

**Ministry of the
Environment,
Conservation and Parks**
Eastern Region
Peterborough District Office
300 Water Street
2nd Floor, South Tower
Peterborough ON K9J 3C7
Phone: 705.755.4300
or 800.558.0595

**Ministère de l'Environnement,
de la Protection de la nature
et des Parcs**
Région de l'Est
Bureau du district de Peterborough
300, rue Water
2^e étage, Tour Sud
Peterborough (Ontario) K9J 3C7
Tél: 705 755-4300
558-0595230,



November 29, 2022

The Corporation of The Municipality of Trent Hills
66 Front Street
Campbellford, Ontario K0L 1L0

Attention: Lynn Phillips, C.A.O.

RE: Warkworth Drinking Water System
Drinking Water Inspection Report 1-127937542
File: SI NO TH BA 540

Please find attached the Ministry of the Environment's inspection report for the above facility. The report details the findings of the inspection that began on September 21, 2022.

The Appendix section of the inspection includes the Stakeholder Appendix A with links to key reference and guidance materials available on the Ministry of the Environment, Conservation and Parks (MECP) website. Appendix B contains the inspection rating record and an updated risk methodology memo.

Please note the attached IRR methodology memo describing how the risk rating model has improved to better reflect the health related and administrative non-compliance found in an inspection report. IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspectors' Annual Report.

In the inspection report, any "*Actions Required*" are linked to incidents of non-compliance with regulatory requirements contained within the Act, a regulation, or site-specific approvals, licenses, permits, orders or instructions. Such violations could result in the issuance of mandatory abatement instruments including Orders, tickets, penalties, or referrals to the ministry's Investigations and Enforcement Branch.

"*Recommended Actions*" convey information that the owner or operating authority should consider implementing in order to advance efforts already in place to address such issues as emergency preparedness, the availability of information to consumers, and conformance with existing and emerging industrial standards. Please note that items which appear as recommended actions do not, in themselves, constitute violations.

Please note, you will find in the report that bullets are shown in bold print and are the consistent and standard responses to the information gathered during the inspection. Statements shown in regular font provide additional site-specific details.

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 under "Resources" on the Drinking Water Ontario website at www.ontario.ca/drinkingwater.

The IRR will be sent separately and prior to any public release. (typically within 1-2 months of the completion of the inspection).

I would like to thank the staff for the assistance afforded to me during this compliance assessment. If you have any questions or concerns please contact myself or Jacqueline Fuller, Water Supervisor at 705-768-0436.

Yours truly,



Brittney Wielgos
Water Inspector
Drinking Water and Environmental Compliance Division
Ministry of Environment, Conservation and Parks

cc:

Scott White, General Manager of Infrastructure & Public Works Admin, Trent Hills
Scott Campbell, Water Operations Senior Operator, Trent Hills
Natalie Bocking, Medical Officer of Health, HKPR District Health Unit
Rhonda Bateman, CAO/Secretary Treasurer, Lower Trent Conservation
Jacqueline Fuller, Water Compliance Supervisor, Peterborough District Office, MECP



WARKWORTH DRINKING WATER SYSTEM
140 BANTA RD, TRENT HILLS, ON, K0K 3K0
Inspection Report

System Number: 210000498

Entity: THE MUNICIPALITY OF TRENT
HILLS

Inspection Start Date: 09/21/2022

Inspection End Date: 11/23/2022

Inspected By: Brittney Wielgos

Badge #: 754



(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.

TABLE OF CONTENTS

1. Drinking Water System Inspection Report

Appendix:

A. Stakeholders Appendix

INSPECTION DETAILS

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

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

Question ID	MRDW1001001	Question Type	Information
Question:			
What was the scope of this inspection?			
Legislative Requirement		Not Applicable	
Observation			
<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>On September 21, 2022, Provincial Officer Brittney Wielgos began an announced focused inspection of the Warkworth Drinking Water System.</p> <p>The inspection included a compliance assessment of applicable Ministry of Environment, Conservation and Parks (MECP) legislation, an inspection of the procedures within the treatment and distribution system, and a review of records.</p> <p>Records reviewed in conjunction with this inspection include: -Drinking Water Works Licence No. 151-101 Issue Number 3 (The Licence); and, -Drinking Water Works Permit No. 150-201 Issue Number 5 (The Permit) -Permit to Take Water (PTTW) No. 2317-9PHKFF</p> <p>This inspection was conducted pursuant to section 81 of the Safe Drinking Water Act in order to assess compliance with the requirements of Ontario Regulation 170/03. The drinking water inspection included: physical inspections of the equipment and facilities; interviews with operating staff; and, a review of relevant documents from the period of</p>			

January 1, 2022 to September 21, 2022 (hereafter referred to as the "inspection review period").

Question ID	MRDW1000001	Question Type	Information
Question: Does this drinking water system provide primary disinfection?			
Legislative Requirement	Not Applicable		
Observation			
<p>This Drinking Water System provides for both primary and secondary disinfection and distribution of water.</p> <p>The Warkworth Drinking Water system (the System) is owned and operated by the Corporation of the Municipality of Trent Hills. The System consists of a conventional water treatment system; one off site in-ground reservoir and a booster pumping station. Raw water is obtained from Burnley Creek, also known as Mill Creek via a single 250 mm diameter and 25 m long intake pipe.</p> <p>The System delivers treated water through two (2) pressure zones and consists of approximately 7.6 km of piping made up of ductile iron, cast iron, PVC and asbestos cement. The System serves approximately 605 people. The System operates under Drinking Water System No. 210000498 and is classified as a Class 3 Water Treatment Plant Subsystem and Class 2 Water Distribution Subsystem.</p>			

Question ID	MRDW1018001	Question Type	Legislative
Question: Has the owner ensured that all equipment is installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?			
Legislative Requirement	SDWA 31 (1);		
Observation			
The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.			

Question ID	MRDW1024001	Question Type	Legislative
Question: Do records confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated as required?			

Legislative Requirement	SDWA O. Reg. 170/03 1-2 (2);
Observation	
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.	

Question ID	MRDW1038001	Question Type	Legislative
Question:			
Is continuous monitoring equipment that is being utilized to fulfill O. Reg. 170/03 requirements performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format?			
Legislative Requirement	SDWA O. Reg. 170/03 6-5 (1)1-4;		
Observation			
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.			

Question ID	MRDW1035001	Question Type	Legislative
Question:			
Are operators examining continuous monitoring test results and are they examining the results within 72 hours of the test?			
Legislative Requirement	SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10;		
Observation			
Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.			

Question ID	MRDW1037001	Question Type	Legislative
Question:			
Are all continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or MDWL or DWWP or order, equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6?			

Legislative Requirement	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);												
Observation													
<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.</p> <p>At the time of the inspection, the continuous analyzer alarms provided were:</p>													
<p>Low Lift Water Quality Lockout</p> <table> <thead> <tr> <th>Alarm</th> <th>Set point</th> </tr> </thead> <tbody> <tr> <td>Low LRV (log)</td> <td>2.5 log</td> </tr> <tr> <td>Low CL2 (mg/l)</td> <td>0.60 mg/l</td> </tr> </tbody> </table> <p>Loss of Coagulant Flow</p> <p>The low lift pumps shut down and are inhibited if the low LRV, low CL2, loss of coagulant flow alarm set points are reached.</p>		Alarm	Set point	Low LRV (log)	2.5 log	Low CL2 (mg/l)	0.60 mg/l						
Alarm	Set point												
Low LRV (log)	2.5 log												
Low CL2 (mg/l)	0.60 mg/l												
<p>Filter Lockout</p> <table> <thead> <tr> <th>Alarm</th> <th>Set point</th> </tr> </thead> <tbody> <tr> <td>High Filter Turbidity (NTU)</td> <td>0.3 NTU</td> </tr> </tbody> </table> <p>There is an automatic shut down on the filter effluent valve if the high turbidity set point is reached.</p>		Alarm	Set point	High Filter Turbidity (NTU)	0.3 NTU								
Alarm	Set point												
High Filter Turbidity (NTU)	0.3 NTU												
<p>High Lift Water Quality Lockout</p> <table> <thead> <tr> <th>Alarm</th> <th>Set point</th> </tr> </thead> <tbody> <tr> <td>Treated Water High Turbidity (NTU)</td> <td>0.9 NTU</td> </tr> <tr> <td>Treated Water Low CL2 (mg/l)</td> <td>0.80 mg/l</td> </tr> <tr> <td>Treated Water High CL2 (mg/l)</td> <td>3.00 mg/l</td> </tr> </tbody> </table> <p>High lift pumps are shut down and are inhibited if the High Lift Water Quality Lockout set points are reached.</p>		Alarm	Set point	Treated Water High Turbidity (NTU)	0.9 NTU	Treated Water Low CL2 (mg/l)	0.80 mg/l	Treated Water High CL2 (mg/l)	3.00 mg/l				
Alarm	Set point												
Treated Water High Turbidity (NTU)	0.9 NTU												
Treated Water Low CL2 (mg/l)	0.80 mg/l												
Treated Water High CL2 (mg/l)	3.00 mg/l												
<p>Facility Alarms (non lockout)</p> <table> <thead> <tr> <th>Alarm</th> <th>Set point</th> </tr> </thead> <tbody> <tr> <td>Treated Water Low CL2 (mg/l)</td> <td>0.80 mg/l</td> </tr> <tr> <td>Treated Water High CL2 (mg/l)</td> <td>3.00 mg/l</td> </tr> <tr> <td>Contact Tank Low CL2 (mg/l)</td> <td>0.60 mg/l</td> </tr> <tr> <td>Contact Tank High CL2 (mg/l)</td> <td>2.80 mg/l</td> </tr> <tr> <td>Treated Water High Turbidity (NTU)</td> <td>0.9 NTU</td> </tr> </tbody> </table>		Alarm	Set point	Treated Water Low CL2 (mg/l)	0.80 mg/l	Treated Water High CL2 (mg/l)	3.00 mg/l	Contact Tank Low CL2 (mg/l)	0.60 mg/l	Contact Tank High CL2 (mg/l)	2.80 mg/l	Treated Water High Turbidity (NTU)	0.9 NTU
Alarm	Set point												
Treated Water Low CL2 (mg/l)	0.80 mg/l												
Treated Water High CL2 (mg/l)	3.00 mg/l												
Contact Tank Low CL2 (mg/l)	0.60 mg/l												
Contact Tank High CL2 (mg/l)	2.80 mg/l												
Treated Water High Turbidity (NTU)	0.9 NTU												
<table> <thead> <tr> <th>Alarm</th> <th>Set point</th> </tr> </thead> <tbody> <tr> <td>Contact Tank Low LRV (log)</td> <td>2.5 log</td> </tr> <tr> <td>Offsite Reservoir Level Low (m)</td> <td>5.5 m</td> </tr> <tr> <td>Offsite Reservoir Level High (m)</td> <td>7.1 m</td> </tr> <tr> <td>Reservoir Level Low (m)</td> <td>1.4 m</td> </tr> <tr> <td>Reservoir Level High (m)</td> <td>3.2 m</td> </tr> </tbody> </table>		Alarm	Set point	Contact Tank Low LRV (log)	2.5 log	Offsite Reservoir Level Low (m)	5.5 m	Offsite Reservoir Level High (m)	7.1 m	Reservoir Level Low (m)	1.4 m	Reservoir Level High (m)	3.2 m
Alarm	Set point												
Contact Tank Low LRV (log)	2.5 log												
Offsite Reservoir Level Low (m)	5.5 m												
Offsite Reservoir Level High (m)	7.1 m												
Reservoir Level Low (m)	1.4 m												
Reservoir Level High (m)	3.2 m												

All chemical feed pumps are alarmed, and rotate to standby pump on a failure.

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

Question ID	MRDW1108001	Question Type	Legislative
Question: Where continuous monitoring equipment used for the monitoring of free chlorine residual, total chlorine residual, combined chlorine residual or turbidity, required by O. Reg. 170/03, an Order, MDWL, or DWWP issued under Part V, SDWA, has triggered an alarm or an automatic shut-off, did a qualified person respond in a timely manner and take appropriate actions?			
Legislative Requirement	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);		
Observation			
Where required continuous monitoring equipment used for the monitoring of chlorine residual and/or turbidity triggered an alarm or an automatic shut-off, a qualified person responded in a timely manner and took appropriate actions.			

Question ID	MRDW1033001	Question Type	Legislative
Question: Is the secondary disinfectant residual measured as required for the large municipal residential distribution system?			
Legislative Requirement	SDWA O. Reg. 170/03 7-2 (3); SDWA O. Reg. 170/03 7-2 (4);		
Observation			
The secondary disinfectant residual was measured as required for the large municipal residential distribution system.			

--

Question ID	MRDW1099001	Question Type	Information
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)?			
Legislative Requirement	Not Applicable		
Observation			
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	MRDW1081001	Question Type	Legislative
Question:			
For LMR systems, are all microbiological water quality monitoring requirements for distribution samples being met?			
Legislative Requirement	SDWA O. Reg. 170/03 10-2 (1); SDWA O. Reg. 170/03 10-2 (2); SDWA O. Reg. 170/03 10-2 (3);		
Observation			
<p>All microbiological water quality monitoring requirements prescribed by legislation for distribution samples in a large municipal residential system were being met.</p> <p>All microbiological water quality monitoring requirements for distribution samples were being met. Schedule 10, Section 10-2 of O.Reg.170/03 indicates that at least eight distribution samples plus one additional distribution sample for every 1,000 people served by the system are to be taken each month with at least one sample being taken each week.</p> <p>The population served, based on service connections, is approximately 800, indicating eight (8) samples are to be taken each month and tested for E.coli and total coliform, with at least 25% of those also being tested for heterotrophic plate count (HPC).</p> <p>Distribution sample results reviewed for the inspection review period indicated that two (2) samples were collected each week.</p>			

Question ID	MRDW1096001	Question Type	Legislative
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?	
Legislative Requirement	SDWA O. Reg. 170/03 6-3 (1);
Observation	
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	MRDW1086001	Question Type	Legislative
Question:			
Are all haloacetic acid water quality monitoring requirements prescribed by legislation conducted within the required frequency and at the required location?			
Legislative Requirement	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);		
Observation			
All haloacetic acid water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location. Schedule 13-11 of O. Reg. 170/03 requires 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. Results provided by Trent Hills indicate that sampling was conducted every three months as required: February 14, 2022; May 9, 2022, and August 16, 2022.			

Question ID	MRDW1087001	Question Type	Legislative
Question:			
Have all trihalomethane water quality monitoring requirements prescribed by legislation been conducted within the required frequency and at the required location?			
Legislative Requirement	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);		
Observation			
All trihalomethane water quality monitoring requirements prescribed by legislation were			

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

Results provided by Trent Hills indicate that sampling was conducted every three months as required: February 14, 2022; May 9, 2022, and August 16, 2022.

Question ID	MRDW1094001	Question Type	Legislative
Question: Are all water quality monitoring requirements imposed by the MDWL and DWWP being met?			
Legislative Requirement	SDWA 31 (1);		
Observation			
<p>All water quality monitoring requirements imposed by the MDWL or DWWP issued under Part V of the SDWA were being met.</p> <p>Section 5.2, 5.3 and 5.4 of Schedule C of the MDWL 150-101 prescribes that the collection and analysis of process wastewater discharged to Burnley Creek, also known as Mill Creek.</p> <p>Table 7 of Section 4.4 of Schedule C of the MDWL prescribes monthly composite samples of wastewater and analysis of suspended solids (TSS). Section 1.5 of Schedule C prescribes that the annual average concentration of Total Suspended Solids shall not exceed 25 mg/L and the annual average for Total Chlorine Residual (TCR) shall not exceed 0.02 mg/L.</p> <p>Records provided for the inspection review period indicate that the System monitors TSS using monthly composite grab samples.</p> <p>For the inspection review period, the average from January through to September 2022 for TSS was reported as 5 mg/L and 0.01 mg/L for TCR.</p>			

Question ID	MRDW1059000	Question Type	Legislative
Question: Do the operations and maintenance manuals contain plans, drawings and process			

descriptions sufficient for the safe and efficient operation of the system?	
Legislative Requirement	SDWA O. Reg. 128/04 28;
Observation	
The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.	

Question ID	MRDW1060000	Question Type	Legislative
Question:			
Do the operations and maintenance manuals meet the requirements of the DWWP and MDWL issued under Part V of the SDWA?			
Legislative Requirement	SDWA 31 (1);		
Observation			
The operations and maintenance manuals met the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.			

Question ID	MRDW1061001	Question Type	Legislative
Question:			
Are logbooks properly maintained and contain the required information?			
Legislative Requirement	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);		
Observation			
Logbooks were properly maintained and contained the required information.			

Question ID	MRDW1062001	Question Type	Legislative
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?			
Legislative Requirement	SDWA O. Reg. 170/03 7-5;		
Observation			

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

Question ID	MRDW1073001	Question Type	Legislative
Question: Has the overall responsible operator been designated for all subsystems which comprise the drinking water system?			
Legislative Requirement	SDWA O. Reg. 128/04 23 (1);		
Observation			
The overall responsible operator had been designated for each subsystem.			
Subsection 23(1) of O. Reg. 128/04 "Certification of Drinking-Water System Operators and Water Quality Analysts" states that a municipal residential drinking water system must have a designated overall responsible operator (ORO). The ORO shall be an operator who holds a certificate for that type of subsystem, (eg. water distribution subsystem) and that is of the same class or higher than the class of that subsystem.			
The Municipality of Trent Hills established procedure 'SOP-02 Personnel Coverage' to ensure that the designation of the ORO is clearly defined and documented. Trent Hills appoints the Senior Operator or in his absence the General Manager of Infrastructure Renewal & Public Works Administration as the ORO for the Warkworth Drinking Water System.			

Question ID	MRDW1074001	Question Type	Legislative
Question: Have operators-in-charge been designated for all subsystems for which comprise the			

drinking water system?	
Legislative Requirement	SDWA O. Reg. 128/04 25 (1);
Observation	
Operators-in-charge had been designated for all subsystems which comprise the drinking water system.	

Question ID	MRDW1075001	Question Type	Legislative
Question: Do all operators possess the required certification?			
Legislative Requirement	SDWA O. Reg. 128/04 22;		
Observation			
All operators possessed the required certification.			

Question ID	MRDW1076001	Question Type	Legislative
Question: Do only certified operators make adjustments to the treatment equipment?			
Legislative Requirement	SDWA O. Reg. 170/03 1-2 (2);		
Observation			
Only certified operators made adjustments to the treatment equipment.			

Question ID	MRDW1011001	Question Type	BMP
Question: Does the owner have a harmful algal bloom monitoring plan in place?			
Legislative Requirement	Not Applicable		
Observation			
The owner had a harmful algal bloom monitoring plan in place.			

Question ID	MRDW1012001	Question Type	Legislative
Question: Does the owner have a harmful algal bloom monitoring plan in place that meets the			

requirements of the MDWL?	
Legislative Requirement	SDWA 31 (1);
Observation	
The owner had a harmful algal bloom monitoring plan in place.	

Question ID	MRDW1014001	Question Type	Legislative
Question:			
Is there sufficient monitoring of flow as required by the MDWL or DWWP issued under Part V of the SDWA?			
Legislative Requirement	SDWA 31 (1);		
Observation			
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. At the time of the inspection sufficient flow meters were installed to permit the continuous measurement of the flow rates and daily volume of treated water that flows from the treatment subsystem into the distribution system in accordance with Condition 2 of Schedule C of the Licence.			

Question ID	MRDW1016001	Question Type	Legislative
Question:			
Is the owner in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the MDWL issued under Part V of the SDWA?			
Legislative Requirement	SDWA 31 (1);		
Observation			
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. Condition 1.1 of Schedule C of the Licence requires that the System not be operated to exceed the rated capacity of: Warkworth Drinking Water System: 900 m ³ /day The rated capacity was not exceeded during the inspection review period. The maximum treated flow for the inspection review period was 336 m ³ /day in April 2022.			

Question ID	MRDW1023001	Question Type	Legislative
Question: Do records indicate that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a DWWP and/or MDWL issued under Part V of the SDWA at all times that water was being supplied to consumers?			
Legislative Requirement	SDWA O. Reg. 170/03 1-2 (2);		
Observation			
Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under O. Reg. 170/03 or a Drinking Water Works Permit and/or Municipal Drinking Water Licence issued under Part V of the SDWA at all times that water was being supplied to consumers.			

Question ID	MRDW1030000	Question Type	Legislative
Question: Is primary disinfection chlorine monitoring being conducted at a location approved by MDWL and/or DWWP issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved?			
Legislative Requirement	SDWA O. Reg. 170/03 7-2 (1); SDWA O. Reg. 170/03 7-2 (2);		
Observation			
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 measured after the contact tank and prior to entering the clearwell reservoir.			

Question ID	MRDW1032001	Question Type	Legislative
Question: 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 Requirement	SDWA O. Reg. 170/03 7-3 (2);		
Observation			
Continuous monitoring of each filter effluent line was being performed for turbidity.			

Question ID	MRDW1039000	Question Type	Legislative
Question: If primary disinfection equipment that does not use chlorination or chloramination is provided, has the owner and operating authority ensured that the equipment has a recording device that continuously records the performance of the disinfection equipment?			
Legislative Requirement	SDWA O. Reg. 170/03 1-6 (3);		
Observation			
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	MRDW1083001	Question Type	Legislative
Question: For LMR systems, are all microbiological water quality monitoring requirements for treated samples being met?			
Legislative Requirement	SDWA O. Reg. 170/03 10-3;		
Observation			
<p>All microbiological water quality monitoring requirements prescribed by legislation for treated samples were being met.</p> <p>All microbiological water quality monitoring requirements for treated samples were being met.</p> <p>Section 10-3 of Schedule 10 of O. Reg. 170/03 requires that the Owner of a drinking water system and the Operating Authority for the system ensure that a water sample 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.</p> <p>A review of sample records provided during the inspection period indicates that one treated water sample was collected from the System each week.</p>			

Question ID	MRDW1084001	Question Type	Legislative
Question: Are all inorganic water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Legislative Requirement	SDWA O. Reg. 170/03 13-2;		

Observation
<p>All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency. All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency. Section 13-2 (1) of Schedule 13 of O. Reg. 170/03 states that the owner of a large municipal drinking water system and the operating authority for the system shall ensure that at least one water sample is taken every 12 months, if the system obtains water from a raw water supply that is surface water.</p> <p>The owner shall ensure that each of the samples taken is tested for every parameter set out in Schedule 23.</p> <p>Samples for Schedule 23 inorganic parameters were analyzed on January 10, 2022.</p>

Question ID	MRDW1088000	Question Type	Legislative
Question:			
Are all nitrate/nitrite water quality monitoring requirements prescribed by legislation conducted within the required frequency for the DWS?			
Legislative Requirement	SDWA O. Reg. 170/03 13-7;		
Observation			
<p>All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS.</p> <p>Section 13-7 of Schedule 13 of O. Reg. 170/03 requires that the owner of a drinking water system and the operating authority for the system ensure that at least one water sample is taken every three months and tested for nitrate and nitrite.</p> <p>Results provided by Trent Hills indicate that sampling was conducted a minimum of every three months: February 14, 2022; May 9, 2022, and August 16, 2022.</p>			

Question ID	MRDW1089000	Question Type	Legislative
Question:			
Are all sodium water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Legislative Requirement	SDWA O. Reg. 170/03 13-8;		
Observation			
All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.			

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

Results provided by Trent Hills indicate that sampling was last completed January 10, 2022.

Question ID	MRDW1090000	Question Type	Legislative
Question:			
Where fluoridation is not practiced, are all fluoride water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Legislative Requirement	SDWA O. Reg. 170/03 13-9;		
Observation			
All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency. Section 13-9 of Schedule 13 of O. Reg. 170/03 requires that the owner of a drinking water system and the operating authority for the system ensure that at least one water sample is taken every 60 months and tested for fluoride. Results provided by the Trent Hills indicate that sampling was last completed January 10, 2022.			

Question ID	MRDW1085001	Question Type	Legislative
Question:			
Are all organic water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Legislative Requirement	SDWA O. Reg. 170/03 13-4 (1); SDWA O. Reg. 170/03 13-4 (2); SDWA O. Reg. 170/03 13-4 (3);		
Observation			
All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency. All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency. Section 13-4 (1) of Schedule 13 of O. Reg. 170/03 states that the owner of a large municipal drinking water system and the operating authority for the system shall ensure that at least one water sample is taken every 12 months, if the system obtains water from a raw water supply that is surface.			

The owner shall ensure that each of the samples taken is tested for every parameter set out in Schedule 24.

Samples for Schedule 24 organic parameters were analyzed on January 10, 2022.



APPENDIX A
STAKEHOLDER APPENDIX

Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

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

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

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



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

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

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



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

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