (9);			
Question: Were all reporting requirements for lead sampling complied with as per Schedule 15.1-9 of O. Reg. 170/03?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All reporting requirements for lead sampling were complied with as per schedule 15.1-9 of O. Reg. 170/03.			

Question ID	DWMR1110000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 11 (6);			
Question: Was an Annual Report containing the required information prepared by February 28 of the following year?			

Compliance Response(s)/Corrective Action(s)/Observation(s):

The Annual Report containing the required information was prepared by February 28th of the following year.

Question ID	DWMR1111000	Question Type	Legislative
Legislative Requirement(s):			
SDWA O. Reg. 170/03 22-2 (1); SDWA O. Reg. 170/03 22-2 (2); SDWA O. Reg. 170/03 22-2 (3); SDWA O. Reg. 170/03 22-2 (4);			
Question:			
Have Summary Reports for municipal council been completed on time, include the required content, and distributed in accordance with the regulatory requirements?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			
Summary Reports for municipal council were completed on time, included the required content, and were distributed in accordance with the regulatory requirements.			

Question ID	DWMR1043000	Question Type	Legislative
Legislative Requirement(s):			
SDWA 31 (1);			
Question:			
Are the process wastewater and residual solids/sludges being treated, handled and disposed of in accordance with the design requirements approved under the Drinking Water Works Permit and the Municipal Drinking Water Licence?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			
The process wastewater and residual solids/sludges were treated, handled and disposed of in accordance with the design requirements approved under the Drinking Water Works Permit and the Municipal Drinking Water Licence.			

Question ID	DWMR1044000	Question Type	Legislative
Legislative Requirement(s):			
SDWA 31 (1);			
Question:			
Does the process wastewater discharge monitoring program and discharge quality comply with requirements established in the MDWL issued under Part V of the SDWA?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			
The process wastewater discharge monitoring program and discharge quality complied with requirements established in the Municipal Drinking Water Licence Issued under Part V of the SDWA.			

Question ID	DWMR1046000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Is there a backflow prevention program, policy and/or bylaw in place that addresses cross connections and connections to high hazard facilities?			
Compliance Response(s)/Corrective Action(s)/Observation(s): There was a backflow prevention program, policy and/or bylaw in place.			

Question ID	DWMR1053000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Is the Owner able to maintain proper pressures in the distribution system and is pressure monitored to alert the operator of conditions which may lead to loss of pressure below the value under which the system is designed to operate?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner was able to maintain proper pressures in the distribution system and pressure was monitored to alert the operator of conditions which may lead to loss of pressure below the value under which the system is designed to operate.			

Question ID	DWMR1047000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Does the owner have a program or maintain a schedule for routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks within the distribution system?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner had a program or maintained a schedule for routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks within the distribution system.			

Question ID	DWMR1048000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Has the owner implemented a program for the flushing of watermain as per industry			

standards?
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner had implemented a program for the flushing of watermain as per industry standards.

Question ID	DWMMR1050000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Is there a program in place for inspecting and exercising valves?			
Compliance Response(s)/Corrective Action(s)/Observation(s): There was a program in place for inspecting and exercising valves.			

Question ID	DWMMR1051000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Is there a program in place for inspecting and operating hydrants?			
Compliance Response(s)/Corrective Action(s)/Observation(s): There was a program in place for inspecting and operating hydrants.			

Question ID	DWMMR1052000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Is there a by-law or policy in place limiting access to hydrants?			
Compliance Response(s)/Corrective Action(s)/Observation(s): There was a by-law or policy in place limiting access to hydrants.			

Question ID	DWMMR1058000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 28;			
Question: Do operators and maintenance personnel have ready access to operations and maintenance manuals?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			

Operators and maintenance personnel had ready access to operations and maintenance manuals.

Operations and maintenance manuals are readily available at the Camborne drinking water treatment facility in the operators' control room, operators are aware of the location of manuals and have access to them at all times.

Question ID	DWMR1059000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 28;			
Question: Do the operations and maintenance manuals contain plans, drawings and process descriptions sufficient for the safe and efficient operation of the system?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.			

Question ID	DWMR1060000	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Do the operations and maintenance manuals meet the requirements of the DWWP and MDWL issued under Part V of the SDWA?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The operations and maintenance manuals met the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.			

Question ID	DWMR1061000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 27 (1); SDWA O. Reg. 128/04 27 (2); SDWA O. Reg. 128/04 27 (3); SDWA O. Reg. 128/04 27 (4); SDWA O. Reg. 128/04 27 (5); SDWA O. Reg. 128/04 27 (6); SDWA O. Reg. 128/04 27 (7);			
Question: Are logbooks properly maintained and contain the required information?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Logbooks were properly maintained and contained the required information. Section 27 of O. Reg. 128/04 requires that the logbooks must identify all operators on duty for the shift. Logs must also include:			

- 1) the date,
- 2) the time period the shift covered and the number or designation of the shift,
- 3) the names of all operators on duty during each shift,
- 4) details of departures from normal operating procedures that occurred during the shift, the time they occurred and the name of the person who gave the instructions for the departure,
- 5) abnormal and unusual observations and related conclusions and/or actions taken,
- 6) a record of equipment taken out of service or ceased to operate, maintenance or repair carried out on the equipment, including the date and time when equipment was repaired and returned to service.

A review of logsbooks for the inspection period of December 6, 2022 until January 22, 2024 confirmed the required information.

Question ID	DWMR1062000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 7-5;			
Question: Do records or other record keeping mechanisms confirm that operational testing not performed by continuous monitoring equipment is being done by a certified operator, water quality analyst, or person who meets the requirements of O. Reg. 170/03 7-5?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.			

Question ID	DWMR1063000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-10 (1);			
Question: For every required operational test and for every required sample, is a record made of the date, time, location, name of the person conducting the test and result of the test?			
Compliance Response(s)/Corrective Action(s)/Observation(s): For every required operational test and every required sample, a record was made of the date, time, location, name of the person conducting the test and result of the test. A review of the 'Daily Lab Test' sheet for the inspection period of December 6, 2022 until January 22, 2024 confirmed that all necessary information was recorded.			

Question ID	DWMR1064000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 26 (2);			

Question:

Did the operator-in-charge ensure that records were maintained of all adjustments made to the processes within his or her responsibility?

Compliance Response(s)/Corrective Action(s)/Observation(s):

The operator-in-charge ensured that records were maintained of all adjustments made to the processes within his or her responsibility.

Question ID	DWMR1065000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 27 (6);			
Question: Are logs and other record keeping mechanisms available for at least five (5) years?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Logs or other record keeping mechanisms were available for at least five (5) years.			

Question ID	DWMR1066000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Is spill containment provided for process chemicals and standby power generator fuel?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Spill containment was provided for process chemicals and/or standby power generator fuel.			

Question ID	DWMR1067000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Are clean-up equipment and materials in place for the clean up of spills?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Clean-up equipment and materials were in place for the clean up of spills.			

Question ID	DWMR1068000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question:			

If available, are standby power generators tested under normal load conditions?

Compliance Response(s)/Corrective Action(s)/Observation(s):

Standby power generators were tested under normal load conditions.

Review of 'Weekly/Monthly Checks' logsheet confirmed that monthly generator testing was performed between the inspection period of December 6, 2022 until January 22, 2024. The most recent test was performed on January 10, 2024.

Question ID	DWMR1069000	Question Type	BMP
Legislative Requirement(s):			
Not Applicable			
Question:			
Are all storage facilities completely covered and secure?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			
All storage facilities were completely covered and secure.			

Question ID	DWMR1070000	Question Type	BMP
Legislative Requirement(s):			
Not Applicable			
Question:			
Are air vents and overflows associated with reservoirs and elevated storage structures equipped with screens?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			
Air vents and overflows associated with reservoirs and elevated storage structures were equipped with screens.			

Question ID	DWMR1071000	Question Type	BMP
Legislative Requirement(s):			
Not Applicable			
Question:			
Has the owner provided security measures to protect components of the drinking water system?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			
The owner had provided security measures to protect components of the drinking water system.			
During the inspection, it was observed that the well was properly locked, cap in place and screen was intact with a secure/padlocked metal hatch.			
The Pumphouse exterior door had a lock on the outside and secured with an alarm system.			

Question ID	DWMR1072000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Has the owner and/or operating authority undertaken efforts to promote water conservation and reduce water losses in their system?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner and/or operating authority undertook efforts to promote water conservation and reduce water losses in their system.			

Question ID	DWMR1073000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 23 (1);			
Question: Has the overall responsible operator been designated for all subsystems which comprise the drinking water system?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The overall responsible operator had been designated for each subsystem. The system is categorized as a 'Small Municipal Residential System' , it operates under DWS No. 220008113 and is classified as a Water Treatment System Class 1 and Water Distribution System Class 1. The ORO designation is documented in the facility logbook at each site visit.			

Question ID	DWMR1078000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 23 (1); SDWA O. Reg. 128/04 23 (2); SDWA O. Reg. 128/04 23 (4); SDWA O. Reg. 128/04 23 (6); SDWA O. Reg. 128/04 23 (7);			
Question: In instances where the overall responsible operator was unable to act, was an adequately certified operator designated to act in place of the overall responsible operator?			
Compliance Response(s)/Corrective Action(s)/Observation(s): An adequately licenced operator was designated to act in place of the overall responsible operator when the overall responsible operator was unable to act.			

Question ID	DWMR1074000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 25 (1);			

Question:

Have operators-in-charge been designated for all subsystems which comprise the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):

Operators-in-charge had been designated for all subsystems which comprise the drinking water system.

The following Township of Hamilton staff was eligible to assume the Operator-in-Charge role for the treatment or distribution system:

1. Anita P. Scoenleber (WTS Class 4 and WDSS Class 3)
2. Jeff M. Baldini (WTS Class 1)
3. Jeff C. Bailey (WTS Class 1)
4. John Corey (WTS Class 2)
5. John Smith (WTS Class 2 and WQAC)

The OIC designation was documented each day in the logbook.

Question ID	DWMR1075000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 22;			
Question: Do all operators possess the required certification?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All operators possessed the required certification.			

Question ID	DWMR1076000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 1-2 (2);			
Question: Do only certified operators make adjustments to the treatment equipment?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Only certified operators made adjustments to the treatment equipment.			



APPENDIX A

STAKEHOLDER APPENDIX

Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

Many useful materials are available to help you operate your drinking water system. Below is a list of key materials owners and operators of municipal residential drinking water systems frequently use.

To access these materials online click on their titles in the table below or use your web browser to search for their titles. Contact the Ministry if you need assistance or have questions at 1-866-793-2588 or waterforms@ontario.ca.

For more information on Ontario's drinking water visit www.ontario.ca/drinkingwater



PUBLICATION TITLE	PUBLICATION NUMBER
FORMS: Drinking Water System Profile Information Laboratory Services Notification Adverse Test Result Notification	012-2149E 012-2148E 012-4444E
Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils	Website
Procedure for Disinfection of Drinking Water in Ontario	Website
Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids	Website
Filtration Processes Technical Bulletin	Website
Ultraviolet Disinfection Technical Bulletin	Website
Guide for Applying for Drinking Water Works Permit Amendments, & License Amendments	Website
Certification Guide for Operators and Water Quality Analysts	Website
Guide to Drinking Water Operator Training Requirements	9802E
Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption	Website
Drinking Water System Contact List	7128E01
Ontario's Drinking Water Quality Management Standard - Pocket Guide	Website
Watermain Disinfection Procedure	Website
List of Licensed Laboratories	Website

Principaux guides et documents de référence sur les réseaux résidentiels municipaux d'eau potable

De nombreux documents utiles peuvent vous aider à exploiter votre réseau d'eau potable. Vous trouverez ci-après une liste de documents que les propriétaires et exploitants de réseaux résidentiels municipaux d'eau potable utilisent fréquemment. Pour accéder à ces documents en ligne, cliquez sur leur titre dans le tableau ci-dessous ou faites une recherche à l'aide de votre navigateur Web. Communiquez avec le ministère au 1-866-793-2588, ou encore à waterforms@ontario.ca si vous avez des questions ou besoin d'aide.



Pour plus de renseignements sur l'eau potable en Ontario, consultez le site www.ontario.ca/eaupotable

TITRE DE LA PUBLICATION	NUMÉRO DE PUBLICATION
Renseignements sur le profil du réseau d'eau potable	012-2149F
Avis de demande de services de laboratoire	012-2148F
Avis de résultats d'analyse insatisfaisants et de règlement des problèmes	012-4444F
Prendre soin de votre eau potable - Un guide destiné aux membres des conseils municipaux	Site Web
Marche à suivre pour désinfecter l'eau potable en Ontario	Site Web
Stratégies pour minimiser les trihalométhanes et les acides haloacétiques de sous-produits de désinfection	Site Web
Filtration Processes Technical Bulletin (en anglais seulement)	Site Web
Ultraviolet Disinfection Technical Bulletin (en anglais seulement)	Site Web
Guide de présentation d'une demande de modification du permis d'aménagement de station de production d'eau potable	Site Web
Guide sur l'accréditation des exploitants de réseaux d'eau potable et des analystes de la qualité de l'eau de réseaux d'eau potable	Site Web
Guide sur les exigences relatives à la formation des exploitants de réseaux d'eau potable	9802F
Échantillonnage et analyse du plomb dans les collectivités : échantillonnage normalisé ou réduit et admissibilité à l'exemption	Site Web
Liste des personnes-ressources du réseau d'eau potable	Site Web
L'eau potable en Ontario - Norme de gestion de la qualité - Guide de poche	Site Web
Procédure de désinfection des conduites principales	Site Web
Laboratoires autorisés	Site Web



APPENDIX B
INSPECTION RATING RECORD

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 up to 14 inspection modules and consists of approximately 120 regulatory questions. Those protocol questions are also linked to definitive guidance that ministry inspectors use when conducting MRDWS inspections. The questions address a wide range of regulatory issues, from administrative procedures

ontario.ca/drinkingwater

to drinking water quality monitoring. Additionally, the inspection protocol contains a number of non-regulatory questions.

A team of drinking water specialists in the ministry have 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 that is less than 100 per cent does not mean that the drinking water from the system is unsafe. It shows areas where a system’s operation can improve. To that end, 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:

RISK = LIKELIHOOD × 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 that relate to regulatory compliance and input their responses as “yes”, “no” or “not applicable” 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).

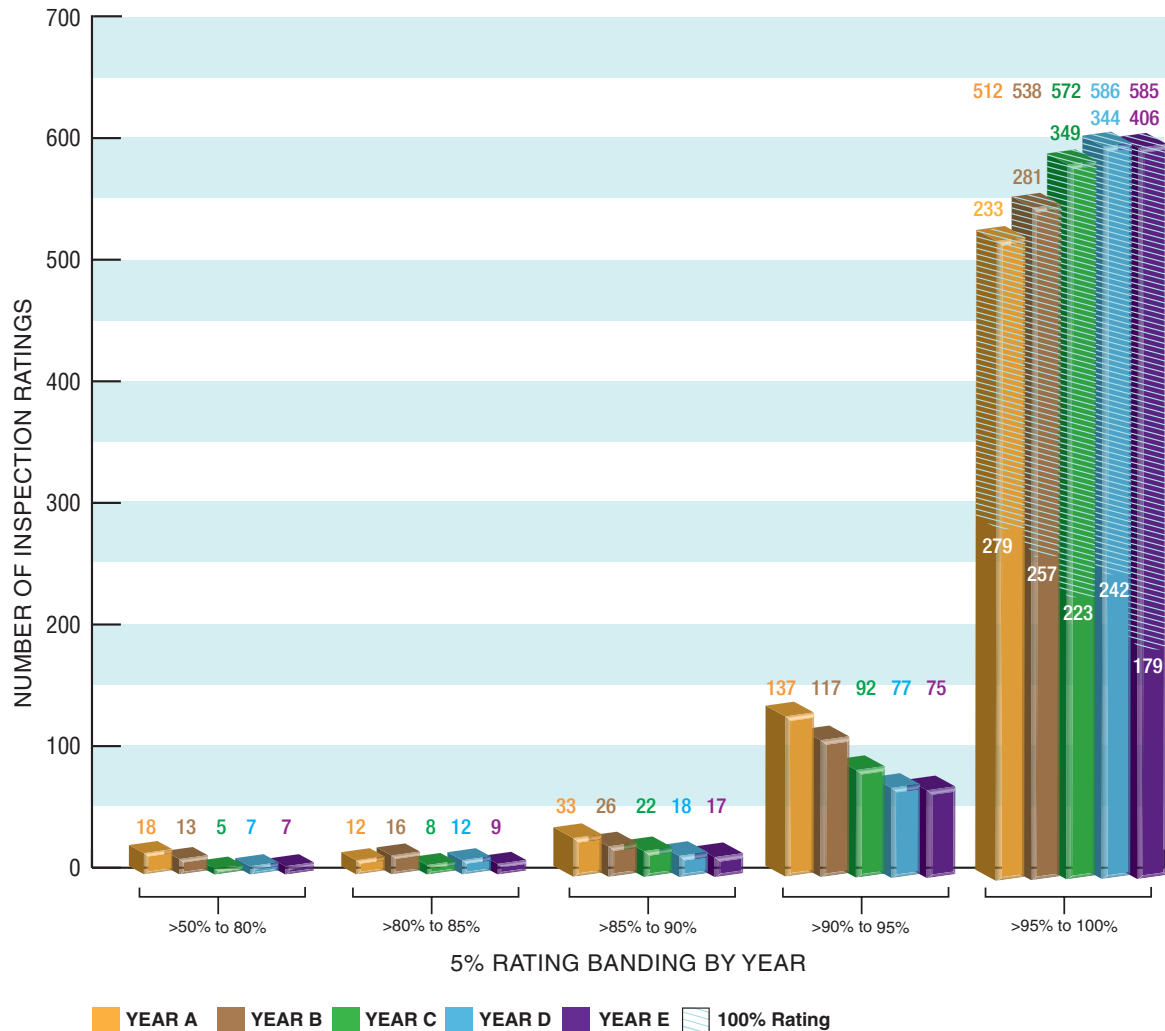
The risk ratings of all non-compliant answers are summed and divided by the sum of the risk ratings of all questions asked (maximum question rating). The resulting inspection risk rating (as a percentage) is subtracted from 100 per cent to arrive at the final inspection rating.

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 14 possible modules of the inspection protocol,

which would provide the system owner/operator with information on the areas where they need to improve. The 14 modules are:

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

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

DWS Name: CAMBORNE DRINKING WATER SYSTEM
DWS Number: 220008113
DWS Owner: THE CORPORATION OF THE TOWNSHIP OF HAMILTON
Municipal Location: COBOURG

Regulation: O.REG. 170/03
DWS Category: DW Municipal Residential
Type of Inspection: Detailed
Inspection Date: Jan-22-2024
Ministry Office: Peterborough District Office

Maximum Risk Rating: 553

Inspection Module	Non Compliance Risk (X out of Y)
Capacity Assessment	0/42
Certification and Training	0/49
Effluent Quality and Quantity	0/20
Logbooks	0/30
Operations Manuals	0/42
Reporting & Corrective Actions	0/37
Source	0/26
Treatment Processes	0/184
Water Quality Monitoring	0/123
Overall - Calculated	0/553

Inspection Risk Rating:	0.00%
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Final Inspection Rating:	100.00%
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Ministry of the Environment, Conservation and Parks - Detailed Inspection Rating Record (Reporting Year - 2023-24)

DWS Name: CAMBORNE DRINKING WATER SYSTEM
DWS Number: 220008113
DWS Owner Name: THE CORPORATION OF THE TOWNSHIP OF HAMILTON
Municipal Location: COBOURG

Regulation: O.REG. 170/03
DWS Category: DW Municipal Residential
Type of Inspection: Detailed
Inspection Date: Jan-22-2024
Ministry Office: Peterborough District Office

All legislative requirements were met. No detailed rating scores.

Maximum Question Rating: 553

Inspection Risk Rating:	0.00%
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FINAL INSPECTION RATING:	100.00%
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