

**Ministry of Environment,
Conservation and Parks**
*Drinking Water and Environmental
Compliance Division*

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**Ministère de l'Environnement,
de la Protection de la nature et des Parcs**
*Division de la conformité en matière d'eau
potable et d'environnement*

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March 13, 2025

Attention: Gayle Jackson Township of Ramara CAO

Re: 2024 Drinking Water Inspection Report Brechin & Lagoon City

Please find enclosed the Ministry of the Environment, Conservation and Parks Inspection Report Brechin & Lagoon City Drinking Water System # 210001273) inspection. The compliance assessment took place on August 28, 2024.

The primary focus of this inspection was to confirm compliance with Ministry of the Environment, Conservation and Parks legislation and control documents, as well as conformance with Ministry drinking water related policies for the inspection period. The Ministry is implementing a rigorous and comprehensive approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as water system management practices.

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

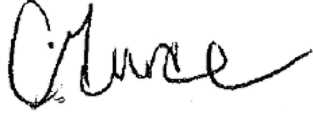
In order to measure individual inspection results, the Ministry has established an inspection compliance risk framework based on the principles of the Inspection, Investigation & Enforcement (II&E) Secretariat and advice of internal and risk experts.

The Inspection Summary Rating Record (IRR), included as Appendix A of the inspection report, provides the Ministry, the system owner and the associated Public Health Units with a summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance. IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspector's Annual Report.

If you have any questions or concerns regarding the rating, please contact Sheri Broeckel, Drinking Water Program Supervisor, at 1 (705) 716-3712.

If you have any questions or concerns regarding this inspection report, please contact the undersigned.

Carly Munce

A handwritten signature in black ink, appearing to read "Carly Munce". The signature is written in a cursive style with a large initial "C" and a long, sweeping tail.



BRECHIN & LAGOON CITY DRINKING WATER SYSTEM

Physical Address: 2 POPLAR CRES, , RAMARA,
ON L0K 1B0

INSPECTION REPORT

System Number: 210001273
Entity: CORPORATION OF THE
TOWNSHIP OF RAMARA
Inspection Start Date: August 28, 2024
Site Inspection Date: August 28, 2024
Inspection End Date: January 29, 2025
Inspected By: Carly Munce
Badge #: 1945

Carly Munce

(signature)

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.

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	DWMR1012001	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Did the owner have a harmful algal bloom monitoring plan in place that met the requirements of the Municipal Drinking Water Licence?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner had a harmful algal bloom monitoring plan in place which met the requirements. Condition 6 of Schedule C of Municipal Drinking Water Licence (MDWL) 147-101 Issue Number 5 outlines the requirements of the Harmful Algal Bloom monitoring, reporting and sampling plan required to be in place on or before August 5, 2022. The Plan must be implemented annually during but not limited to the warm seasonal period between June 1 and October 31 each year, or as otherwise directed by the Ministry or local Medical Officer of Health. The Harmful Algal Boom Plan prepared by the Operating Authority issued May 18, 2022 meets the requirements of the MDWL. Visual inspection of the intake for blue green algae and sampling of the raw and treated water for microcystin began June 6, 2022 and was completed weekly through to October 31, 2022. As well only raw microcystin water sampling occurred June 5, 2023 and was completed weekly through to October 31, 2023. All microcystin results were below the method detection limit.			

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. Condition 2.1 of Schedule C of Municipal Drinking Water Licence 147-101 Issue Number 5 requires that for each treatment subsystem, continuous flow measurement and recording shall be undertaken for the flow rate and daily volume of treated water that flows from the treatment subsystem to the distribution system, and the flow rate and daily volume of water that flows			

into the treatment subsystem.

There are four magnetic flow meters installed at the Brechin and Lagoon City Water Treatment Plant. One flow meter measures the raw water flow, one measures the treated water flow entering the distribution system and there is a flow meter installed on each of the filter effluent lines. Each of the flow meters provides a 4-20 mA signal. Raw, filtered and treated water flows are continuously recorded on the SCADA system.

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. Table 1 of Schedule C of Municipal Drinking Water Licence 147-101 Issue Number 5 states that the rated capacity for Brechin and Lagoon City Drinking Water System is 4,000 m ³ /day. This value was not exceeded during the inspection review period. There is no maximum flow rate identified in Table 2 of Schedule C.			

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. During the inspection installed equipment appeared to meet the description contained in Schedule A of Drinking Water Works Permit 147-201 Issue Number 5. Schedule C of Drinking Water Works Permit 147-201 Issue Number 5 has the addition of carbon dioxide injection system for adjusting pH to optimize coagulation.			

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.

Section 2.3 of Schedule B of

Drinking Water Works Permit 147-201 Issue Number 5 states that all parts of the drinking water system in contact with drinking water that are added, modified, replaced, extended shall be disinfected in accordance with a procedure approved by the Director or in accordance with the applicable provisions of the following documents:

- a) Until August 3, 2022 the ministry's Watermain Disinfection Procedure, dated November 2015. As of August 4, 2022 the ministry's Watermain Disinfection Procedure, dated August 1, 2020.
- b) Subject to condition 2.3.2, any updated version of the ministry's Watermain Disinfection Procedure;
- c) AWWA C652 – Standard for Disinfection of Water-Storage Facilities;
- d) AWWA C653 – Standard for Disinfection of Water Treatment Plants; and
- e) AWWA C654 – Standard for Disinfection of Wells.

The Operating Authority has developed a Standard Operating Procedure (SOP) for disinfection of drinking water system components. The SOP states that the required standards are to be followed as per the Drinking Water Works Permit.

Question ID	DWMR1023001	Question Type	Legislative
<p>Legislative Requirement(s): SDWA O. Reg. 170/03 1-2 (2);</p>			
<p>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?</p>			
<p>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.</p> <p>Primary disinfection for Brechin and Lagoon City Drinking Water System is achieved by chemically assisted filtration and chlorination with the use of the chlorine contact/concentration time (CT) concept to ensure the provision of effective pathogen inactivation. The effective disinfectant contact time required for the CT concept is attained within the 1,091 m3 clear well. Following completion of the intended contact time, free chlorine residuals are maintained within the distribution system for secondary disinfection purposes. In efforts to ensure minimum treatment is provided at all times, a series of fail safes have been incorporated into the SCADA system. Fail safes include, the low alarm set point being at a level which affords sufficient time for an Operator to respond, prior to the chlorine residual dropping below the level required for primary disinfection. Operators perform CT</p>			

calculations regularly. The low chlorine alarm will lock out the high lift pumps. In the event that the filter turbidity is above 0.3 NTU, the treated water turbidity is above 1.0 NTU or the clear well level is above or below the thresholds the on-call Operator is notified. In order to determine if primary disinfection was achieved at the Brechin and Lagoon City Drinking Water System during the inspection review period, flow rates, free chlorine residuals, turbidity values, clear well levels, pH values, monthly sheets and the log sheets were reviewed. These records indicate that during the inspection review period the treatment equipment was operated as required to achieve the disinfection requirements.

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.			

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. During the inspection review period the lowest chlorine residual measured in the Brechin and Lagoon City distribution system was 0.72mg/L.			

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.

Subsection 7-2 (3) of Schedule 7 of Ontario Regulation 170/03 requires that the owner of a large municipal residential system that provides secondary disinfection and the operating authority for the system shall ensure that at least seven distribution samples are taken each week in accordance with subsection (4) and are tested immediately for free chlorine residual, if the system provides chlorination and does not provide chloramination. There is a continuous chlorine analyser installed in the Brechin and Lagoon City distribution system at Pump Station #8. Operators recorded at least one distribution free chlorine residual reading each day of the inspection review period on a spreadsheet or in the logbook. The continuous analyser does not generate an alarm to the on call operator in the event of a reading below 0.05 mg/L. Operators routinely check the free chlorine residual at other locations in the distribution system.

Question ID	DWMR1030001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 7-2 (1); SDWA O. Reg. 170/03 7-2 (2);			
Question: Was primary disinfection chlorine monitoring being conducted at a location approved by Municipal Drinking Water Licence and/or Drinking Water Works Permit or at/near a location where the intended CT had just been achieved?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Primary disinfection chlorine monitoring was conducted as required. The treated water continuous chlorine analyser is fed water after the clearwell prior to water entering the distribution system.			

Question ID	DWMR1032001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 7-3 (2);			
Question: If the drinking water system obtained water from a surface water source and provided filtration, was continuous monitoring of each filter effluent line performed for turbidity?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Continuous monitoring of each filter effluent line was performed for turbidity.			

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. Subsection 6-5. (1) 3. of Schedule 6 of Ontario Regulation 170/03 requires that test results recorded under paragraph 1 or 2 must be examined, within 72 hours after the tests are conducted by a certified operator, in the case of, a large municipal residential system, such as Brechin and Lagoon City Drinking Water System. During the inspection review period records indicate that trending data was reviewed within 72 hours of the test being conducted. Operators are able to log on remotely to view the continuous analyser data. The Operating Authority has developed a Standard Operating Procedure for how Operators are to complete the review of continuous monitoring data.			

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

Subsection 6-5. (1.1) of Schedule 6 of Ontario Regulation 170/03 requires that the continuous monitoring equipment must cause an alarm to sound immediately at the following locations if the equipment malfunctions or loses power or a test result for a parameter is above the maximum alarm standard or below the minimum alarm standard specified in the Table to this section for the parameter:

- i. The location where the equipment conducts tests.
- ii. A location where a person is present, if a person is not always present at the location where the equipment conducts tests.
- iii. Every designated facility served by the drinking water system, unless the system is a large municipal residential system or a small municipal residential system.

In the event that the continuous chlorine or turbidity analysers record a value below or above the set points an alarm is sent to an Operator. The setpoints exceed the requirements of the Table in Schedule 6 of Ontario Regulation 170/03. The low chlorine alarm setpoint is at a level high enough to try and afford an operator enough time to respond before primary disinfection is compromised. Operators regularly test the chlorine and turbidity alarms to ensure they are functioning properly.

Question ID	DWMR1040001	Question Type	Legislative
<p>Legislative Requirement(s): SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10;</p>			
<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 analysers were calibrated, maintained, and operated as required.</p> <p>Subsection 6-5 (1) 8 of Schedule 6 of Ontario Regulation 170/03 states that the continuous monitoring equipment must be checked and calibrated in accordance with the manufacturer's instructions. Subsection 6-5(1)10 states that if the manufacturer's instructions do not indicate how often to check and calibrate the continuous monitoring equipment and paragraph 9 does not apply, the equipment must be checked and calibrated as often as necessary to ensure that test results are within the following margins of error: i. In the case of free chlorine residual, 0.05 milligrams per litre, if the concentrations usually measured by the equipment are less than or equal to 1.0 milligrams per litre, and proportionally higher if the concentrations usually measured are greater than 1.0 milligrams per litre, ii. In the case of free chlorine residual and total chlorine residual measured for the purpose of determining combined chlorine residual, 0.05 milligrams per litre, if the concentrations usually measured by the equipment are less than or equal to 1.0 milligrams per litre, and proportionally higher if the concentrations usually measured are greater than 1.0 milligrams per litre, iii. 0.1 Nephelometric Turbidity Units (NTU), in the case of turbidity.</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. In the event of a low chlorine alarm the on-call Operator is notified and the high lift pumps lock out. If the filter effluent continuous chlorine analysers have a reading above 0.3 NTU the on-call Operator is notified. In the event that the final turbidity is above 1.0 NTU or the clearwell level is high or low the on-call operator is notified. In the event of a low clearwell level alarm the high lift pumps lockout. In the event that the Brechin tower level is low the on-call operator is notified. Operators are able to log on remotely to see the SCADA system and determine if a response is needed. Operators responded appropriately in a timely manner for alarm conditions during the inspection review period.			

Question ID	DWMR1039001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 1-6 (3);			
Question: If primary disinfection equipment that does not use chlorination or chloramination was used, did the owner and operating authority ensure the equipment had a recording device that continuously recorded the performance of the disinfection equipment?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner and operating authority ensured that the primary disinfection equipment had a recording device that continuously recorded the performance of the disinfection equipment.			

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.

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. Section 10-3 of Schedule 10 of Ontario Regulation 170/03 requires that the owner of a drinking water system and the operating authority for the system shall ensure that a water sample is taken at least once every week and tested for Escherichia coli, total coliforms and general bacteria population expressed as colony counts on a heterotrophic plate count (HPC). During the inspection review period a treated water sample was collected each week and tested for the required parameters.			

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);			

<p>Question: Were distribution microbiological sampling requirements prescribed by Schedule 10-2 of O. Reg. 170/03 for large municipal residential systems met?</p>
<p>Compliance Response(s)/Corrective Action(s)/Observation(s): Distribution microbiological sampling requirements were met.</p> <p>Subsection 10-2 of Schedule 10 of Ontario Regulation 170/03 requires that the owner of a drinking water system and the operating authority for the system shall ensure that if the system serves 100,000 people or less, at least eight distribution samples, plus one additional distribution sample for every 1,000 people served by the system, are taken every month, with at least one of the samples taken in each week. The owner of the drinking water system and the operating authority for the system shall ensure that each of the samples taken is tested for Escherichia coli and total coliforms and at least 25 per cent of the samples required to be taken are to be tested for general bacteria population expressed as colony counts on heterotrophic plate count (HPC).</p> <p>The population served by the Brechin and Lagoon City Drinking Water System is approximately 2,650 people. As such, 10 distribution samples are required to be collected each month.</p> <p>During the inspection review period the distribution microbiological sampling requirements were exceeded with at least three distribution samples being taken each week and tested for the required parameters, including all samples being tested for HPC.</p>

Question ID	DWMR1096001	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	DWMR1084001	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.			

Subsection 13-2 (1) of Schedule 13 of Ontario Regulation 170/03 requires that the owner of a large municipal residential system and the operating authority for the system shall ensure that, at least one water sample is taken every 12 months and tested for every parameter set out in Schedule 23, if the system obtains water from a raw water supply that is surface water. Subsection 6-1.1 (5) of Schedule 6 of Ontario Regulation 170/03 states that if this Regulation requires at least one water sample to be taken every 12 months and tested for a parameter, the owner of the drinking water system and the operating authority for the system shall ensure that at least one sample that is taken during a 12-month period for the purpose of being tested for that parameter is taken not more than 30 days before or after the first anniversary of the day a sample was taken for that purpose in the previous 12 month period.

The most recent treated water samples tested for every Schedule 23 parameter were collected on August 6, 2024. Prior to that, samples were collected and tested for all parameters listed in Schedule 23 on August 14, 2023.

Question ID	DWMR1085001	Question Type	Legislative
<p>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);</p>			
<p>Question: Were organic parameter sampling requirements prescribed by Schedule 13-4 of O. Reg. 170/03 met?</p>			
<p>Compliance Response(s)/Corrective Action(s)/Observation(s): Organic parameter sampling requirements were met.</p> <p>Section 13-4 of Schedule 13 of Ontario Regulation 170/03 requires that the owner of a large municipal residential system and the operating authority for the system shall ensure that, at least one water sample is taken every 12 months and tested for every parameter set out in Schedule 24, if the system obtains water from a raw water supply that is surface water.</p> <p>Subsection 6-1.1 (5) of Schedule 6 of Ontario Regulation 170/03 states that if this Regulation requires at least one water sample to be taken every 12 months and tested for a parameter, the owner of the drinking water system and the operating authority for the system shall ensure that at least one sample that is taken during a 12-month period for the purpose of being tested for that parameter is taken not more than 30 days before or after the first anniversary of the day a sample was taken for that purpose in the previous 12-month period.</p> <p>The most recent treated water samples tested for every Schedule 24 parameter were collected on August 6, 2024 . Prior to that, samples were collected and tested for all parameters listed in Schedule 24 on August 14, 2023.</p>			

Question ID	DWMR1086001	Question Type	Legislative
<p>Legislative Requirement(s): SDWA O. Reg. 170/03 13-6.1 (1); SDWA O. Reg. 170/03 13-6.1 (2); SDWA O. Reg.</p>			

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.

Section 13-6.1 of

Schedule 13 of Ontario Regulation 170/03 requires that the owner of a drinking water system that provides chlorination or chloramination and the operating authority for the system shall ensure that at least one distribution sample is taken in 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 (HAA), and have the samples tested for haloacetic acids. The standard of 0.80 mg/L for HAA as a reportable limit came into effect on January 1, 2020.

During the inspection review period a sample was collected from the Brechin Lagoon City distribution system in

August 2, November 6 of 2023. As well as February 5, May 6, August 6 of 2024. HAA samples taken as required.

Question ID	DWMR1087001	Question Type	Legislative
<p>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);</p>			
<p>Question: Were trihalomethane sampling requirements prescribed by Schedule 13-6 of O. Reg. 170/03 met?</p>			
<p>Compliance Response(s)/Corrective Action(s)/Observation(s): Trihalomethane sampling requirements were met.</p> <p>Section 13-6 of Schedule 13 of Ontario Regulation 170/03 requires that the owner of a drinking water system that provides chlorination or chloramination and the operating authority for the system shall ensure that at least one distribution sample is taken in 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 trihalomethanes (THMs). The samples are to be tested for THMs. During the inspection review period samples were collected and tested for THMs from the Brechin Lagoon City distribution system in August 2, November 6 of 2023. As well as February 5, May 6, August 6 of 2024. THMs samples taken as required.</p>			

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. Section 13-7 of Schedule 13 of Ontario Regulation 170/03 requires that the owner of a drinking water system and the operating authority for the system shall ensure that at least one water sample is taken every three months and tested for nitrate and nitrite. During the inspection review period samples tested for nitrate and nitrite were collected from the treated water point of entry for Brechin and Lagoon City Drinking Water System in February 6, May 1, August 1, and November 6 of 2023 as well as February 5, May 6, August 6 of 2024 as required.			

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. Section 13-8 of Schedule 13 of Ontario Regulation 170/03 requires that the owner of a drinking water system and the operating authority for the system shall ensure that at least one water sample is taken every 60 months and tested for sodium. Section 6-1.1 (7) of Schedule 6 of Ontario Regulation 170/03 states that if this Regulation requires at least one water sample to be taken every 60 months and tested for a parameter, the owner of the drinking water system and the operating authority for the system shall ensure that at least one sample that is taken during a 60-month period and for the purpose of being tested for that parameter is taken not more than 90 days before or after the fifth anniversary of the day a sample was taken for that purpose in the previous 60-month period. The most recent treated water sample tested for sodium was collected on August 12, 2020 from the Brechin and Lagoon City Drinking Water System with a result of 34.8 mg/L. A resample was collected to be tested for sodium on August 24, 2020 with a result of 31.5 mg/L. Sodium results greater than 20 mg/L are an ongoing occurrence for the Brechin and Lagoon City Drinking Water System.			

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. Section 13-9 of Schedule 13 of Ontario Regulation 170/03 requires that if a drinking water system does not provide fluoridation, the owner of the system and the operating authority for the system shall ensure that a water sample is taken at least once every 60 months and tested for fluoride. Section 6-1.1 (7) of Schedule 6 of Ontario Regulation 170/03 states that if this Regulation requires at least one water sample to be taken every 60 months and tested for a parameter, the owner of the drinking water system and the operating authority for the system shall ensure that at least one sample that is taken during a 60-month period and for the purpose of being tested for that parameter is taken not more than 90 days before or after the fifth anniversary of the day a sample was taken for that purpose in the previous 60-month period. The most recent treated water sample was collected August 3, 2022 and tested for fluoride. Prior to that a sample was collected on August 15, 2017, and tested for fluoride from the treated water sample point at the Brechin and Lagoon City Drinking Water System.			

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	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
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Legislative Requirement(s):

SDWA | 31 | (1);

Question:

Did the operations and maintenance manual(s) meet the requirements of the Municipal Drinking Water Licence?

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

The operations and maintenance manual(s) met the requirements of the Municipal Drinking Water Licence.

Section 16.2 of Schedule B of Municipal Drinking Water Licence 147-101 Issue Number 5 requires that the operations and maintenance manual or manuals, shall include at a minimum:

16.2.1 The requirements of this licence and associated procedures;

16.2.2 The requirements of the drinking water works permit for the drinking water system;

16.2.3 A description of the processes used to achieve primary and secondary disinfection within the drinking water system, including where applicable:

a) A copy of the CT calculations that were used as the basis for primary disinfection under worst case operating conditions and other operating conditions, if applicable; and

b) The validated operating conditions for UV disinfection equipment, including a copy of the validation certificate;

16.2.4 Procedures for monitoring and recording the in-process parameters necessary for the control of any treatment subsystem and for assessing the performance of the drinking water system;

16.2.5 Procedures for the operation and maintenance of monitoring equipment;

16.2.6 Contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset conditions and equipment breakdown;

16.2.7 Procedures for dealing with complaints related to the drinking water system, including the recording of the nature of the complaint and any investigation and corrective action taken in respect of the complaint;

The Lagoon City Water Works Operations and Maintenance Manual and Contingency and Emergency Plan meet the requirements of the Municipal Drinking Water Licence.

Question ID	DWMR1062001	Question Type	Legislative
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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 sample stations and treatment plant are locked. The treatment plant is also alarmed for forced entry. The tower in Brechin is locked and has a locked fence surrounding it. No trespassing signage and the Township's contact information are prominently displayed at the treatment building and the elevated water reservoir. The Operating Authority has a contingency plan to be used in the event of a security breach.			

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 Brechin and Lagoon City Drinking Water System is comprised of a Water Distribution Class I and Water Treatment Class II subsystem. The Overall Responsible Operator is designated for both of the subsystems. The Operator acting as the ORO is indicated in the electronic logbook on each day that entries are made.			

Question ID	DWMR1074001	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 25 (1);			

<p>Question: Were operators-in-charge designated for all subsystems which comprise the drinking water system?</p>
<p>Compliance Response(s)/Corrective Action(s)/Observation(s): Operators-in-charge were designated for all subsystems.</p> <p>The Brechin and Lagoon City Drinking Water System is comprised of a Water Distribution Class I and Water Treatment Class II subsystem. The Operators In Charge are designated for both of the subsystems. The Operator acting as the OIC is indicated in the electronic logbook on each day that entries are made.</p>

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:			

On february 1, 2024 a spill of approximatley 850m3 of treated water overflowed the water tower, due to a highlift not shutting off. No advereese effects were caused by this, all actions were taken and adressed by the opetrator.

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

DWS Name: BRECHIN & LAGOON CITY DRINKING WATER SYSTEM
DWS Number: 210001273
DWS Owner: CORPORATION OF THE TOWNSHIP OF RAMARA
Municipal Location: RAMARA

Regulation: O.REG. 170/03
DWS Category: DW Municipal Residential
Type of Inspection: Focused
Compliance Assessment Start Date: Aug-28-2024
Ministry Office: Barrie District Office

Maximum Risk Rating: 497

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	0/46
Source	0/0
Treatment Processes	0/235
Water Quality Monitoring	0/112
Overall - Calculated	0/497

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:	BRECHIN & LAGOON CITY DRINKING WATER SYSTEM
DWS Number:	210001273
DWS Owner Name:	CORPORATION OF THE TOWNSHIP OF RAMARA
Municipal Location:	RAMARA
Regulation:	O.REG. 170/03
DWS Category:	DW Municipal Residential
Type of Inspection:	Focused
Compliance Assessment Start Date:	Aug-28-2024
Ministry Office:	Barrie District Office

All legislative requirements were met. No detailed rating scores.

Maximum Question Rating: 497

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