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
2e étage, Tour Sud
Peterborough (Ontario) K9J 3C7
Tél: 705 755-4300
558-0595230,

Ontario

January 5, 2026

The Corporation of the City of Trent Hills
66 Front St, P.O. Box Delivery 1030,
Campbellford, ON, K0L 1L0

Attention: Karen Frigault, Chief Administrative Officer

RE: Warkworth Drinking Water System (210000498)
Drinking Water Inspection Report 1-1425422067
File: SI NO TH BA 540 (2025-2026)

Please find attached the Ministry of the Environment, Conservation and Parks inspection report for the above facility. The report details the findings of the inspection that began on November 5, 2025.

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.

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.

If you have any questions or concerns, please contact me at 705-768-8593.

Yours truly,

Neil Hamilton
Provincial Officer Badge # 1359 | Peterborough District | Drinking Water Environmental Compliance Division
Ministry of the Environment, Conservation and Parks
1.800.558.0595 / 705.768.8593 / email: neil.hamilton2@ontario.ca

c:

Kyle Beacock, Manager of Water & Wastewater Services, Municipality of Trent Hills

Dr. Natalie Bocking, Medical Officer of Health, Haliburton Kawartha Pine Ridge HU

Rhonda Bateman, CAO/Treasurer, Lower Trent Conservation Authority

Brittney Wielgos, Water Supervisor, Ministry of Environment, Conservation & Parks, Peterborough

WARKWORTH DRINKING WATER SYSTEM
Physical Address: 140 BANTA RD, TRENT HILLS, ON K0K 3K0

INSPECTION REPORT

Entity:	THE MUNICIPALITY OF TRENT HILLS
Inspection Start Date:	November 04, 2025
Site Inspection Date:	November 05, 2025
Inspection End Date:	December 11, 2025
Inspected By:	Neil Hamilton
Badge #:	1359

Neil H

_____
(signature)

TABLE OF CONTENTS

INTRODUCTION

Purpose

This announced detailed inspection was conducted to confirm compliance with Ministry of the Environment, Conservation and Parks' (MECP) legislation and conformance with ministry drinking water policies and guidelines.

Scope

The ministry utilizes a comprehensive, multi-barrier approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as management and the operation of the system.

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

This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O. Reg. 170/03). This inspection has been conducted pursuant to Section 81of the SDWA.

This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

Facility Contacts and Dates

The drinking water system is owned by The Corporation Of The Municipality Of Trent Hills and operated by The Corporation Of The Municipality Of Trent Hills.

The system serves an estimated population of 660 and is categorized as a Large Municipal Residential System. Information reviewed for this inspection covered the time period of May 28, 2024 to November 5, 2025.

The water inspector met with Jody Trottman, Operator In Charge as part of the inspection process.

Systems/Components

All locations associated with primary disinfection were visited as part of this inspection. The

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

Warkworth Drinking Water Plant located at 140 Banta Road.

An outstation is a component of a drinking water system that is not located at either a water treatment plant or a well supply and is generally not associated with primary treatment, for example reservoirs, booster stations, and re-chlorination facilities located within the distribution system.

Outstations may be visited on a rotational basis as part of a ministry inspection. This inspection included the inspection of the off-site reservoir located at 31 Godolphin Road and the Warkworth Booster Pumping Station located at 24 Old Hastings Road.

Permissions/Approvals

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

- Permit to Take Water Number 2317-9PHKFF (issued October 6, 2014)
- Drinking Water Works Permit Number 150-201, Issue Number 5 (issued June 21, 2021)
- Municipal Drinking Water License Number 150-101, Issue Number 3 (issued June 21, 2021)

NON-COMPLIANCE

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

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

RECOMMENDATIONS

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

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

INSPECTION DETAILS

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

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

Question ID	DWMR1012001	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Did the owner have a harmful algal bloom monitoring plan in place that met the requirements of the Municipal Drinking Water Licence?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner had a harmful algal bloom monitoring plan in place which met the requirements.

Condition 6 of Schedule C of the MDWL requires that the owner develops and keeps up to date a Harmful Algal Bloom monitoring, reporting and sampling plan, and implement the plan when a potential harmful algal bloom is suspected or present. The owner must have the plan in place on or before December 14, 2021.

'Warkworth Water Treatment Plant Harmful Algal Bloom Monitoring Plan' was developed by the operating authority on May 12, 2021. The plan describes how to identify, monitor, report and sample harmful algal blooms.

Question ID	DWMR1010001	**Question Type**	BMP

Legislative Requirement(s):
Not Applicable

Question:
Were trends in source water quality monitored?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Trends in source water quality were monitored.

Question ID	DWMR1014001	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Was flow monitoring performed as required by the Municipal Drinking Water Licence or Drinking Water Works Permit?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Flow monitoring was performed as required.

As per condition 2.0 of Schedule C of the MDWL the Warkworth DWS is required to have continuous flow measurement of the treated and raw water flows out of and into the plant.

During the inspection it was observed that the Warkworth DWS has two (2) ABB WaterMaster FEX100 electromagnetic flow meters continuously monitoring flow out of and into the plant.

Question ID	DWMR1015001	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Were flow measuring devices calibrated or verified in accordance with the requirements of the Municipal Drinking Water Licence?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Flow measuring devices were calibrated or verified as required.

Flow meters are calibrated annually. Treated flow, raw flow, booster station and Percy Boom Rd flow meters were calibrated on December 3, 2024 by Tower Electronics Canada Inc.

Question ID	DWMR1016001	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Was the owner in compliance with the conditions associated with maximum flow rate or the rated/operational capacity in the Municipal Drinking Water Licence?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner was in compliance with the conditions associated with maximum flow rate and/or the rated/operational capacity conditions.

The Warkworth DWS has a rated capacity of 900 m3/day of treated water.

Throughout the inspection period treated water flows were below the required 900 m3/day.

The highest flow rate in 2024 was 338 m3/day in the month of October and the highest flow rate in 2025 was 278 m3/day in the month of May.

Question ID	DWMR1017001	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Were appropriate records of flows and any capacity exceedances made in accordance with the Municipal Drinking Water Licence?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Appropriate records of flows and any capacity exceedances were made as required.

Question ID	DWMR1013001	Question Type	Legislative

Legislative Requirement(s):
OWRA | 34 | (3);

Question:
Was the owner in compliance with all conditions of the Permit To Take Water?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner was in compliance with all conditions of the Permit To Take Water.

Question ID	DWMR1018001	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Did the owner ensure that equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner ensured that equipment was installed as required.

Question ID	DWMR1020001	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Were Form 1 documents prepared as required?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Form 1 documents were prepared as required.

On October 29, 2025 a form 1 was created in regard to the installation of 71.05 m of DR18 200 mm diameter PVC water main and individual services to the proposed dwellings in the Orchard Hill Subdivision Phase 4A.

Question ID	DWMR1021001	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Were Form 2 documents prepared as required?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Form 2 documents were prepared as required.

On June 6, 2025 a form 2 was created in regard to upgrading the PLC/SCADA system at the Warkworth Booster Pressure System.

On January 1, 2025 the granular activated carbon, gravel and sand from both filters was removed and replaced with new material at the Warkworth DWS.

On January 28, 2025 the primary sodium hypochlorite injection metering pump was replaced like for like at the Warkworth DWS

Question ID	DWMR1028001	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Were up-to-date plans for the drinking water system made available in such a manner that they could be readily viewed by all persons responsible for all or part of the operation of the drinking water system, in accordance with the Drinking Water Works Permit and Municipal Drinking Water Licence?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Plans for the drinking water system were kept up-to-date and made available as required.

Question ID	DWMR1025001	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Were all parts of the drinking water system that came in contact with drinking water disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All parts of the drinking water system were disinfected as required.

Question ID	DWMR1023001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 1-2 | (2);

Question:
Did records indicate that the treatment equipment was operated in a manner that achieved the design capabilities prescribed by O. Reg. 170/03, Drinking Water Works Permit and/or Municipal Drinking Water Licence at all times that water was being supplied to consumers?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities prescribed.

The Warkworth DWS obtains water from a surface water source (Mill Creek). The treatment system must be capable of achieving an overall performance that provides, at a minimum, 5-log removal or inactivation of viruses, 4-log removal or inactivation of Giardia cysts and 2-log removal or inactivation of Cryptosporidium oocysts.

The treatment system at the Warkworth DWS consists of chemically assisted filtration followed by disinfection using chlorination. The chemically assisted filtration is credited to provide 2-log Cryptosporidium oocysts, 2.5-log Giardia cysts and 2-log viruses removal or inactivation. Chlorine disinfection is required to provide, at a minimum, 1.5-log removal or inactivation of Giardia cysts.

The primary disinfection free chlorine residual and Giardia cysts log inactivation are continuously measured and recorded on the SCADA system. The minimum chlorine residual required to achieve primary disinfection at 0oC, 10oC and 20oC, using both chlorine contact chambers (based on pH of 8.61) is 1.17 mg/L, 0.54 mg/L and 0.24 mg/L, respectively, according to the CT calculations included in the Warkworth Operations Manual.

At the time of the inspection, the minimum chlorine residual alarm set at the chlorine analyzer monitoring primary disinfection was 0.6 mg/L. The minimum chlorine alarm will trigger an automatic filter shutdown.

The monthly data summaries were reviewed for the inspection period.

The minimum primary disinfection chlorine residual above the low alarm set point was 0.64 mg/L and was recorded in August, 2024.

To claim 2.5 log Giardia cysts removal and 2.0 log Cryptosporidium oocyst removal credit, the chemically assisted filtration process at the Warkworth DWS must meet the monthly performance criterion for filtered water turbidity of less or equal to 0.3 NTU in 95% of the measurements each month.

The continuous filter effluent turbidity readings are recorded on the SCADA system.

Review of the monthly data summaries confirmed that filter effluent turbidities were maintained below 0.3 NTU in 100% of the time during the inspection period.

During the inspection review period, the Warkworth DWS provided the required minimum level of treatment through chemically assisted filtration and chlorine disinfection.

Question ID	DWMR1024001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 1-2 | (2);

Question:
Did records confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection was operated as required?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection was operated as required.

Throughout the inspection period secondary disinfection free chlorine residual values ranged from a low of 0.85 mg/L in December of 2024 to a high of 2.72 mg/L in November of 2024.

Question ID	DWMR1033001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 7-2 | (3); SDWA | O. Reg. 170/03 | 7-2 | (4);

Question:
Was secondary disinfectant residual tested as required for the large municipal residential distribution system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Secondary disinfectant residual was tested as required.

Distribution system free chlorine residual was continuously measured at the Warkworth booster pumping station by an on-line chorine analyzer. Chlorine residuals were recorded on the SCADA system.

In addition, distribution chlorine residuals were measured during bacteriological sampling using a hand-held colourimetric unit.

Question ID	DWMR1049001	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Did records confirm that disinfectant residuals were routinely checked at the extremities and dead ends of the distribution system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Records confirmed that disinfectant residuals were routinely checked at the extremities and dead ends of the distribution system.

Question ID	DWMR1036001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-7 | (1);

Question:
Where continuous monitoring equipment was not used for chlorine residual analysis, were samples tested using an acceptable portable device?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Samples for chlorine residual analysis were tested using an acceptable portable device.

Question ID	DWMR1030001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 7-2 | (1); SDWA | O. Reg. 170/03 | 7-2 | (2);

Question:
Was primary disinfection chlorine monitoring being conducted at a location approved by Municipal Drinking Water Licence and/or Drinking Water Works Permit or at/near a location where the intended CT had just been achieved?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Primary disinfection chlorine monitoring was conducted as required.

The primary disinfection free chlorine residual is measured at the discharge from a two-cell chlorine contact tank.

Question ID	DWMR1031001	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Were operators aware of the operational criteria necessary to achieve primary disinfection within the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Operators were aware of the operational criteria necessary to achieve primary disinfection within the drinking water system.

Question ID	DWMR1032001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 7-3 | (2);

Question:
If the drinking water system obtained water from a surface water source and provided filtration, was continuous monitoring of each filter effluent line performed for turbidity?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Continuous monitoring of each filter effluent line was performed for turbidity.

On-line turbidity analyzers are located at the discharge lines from filter #1 and #2. Filter effluent turbidities are continuously measured and recorded on the SCADA system.

Question ID	DWMR1035001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-5 | (1)1-4;

Question:
Were operators examining continuous monitoring test results and did they examine the results within 72 hours of the test?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Operators were examining continuous monitoring test results as required.

Operation staff attended the facility each weekday and reviewed the on-line trending of the operational parameters.

The trending review, daily operational parameters and checks, as well as any unusual observations, were documented in the logbook and daily operational report.

Question ID	DWMR1038001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-5 | (1)1-4;

Question:
Was continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements performing tests for the parameters with at least the minimum frequency and recording data with the prescribed format?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was performing tests for the parameters with at least the minimum frequency and recording data with the prescribed format.

Question ID	DWMR1037001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-5 | (1)5-10; SDWA | O. Reg. 170/03 | 6-5 | (1.1);

Question:
Were all continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or Municipal Drinking Water Licence or Drinking Water Works Permit or order, equipped with alarms or shut-off mechanisms that satisfied the standards described in Schedule 6?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All required continuous monitoring equipment utilized for sampling and testing were equipped with alarms or shut-off mechanisms that satisfied the standards

It was reported during the inspection that the minimum chlorine alarm at the continuous chlorine analyzer monitoring primary disinfection is set at 0.6 mg/L. The minimum chlorine alarm will trigger an automatic filtered water production shutdown.

At the time of the inspection, the maximum (high-high) filter effluent turbidity alarm and an automatic filter shutdown system was set at 0.3 NTU.

The alarms will trigger an immediate notification to the operator.

Question ID	DWMR1040001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-5 | (1)1-4; SDWA | O. Reg. 170/03 | 6-5 | (1)5-10;

Question:
Were all continuous analysers calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All continuous analysers were calibrated, maintained, and operated as required.

All on-line turbidity and chlorine residual analyzers were calibrated by operation staff on a quarterly basis and documented in work order forms.

All hand-held chlorine and turbidity analyzers were calibrated by Nichol Water Services on June 2, 2024.

Additionally all flow meters are calibrated annually and were last calibrated on December 3, 2024 by Tower Electronics Canada Inc

Question ID	DWMR1099001	Question Type	Information

Legislative Requirement(s):
Not Applicable

Question:
Do records show that water provided by the drinking water system met the Ontario Drinking Water Quality Standards?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Records showed that all water sample results met the Ontario Drinking Water Quality Standards.

Question ID	DWMR1079001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 10-4 | (1); SDWA | O. Reg. 170/03 | 10-4 | (2); SDWA | O. Reg. 170/03 | 10-4 | (3);

Question:
Were raw water microbiological sampling requirements prescribed by Schedule 10-4 of O. Reg. 170/03 for large municipal residential systems met?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Raw water microbiological sampling requirements were met.

As per schedule 10-4 The owner of a drinking water system and the operating authority for the system shall ensure that a water sample is taken at least once every week from the drinking water system's raw water, before any treatment is applied to the water and shall ensure that each of the samples taken is tested for,

(a) Escherichia coli (E.Coli); and

(b) total coliforms (TC).

Throughout the inspection period samples of raw water were collected at least once every week and tested for E. Coli and TC.

TC ranged from 0-1580 CFU/100 ML while E. Coli ranged from 0-320 CFU/100 ML.

Question ID	DWMR1083001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 10-3;

Question:
Were treated microbiological sampling requirements prescribed by Schedule 10-3 of O. Reg. 170/03 for large municipal residential systems met?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Treated microbiological sampling requirements were met.

As per schedule 10-3 - The owner of a drinking water system and the operating authority for the system shall ensure that a water sample is taken at least once every week and tested for, Escherichia coli (EC), total coliforms (TC) and general bacteria population expressed as colony counts on a heterotrophic plate count (HPC).

Throughout the inspection period samples were collected weekly for EC, TC and HPC.

Question ID	DWMR1081001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 10-2 | (1); SDWA | O. Reg. 170/03 | 10-2 | (2); SDWA | O. Reg. 170/03 | 10-2 | (3);

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

Compliance Response(s)/Corrective Action(s)/Observation(s):
Distribution microbiological sampling requirements were met.

As per schedule 10-2 - The owner of a drinking water system and the operating authority for the system shall ensure that, if the system serves 100,000 people or less, at least eight distribution samples are taken every month, with at least one of the samples being taken in each week being tested for TC and EC.

Additionally the owner of the drinking water system and the operating authority for the system shall ensure that at least 25 per cent of the samples taken are tested for HPC.

Warkworth DWS serves a population of 690 people.

Throughout the inspection period microbiological samples were being collected at least eight times per month with at least one of the samples being taken in each week being tested for TC and EC. All samples were tested for HPC at least twenty five per cent of the time and were usually being tested fifty per cent of the time.

Question ID	DWMR1096001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-3 | (1);

Question:
Did records confirm that chlorine residual tests were conducted at the same time and location

as microbiological samples?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Records confirmed that chlorine residual tests were conducted as required.

Question ID	DWMR1084001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-2;

Question:
Were inorganic parameter sampling requirements prescribed by Schedule 13-2 of O. Reg. 170/03 met?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Inorganic parameter sampling requirements were met.

As per schedule 13-2 - The owner of a large municipal residential system and the operating authority for the system shall ensure that at least one water sample is taken every 12 months, if the system obtains water from a raw water supply that is surface water and that each of the samples taken is tested for every parameter set out in Schedule 23.

Sampling for inorganic parameters was last conducted on January 7, 2025 and previous to that January 4 2024.

Question ID	DWMR1085001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-4 | (1); SDWA | O. Reg. 170/03 | 13-4 | (2); SDWA | O. Reg. 170/03 | 13-4 | (3);

Question:
Were organic parameter sampling requirements prescribed by Schedule 13-4 of O. Reg. 170/03 met?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Organic parameter sampling requirements were met.

As per schedule 13-4 - The owner of a large municipal residential system and the operating authority for the system shall ensure that at least one water sample is taken every 12 months, if the system obtains water from a raw water supply that is surface water and that the sample is tested for every parameter set out in Schedule 24.

Sampling for organic parameters was last conducted on January 7, 2025 and previous to this on January 4 2024.

Question ID	DWMR1086001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-6.1 | (1); SDWA | O. Reg. 170/03 | 13-6.1 | (2); SDWA | O. Reg. 170/03 | 13-6.1 | (3); SDWA | O. Reg. 170/03 | 13-6.1 | (4); SDWA | O. Reg. 170/03 | 13-6.1 | (5); SDWA | O. Reg. 170/03 | 13-6.1 | (6);

Question:
Were haloacetic acid sampling requirements prescribed by Schedule 13-6 of O. Reg. 170/03 met?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Haloacetic acid sampling requirements were met.

As per schedule 13-6.1 - 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 and have that sample tested for haloacetic acids (HAAs).

Throughout the inspection period HAAs were collected on August 19, 2024, November 18, 2024, February 18, 2025, May 12, 2025 and August 18, 2025.

Respectively, results were 29.8 ug/L, 17.2 ug/L, 5.3 ug/L, 12.4 ug/L and 12.7 ug/L with the current running average at 11.9 ug/L.

Question ID	DWMR1087001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-6 | (1); SDWA | O. Reg. 170/03 | 13-6 | (2); SDWA | O. Reg. 170/03 | 13-6 | (3); SDWA | O. Reg. 170/03 | 13-6 | (4); SDWA | O. Reg. 170/03 | 13-6 | (5); SDWA | O. Reg. 170/03 | 13-6 | (6);

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

Compliance Response(s)/Corrective Action(s)/Observation(s):
Trihalomethane sampling requirements were met.

As per schedule 13-6 - 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).

Throughout the inspection period THMS were collected on August 19, 2024, November 18, 2024, February 18, 2025, May 12, 2025 and August 18, 2025.

Respectively, results were 65 ug/L, 40 ug/L, 17 ug/L, 23 ug/L and 31ug/L with the current running average at 27.75 ug/L.

Question ID	DWMR1088001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-7;

Question:
Were nitrate/nitrite sampling requirements prescribed by Schedule 13-7 of O. Reg. 170/03 met?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Nitrate/nitrite sampling requirements were met.

As per schedule 13-7 - The owner of a drinking water system and the operating authority for the system shall ensure that at least one water sample is taken every three months and tested for nitrate and nitrite.

Throughout the inspection period Nitrate/Nitrite were collected on August 19, 2024, November 18, 2024, February 18, 2025, May 12, 2025 and August 18, 2025.

Respectively, results were 0.179 mg/L, 0.457 mg/L, 0.702 mg/L, 0.214 mg/L and 0.333 mg/L.

Question ID	DWMR1089001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-8;

Question:
Were sodium sampling requirements prescribed by Schedule 13-8 of O. Reg. 170/03 met?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Sodium sampling requirements were met.

As per schedule 13-8. The owner of a drinking water system and the operating authority for the system shall ensure that at least one water sample is taken every 60 months and tested for sodium.

Sodium was last sampled and tested on January 7, 2025 with a result of 10.6 mg/L. Previous to this sodium was sampled and tested on January 4, 2024 with a result of 8.81 mg/L.

Question ID	DWMR1090001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-9;

Question:
Where fluoridation is not practiced, were fluoride sampling requirements prescribed by

Schedule 13-9 of O. Reg. 170/03 met?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Fluoride sampling requirements were met.

As per schedule 13-9. If a drinking water system does not provide fluoridation, the owner of the system and the operating authority for the system shall ensure that a water sample is taken at least once every 60 months and tested for fluoride.

Fluoride was last sampled and tested on January 7, 2025 with a result of 0.06 mg/L. Previous to this fluoride was sampled and tested on January 4, 2024 with a result of 0.06 mg/L.

Question ID	DWMR1092001	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-2;

Question:
Were water samples taken at the prescribed location?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Water samples were taken at the prescribed location.

Question ID	DWMR1094001	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Were water quality sampling requirements imposed by the Municipal Drinking Water Licence and Drinking Water Works Permit met?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Water quality sampling requirements were met.

Section 5.2 of the Schedule C of the Municipal Drinking Water License requires collection of a monthly manual composite sample for total suspended solids (TSS) analysis and a monthly grab sample for total chlorine residual analysis in the wastewater supernatant discharged to the Mill Creek. The MDWL sets the annual running average limits for TSS at 25 mg/L, and a limit of 0.02 mg/L for total chlorine residual.

A document review throughout the inspection period confirmed that wastewater samples were collected monthly and analyzed for total suspended solids and total chlorine residual.

Throughout the inspection period the average concentration for total suspended solids was 9.9 mg/L with an annual running average limit of 25 mg/L.

Throughout the inspection period the average concentration for total chlorine residual was 0.009 mg/L with an annual running average limit of 0.02 mg/L.

Question ID	DWMR1110001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 11 | (6);

Question:
Was the annual report prepared by February 28th of the following year and did it contain the required information?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The annual report requirements were met.

Question ID	DWMR1113001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 10.1 | (3);

Question:
Were changes to the system registration information provided to the ministry within ten (10) days of the change?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Changes to the system registration information were provided as required.

Question ID	DWMR1114001	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Did the owner have evidence that, when required, all legal owners associated with the drinking water system were notified of the requirements of the Municipal Drinking Water Licence and Drinking Water Works Permit?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner had evidence that the required notifications were made.

A letter is sent from Development Services to all legal owners associated with the system and includes copies of the MDWL and DWWP.

Question ID	DWMR1098001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13 | (1); SDWA | O. Reg. 170/03 | 13 | (2); SDWA | O. Reg. 170/03 | 13 | (3);

Question:
Were the required records kept for the periods prescribed by section 13 of O. Reg. 170/03?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The required records were kept for the prescribed periods.

Question ID	DWMR1043001	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Were the process wastewater and residual solids/sludges treated, handled, and disposed of in accordance with the design requirements approved under the Drinking Water Works Permit and the Municipal Drinking Water Licence?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The process wastewater and residual solids/sludges were treated, handled, and disposed of as required.

Question ID	DWMR1044001	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Did the process wastewater discharge monitoring program and discharge quality comply with requirements established in the Municipal Drinking Water Licence?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The process wastewater discharge monitoring program and discharge quality complied with the requirements.

Question ID	DWMR1045001	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Did the owner update the document describing the distribution components within 12 months

of completion of alterations to the system in accordance with the Drinking Water Works Permit?

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

The owner had up-to-date documents describing the distribution components.

During the inspection period a form one was created in regard to installing a watermain in the Orchard Hill Subdivision Phase 4A. The Municipality of Trent Hills has not assumed this phase of Orchard Hill. It was commissioned in August, 2025. As per the DWWP the system owner has 12 months to update any plans, drawings or documents in accordance with schedule B condition 3.5 of the DWWP.

Question ID	DWMR1046001	**Question Type**	BMP

Legislative Requirement(s):
Not Applicable

Question:

Was there a backflow prevention program, policy and/or bylaw in place that addressed cross connections and connections to high hazard facilities?

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

There was a backflow prevention program, policy and/or bylaw in place.

Northumberland County conducts plumbing inspections and permitting on behalf of the Municipality of Trent Hills and has a By-law (38-2023) to enforce cross connections are protected with backflow prevention devices.

Question ID	DWMR1053001	**Question Type**	BMP

Legislative Requirement(s):
Not Applicable

Question:

Was the owner able to maintain proper pressures in the distribution system and was pressure monitored to alert the operator of conditions of loss of pressure below the value under which the system was designed to operate?

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

The owner was able to maintain proper pressures in the distribution system and pressure was monitored to alert the operator of conditions which may lead to loss of pressure below the value under which the system is designed to operate.

Pressure throughout the system is monitored and alarmed in 3 locations:

- Leaving the plant- Low Alarm 260kpa
- Inlet at Booster station- Low Alarm 130 kpa
- Outlet booster Station - Low Alarm 350 kpa
- Tower level monitored- Low Alarm 5.2m

Question ID	DWMR1047001	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Did the owner have a program or maintain a schedule for routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks within the distribution system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner had a program or maintained a schedule for routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks within the distribution system.

Under SOP-12 - 1.6 - Contact Chambers, Clearwells, Reservoirs/Standpipes

Contact chambers, clearwells, reservoirs/standpipes will be inspected internally every 7 to 10 years. External inspection of offsite reservoir & standpipe access ports, and vent screens will be complete every 12 to 18 months using a drone.

Question ID	DWMR1048001	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Had the owner implemented a program for the flushing of watermains as per industry standards?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner had implemented a program for the flushing of watermains.

Under SOP 12 1.2/1.3 Hydrant Maintenance/Dead End Flushing

Hydrant Maintenance

- Completed in the fall and spring each year.
- The Operator shall document the hydrant flushing on the appropriate form for each system
- Record of maintenance is maintained in the Hydrant Maintenance book.

Dead End Flushing

- This maintenance is performed as dictated by low chlorine residuals, some dead ends are set up to continuously flush through 19mm blow offs.

Question ID	DWMR1050001	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Was there a program in place for inspecting and exercising valves?

Compliance Response(s)/Corrective Action(s)/Observation(s):
There was a program in place for inspecting and exercising valves.

Under SOP-12 1.0 Planned Maintenance

There is a valve maintenance program which is completed at a minimum once every 5 years in the Warkworth Distribution system. All new valves are operated following upgrades. Any valves exercised or repaired is recorded in the Water Distribution System Mainline Valve Maintenance Program form.

Question ID	DWMR1051000	**Question Type**	BMP

Legislative Requirement(s):
Not Applicable

Question:
Is there a program in place for inspecting and operating hydrants?

Compliance Response(s)/Corrective Action(s)/Observation(s):
There was a program in place for inspecting and operating hydrants.

Under SOP-12 Hydrant maintenance and flushing are completed in the fall and spring of each year. Records are kept for flushing and any maintenance.

Question ID	DWMR1052001	**Question Type**	BMP

Legislative Requirement(s):
Not Applicable

Question:
Was there a bylaw or policy in place limiting access to hydrants?

Compliance Response(s)/Corrective Action(s)/Observation(s):
There was a bylaw or policy in place limiting access to hydrants.

The Municipality of Trent Hills has policy WS 15-01 which states that the use of any public fire hydrant within the Campbellford, Warkworth and Hastings drinking water systems is strictly limited to water division staff and/or the fire department.

Question ID	DWMR1058001	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 28;

Question:
Did operators and maintenance personnel have ready access to operations and maintenance

manuals?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Operators and maintenance personnel had ready access to operations and maintenance manuals.

Question ID	DWMR1059001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 28;

Question:
Did 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.

Question ID	DWMR1060001	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

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

Compliance Response(s)/Corrective Action(s)/Observation(s):
The operations and maintenance manual(s) met the requirements of the Municipal Drinking Water Licence.

Question ID	DWMR1064001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 26 | (2);

Question:
Did an operator-in-charge ensure that records were maintained of all adjustments to the processes within their responsibility?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The operator-in-charge ensured that records were maintained of all adjustments to the processes within their responsibility.

Question ID	DWMR1062001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 7-5;

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

Compliance Response(s)/Corrective Action(s)/Observation(s):
Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was done by a certified operator, water quality analyst, or person who met the requirements of Schedule 7-5 of O. Reg. 170/03.

Question ID	DWMR1063001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-10 | (1);

Question:
For every required operational test and sample, was a record made of the date, time, location, results, and name of the person conducting the test?

Compliance Response(s)/Corrective Action(s)/Observation(s):
For every required operational test and sample, a record was made as required.

Question ID	DWMR1061001	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:
Were logbooks properly maintained and did they contain the required information?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Logbooks were properly maintained and contained the required information.

Question ID	DWMR1065001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 27 | (6);

Question:
Were logs and other record keeping mechanisms available for at least five (5) years?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Logs or other record keeping mechanisms were available for at least five (5) years.

Question ID	DWMR1066001	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Was spill containment provided for process chemicals and standby power generator fuel?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Spill containment was provided for process chemicals and/or standby power generator fuel.

Question ID	DWMR1067001	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Were equipment and materials in place for the clean up of spills?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Equipment and materials were in place for the clean up of spills.

During the physical inspection a spill kit was observed to be on site which contained absorbent materials (socks, pads).

Question ID	DWMR1068001	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
If available, were standby power generators tested under normal load conditions?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Standby power generators were tested under normal load conditions.

It was reported during the inspection that the standby power generator is tested once a month under normal load conditions.

Question ID	DWMR1069001	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Were all storage facilities completely covered and secure?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Storage facilities were completely covered and secure.

Question ID	DWMR1070001	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Were air vents and overflows associated with reservoirs and elevated storage structures equipped with screens?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Air vents and overflows associated with reservoirs and elevated storage structures were equipped with screens.

Question ID	DWMR1071001	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Did the owner provide security measures to protect components of the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner provided security measures to protect components of the drinking water system.

The property around the Warkworth water treatment facility is fenced. The building's access door is locked and equipped with Trent security alarm system.

The Warkworth Off Site Reservoir is secured with a chain link fence topped with barbed wire with a secure lock on the gate of the fence.

Lastly the Warkworth Booster Pumping Station has a locked access door and is also

equipped with Trent security alarm system.

Question ID	DWMR1072001	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Had the owner and/or operating authority undertaken efforts to promote water conservation and reduce water losses in the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner and/or operating authority undertook efforts to promote water conservation and reduce water losses in their system.

The Corporation of the Municipality of Trent Hills has By-Law 2003-21 which has a by-law to regulate and restrict the unnecessary use of water within
the Municipality of Trent Hills and within the areas served by the Water Treatment Plants between June 1 to September 31 which restricts lawn watering and only permits it between 0700-1000 and 1800-2100.

Question ID	DWMR1073001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 23 | (1);

Question:
Was an overall responsible operator designated for all subsystems which comprise the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
An overall responsible operator was designated for all subsystem.

The Warkworth DWS is classified as a Class 3 Water Treatment Subsystem and a Class 2 Water Distribution Subsystem. During the inspection period, Jody Trottman, the Senior Operator, was designated as the Overall Responsible Operator (ORO). Jody Trottman holds valid Class 3 Water Treatment Subsystem and Class 2 Water Distribution and Supply Subsystem certificates.

In his absence, Kyle Beacock, Manager of Water and Wastewater, would assume the role of the ORO. Mr. Beacock holds a valid Class 3 Water Treatment Subsystem and Class 3 Water Distribution and Supply Subsystem certificates.

Question ID	DWMR1078001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 23 | (1); SDWA | O. Reg. 128/04 | 23 | (2); SDWA | O. Reg. 128/04 | 23 | (4); SDWA | O. Reg. 128/04 | 23 | (6); SDWA | O. Reg. 128/04 | 23 | (7);

Question:
When the overall responsible operator was unable to act, was a properly certified operator designated to act in their place?

Compliance Response(s)/Corrective Action(s)/Observation(s):
A properly certified operator was designated to act in place of the overall responsible operator.

Question ID	DWMR1074001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 25 | (1);

Question:
Were operators-in-charge designated for all subsystems which comprise the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Operators-in-charge were designated for all subsystems.

The following operators were designated as OIC and were credited OIC experience for every working hour:

- Gerry Brownson (WTS Class 2, WDS Class 2)
- Paul Kelly (WTS Class 3, WD&SS Class 2)
- Todd Kerr (WTS Class 2, WD&SS Class 2)
- Jody Trottman (WTS Class 3, WDS Class 2)
- Scott Mahoney (WTS Class 2, WDS Class 2)
- Rachel M. Parr (WTS Class 1)
- Kyle Beacock (WTS Class 3, WDS Class 3)

Question ID	DWMR1075001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 22;

Question:
Were all operators certified as required?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All operators were certified as required.

Question ID	DWMR1076001	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 1-2 | (2);

Question: Were adjustments to the treatment equipment only made by certified operators?
Compliance Response(s)/Corrective Action(s)/Observation(s): Adjustments to the treatment equipment were only made by certified operators.

Ontario

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

Ontario

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 Avis de demande de services de laboratoire Avis de résultats d'analyse insatisfaisants et de règlement des problèmes	012-2149F 012-2148F 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 portable 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

Ontario

Ontario

APPENDIX B

INSPECTION RATING RECORD

Ministry of the Environment, Conservation and Parks - Inspection Summary Rating Record (Reporting Year - 2025-26)

DWS Name:	WARKWORTH DRINKING WATER SYSTEM
DWS Number:	210000498
DWS Owner:	THE MUNICIPALITY OF TRENT HILLS
Municipal Location:	TRENT HILLS
Regulation:	O.REG. 170/03
DWS Category:	DW Municipal Residential
Type of Inspection:	Detailed
Compliance Assessment Start Date:	Nov-4-2025
Ministry Office:	Peterborough District Office

Maximum Risk Rating: 569

Inspection Module	Non Compliance Risk (X out of Y)
Capacity Assessment	0/42
Certification and Training	0/49
Distribution System	0/4
Effluent Quality and Quantity	0/20
Logbooks	0/30
Operations Manuals	0/42
Reporting & Corrective Actions	0/12
Source	0/12
Treatment Processes	0/230
Water Quality Monitoring	0/128
Overall - Calculated	**0/569**

Inspection Risk Rating:	**0.00%**

Final Inspection Rating:	**100.00%**

Inspection Rating Record Generated On 2026-01-05 (Inspection ID: 1-1425422067)

DWS Name:	WARKWORTH DRINKING WATER SYSTEM
DWS Number:	210000498
DWS Owner Name:	THE MUNICIPALITY OF TRENT HILLS
Municipal Location:	TRENT HILLS
Regulation:	O.REG. 170/03
DWS Category:	DW Municipal Residential
Type of Inspection:	Detailed
Compliance Assessment Start Date:	Nov-4-2025
Ministry Office:	Peterborough District Office

All legislative requirements were met. No detailed rating scores.

Maximum Question Rating: 569

Inspection Risk Rating:	**0.00%**

FINAL INSPECTION RATING:	**100.00%**

APPLICATION OF THE RISK METHODOLOGY USED FOR MEASURING MUNICIPAL RESIDENTIAL DRINKING WATER SYSTEM INSPECTION RESULTS

The Ministry of the Environment (MOE) has a rigorous and comprehensive inspection program for municipal residential drinking water systems (MRDWS). Its objective is to determine the compliance of MRDWS with requirements under the Safe Drinking Water Act and associated regulations. It is the responsibility of the municipal residential drinking water system owner to ensure their drinking water systems are in compliance with all applicable legal requirements.

This document describes the risk rating methodology, which has been applied to the findings of the Ministry's MRDWS inspection results since fiscal year 2008-09. The primary goals of this assessment are to encourage ongoing improvement of these systems and to establish a way to measure this progress.

MOE reviews the risk rating methodology every three years.

The Ministry's Municipal Residential Drinking Water Inspection Protocol contains up to 14 inspection modules and consists of approximately 120 regulatory questions. Those protocol questions are also linked to definitive guidance that ministry inspectors use when conducting MRDWS inspections. The questions address a wide range of regulatory issues, from administrative procedures

PIBS 6797e

Ontario

to drinking water quality monitoring. Additionally, the inspection protocol contains a number of non-regulatory questions.

A team of drinking water specialists in the ministry have assessed each of the inspection protocol regulatory questions to determine the risk (not complying with the regulation) to the delivery of safe drinking water. This assessment was based on established provincial risk assessment principles, with each question receiving a risk rating referred to as the Question Risk Rating. Based on the number of areas where a system is deemed to be non-compliant during the inspection, and the significance of these areas to administrative, environmental, and health consequences, a risk-based inspection rating is calculated by the ministry for each drinking water system.

It is important to be aware that an inspection rating that is less than 100 per cent does not mean that the drinking water from the system is unsafe. It shows areas where a system's operation can improve. To that end, the ministry works with owners and operators of systems to make sure they know what they need to do to achieve full compliance.

The inspection rating reflects the inspection results of the specific drinking water system for the reporting year. Since the methodology is applied consistently over a period of years, it serves as a comparative measure both provincially and in relation to the individual system. Both the drinking water system and the public are able to track the performance over time, which encourages continuous improvement and allows systems to identify specific areas requiring attention.

The ministry's annual inspection program is an important aspect of our drinking water safety net. The ministry and its partners share a common commitment to excellence and we continue to work toward the goal of 100 per cent regulatory compliance.

Determining Potential to Compromise the Delivery of Safe Water

The risk management approach used for MRDWS is aligned with the Government of Ontario's Risk Management Framework. Risk management is a systematic approach to identifying potential hazards; understanding the likelihood and consequences of the hazards; and taking steps to reduce their risk if necessary and as appropriate.

The Risk Management Framework provides a formula to be used in the determination of risk:

RISK = LIKELIHOOD × CONSEQUENCE
(of the consequence)

Every regulatory question in the inspection protocol possesses a likelihood value (L) for an assigned consequence value (C) as described in **Table 1** and **Table 2**.

TABLE 1:

Likelihood of Consequence Occurring	Likelihood Value
0% - 0.99% (Possible but Highly Unlikely)	L = 0
1 – 10% (Unlikely)	L = 1
11 – 49% (Possible)	L = 2
50 – 89% (Likely)	L = 3
90 – 100% (Almost Certain)	L = 4

TABLE 2:

Consequence	Consequence Value
Medium Administrative Consequence	C = 1
Major Administrative Consequence	C = 2
Minor Environmental Consequence	C = 3
Minor Health Consequence	C = 4
Medium Environmental Consequence	C = 5
Major Environmental Consequence	C = 6
Medium Health Consequence	C = 7
Major Health Consequence	C = 8

The consequence values (0 through 8) are selected to align with other risk-based programs and projects currently under development or in use within the ministry as outlined in **Table 2**.

The Question Risk Rating for each regulatory inspection question is derived from an evaluation of every identified consequence and its corresponding likelihood of occurrence:

- All levels of consequence are evaluated for their potential to occur
- Greatest of all the combinations is selected.

The Question Risk Rating quantifies the risk of non-compliance of each question relative to the others. Questions with higher values are those with a potentially more significant impact on drinking water safety and a higher likelihood of occurrence. The highest possible value would be 32 (4×8) and the lowest would be 0 (0×1).

Table 3 presents a sample question showing the risk rating determination process.

TABLE 3:

Does the Operator in Charge ensure that the equipment and processes are monitored, inspected and evaluated?							
Risk = Likelihood × Consequence							
C=1	C=2	C=3	C=4	C=5	C=6	C=7	C=8
Medium Administrative Consequence	**Major** Administrative Consequence	**Minor** Environmental Consequence	**Minor** Health Consequence	**Medium** Environmental Consequence	**Major** Environmental Consequence	**Medium** Health Consequence	**Major** Health Consequence
L=4 (Almost Certain)	L=1 (Unlikely	L=2 (Possible)	L=3 (Likely)	L=3 (Likely)	L=1 (Unlikely	L=3 (Likely)	L=2 (Possible)
R=4	**R=2**	**R=6**	**R=12**	**R=15**	**R=6**	**R=21**	**R=16**

Application of the Methodology to Inspection Results

Based on the results of a MRDWS inspection, an overall inspection risk rating is calculated. During an inspection, inspectors answer the questions that relate to regulatory compliance and input their responses as "yes", "no" or "not applicable" into the Ministry's Laboratory and Waterworks Inspection System (LWIS) database. A "no" response indicates non-compliance. The maximum number of regulatory questions asked by an inspector varies by: system (i.e., distribution, stand-alone), type of inspection (i.e., focused, detailed), and source type (i.e., groundwater, surface water).

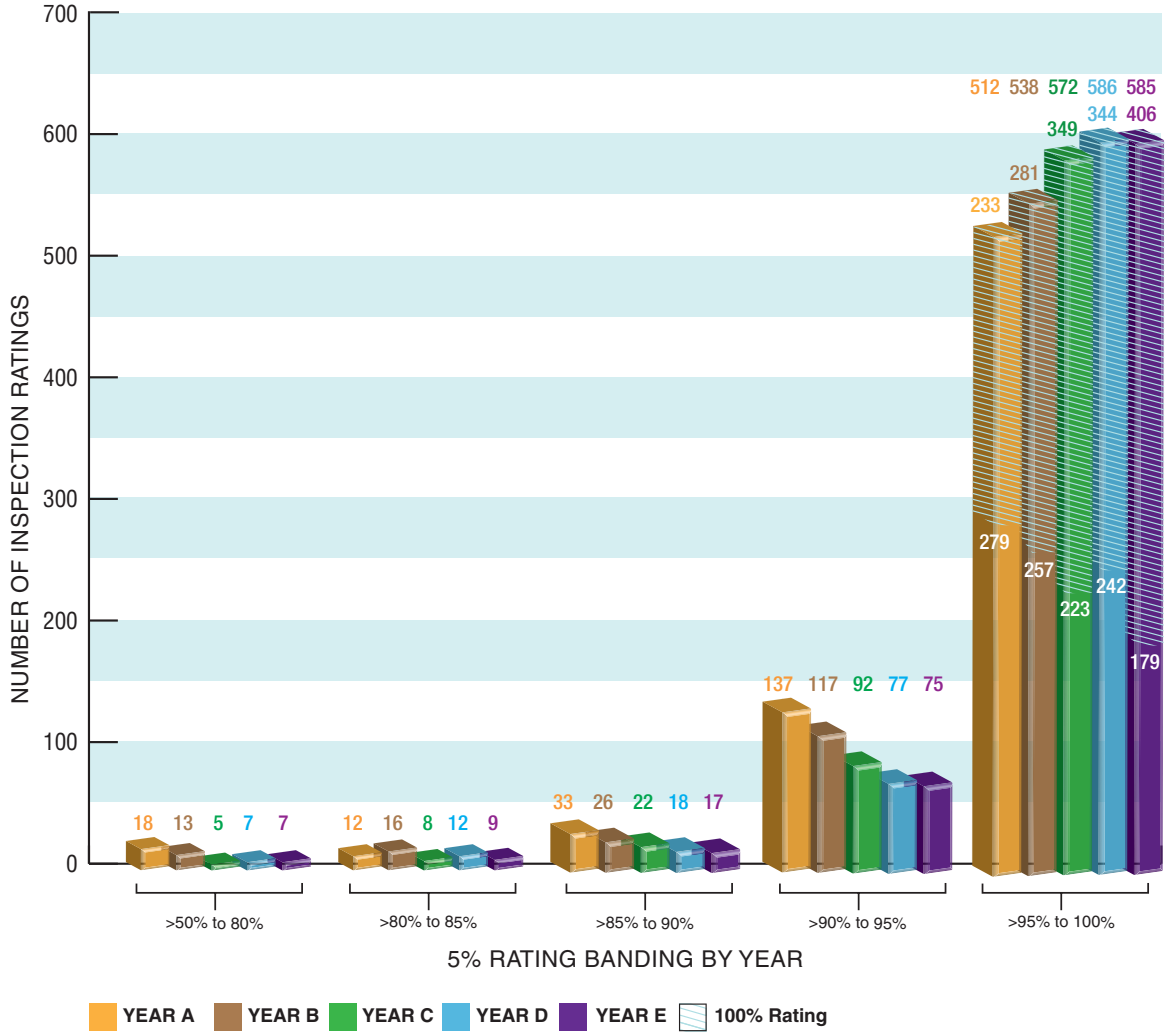
The risk ratings of all non-compliant answers are summed and divided by the sum of the risk ratings of all questions asked (maximum question rating). The resulting inspection risk rating (as a percentage) is subtracted from 100 per cent to arrive at the final inspection rating.

Application of the Methodology for Public Reporting

The individual MRDWS Total Inspection Ratings are published with the ministry's Chief Drinking Water Inspector's Annual Report.

Figure 1 presents the distribution of MRDWS ratings for a sample of annual inspections. Individual drinking water systems can compare against all the other inspected facilities over a period of inspection years.

Figure 1: Year Over Year Distribution of MRDWS Ratings



Reporting Results to MRDWS Owners/Operators

A summary of inspection findings for each system is generated in the form of an Inspection Rating Record (IRR). The findings are grouped into the 14 possible modules of the inspection protocol, which would provide the system owner/operator with information on the areas where they need to improve. The 14 modules are:

1. Source
2. Permit to Take Water
3. Capacity Assessment
4. Treatment Processes
5. Process Wastewater
6. Distribution System
7. Operations Manuals
8. Logbooks
9. Contingency and Emergency Planning
10. Consumer Relations
11. Certification and Training
12. Water Quality Monitoring
13. Reporting, Notification and Corrective Actions
14. Other Inspection Findings

For further information, please visit **www.ontario.ca/drinkingwater**