

Ministry of the Environment,  
Conservation and Parks

Ministère de l'Environnement, de la  
Protection de la nature et des Parks

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File# SI-ES-KI-540

March 2, 2022

Union Area Water Supply System  
1615 Union Avenue  
Ruthven, ON  
N0P 2G0

Attention: Mr. Rodney Bouchard, Manager  
[rbouchard@unionwater.ca](mailto:rbouchard@unionwater.ca)

Re: Union Area Water Supply System  
Inspection Report

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Please find enclosed the Drinking Water System Inspection Report for the Union Area Water Supply System (DWS#210000853). The review period for this inspection was January 1 to December 31, 2021. A field visit to the water treatment plant, low lift station and the Cottam reservoir/booster station was conducted on February 24, 2022.

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 council"* found on the Drinking Water Ontario website at [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater).

In order to measure individual inspection results, the Ministry has established an inspection compliance risk framework based on the principles of the Inspection, Investigation & Enforcement (II&E) Secretariat and advice of internal/external risk experts. The Inspection Summary Rating Record (IRR) provides the Ministry, the system owner and the local Public Health Units with a

summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance.

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

IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspectors' Annual Report. If you have any questions or concerns regarding the rating, please contact Marc Bechard, Water Compliance Supervisor, at (519) 490-0761.

Likewise, if you have any questions or concerns regarding this report, please call me at (226) 280-1556.

Yours truly,



Neil Gilbert, P.Eng.  
Provincial Officer – Water Inspector  
Southwestern Region  
Ministry of the Environment, Conservation and Parks  
Sarnia District – Windsor Area Office

Encl.

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UNION AREA WATER SUPPLY SYSTEM  
1615 UNION AVE, KINGSVILLE, ON, N9Y 2G5

## **Inspection Report**

System Number:	210000853
Inspection Start Date:	01/24/2022
Inspection End Date:	02/25/2022
Inspected By:	Neil Gilbert
Badge #:	1072



(signature)

**NON-COMPLIANCE/NON-CONFORMANCE ITEMS**

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

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

## INSPECTION DETAILS

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

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

<b>Question ID</b>	MRDW1001000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
What was the scope of this inspection?	Information	Not Applicable
<b>Observation</b>		
<p>The primary focus of this inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks (MECP) legislation as well as evaluating conformance with ministry drinking water policies and guidelines during the inspection period. The ministry utilizes a comprehensive, multi-barrier approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as management practices.</p> <p>This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O.Reg. 170/03). This inspection has been conducted pursuant to Section 81 of the SDWA.</p> <p>This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements. The review period for this inspection was January 1 to December 31, 2021. A field visit to the water treatment plant, low lift station and the Cottam reservoir/booster station was conducted on February 24, 2022.</p>		

<b>Question ID</b>	MRDW1000000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Does this drinking water system provide primary disinfection?	Information	Not Applicable
<b>Observation</b>		
This Drinking Water System provides for both primary and secondary disinfection and distribution of water.		

<b>Question ID</b>	MRDW1011000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Does the owner have a harmful algal bloom monitoring plan in place?	BMP	Not Applicable
<b>Observation</b>		
The owner had a harmful algal bloom monitoring plan in place. The Union Area Water Supply		

System's Harmful Bloom Monitoring, Reporting and Sampling Plan (SOP #OCWA-C6-15) is a procedure in place to respond to a blue-green algae bloom.  
From May 15 to November 1, 2021, raw and treated water samples were typically collected 2-3 times per week and tested for microcystin. All of the microcystin results were reported as below the Method Detection Limit (0.1ug/L<MDL) with the exception of three raw samples (collected on August 23 and 25, 2021 and September 13, 2021) which had a concentration of 0.1 ug/L.

<b>Question ID</b>	MRDW1012000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Does the owner have a harmful algal bloom monitoring plan in place that meets the requirements of the MDWL?	Legislative	SDWA   31   (1)
<b>Observation</b>		
<p>The owner had a harmful algal bloom monitoring plan in place. Condition 6.1 under Schedule C of the Union Area Water Supply System's Municipal Drinking Water Licence (MDWL) #041-101 notes that the owner shall develop and keep up to date a Harmful Algal Bloom monitoring, reporting and sampling plan.</p> <p>As previously noted, a Harmful Algal Bloom monitoring, reporting and sampling plan is detailed in SOP#OCWA-C6-15 and it appears to satisfy the requirements of the MDWL.</p>		

<b>Question ID</b>	MRDW1014000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Is there sufficient monitoring of flow as required by the MDWL or DWWP issued under Part V of the SDWA?	Legislative	SDWA   31   (1)
<b>Observation</b>		
<p>There was sufficient monitoring of flow as required by the Municipal Drinking Water Licence or Drinking Water Works Permit issued under Part V of the SDWA. Schedule C, Condition 2.1 of the Municipal Drinking Water Licence #041-101 requires that continuous flow measurement and recording shall be undertaken for:</p> <p>2.1.1 The flow rate (L/s) and daily volume (m3/day) of treated water that flows from the treatment subsystem to the distribution system.</p> <p>2.1.2 The flow rate (L/s) and daily volume (m3/day) of water that flows into the treatment subsystem.</p> <p>The Union Area Water Supply System has flow meters for both the raw water entering the treatment plant and for treated water flowing from the plant to the distribution system.</p>		

<b>Question ID</b>	MRDW1016000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Is the owner in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the MDWL issued under Part V of the SDWA?	Legislative	SDWA   31   (1)
<b>Observation</b>		



The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Municipal Drinking Water Licence issued under Part V of the SDWA. Schedule C, Condition 1.1 of the Municipal Drinking Water Licence #041-101 states that the maximum daily volume of treated water that flows from the Union Area Water Supply System to the distribution system shall not exceed 124,588 m<sup>3</sup>/day.

During the inspection review period (January 1 to December 31, 2021) the Union Area Water Supply System did not exceed the maximum rated capacity. The observed maximum daily volume of treated water conveyed to the distribution system was 93,829m<sup>3</sup>/day (75% of the rated capacity) which occurred in May 2021.

Also, during the inspection review period, the average daily volume of treated water conveyed to the distribution system was approximately 54,350 m<sup>3</sup>/day. This is approximately 44% of the rated capacity of the drinking water system.

<b>Question ID</b>	MRDW1030000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Is primary disinfection chlorine monitoring being conducted at a location approved by MDWL and/or DWWP issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved?	Legislative	SDWA   O. Reg. 170/03   7-2   (1), SDWA   O. Reg. 170/03   7-2   (2)
<b>Observation</b>		
Primary disinfection chlorine monitoring was conducted at a location approved by Municipal Drinking Water Licence and/or Drinking Water Works Permit issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved. Primary disinfection chlorine monitoring is conducted at the outlet of Reservoir #2 (chlorine monitor CRA-7) and this is at/near a location where the intended CT has just been achieved.		

<b>Question ID</b>	MRDW1032000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
If the drinking water system obtains water from a surface water source and provides filtration, is continuous monitoring of each filter effluent line being performed for turbidity?	Legislative	SDWA   O. Reg. 170/03   7-3   (2)
<b>Observation</b>		
Continuous monitoring of each filter effluent line was being performed for turbidity.		

<b>Question ID</b>	MRDW1037000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Are all continuous monitoring equipment utilized for sampling and testing required by O. Reg.170/03, or MDWL or DWWP or order, equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule	Legislative	SDWA   O. Reg. 170/03   6-5   (1) 1-4,SDWA   O. Reg. 170/03   6-5

6?		(1)5-10,SDWA   O. Reg. 170/03   6-5   (1.1)
<b>Observation</b>		
<p>All continuous monitoring equipment utilized for sampling and testing required by O. Reg.170/03, or Municipal Drinking Water Licence or Drinking Water Works Permit or order, were equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6. Free chlorine is measured on the reservoir's outlet (CRA-7) for monitoring primary disinfection CT. Chlorine alarm setpoints for CRA-7 are currently LoLo: 1.00ppm, Lo: 1.15ppm, Hi: 1.75ppm and HiHi: 1.85ppm.</p> <p>Each filter effluent line is equipped for continuous measurement of turbidity. Filter turbidity alarm setpoints are Hi: 0.16 NTU and HiHi: 0.20 NTU. At 0.20 NTU, the filter is automatically directed to waste; however, this setting is operator modifiable between 0-0.9 NTU (i.e. to keep a filter online).</p>		

<b>Question ID</b>	MRDW1038000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Is continuous monitoring equipment that is being utilized to fulfill O. Reg. 170/03 requirements performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format?	Legislative	SDWA   O. Reg. 170/03   6-5   (1) 1-4
<b>Observation</b>		
<p>Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format. O. Reg. 170/03, s 6-5 requires the continuous monitoring equipment to record the date, time, sampling location and result of every test for the parameter with at least the minimum frequency prescribed as follows:</p> <ol style="list-style-type: none"> <li>1. Free chlorine residual required to achieve primary disinfection: 5 minutes</li> <li>2. Filter effluent turbidity: 15 minutes.</li> </ol> <p>Monitoring of free chlorine residual at CRA-7 and turbidity at each filter effluent was typically occurring at 2 minute intervals.</p>		

<b>Question ID</b>	MRDW1035000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Are operators examining continuous monitoring test results and are they examining the results within 72 hours of the test?	Legislative	SDWA   O. Reg. 170/03   6-5   (1) 1-4,SDWA   O. Reg. 170/03   6-5   (1)5-10
<b>Observation</b>		
Operators were examining continuous monitoring test results and they were examining the results		

within 72 hours of the test.

<b>Question ID</b>	MRDW1040000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Are all continuous analysers calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation?	Legislative	SDWA   O. Reg. 170/03   6-5   (1) 1-4,SDWA   O. Reg. 170/03   6-5   (1)5-10
<b>Observation</b>		
All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.		

<b>Question ID</b>	MRDW1108000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Where continuous monitoring equipment used for the monitoring of free chlorine residual, total chlorine residual, combined chlorine residual or turbidity, required by Regulation 170, an Order, MDWL, or DWWP issued under Part V, SDWA, has triggered an alarm or an automatic shut-off, did a qualified person respond in a timely manner and take appropriate actions?	Legislative	SDWA   O. Reg. 170/03   6-5   (1) 1-4,SDWA   O. Reg. 170/03   6-5   (1)5-10,SDWA   O. Reg. 170/03   6-5   (1.1)
<b>Observation</b>		
Where required continuous monitoring equipment used for the monitoring of chlorine residual and/or turbidity triggered an alarm or an automatic shut-off, a qualified person responded in a timely manner and took appropriate actions.		

<b>Question ID</b>	MRDW1018000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Has the owner ensured that all equipment is installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?	Legislative	SDWA   31   (1)
<b>Observation</b>		
The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.		

<b>Question ID</b>	MRDW1021000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Is the owner/operating authority able to demonstrate that,	Legislative	SDWA   31   (1)

when required during the inspection period, Form 2 documents were prepared in accordance with their Drinking Water Works Permit?		
<b>Observation</b>		
The owner/operating authority was in compliance with the requirement to prepare Form 2 documents as required by their Drinking Water Works Permit during the inspection period.		

<b>Question ID</b>	MRDW1023000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Do records indicate that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a DWWP and/or MDWL issued under Part V of the SDWA at all times that water was being supplied to consumers?	Legislative	SDWA   O. Reg. 170/03   1-2   (2)
<b>Observation</b>		
Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a Drinking Water Works Permit and/or Municipal Drinking Water Licence issued under Part V of the SDWA at all times that water was being supplied to consumers.		

<b>Question ID</b>	MRDW1024000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Do records confirm 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?	Legislative	SDWA   O. Reg. 170/03   1-2   (2)
<b>Observation</b>		
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.		

<b>Question ID</b>	MRDW1025000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
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?	Legislative	SDWA   31   (1)
<b>Observation</b>		
All parts of the drinking water system were disinfected in accordance with a procedure listed in		

Schedule B of the Drinking Water Works Permit.

<b>Question ID</b>	MRDW1062000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
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?	Legislative	SDWA   O. Reg. 170/03   7-5
<b>Observation</b>		
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.		

<b>Question ID</b>	MRDW1060000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Do the operations and maintenance manuals meet the requirements of the DWWP and MDWL issued under Part V of the SDWA?	Legislative	SDWA   31   (1)
<b>Observation</b>		
<p>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. Condition 16.2 under Schedule B of the Union Area Water Supply System's Licence (#041-101) notes that the operations and maintenance manuals shall include (at a minimum) the following:</p> <p>16.2.1 The requirements of this licence and associated procedures;</p> <p>16.2.2 The requirements of the drinking water works permit for the drinking water system;</p> <p>16.2.3 A description of the processes used to achieve primary and secondary disinfection within the drinking water system including where applicable:</p> <p>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</p> <p>b) The validated operating conditions for UV disinfection equipment, including a copy of the validation certificate;</p> <p>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;</p> <p>16.2.5 Procedures for the operation and maintenance of monitoring equipment;</p> <p>16.2.6 Contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset conditions and equipment breakdown;</p> <p>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;</p> <p>A review of the Union Area Water Supply System's Operation Manual suggests that these conditions appear to be satisfied.</p>		

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<b>Question ID</b>	MRDW1071000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Has the owner provided security measures to protect components of the drinking water system?	BMP	Not Applicable
<b>Observation</b>		
The owner had provided security measures to protect components of the drinking water system.		

<b>Question ID</b>	MRDW1073000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Has the overall responsible operator been designated for all subsystems which comprise the drinking water system?	Legislative	SDWA   O. Reg. 128/04   23   (1)
<b>Observation</b>		
The overall responsible operator has been designated for each subsystem.		

<b>Question ID</b>	MRDW1074000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Have operators in charge been designated for all subsystems for which comprise the drinking water system?	Legislative	SDWA   O. Reg. 128/04   25   (1)
<b>Observation</b>		
Operators-in-charge had been designated for all subsystems which comprised the drinking water system.		

<b>Question ID</b>	MRDW1075000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Do all operators possess the required certification?	Legislative	SDWA   O. Reg. 128/04   22
<b>Observation</b>		
All operators possessed the required certification.		

<b>Question ID</b>	MRDW1076000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Do only certified operators make adjustments to the treatment equipment?	Legislative	SDWA   O. Reg. 170/03   1-2   (2)
<b>Observation</b>		

Only certified operators made adjustments to the treatment equipment.

<b>Question ID</b>	MRDW1099000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
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)?	Information	Not Applicable
<b>Observation</b>		
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).		

<b>Question ID</b>	MRDW1094000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Are all water quality monitoring requirements imposed by the MDWL and DWWP being met?	Legislative	SDWA   31   (1)
<b>Observation</b>		
<p>All water quality monitoring requirements imposed by the MDWL or DWWP issued under Part V of the SDWA were being met. Additional environmental discharge sampling parameters, locations and frequencies are noted in Table 7, Schedule C of the Municipal Drinking Water Licence #041-101. These additional parameters are total suspended solids (monthly composite), filtered and unfiltered aluminum (monthly grab) and total chlorine residual (monthly grab). During the inspection review period (Jan.1 - Dec. 31, 2021), TSS composite samples were collected monthly from the north and/or south waste management settling ponds. The TSS results ranged from &lt;3 to 3 mg/L and the average being approximately 3 mg/L which is well below the annual average limit of 25 mg/L (noted in Table 3, Schedule C of the Licence).</p> <p>Filtered and unfiltered aluminum grab samples were collected from various lagoon sludge pile runoffs (SP#1, SP#2, SP#3 and SP#4) during the inspection review period. No runoff samples were available from January to April, July to September and November 2021. The total (unfiltered) aluminum results ranged from 0.171 to 13.4 mg/L and the dissolved (filtered) results ranged from 0.008 to 0.073 mg/L. There are no limits noted for aluminum in Table 3, Schedule C of the Licence.</p> <p>Also during the inspection review period, grab samples were collected weekly from the north and/or south lagoon effluents and tested for total chlorine residual. The total chlorine residuals ranged from 0.02 to 0.13 mg/L with an average being 0.08 mg/L which exceeds the annual average concentration of 0.02 mg/L (noted in Table 3, Schedule C of the Licence). The ministry was notified of this non-compliance via letter on January 4, 2022. It was noted in this letter that a TOR online chlorine residual analyzer was installed on Oct. 12, 2021. Also, a dechlorinating diffuser was installed on the discharge storm sewer and that dechlorinating pucks will be used to control the discharge chlorine residuals.</p>		

<b>Question ID</b>	MRDW1096000		
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>	
Do records confirm that chlorine residual tests are being conducted at the same time and at the same location that microbiological samples are obtained?	Legislative	SDWA   O. Reg. 170/03   6-3   (1)	
<b>Observation</b>			
Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.			

<b>Question ID</b>	MRDW1083000		
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>	
Are all microbiological water quality monitoring requirements for treated samples being met?	Legislative	SDWA   O. Reg. 170/03   10-3	
<b>Observation</b>			
All microbiological water quality monitoring requirements for treated samples were being met. As per O.Reg. 170/03 s10-3, the owner/operating authority for the system shall ensure that a water sample (treated) is taken at least once every week and tested for E. coli, total coliforms and general bacteria population expressed as colony counts on a heterotrophic plate count (HPC). During the inspection review period (January 1 to December 31, 2021) all microbiological water monitoring requirements for treated water samples were performed.			

<b>Question ID</b>	MRDW1084000		
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>	
Are all inorganic water quality monitoring requirements prescribed by legislation conducted within the required frequency?	Legislative	SDWA   O. Reg. 170/03   13-2	
<b>Observation</b>			
All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency. As per O.Reg. 170/03 s13-2, the owner/operating authority of a large municipal residential system that obtains water from a raw water supply that is surface water shall ensure that at least one water sample is taken every 12 months and tested for every inorganic parameter set out in Schedule 23. During the inspection review period (January 1 to December 31, 2021) this sample was collected on January 5, 2021.			

<b>Question ID</b>	MRDW1085000		
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>	
Are all organic water quality monitoring requirements prescribed by legislation conducted within the required frequency?	Legislative	SDWA   O. Reg. 170/03   13-4   (1),SDWA   O.	



		Reg. 170/03   13-4   (2),SDWA   O. Reg. 170/03   13-4   (3)
<b>Observation</b>		
<p>All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency. As per O.Reg. 170/03 s13-4, the owner/operating authority of a large municipal residential system that obtains water from a raw water supply that is surface water shall ensure that at least one water sample is taken every 12 months and tested for every organic parameter set out in Schedule 24.</p> <p>During the inspection review period (January 1 to December 31, 2021) this sample was collected on January 5, 2021.</p>		

<b>Question ID</b>	MRDW1088000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Are all nitrate/nitrite water quality monitoring requirements prescribed by legislation conducted within the required frequency for the DWS?	Legislative	SDWA   O. Reg. 170/03   13-7
<b>Observation</b>		
<p>All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS. As per O.Reg. 170/03 s13-7, the owner/operating authority of a system shall ensure that at least one water sample is taken every three months and have the sample tested for nitrate and nitrite.</p> <p>During the inspection review period (January 1 to December 31, 2021) these samples were collected on January 4, April 7, July 5 and October 7, 2021.</p>		

<b>Question ID</b>	MRDW1089000	
<b>Question</b>	<b>Question Type</b>	<b>Legislative Requirement</b>
Are all sodium water quality monitoring requirements prescribed by legislation conducted within the required frequency?	Legislative	SDWA   O. Reg. 170/03   13-8
<b>Observation</b>		
<p>All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency. As per O.Reg. 170/03 s13-8, the owner/operating authority of a drinking water system shall ensure that at least one water sample is taken every 60 months (+/- 90 days) and tested for sodium.</p> <p>The operating authority is sampling and testing for sodium annually, which exceeds the testing requirements prescribed by O.Reg. 170/03. During the inspection review period (January 1 to December 31, 2021) a sodium test was performed on January 5, 2021 (7.35 mg/L) and no concerns were identified.</p>		

<b>Question ID</b>	MRDW1090000	
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Question	Question Type	Legislative Requirement
Where fluoridation is not practiced, are all fluoride water quality monitoring requirements prescribed by legislation conducted within the required frequency?	Legislative	SDWA   O. Reg. 170/03   13-9
<b>Observation</b>		
<p>All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency. As per O.Reg. 170/03 s13-9, the owner/operating authority of a drinking water system shall ensure that at least one water sample is taken every 60 months (+/- 90 days) and tested for fluoride.</p> <p>The operating authority is sampling and testing for fluoride annually, which exceeds the testing requirements prescribed by O.Reg. 170/03. During the inspection review period (January 1 to December 31, 2021) a fluoride test was performed on January 5, 2021 (0.06 mg/L) and no concerns were identified.</p>		

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

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



**Stakeholder Appendix**

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# 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](mailto:waterforms@ontario.ca).

For more information on Ontario's drinking water visit [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater)



PUBLICATION TITLE	PUBLICATION NUMBER
<b>FORMS:</b> 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](mailto: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](http://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