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January 7, 2025

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

Attention: Scott Jibb, Mayor

RE: Creighton Heights Drinking Water System
Drinking Water Inspection Report 1-373432038
File: SI NO HM FO 540

The ministry undertakes inspections of the regulated community including industry, businesses and individuals. The primary focus of this inspection is to confirm compliance with ministry legislation as well as evaluating compliance and conformance with related permissions, policies and guidelines.

Attached to this letter is the report for the inspection completed at the Creighton Heights Drinking Water System at 9235 Dale Road, Cobourg, Ontario on November 26, 2024. This report provides an assessment of compliance and conformance based on observations and information available during the inspection review period only. As always, please refer to the applicable legislative requirements, permissions, policies, guidelines and best management practices to clarify your specific obligations.

Instances of non-compliance and/or non-conformance were identified during the inspection. Please refer to the "NON-COMPLIANCE/NON-CONFORMANCE ITEMS" section within the report to determine the actions required and take any necessary steps by the date(s) prescribed to bring the system/facility into compliance/conformance.

Additional findings and applicable comments, where provided, will be found within the report.

If you have questions or concerns, please contact me by email at rebecca.troan@ontario.ca or by telephone at 705-313-2517.

Rebecca Troan
Water Inspector
Ministry of the Environment, Conservation and Parks
Drinking Water and Environmental Compliance Division

Cc: Anita Schoenleber, Water Operations Manager, Township of Hamilton
Dr. Natalie Bocking, Medical Officer of Health, Haliburton Kawartha Pine Ridge Health Unit
Linda Laliberte, CAO/Secretary – Treasurer, Ganaraska Conservation Authority



CREIGHTON HEIGHTS DRINKING WATER SYSTEM

Physical Address: 9235 DALE RD, , HAMILTON
TOWNSHIP, ON K0K 1C0

INSPECTION REPORT

System Number: 220008104
Entity: THE CORPORATION OF THE
TOWNSHIP OF HAMILTON
Inspection Start Date: November 18, 2024
Site Inspection Date: November 26, 2024
Inspection End Date: January 07, 2025
Inspected By: Rebecca Troan
Badge #: 1465

(signature)

INTRODUCTION

Purpose

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.

Scope

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 and the operation of the system.

The inspection of the drinking water system included both the physical inspection of the component parts of the system listed in section 4 "Systems Components" of the report and the review of data and documents associated with the operation of the drinking water system during the review period.

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.

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.

Facility Contacts and Dates

The drinking water system is owned and operated by The Corporation of The Township of Hamilton.

The system serves an estimated population of 1,230 and is categorized as a Class 2 Water Treatment System and a Class 1 Distribution System. Information reviewed for this inspection covered the time period of January 26, 2024 through to November 26, 2024. The physical inspection was performed on November 26, 2024. Anita Schoenleber, Manager, Water Operations, and John Corey, Operator, both from the Township of Hamilton, were present during the inspection.

Systems/Components

The following sites were visited as part of the inspection of the drinking water system:

1) Creighton Heights Drinking Water Treatment Plant located at 9235 Dale Road, Cobourg, On

Permissions/Approvals

This drinking water system was subject to specific conditions contained within the following permissions and/or approvals (please note this list is not exhaustive) at the time of the inspection in addition to the requirements of the SDWA and its regulations:

1. Municipal Drinking Water Licence (MDWL) No. 139-102 Issue #4
2. Drinking Water Works Permit (DWWP) No. 139-202 Issue #4

NON-COMPLIANCE

The following item(s) have been identified as non-compliance, based on a "No" response captured for a legislative question(s). For additional information on each question see the Inspection Details section of the report.

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

Item	Question	Compliance Response/Corrective Action(s)
NC-1	<p>Question ID: DWMR1094001</p> <p>Were water quality sampling requirements imposed by the Municipal Drinking Water Licence and Drinking Water Works Permit met?</p>	<p>Schedule C of the Municipal Drinking Water Licence 139-102 Issue Number 4, requires quarterly sampling and testing of backwash wastewater for total suspended solids and total chlorine residual, and sets the annual running average limits of 25 mg/L and 0.02 mg/L, respectively.</p> <p>The document review confirmed that wastewater samples were collected quarterly and analyzed for total suspended solids and total chlorine residual.</p> <p>The 2024 annual average wastewater concentration was 6 mg/L for total suspended solids and 0.10 mg/L for total chlorine.</p> <p>The wastewater annual average for total chlorine exceeded the limit prescribed in Section 1.5 of Schedule C of Municipal Drinking Water Licence 139-102 Issue Number 4. This exceedance was not reported within 72 hours of the receipt of the last lab result, in accordance with Section 1.5.2 of Schedule C of MDWL 139-102 Issue Number 4.</p> <p>The Operator informed the Ministry that they have difficulty meeting the total chlorine residual limit due to elevated levels of manganese in the source water and the addition of Potassium Permanganate. They have modified their sodium thiosulfate dosing but have not been able to rectify this issue. An amendment to the MWDL may be needed.</p> <p>The Owner/Operating Authority of the Creighton Heights Drinking Water System shall review</p>

their wastewater dechlorination process and update their procedure, in combination with applying to amend the total chlorine limit prescribed in the MDWL to ensure that they can comply with Section 1.5 of Schedule C of MDWL 139-102 Issue Number 4. The procedure shall also include the requirement to calculate the annual average concentration of wastewater monitoring parameters on a quarterly basis as well as the process for reporting exceedances of the annual average prescribed in Schedule C. This procedure shall be submitted to Provincial Officer Rebecca Troan by no later than March 31, 2025.

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	DWMR1006001	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Is the owner planning to add a new drinking water source or to make changes to their current source(s)?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner is planning to add a new drinking water source or to make changes to their current source(s). The Creighton Heights DWS is updating their Water Supply Master Plan and is in the early stages of exploring the option of modifying their current wells to increase yield and support future development in the area. They have begun early discussions with the Ganaraska Region Conservation Authority regarding Source Protection requirements.			

Question ID	DWMR1007001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 1-2 (1)1;			
Question: Was 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. Well TW1 is located approximately 5 metres north of the water treatment plant. The drilled well casing extends at least 14 inches above the ground surface and is sealed with a vermin proof well cap that is secure and vented. Well TW6 is located in an underground concrete well pit approximately 5 metres north of the water treatment plant and east of TW1. The well pit was equipped with a gravity drainage outlet and a secured metal access hatch. Well TW7 is located in an underground concrete well pit approximately 5 metres north of the water treatment plant and east of TW6. The well pit was equipped with a gravity drainage outlet and a secured metal access hatch.			

TW6 or TW7 enter the water treatment plant via one common header. The two wells do not run at the same time.

Question ID	DWMR1009001	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Were measures in place to protect the groundwater and/or GUDI source in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Measures were in place to protect the groundwater and/or GUDI source. Section 16 of Schedule B of the Municipal Drinking Water Licence (MDWL) Number 139-102 Issue Number 4 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 inspection and maintenance schedule, contained in the Contingency Plan document, prescribes monthly visual checks of any sources of pollution around the well, signs of vandalism or unauthorized entry and verification of surface drainage in the immediate vicinity of the wells. The schedule further prescribes a quarterly more in-depth visual inspection of the above grade components of the wells by the operation staff, annual review of raw water quality data and 5–10 year inspection of the below grade components by a licensed well contractor.			

Question ID	DWMR1014001	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Was flow monitoring performed as required by the Municipal Drinking Water Licence or Drinking Water Works Permit?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Flow monitoring was performed as required. Raw water flow is measured at the well TW1 discharge pipe and a common well TW6 and TW7 discharge pipe. It was reported that only well TW6 or TW7 is in service at any given time and wells' duty rotate automatically on stop signal. Treated water flow meters are installed at the common treated water discharge, fire flow discharge and at the discharge to the Deerfield Estates.			

Raw water and treated water flow meters were calibrated on January 3, 2024, by Franklin Empire Inc.

Question ID	DWMR1016001	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Was the owner in compliance with the conditions associated with maximum flow rate or the rated/operational capacity in the Municipal Drinking Water Licence?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner was in compliance with the conditions associated with maximum flow rate and/or the rated/operational capacity conditions. The Municipal Drinking Water Licence (MDWL) 139-102 Issue Number 4 lists the rated capacity for the Creighton Heights DWS as 979.2 cubic metres per day. A review of records provided for the inspection period indicated the maximum treated water flow was 524 cubic metres per day, approximately 54% of the rated capacity.			

Question ID	DWMR1018001	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Did the owner ensure that equipment was 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 ensured that equipment was installed as required. At the time of the inspection, it was verified that all equipment was installed in accordance with Schedule A and C of Drinking Water Work Permit 139-202 Issue Number 4.			

Question ID	DWMR1025001	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Were all parts of the drinking water system that came in contact with drinking water disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All parts of the drinking water system were disinfected as required.			

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Question ID	DWMR1023001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 1-2 (2);			
Question: Did records indicate that the treatment equipment was operated in a manner that achieved the design capabilities prescribed by O. Reg. 170/03, Drinking Water Works Permit and/or Municipal Drinking Water Licence 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 prescribed. The Creighton Heights DWS system obtains water from three (3) secure ground water sources. The treatment system consists of greensand filtration for the removal of iron and manganese followed by primary disinfection consisting of UV irradiation that is capable of achieving an overall performance that provides at a minimum 2-log removal or inactivation of viruses. Methane is removed utilizing a methane stripper that is installed downstream of the UV system. Secondary disinfection is provided utilizing chloramination using naturally occurring ammonia and chlorine injection. Each year for the approximate duration of one (1) month, free chlorine secondary disinfection is utilized by increasing chlorine dosage beyond breakpoint chlorination in order to prevent nitrification in the distribution system. Operation staff monitored the performance of the UV disinfection system and secondary disinfection on a daily basis and documented operational parameters in the monthly logs and UV Readings logs. During the inspection review period, the Creighton Heights DWS provided the required minimum level of treatment through UV irradiation and secondary chlorine/chloramine disinfection.			

Question ID	DWMR1026001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 1-6 (2);			
Question: If primary disinfection equipment did not use chlorination or chloramination, was the equipment equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 1-6 of O. Reg. 170/03?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Primary disinfection equipment was equipped with alarms or shutoff mechanisms that satisfied the standards.			

Ten (10) UV units are installed at the Creighton Heights DWS and are equipped with water quality sensors, lamp intensity sensors and warning and low alarm set points. If an alarm is initiated at a single UV unit, a solenoid valve will automatically shut off flow of water through the unit to prevent inappropriately disinfected water from entering the distribution system. An alarm and an automatic well pump shut off is initiated if two (2) of the ten (10) UV units fail.

Question ID	DWMR1024001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 1-2 (2);			
Question: Did records confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection 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 was operated as required. The Creighton Heights DWS conducted distribution chlorine residual sampling twice per week with 3 samples collected on one day and 4 samples collected on a second day at least 48 hours apart, in accordance with Schedule 7-2 of O. Reg. 170/03.			

Question ID	DWMR1033001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 7-2 (3); SDWA O. Reg. 170/03 7-2 (4);			
Question: Was secondary disinfectant residual tested as required for the large municipal residential distribution system?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Secondary disinfectant residual was tested as required. Secondary disinfection chlorine residuals ranged from 0.42 mg/L to 2.74 mg/L during the inspection period.			

Question ID	DWMR1035001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-5 (1)1-4;			
Question: Were operators examining continuous monitoring test results and did they examine the results within 72 hours of the test?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Operators were examining continuous monitoring test results as required.			

Operators reviewed continuous monitoring data at least every 72 hours and documented the review and any findings in the facility logbook.

Question ID	DWMR1038001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-5 (1)1-4;			
Question: Was continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements performing tests for the parameters with at least the minimum frequency 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 and recording data with the prescribed format.			

Question ID	DWMR1037001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-5 (1)5-10; SDWA O. Reg. 170/03 6-5 (1.1);			
Question: Were 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, equipped with alarms or shut-off mechanisms that satisfied the standards described in Schedule 6?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All required continuous monitoring equipment utilized for sampling and testing were equipped with alarms or shut-off mechanisms that satisfied the standards The following continuous analyzer alarms were provided to the Ministry during the inspection: HACH Chlorine Analyzer 1) Chloramination - Low: 1.30 mg/L 2) Chlorination - Low: 0.50 mg/L			

Question ID	DWMR1040001	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;			

<p>Question: Were all continuous analysers calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation?</p>
<p>Compliance Response(s)/Corrective Action(s)/Observation(s): All continuous analyzers were calibrated, maintained, and operated as required. Turbidity and chlorine continuous analyzers are calibrated annually by Hach Service Plus and were last calibrated on June 27, 2024.</p>

Question ID	DWMR1108001	Question Type	Legislative
Legislative Requirement(s): 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, Municipal Drinking Water Licence, Drinking Water Works Permit, or order triggered an alarm or an automatic shut-off, did a qualified person respond as required and take appropriate actions?			
Compliance Response(s)/Corrective Action(s)/Observation(s): A qualified person responded as required and took appropriate actions. A review of the Creighton Heights DWS logbooks indicated that staff responded to alarms in a timely manner. Appropriate actions were taken and recorded in the logbook.			

Question ID	DWMR1109001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 1-6 (1); SDWA O. Reg. 170/03 1-6 (2);			
Question: If the system used equipment for primary disinfection other than chlorination or chloramination and the equipment malfunctioned, lost power, or ceased to provide the appropriate level of disinfection, causing an alarm or an automatic shut-off, did a certified operator respond as required and take appropriate actions?			
Compliance Response(s)/Corrective Action(s)/Observation(s): A certified operator responded as required and took appropriate actions. A review of the Creighton Heights DWS logbooks indicated that staff responded to alarms in a timely manner. Appropriate actions were taken and recorded in the logbook.			

Question ID	DWMR1042001	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			

Question:

If UV disinfection was used, were duty sensors and reference UV sensors checked and calibrated as per the requirements of Schedule E of the Municipal Drinking Water Licence or at a frequency as otherwise recommended by the UV equipment manufacturer?

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

All UV sensors were checked and calibrated as required.

The Creighton Heights DWS upgraded the UV units on December 5, 2023, and are aware of the requirement to complete the UV sensor checks in accordance with Schedule E of MDWL 139-102 Issue Number 4.

Question ID	DWMR1099001	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Do records show that water provided by the drinking water system met the Ontario Drinking Water Quality Standards?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Records showed that all water sample results met the Ontario Drinking Water Quality Standards.			

Question ID	DWMR1083001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 10-3;			
Question: Were treated microbiological sampling requirements prescribed by Schedule 10-3 of O. Reg. 170/03 for large municipal residential systems met?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Treated microbiological sampling requirements were met. During the inspection period, one treated water sample was collected each week and analyzed for total coliforms, e. coli and heterotrophic plate count (HPC), in accordance with Schedule 10-3 of O. Reg. 170/03. Total coliforms and e. coli were non-detect and HPC ranged from 0 to 130 CFU/1ml during the inspection period.			

Question ID	DWMR1081001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 10-2 (1); SDWA O. Reg. 170/03 10-2 (2); SDWA O. Reg.			

170/03 | 10-2 | (3);

Question:

Were distribution microbiological sampling requirements prescribed by Schedule 10-2 of O. Reg. 170/03 for large municipal residential systems met?

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

Distribution microbiological sampling requirements were met.

The Creighton Heights DWS distribution system serves a population of approximately 1,230 residents. The system is classified as a large municipal residential system, and the owner and operating authority for the system are required to collect at a minimum nine (9) distribution samples each month and at least one per week and have them tested for the prescribed bacteriological parameters.

During the inspection period, at least two distribution water samples were collected each week with a minimum of nine per month and analyzed for total coliforms, e. coli and heterotrophic plate count (HPC), in accordance with Schedule 10-2 of O. Reg. 170/03.

Total coliforms and e. coli were non-detect and HPC ranged from 0 to 7 CFU/1ml during the inspection period.

Question ID	DWMMR1096001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-3 (1);			
Question: Did records confirm that chlorine residual tests were conducted at the same time and location as microbiological samples?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Records confirmed that chlorine residual tests were conducted as required.			

Question ID	DWMMR1084001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 13-2;			
Question: Were inorganic parameter sampling requirements prescribed by Schedule 13-2 of O. Reg. 170/03 met?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Inorganic parameter sampling requirements were met.			
Treated water samples were required to be collected and tested for inorganic parameters			

listed in Schedule 23 of O. Reg. 170/03 every 36 months, in accordance with regulatory requirements.

Records provided to the Ministry confirmed that sampling for inorganic parameters was conducted on June 10, 2024 in accordance with Schedule 13-2(1) of O. Reg. 170/03.

Question ID	DWMR1085001	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: Were organic parameter sampling requirements prescribed by Schedule 13-4 of O. Reg. 170/03 met?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Organic parameter sampling requirements were met. Treated water samples were required to be collected and tested for organic parameters listed in Schedule 24 of O. Reg. 170/03 every 36 months, in accordance with regulatory requirements. Records provided to the Ministry confirmed that sampling for organic parameters was conducted on June 10, 2024, in accordance with Schedule 13-4(1) of O. Reg. 170/03.			

Question ID	DWMR1086001	Question Type	Legislative
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: Were haloacetic acid sampling requirements prescribed by Schedule 13-6 of O. Reg. 170/03 met?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Haloacetic acid sampling requirements were met. Records provided to the Ministry confirmed that sampling for haloacetic acids (HAA) was conducted quarterly, in accordance with Schedule 13-6.1 of O. Reg. 170/03. The running quarterly average of total HAAs was 5.85 ug/L for the last four quarterly periods.			

Question ID	DWMR1087001	Question Type	Legislative
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:

Were trihalomethane sampling requirements prescribed by Schedule 13-6 of O. Reg. 170/03 met?

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

Trihalomethane sampling requirements were met.

Records provided to the Ministry confirmed that sampling for trihalomethanes (THM) was conducted quarterly, in accordance with Schedule 13-6(1) of O. Reg. 170/03.

The running quarterly average of total THMs was 1.35 ug/L for the last four quarterly periods.

Question ID	DWMR1088001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 13-7;			
Question: Were nitrate/nitrite sampling requirements prescribed by Schedule 13-7 of O. Reg. 170/03 met?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Nitrate/nitrite sampling requirements were met.			
Nitrate concentrations ranged from 0.045 mg/L to 0.047 mg/L and nitrite concentrations ranged from 0.027 mg/L to 0.040 mg/L, during the inspection period.			

Question ID	DWMR1089001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 13-8;			
Question: Were sodium sampling requirements prescribed by Schedule 13-8 of O. Reg. 170/03 met?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Sodium sampling requirements were met.			
Schedule 13-8 of O. Reg. 170/03 requires that treated water samples be collected and analyzed for sodium every 60 months.			
Treated water samples were last collected and analyzed for sodium on June 1, 2022 and June 6, 2022.			

Question ID	DWMR1090001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 13-9;			
Question: Where fluoridation is not practiced, were fluoride sampling requirements prescribed by Schedule 13-9 of O. Reg. 170/03 met?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Fluoride sampling requirements were met. Schedule 13-9 of O. Reg. 170/03 requires that treated water samples be collected and analyzed for fluoride every 60 months. Treated water samples were last collected and analyzed for fluoride on June 1, 2022.			

Question ID	DWMR1094001	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Were water quality sampling requirements imposed by the Municipal Drinking Water Licence and Drinking Water Works Permit met?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Schedule C of the Municipal Drinking Water Licence 139-102 Issue Number 4, requires quarterly sampling and testing of backwash wastewater for total suspended solids and total chlorine residual, and sets the annual running average limits of 25 mg/L and 0.02 mg/L, respectively. The document review confirmed that wastewater samples were collected quarterly and analyzed for total suspended solids and total chlorine residual. The 2024 annual average wastewater concentration was 6 mg/L for total suspended solids and 0.10 mg/L for total chlorine. The wastewater annual average for total chlorine exceeded the limit prescribed in Section 1.5 of Schedule C of Municipal Drinking Water Licence 139-102 Issue Number 4. This exceedance was not reported within 72 hours of the receipt of the last lab result, in accordance with Section 1.5.2 of Schedule C of MDWL 139-102 Issue Number 4. The Operator informed the Ministry that they have difficulty meeting the total chlorine residual limit due to elevated levels of manganese in the source water and the addition of Potassium Permanganate. They have modified their sodium thiosulfate dosing but have not been able to rectify this issue. An amendment to the MWDL may be needed. The Owner/Operating Authority of the Creighton Heights Drinking Water System shall review			

their wastewater dechlorination process and update their procedure, in combination with applying to amend the total chlorine limit prescribed in the MDWL to ensure that they can comply with Section 1.5 of Schedule C of MDWL 139-102 Issue Number 4. The procedure shall also include the requirement to calculate the annual average concentration of wastewater monitoring parameters on a quarterly basis as well as the process for reporting exceedances of the annual average prescribed in Schedule C. This procedure shall be submitted to Provincial Officer Rebecca Troan by no later than March 31, 2025.

In addition to the wastewater monitoring requirements, Schedule C requires quarterly sampling and testing for Nitrosodimethylamine (NNDMA) at the farthest point of the distribution system.

A review of records indicated that NDMA samples were taken quarterly, and results ranged from 0.0014 ug/L to 0.0042 ug/L during the inspection period.

Question ID	DWMR1104001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 16-6 (1); SDWA O. Reg. 170/03 16-6 (2); SDWA O. Reg. 170/03 16-6 (3); SDWA O. Reg. 170/03 16-6 (3.1); SDWA O. Reg. 170/03 16-6 (3.2); SDWA O. Reg. 170/03 16-6 (4); SDWA O. Reg. 170/03 16-6 (5); SDWA O. Reg. 170/03 16-6 (6);			
Question: Were immediate verbal notification requirements for adverse water quality incidents met?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Immediate verbal notification requirements for adverse water quality incidents were met.			

Question ID	DWMR1101001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 17-1; SDWA O. Reg. 170/03 17-10 (1); SDWA O. Reg. 170/03 17-11; SDWA O. Reg. 170/03 17-12; SDWA O. Reg. 170/03 17-13; SDWA O. Reg. 170/03 17-14; SDWA O. Reg. 170/03 17-2; SDWA O. Reg. 170/03 17-3; SDWA O. Reg. 170/03 17-4; SDWA O. Reg. 170/03 17-5; SDWA O. Reg. 170/03 17-6; SDWA O. Reg. 170/03 17-9;			
Question: For large municipal residential systems, were corrective actions, including any steps directed by the Medical Officer of Health, taken to address adverse conditions?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Corrective actions were taken to address adverse conditions.			

Question ID	DWMR1113001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 10.1 (3);			
Question: Were changes to the system registration information provided to the ministry within ten (10) days of the change?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Changes to the system registration information were provided as required.			

Question ID	DWMR1114001	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Did the owner have evidence that, when required, all legal owners associated with the drinking water system were notified of the requirements of the Municipal Drinking Water Licence and Drinking Water Works Permit?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner had evidence that the required notifications were made. The Corporation of the Township of Hamilton receives all updated DWWP and MDWL's issued to the Creighton Heights DWS. Annual Reports are also presented to council.			

Question ID	DWMR1045001	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Did the owner update the document describing the distribution components within 12 months of completion of alterations to the system in accordance with the Drinking Water Works Permit?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner had up-to-date documents describing the distribution components.			

Question ID	DWMR1060001	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			

<p>Question: Did the operations and maintenance manual(s) meet the requirements of the Municipal Drinking Water Licence?</p>
<p>Compliance Response(s)/Corrective Action(s)/Observation(s): The operations and maintenance manual(s) met the requirements of the Municipal Drinking Water Licence.</p>

Question ID	DWMR1062001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 7-5;			
Question: Did records or other record keeping mechanisms confirm that operational testing not performed by continuous monitoring equipment was done by a certified operator, water quality analyst, or person who met the requirements of Schedule 7-5 of O. Reg. 170/03?			
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 done by a certified operator, water quality analyst, or person who met the requirements of Schedule 7-5 of O. Reg. 170/03.			

Question ID	DWMR1071001	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Did the owner provide security measures to protect components of the drinking water system?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner provided security measures to protect components of the drinking water system. The Creighton Heights DWS Treatment Plant is locked and alarmed through SCADA and the source well pits are locked.			

Question ID	DWMR1073001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 23 (1);			
Question: Was an overall responsible operator designated for all subsystems which comprise the drinking water system?			

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

An overall responsible operator was designated for all subsystem.

The Creighton Heights DWS is classified as a Class 2 Water Treatment Subsystem and a Class 1 Water Distribution Subsystem.

Anita Schoenleber has been designated as the Overall-Responsible-Operator (ORO). Anita Schoenleber holds a valid Class 4 Water Treatment Subsystem Certificate that expires on January 31, 2027, and a Class 3 Water Distribution and Supply Subsystem Certificate that expires on April 30, 2026.

Question ID	DWMR1074001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 25 (1);			
Question: Were operators-in-charge designated for all subsystems which comprise the drinking water system?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Operators-in-charge were designated for all subsystems.			

Question ID	DWMR1075001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 22;			
Question: Were all operators certified as required?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All operators were certified as required.			

Question ID	DWMR1076001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 1-2 (2);			
Question: Were adjustments to the treatment equipment only made by certified operators?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Adjustments to the treatment equipment were only made by certified operators.			

Question ID	DWMR1117001	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Were there any other items related to the drinking water system that should be recognized in the report?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The following items were noted as being relevant to the drinking water system: Schedule D of Municipal Drinking Water Licence 139-102 Issue Number 4 grants the Creighton Heights DWS relief from the regulatory requirement to continuously record UV parameters in accordance with Schedule 1-6 of O. Reg. 170/03. In exchange for this regulatory relief the Creighton Heights DWS must document via log entry, every incidence of the UV system generating an alarm condition. A review of records for the inspection period, confirmed that the Creighton Heights DWS complied with the requirements of their Regulatory Relief from Schedule 1-6 (3) of O. Reg. 170/03.			



KEY REFERENCE AND GUIDANCE MATERIAL

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

INSPECTION REPORT RATING

Ministry of the Environment, Conservation and Parks - Inspection Summary Rating Record (Reporting Year - 2024-25)

DWS Name: CREIGHTON HEIGHTS DRINKING WATER SYSTEM
DWS Number: 220008104
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: Focused
Compliance Assessment Start Date: Nov-18-2024
Ministry Office: Peterborough District Office

Maximum Risk Rating: 528

Inspection Module	Non Compliance Risk (X out of Y)
Capacity Assessment	0/30
Certification and Training	0/42
Distribution System	0/4
Logbooks	0/14
Operations Manuals	0/14
Reporting & Corrective Actions	0/95
Source	0/14
Treatment Processes	0/203
Water Quality Monitoring	0/112
Overall - Calculated	0/528

Inspection Risk Rating: 0.00%

Final Inspection Rating: 100.00%

Ministry of the Environment, Conservation and Parks - Detailed Inspection Rating Record (Reporting Year - 2024-25)

DWS Name: CREIGHTON HEIGHTS DRINKING WATER SYSTEM
DWS Number: 220008104
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: Focused
Compliance Assessment Start Date: Nov-18-2024
Ministry Office: Peterborough District Office

Non-Compliance Question(s)	Non Compliance Risk
Water Quality Monitoring	
Were water quality sampling requirements imposed by the Municipal Drinking Water Licence and Drinking Water Works Permit met?	0
Overall - Total	0

Maximum Question Rating: 528

Inspection Risk Rating: 0.00%

FINAL INSPECTION RATING: 100.00%