TEESWATER DRINKING WATER SYSTEM
Physical Address: 12 HILLCREST ST E, , SOUTH BRUCE, ON N0G 2S0

INSPECTION REPORT

Entity:	THE CORPORATION OF THE MUNICIPALITY OF SOUTH BRUCE VEOLIA WATER CANADA INC.
Inspection Start Date:	September 04, 2025
Site Inspection Date:	September 05, 2025
Inspection End Date:	October 17, 2025
Inspected By:	Grace Lumley
Badge #:	P1562
Inspected By:	Marc Bechard
Badge #:	918
Inspected By:	Heather Lovely
Badge #:	1680

Grace Lumley
_____
(signature)

INTRODUCTION

Purpose

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. 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." This inspection has been conducted pursuant to Section 81 of 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.

Scope

On September 3rd, 2025, Water Compliance Officer Grace Lumley (shadowed by Heather Lovely) met with operator Malcolm Cormack to conduct an inspection of the Teeswater drinking water system.
The site inspection included the treatment equipment, the diesel generator and fuel tank located in the pump house, as well as the production wellhead that is located in a separate out-building from the pump house. The Teeswater DWS is in the Municipality of South Bruce and Veolia Water Canada is the Operating Authority of the drinking water system on behalf of the municipality (owner). The inspection period for this report is from the date of the last inspection, November 25th, 2024, to the date of the current inspection, September 3rd, 2025.

Systems/Components

The Teeswater well is sometimes referred to as "Well 3" simply because the Municipality owns three municipal wells – two are in Mildmay and the third is in Teeswater.

TEESWATER WELL 1

Groundwater Production Well
The Teeswater DWS draws water from one drilled artesian well, roughly 85.3 m deep, and which has an unrestricted natural flow of approximately 76 L/s. The well was drilled July 2, 1996 (Well Record 1408942). Although only 33 m south of the Teeswater River, this well is considered a 'secure ground water' source (i.e., non-GUDI) as long as artesian conditions persist, according to the Engineer's Report of 2001. The well is located in a separate out-building from the pumphouse.

TEESWATER PUMP HOUSE

Address: 12 Hillcrest St. E., Teeswater
The Teeswater Drinking Water System (DWS) is located at 12 Hillcrest St. E., Teeswater, ON, and is operated by Veolia Water Canada on behalf of the owner, Municipality of South Bruce. The drinking water system is currently deemed a Class II Water Distribution and Supply, which serves approximately 1000 residents with 477 customer service connections.

The Teeswater DWS is required to provide 2 log removal/inactivation of viruses and achieves this through disinfection with sodium hypochlorite and a 190 m long chlorine contact watermain with 450 mm diameter. In cases when a power failure may occur, there is a stand-by diesel generator (100 kW) installed in the pump house to provide back-up power for continual supply of drinking water into the distribution system. The pump house contains a sodium hypochlorite disinfection system consisting of a 200-litre chemical storage tank, two sodium hypochlorite chemical feed pumps (one duty and one standby). Feed point is the pump house discharge header with two injection points in case one becomes clogged. A 100 mm water flow meter measures the flows in the pump header. An automatic chlorine analyzer and on-line turbidimeter are equipped with an autodialer that reaches the designated operator. There are three high lift pumps; #1 maintains target pressure of 85 psi, #2 starts at flow >20L/s or 80psi and stops at <15L/s, #3 starts at flow >30L/s or 70 psi and stops < 25L/s. There is also a diesel emergency fire pump with backup chlorine dosing installed in the pumphouse. The three pumps are connected to a PLC via variable frequency drives. There is no well pump due to artesian conditions.

As of June 10, 2018, an additional chlorine analyzer has been installed upstream of the chlorine contact chamber and connected to the alarm system in October 2018. This chlorine analyzer provides an early warning for operators to respond to potential low chlorine events before an issue becomes an AWQI, however, it is no longer set to alarm due to numerous nuisance alarms.
This is especially important for the Teeswater DWS since, due to the nature of this system (artesian well), there is no automatic shutdown in the event of low chlorine. The reason for this is that there would immediately be a loss of pressure in the distribution system, because there is no water storage (i.e., no water tower, or reservoir) for this DWS.

Pathogen Log Removal/Inactivation Credits

Minimum Disinfection Required: 2 log removal/inactivation of Viruses
Disinfection Credits Assigned: 2+ log removal/ inactivation of Viruses via Chlorination (CT: Chlorine Contact Pipe)
Log removal/inactivation credit assignment is based on each treatment process being fully operational and the applicable log removal/inactivation credit assignment criteria being met.

Log Removal/Inactivation Credit Assignment Criteria
1. Sampling and testing for free chlorine residual shall be carried out by continuous monitoring equipment in the treatment process at or near a location where the intended contact time has just been completed in accordance with the Ministry's Procedure for Disinfection of Drinking Water in Ontario; and
2. At all times, CT provided shall be greater than or equal to the CT required to achieve the log removal credits assigned.

CT CALCULATION

Disinfection Requirements: 2 log inactivation for Viruses
Average pre-treatment water pH range: 7.5
Average pre-treatment water temperature (oC): 10
CT – Concentration * Time to meet inactivation requirements = 0.41 mg/L X 7.31 = 3
(T10 is the length of time during which not more than 10% of the influent Water would pass through that process.)
Baffle ratio - Baffle condition is (e.g. poor, average, superior) therefore, T10/T Ratio = 1.0

Contact Water Main:
Volume Capacity (m^3): 28.5
Maximum permitted flow rate (m^3/min) = 3.9
Effective contact time @ max flow (min) = 7.31
Minimum Disinfection Residual Concentration (mg/L) = 0.41

Therefore, a minimum free chlorine concentration of 0.41 mg/L is required to meet primary disinfection at the maximum flow rate.

DISTRIBUTION SYSTEM

The Teeswater DWS is classified as a "Water Distribution and Supply Subsystem Class 2" and serves a population of 1000 people.
There are approximately 477 service connections in the Teeswater water system. There are no storage facilities in the Teeswater water system.

Permissions/Approvals

- Municipal Drinking Water License 095-102 Issue 5, issued December 18, 2024.
- Application for License Renewal Date: March 18, 2029.
- Drinking Water Works Permit is # 095-202 Issue 6, issued September 18, 2024.
- Permit to Take Water (well 1) p-300-4269065946.
- Operational Plan 095-402 version 1, Operating Authority 095-OA1.

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	DWMR1006001	**Question Type**	Information

Legislative Requirement(s):
Not Applicable

Question:
Is the owner planning to add a new drinking water source or to make changes to their current source(s)?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner is planning to add a new drinking water source or to make changes to their current source(s).

Last year, The Municipality of South Bruce received funding to obtain a new production well and water storage (water tower) for the Teeswater Drinking Water System through the Investing in Canada Infrastructure Program (ICIP) Green Stream program. Stu Moffat, South Bruce Manager of Operations, stated via email in relation to the new elevated storage tank, "We currently are in the building process with Landmark Structures...they have the pedestal up and just starting work on the tank with completion in August 2026. Once the tower is online, we will be drilling the second production well (so September 2026)."

Question ID	DWMR1007001	**Question Type**	Legislative

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

Question:
Was the owner maintaining the production well(s) in a manner sufficient to prevent entry into the well of surface water and other foreign materials?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner was maintaining the production well(s) in a manner sufficient to prevent entry into the well of surface water and other foreign materials.

The production well is secure and maintained in a locked out building in a manner that is sufficient to prevent entry of surface water and other foreign materials. The Well Record, Number 1408942, shows that the well was drilled to a depth of 280 ft. through limestone in July 1996. The well has a steel casing with annular grout to 85ft. The artesian condition of the well is checked regularly and there are no associated concerns.

Question ID	DWMR1009001	Question Type	Legislative

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

Question:
Were measures in place to protect the groundwater and/or GUDI source in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Measures were in place to protect the groundwater and/or GUDI source.

Schedule B of the Municipal Drinking Water License stipulates measures that include the requirement for a Well Inspection and Maintenance Plan. Conditions 16.2.8, 16.2.9, and 16.2.10 of Schedule B prescribe that the Teeswater DWS Operations and Maintenance Manual must include a well inspection and maintenance program that include: an inspection schedule for all wells associated with the drinking water system, including all production wells, stand-by wells, test wells and monitoring wells; well inspection and maintenance procedures for the entire well structure of each well including all above and below grade well components; and remedial action plans for situations where an inspection indicates non-compliance with respect to regulatory requirements and/or risk to raw well water quality. The Operations and Maintenance manual includes the specific "Well Description and Inspection Schedule" as identified in the MDWL. The manual states the following, "The well is inspected at a minimum of once per month to verify that the well is artesian (this is typically checked daily). Also, on a monthly basis an above grade inspection of the well head is completed by the operations staff. Bacteriological samples are collected on a weekly basis and sent to an accredited lab for analysis. The raw water turbidity is checked on a weekly basis. Following consultations with Well Technicians, it has been determined that a below grade inspection of the artesian well could occur. However, since there is no second well or water storage, the inspection would likely result in a disruption to the water supply. Therefore, inspections are conducted on an as needed basis. The Operating Authority monitors the Raw Water Quality information to verify that the water source remains secure. This information is summarized in the Annual Summary Report that is provided to South Bruce. Also included in this Summary Report is a recommendation on whether a below grade well inspection is advised. The Municipality is currently in the process of investigating the possibility of adding a second well and a water storage facility. If the Municipality adds one or both of these options the below grade well inspection could be undertaken without disrupting the towns water supply. Based on the reduced risk more frequent below grade well inspections could then take place." The Operating Authority, in the 2024 Summary Report for South Bruce, stated, "The raw water quality of the well in Teeswater remains excellent. The first two tables below show that there were no instances of E. Coli or Total Coliform in the Raw Water Sample Results. The third table shows the Raw Water Turbidity. For 2024 the raw turbidity ranged from 0.08 to 0.33 ntu, and averaged 0.15 ntu. This range is consistent with previous years Raw Water Turbidity. Based on this information it does not appear that a below grade inspection of the well is required at this time."

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.

In Schedule C of the Municipal Drinking Water License, condition 2.1.1 and 2.1.2 stipulate that flow rate, volume of water into the treatment system (raw water), and volume into the distribution system (treated water) must be recorded daily. Flow into the treatment system is measured via one flow meter, and the volume of water produced each day and fed to the distribution system is recorded on the daily reports. This is a flow through system.

Question ID	DWMR1016001	Question Type	Legislative

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

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

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

The Teeswater MDWL does not stipulate a maximum flow rate, but does identify a rated capacity of 2,160 m3/day for flows from the treatment subsystem to the distribution system. Upon review of the daily reports for this inspection period, there were no exceedances of the plant's rated capacity.

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.

All equipment was verified to have been installed in accordance to Schedule A and C of the Drinking Water Works Permit.

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.

There was no evidence this inspection period that improperly disinfected water was directed to the consumers in Teeswater.

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.

The free chlorine residual was measured daily (284 times for this inspection period), and recorded in the daily reports. All results were greater than 0.05 mg/L.

Question ID	DWMR1033001	Question Type	Legislative

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

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

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

Free chlorine residual samples were taken daily from varied locations in the Teeswater distribution system, and the results recorded in the daily log sheets (these log sheets are identified as "water rounds").

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 free chlorine analyzer is located just after the contact watermain (where CT is reached) to ensure primary disinfection is met before the first user.

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.

The daily reports include the minimum, maximum, and average values for the continuous monitoring test results provided by SCADA. These daily reports are printed and reviewed daily by operators, which is more frequent than the required 72 hour review period.

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.

Continuous monitoring equipment of free chlorine, for the purpose of primary disinfection, is recorded by SCADA every minute. This is more than the legislative requirement of every five minutes.

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

The low chlorine alarm remains set to 0.60 mg/L, where in which an operator is called. There is no shut-off mechanism. In order to achieve primary disinfection requirements, a free chlorine residual of 0.41 mg/L is needed. During this inspection period, the free chlorine never dropped below the legislative concentration.

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.

The continuous chlorine analyzer is checked each weekday using a handheld unit to verify accuracy. Appropriate, preventative maintenance also occurs monthly on the chlorine injection system.

Question ID	DWMR1108001	Question Type	Legislative

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

Question:
Where continuous monitoring equipment used for the monitoring of free chlorine residual, total chlorine residual, combined chlorine residual or turbidity, required by O. Reg. 170/03, Municipal Drinking Water Licence, Drinking Water Works Permit, or order triggered an alarm or an automatic shut-off, did a qualified person respond as required and take appropriate actions?

Compliance Response(s)/Corrective Action(s)/Observation(s):
A qualified person responded as required and took appropriate actions.

By reviewing the alarm history and logbook entries, there were twelve alarm events recorded for the Teeswater Drinking Water System this inspection period. Each alarm was responded to in a timely and appropriate manner.

Question ID	DWMR1099001	Question Type	Information

Legislative Requirement(s):
Not Applicable

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

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

Question ID	DWMR1083001	Question Type	Legislative

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

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

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

All treated microbiological samples were taken in accordance with the regulation for EC, TC, and HPC, and the sampling date range is consistently within 6 to 8 days. No detection of EC or TC, and HPC results ranged from (10-20 CFU/1mL).

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.

Based on a population of 1000 residents, the system is required to take 8 distribution microbiological samples per month, plus an additional sample for every 1000 people (9 sample/per month requirement as per 170/03 Schedule 10-2(1)), with at least one taken each week. The system conducts microbiological distribution samples 3 times per week, for a total of 12 per month. No EC or TC was detected in any sample during this inspection period. HPC was included in the distribution sample once per week (for a total of 4 HPC samples per month), which accounts for 4 out of 9 of the required samples (44%), which is above the requirement of 25% (170/03 Schedule 10-2(3)).

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.

Free chlorine residual test information and results were highlighted on the documentation titled "Water Rounds", where in which the operator's daily checks were recorded. The date and location of the free chlorine residual tests were cross referenced and appropriately matched with the same information for the microbiological samples captured from the Ministry's Laboratory Sample Result Database (REDI).

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 170/03 Schedule 13-2, the system must sample for inorganic parameters every 36 months as it obtains water from a true groundwater source. The drinking water system sampled for inorganics last in January of 2024, and is not due to sample again until 2027.

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 170/03 Schedule 13-4, the system must sample for organic parameters every 36 months as it obtains water from a true groundwater source. The drinking water system sampled for organics last in January of 2024, and is not due to sample again until 2027.

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 170/03 Schedule 13-6.1, the Teeswater Drinking Water System is required to sample and test for HAA's in each calendar quarter, expressed yearly as a running annual average (RAA) of the four test results. Based on last years inspection report, sampling was conducted as per the regulation and the results were well below the ODWQS of 80 ug/L RAA. Last year's inspection report also indicated that sampling for HAA's were not due again until the January-March quarter, 2025. In this inspection period, HAA's were sampled for every quarter as per the regulation (n=3 samples) with a consistent result of 5.3 ug/L. The running annual

average for Haloacetic Acids for the 2025-2026 inspection period was 5.3 ug/L which is under the ODWQS of 80 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 170/03 Schedule 13-6, the Teeswater Drinking Water System is required to sample and test for THM's in each calendar quarter, expressed yearly as a running annual average (RAA) of the four test results. Based on last years inspection report, sampling was conducted as per the regulation and the results were well below the ODWQS of 100 ug/L RAA. Last year's inspection report also indicated that sampling for THM's were not due again until the January-March quarter, 2025. In this inspection period, THM's were sampled for every quarter as per the regulation (n=3 samples) with results ranging from 1.4-2.6 ug/L. The running annual average for trihalomethanes for this inspection period was 2.1 ug/L which is under the ODWQS of 100 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.

All Nitrate/Nitrite sampling for this drinking water system was completed at the pumphouse point of entry (POE) location, within the 90 day timeframe as per 170/03 Schedule 13-7, with the cycle ranging from 84-91 days. Nitrite sample results were consistently at 0.03 mg/L which is under the ODWQS of 1 mg/L. Nitrate results varied from 1.36 - 1.76 mg/L , which is under the ODWQS of 10 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.

Sodium sampling is required every 60 months for this drinking water system. Teeswater sampled for sodium in January of 2021, with a result of 3.59 mg/L which is well below the reporting limit of 20 mg/L. The system is due to sample in January 2026, which falls within the next inspection period.

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.

Fluoride sampling is legislatively required every 60 months as per 170/03. Teeswater DWS most recently sampled for fluoride in January 2021, which was within 58 months of the previous fluoride sampling event. The most recent fluoride result was 0.33 mg/L, which is well below the reportable threshold of 1.5 mg/L. Fluoride is due to be sampled next inspection period, by January 2026.

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.

The Operations and Maintenance Manuals for the Teeswater drinking water system contain all of the components that are required by their MDWL.

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	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 Teeswater well is located in an outbuilding, where it is secured with a bolted cap and the door to the building has a lock. The treatment equipment, and all other equipment (such as the diesel generator), is located in a brick pump house that is secured with a locked door and has appropriate signage. The pump house is attended daily by an operator.

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.

Scott Gowan is the ORO for the Teeswater DWS. He holds a valid Water Treatment Class 2 certificate and a Water Distribution and Supply Subsystem Class 3 certificate.

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 Operator in Charge (OIC) for each day is noted in the pump house logbooks.

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.

Appendix A

Inspection Rating Report (IRR)

DWS Name:	TEESWATER DRINKING WATER SYSTEM
DWS Number:	220002618
DWS Owner:	THE CORPORATION OF THE MUNICIPALITY OF SOUTH BRUCE
Municipal Location:	SOUTH BRUCE
Regulation:	O.REG. 170/03
DWS Category:	DW Municipal Residential
Type of Inspection:	Focused
Compliance Assessment Start Date:	Sep-4-2025
Ministry Office:	Owen Sound District Office

Maximum Risk Rating: 436

Inspection Module	Non Compliance Risk (X out of Y)
Capacity Assessment	0/30
Certification and Training	0/42
Logbooks	0/14
Operations Manuals	0/14
Reporting & Corrective Actions	0/21
Source	0/14
Treatment Processes	0/189
Water Quality Monitoring	0/112
Overall - Calculated	**0/436**

Inspection Risk Rating:	**0.00%**

Final Inspection Rating:	**100.00%**

DWS Name:	TEESWATER DRINKING WATER SYSTEM
DWS Number:	220002618
DWS Owner Name:	THE CORPORATION OF THE MUNICIPALITY OF SOUTH BRUCE
Municipal Location:	SOUTH BRUCE
Regulation:	O.REG. 170/03
DWS Category:	DW Municipal Residential
Type of Inspection:	Focused
Compliance Assessment Start Date:	Sep-4-2025
Ministry Office:	Owen Sound District Office

All legislative requirements were met. No detailed rating scores.

Maximum Question Rating: 436

Inspection Risk Rating:	**0.00%**

FINAL INSPECTION RATING:	**100.00%**

Appendix B

Risk Methodology Used for Measuring Municipal Residential Drinking Water System Inspection Results

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 15 inspection modules consisting of approximately 100 regulatory questions. Those protocol questions are also linked to definitive guidance that ministry inspectors use when conducting MRDWS inspections.

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The questions address a wide range of regulatory issues, from administrative procedures to drinking water quality monitoring. The inspection protocol also contains a number of non-regulatory questions.

A team of drinking water specialists in the ministry 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 less than 100 per cent does not mean the drinking water from the system is unsafe. It shows areas where a system's operation can improve. 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 related to regulatory compliance and input their "yes", "no" or "not applicable" responses 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).

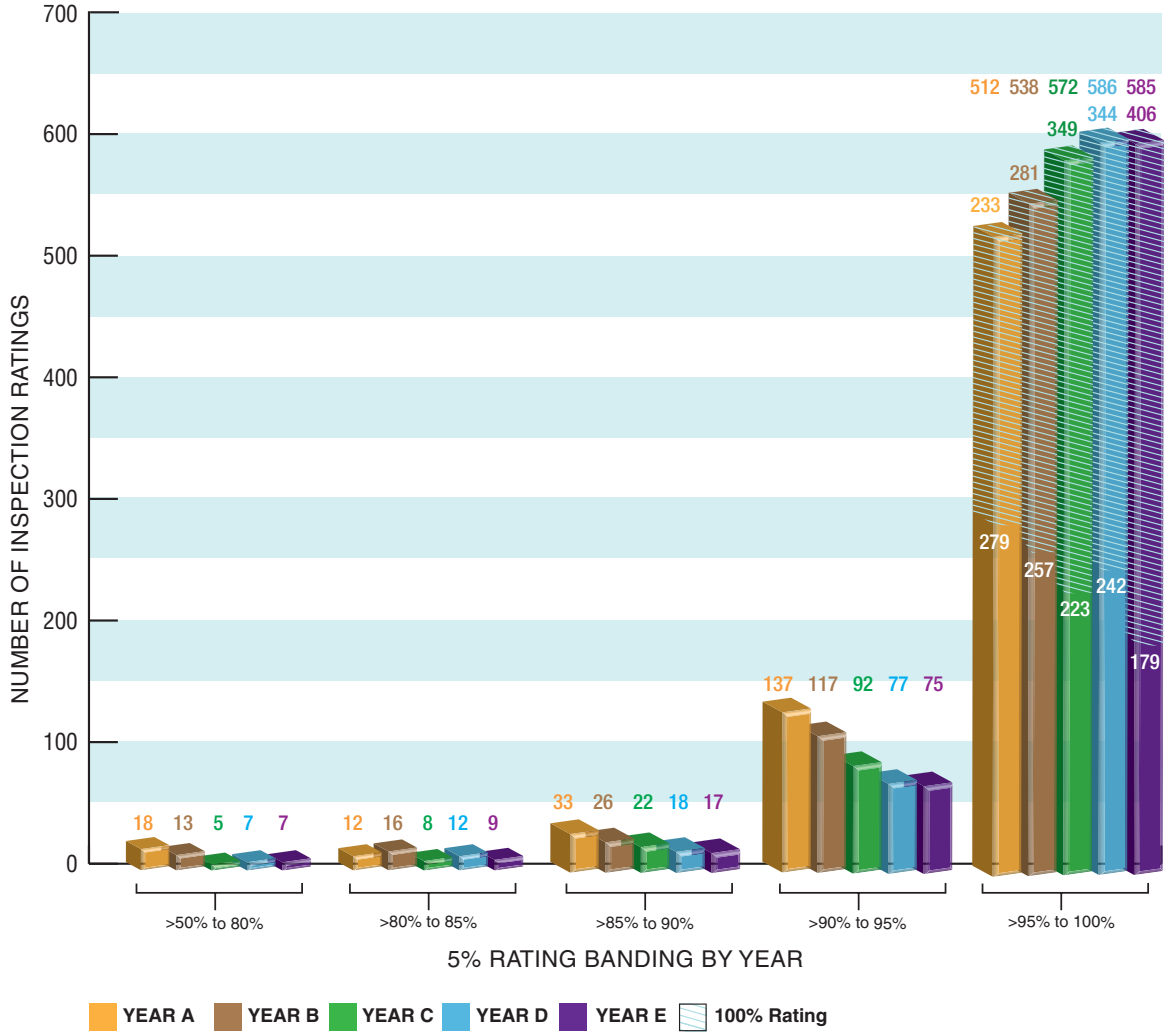
The risk ratings of all non-compliant answers are summed and divided by the sum of the risk ratings of all questions asked (maximum question rating). The resulting inspection risk rating (as a percentage) is subtracted from 100 per cent to arrive at the final inspection rating.

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 15 possible modules of the inspection protocol, which would provide the system owner/operator with information on the areas where they need to improve. The 15 modules are:

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

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

Appendix C

Stakeholder Appendix

February 2, 2023

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 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/page/drinking-water

Click on the publication below to access it

- Drinking Water System Profile Information Form - 012-2149E
- Laboratory Services Notification Form – 012-2148E
- Adverse Test Result Notification Form – 012-4444E
- Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils
- Procedure for Disinfection of Drinking Water in Ontario
- Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids
- Filtration Processes Technical Bulletin
- Ultraviolet Disinfection Technical Bulletin
- Guide for Applying for Drinking Water Works Permit Amendments, & License Amendments
- Certification Guide for Operators and Water Quality Analysts
- Training Requirements for Drinking Water Operator
- Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption
- Drinking Water System Contact List – 7128E01
- Ontario's Drinking Water Quality Management Standard - Pocket Guide
- 2020 Watermain Disinfection Procedure
- List of Licensed Laboratories