

**Ministry of the Environment,
Conservation and Parks**

*Drinking Water and Environmental
Compliance Division*

Central Region

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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*

Région du Centre

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September 19, 2023

Attention: Zach Drinkwalter Township of Ramara CAO

Re: 2023 Drinking Water Inspection Report Somerset/ Knob Hill Distribution System

Please find enclosed the Ministry of the Environment, Conservation and Parks Inspection Report Somerset/ Knob Hill DS (Drinking Water System # 260046137) inspection. The compliance assessment took place on June 27, 2023.

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.

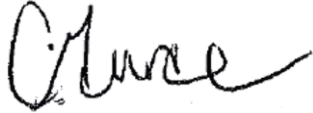
In order to measure individual inspection results, the Ministry has established an inspection compliance risk framework based on the principles of the Inspection, Investigation & Enforcement (II&E) Secretariat and advice of internal and risk experts.

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.



SOMERSET/ KNOB HILL DISTRIBUTION SYSTEM
3398 QUENTON ST, RAMARA, ON, L0K 1B0
INSPECTION REPORT

System Number: 260046137
Entity: CORPORATION OF THE
TOWNSHIP OF RAMARA
Inspection Start Date: June 27, 2023
Inspection End Date: August 08, 2023
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	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>The Somerset/Knob Hill Distribution System is a stand-alone distribution small municipal residential drinking water system, as defined by Ontario Regulation 170/3, and operates under drinking water system # 260046137. The distribution system serves an estimated population of 44 people. Eighteen of the available 20 lots have water service connections. The distribution system is owned by the Corporation of the Township of Ramara and operated by the Ontario Clean Water Agency (OCWA). Drinking water is supplied by the Township of Severn from the Washago Drinking Water System (waterworks # 220005161). The Washago Drinking Water System is a surface water treatment plant which provides coagulation, flocculation, filtration and disinfection.</p> <p>The Somerset/Knob Hill Distribution System consists of approximately 700 m of 50 mm diameter watermains, including a watermain that conveys treated water across the Severn River. There are three sample stations, a blow off, and an air vent installed in the distribution system. There are no storage structures or rechlorination facilities within the distribution system.</p> <p>The drinking water inspection included: going to a sample station, communication with operating staff; and a review of relevant documents and data from the period of June 28, 2022 to June 27, 2023 (hereafter referred to as the "inspection review period"). The previous inspection of the Somerset/Knob Hill Distribution System was conducted on June 28, 2022.</p>			

Question ID	DWMMR1000000	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 only secondary disinfection and distribution of water. Primary disinfection is undertaken by another regulated drinking water system which provides treated water to this drinking water system. Treatment is not provided at the Somerset/Knob Hill Distribution system. Drinking water is supplied by the Township of Severn from the Washago Drinking Water System (waterworks # 220005161). The Washago Drinking Water System is a surface water treatment plant which provides coagulation, flocculation, filtration and disinfection. Addition of sodium hypochlorite for secondary disinfection is performed at the Washago Water Treatment Plant.			

Question ID	DWMMR1018000	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. Drinking Water Works Permit 147- 207 issue number 3 contains a description of the length and diameter of the installed watermains. There are also three sample stations, a blow-off and air vent installed in the distribution system. A flow meter and bypass flow meter are housed in a metering chamber and used to measure the treated water flows to the Somerset/Knob Hill water distribution system from the Township of Severn. There is not a Schedule C in the Drinking Water Works Permit.			

Question ID	DWMMR1025000	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 (added, modified, replaced or extended) 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 in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit.

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. During the inspection review period the lowest chlorine residual measured in the Somerset/Knob Hill distribution system was 0.85mg/L and the highest value was 1.94mg/L. Myself and the operator completed a chlorine residual test when on site which provided a result of 1.18mg/L.			

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. Subsection 7-2 (5) of Schedule 7 of Ontario Regulation 170/03 requires that the owner of a small municipal residential system that provides secondary disinfection and the operating authority for the system shall ensure that at least two distribution samples are taken each week in accordance with subsection (6) and are tested immediately for free chlorine residual, if the system provides chlorination and does not provide chloramination. Subsection (6) states that at least one of the distribution samples referred to in subsection (5) must be taken at least 48 hours after, and during the same week as, one of the other distribution samples referred to in subsection (5). During the inspection review period a free chlorine residual was measured in the Somerset/ Knob Hill Distribution System on at least two days each week, with at least 48 hours between samples as required.			

Question ID	DWMMR1099000	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	DWMMR1082000	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.			

Question ID	DWMMR1096000	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	DWMMR1086000	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:

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.

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 Somerset/Knob Hill distribution system in February 8, May 3, August 3, and November 9 of 2022 as well as February 7 and May 2 of 2023 and tested for HAA as required. The average for HAA during the inspection review period was 24.94 ug/L.

Subsection 13-6.1 (4) of Schedule 13 of Ontario Regulation 170/03 states that despite subsection (a) and subject to subsection (5), if the following conditions have been met after samples have been taken and tested under subsections (1) and (2) in at least 12 consecutive calendar quarters, a drinking water system that is a small municipal residential system may cease sampling and testing for eight consecutive calendar quarters:

1. No single test result obtained in the previous 12 consecutive calendar quarters indicated that the concentration of haloacetic acids was greater than 0.040 milligrams per litre.
2. The drinking water system's raw water supply is the same source of raw water supply that was used in the calendar quarters referred to in paragraph 1.
3. No alterations that may increase levels of haloacetic acids in the drinking water system have been made to the treatment equipment used in the calendar quarters referred to in paragraph 1.

The Somerset/Knob Hill Distribution system has obtained more than 12 consecutive calendar quarter haloacetic acid test results with no values greater than 0.040 mg/L. The source water has not changed, nor have there been alterations that may increase the levels of haloacetic acids in the drinking water system. As such the Somerset/Knob Hill Distribution system is eligible to cease sampling and testing for haloacetic acids for eight consecutive calendar quarters.

Question ID	DWMR1087000	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: Have all trihalomethane water quality monitoring requirements prescribed by legislation been conducted within the required frequency and at the required location?</p>			

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 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 Somerset/Knob Hill distribution system in February 8, May 3, August 3, and November 9 of 2022 as well as February 7 and May 2 of 2023. The average for THMs during the inspection review period was 26.1 ug/L.

The Somerset/Knob Hill Distribution System is not eligible for reduced sampling of THMs at this time, as there have been results above 0.050 mg/L in the previous 12 consecutive calendar quarters.

Question ID	DWMR1104000	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 all required verbal notifications of adverse water quality incidents immediately provided as per O. Reg. 170/03 16-6?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			
All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6.			
Operators did report a AWQI for a watermain replacment due to a leak. The operators put in a precautionary boil water advisory as the potentail leak was beneath a residential sysptic system. The operators infromed the health unit.			

Question ID	DWMR1113000	Question Type	Legislative
Legislative Requirement(s):			
SDWA O. Reg. 170/03 10.1 (3);			
Question:			
Have all changes to the system registration information been provided to the Ministry within ten (10) days of the change?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			

All changes to the system registration information were provided within ten (10) days of the change.

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. The Somerset/Knob Hill Distribution System Operations and Maintenance Manual Contingency and Emergency Plan was updated with Ontario Clean Water Agency (OCWA) procedures in December 2021 and the updated Permit and Approval was included in May 2022. The Manual includes an overview of the facility, including the source and distribution system as well as the MECP Permits and Approvals. Operator and facility classifications are documented. Procedures are detailed for flushing, inspecting and repairing the distribution system. Sampling and monitoring requirements as well as responding to adverse water quality incidents is detailed in the Manual. Logbook and reporting requirements are outlined as well.			

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. Section 16.2 of Schedule B of Municipal Drinking Water Licence 147-107 Issue Number 4 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 maintain secondary disinfection within the drinking water system; 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;
 16.3 Procedures necessary for the operation and maintenance of any alterations to the drinking water system shall be incorporated into the operations and maintenance manual or manuals prior to those alterations coming into operation.
 The Somerset/ Knob Hill Operations and Maintenance Manual Contingency and Emergency Plan meets the requirements of the Municipal Drinking Water Licence.

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. The Operating Authority uses electronic logs as well as a number of spreadsheets for the recording of information regarding the Somerset/ Knob Hill Distribution system. Physical records are kept at the Park Lane pumphouse. Records include all required information including the date, time, name of Operator and details. Meter readings, sample collection and chlorine residuals are recorded in the electronic logs as well as responding to leaks. The ORO, OIC and Duty OIC are indicated in the logs.			

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	DWMR1071000	Question Type	BMP
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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. The three sampling stations are kept locked. Periodic checks are done of the watermain running through the Severn River.

Question ID	DWMMR1073000	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 Somerset/ Knob Hill Distribution System is classified as a Water Distribution Class 1 subsystem. The Overall Responsible Operators (OROs) are designated for the subsystem and have appropriate certification. The Operator acting as the ORO is indicated in the electronic logbook on each day that entries are made.			

Question ID	DWMMR1074000	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 Somerset/ Knob Hill Distribution System is classified as a Water Distribution Class 1 subsystem. The Operators-in-charge (OIC) are designated for the subsystem and have appropriate certification. The Operator acting as the OIC is indicated in the electronic logbook on each day that entries are made.			

Question ID	DWMMR1075000	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.

Ministry of the Environment, Conservation and Parks - Inspection Summary Rating Record (Reporting Year - 2023-24)

DWS Name: SOMERSET/ KNOB HILL DISTRIBUTION SYSTEM
DWS Number: 260046137
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
Inspection Date: Jun-27-2023
Ministry Office: Barrie District Office

Maximum Risk Rating: 227

Inspection Module	Non Compliance Risk (X out of Y)
Certification and Training	0/28
Logbooks	0/18
Operations Manuals	0/28
Reporting & Corrective Actions	0/25
Treatment Processes	0/77
Water Quality Monitoring	0/51
Overall - Calculated	0/227

Inspection Risk Rating: 0.00%

Final Inspection Rating: 100.00%

Ministry of the Environment, Conservation and Parks - Detailed Inspection Rating Record (Reporting Year - 2023-24)

DWS Name: SOMERSET/ KNOB HILL DISTRIBUTION SYSTEM
DWS Number: 260046137
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
Inspection Date: Jun-27-2023
Ministry Office: Barrie District Office

All legislative requirements were met. No detailed rating scores.

Maximum Question Rating: 227

Inspection Risk Rating: 0.00%

FINAL INSPECTION RATING: 100.00%