

Ministry of the Environment,  
Conservation and Parks

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

Barrie District

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March 11, 2026

The Corporation of the Township of Ramara  
2297 Highway 12, Post Office Box Delivery 130, Brechin, ON, L0K 1B0

**Attention: Gayle Jackson, Chief Administrative Officer**

**Re: Davy Drive Subdivision Drinking Water System, DWS No. 220007141  
2025/26 Inspection Report No. 1-1434201096**

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Enclosed is the report on the 2025/26 inspection of the Davy Drive Subdivision Drinking Water System and the corresponding Inspection Rating Report (IRR) and Risk Methodology document.

The primary focus of this inspection was to confirm compliance with Ministry of the Environment, Conservation and Parks legislation and control documents, as well as conformance with Ministry drinking water related policies for the inspection period. The Ministry is implementing a rigorous and comprehensive approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as water system management practices.

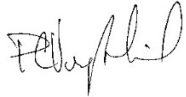
Section 19 of the Safe Drinking Water Act (Standard of Care) creates a number of obligations for individuals who exercise decision-making authority over municipal drinking water systems. Please be aware that the Ministry has encouraged such individuals, particularly municipal councillors, to take steps to be better informed about the drinking water systems over which they have decision-making authority. These steps could include asking for a copy of this inspection report and a review of its findings. Further information about Section 19 can be found in "Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils" on the Drinking Water Ontario website at <https://www.ontario.ca/environment-and-energy/taking-care-your-drinking-water-guide-members-municipal-councils>.

The IRR is a summarized quantitative measure of the drinking water system's annual inspection and is published in the Ministry's Chief Drinking Water Inspector's Annual Report. The Risk Methodology document describes the risk rating methodology which has been applied to the findings of the Ministry's municipal residential drinking water system inspection results.

If you have any questions or concerns regarding the rating, please contact Sheri Broeckel, Water Compliance Supervisor, at 705-716-3712.

I would be pleased to answer any questions or provide additional clarification.

Sincerely,



Peter Vreugdenhil  
Water Compliance Officer  
Barrie District Office  
Ministry of the Environment, Conservation and Parks  
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CC Stewart Hurd – Senior Operations Manager, Ontario Clean Water Agency  
Natalie Lamiot, Process Compliance Technician, Ontario Clean Water Agency (Kawartha)  
Medical Officer of Health, Simcoe Muskoka District Health Unit  
Severn Sound Environmental Association  
Barrie District Office File, Ministry of the Environment, Conservation and Parks



DAVY DRIVE SUBDIVISION DRINKING WATER SYSTEM

Physical Address: 7230 DAVY DR, RAMARA, ON  
L0K 2B0

## INSPECTION REPORT

System Number: 220007141  
Entity: CORPORATION OF THE  
TOWNSHIP OF RAMARA  
Inspection Start Date: January 20, 2026  
Site Inspection Date: January 20, 2026  
Inspection End Date: February 23, 2026  
Inspected By: Peter Vreugdenhil  
Badge #: 924



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(signature)

## INTRODUCTION

### Purpose

This announced, focused 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 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.

### Facility Contacts and Dates

The drinking water system is owned by The Corporation Of The Township Of Ramara and operated by the Ontario Clean Water Agency (Kawartha).

The system serves an estimated population of 88 residents (34 private residences) and is categorized as a Small Municipal Residential System. Information reviewed for this inspection covered the period of August 28, 2024, to January 20, 2026.

### 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:

Source: Well #1

Type: Potentially GUDI

Davy Drive production Well #1 (Well ID No. 4604569) is located within the pumphouse and is equipped with a Goulds  $\frac{3}{4}$  HP submersible pump at a depth of 61 m with a rated capacity of 31.5 L/min (45 m<sup>3</sup>/d). The pumphouse and well are located within an estate subdivision approximately 200 metres from the Black River. The contour of the immediately adjacent properties is such that surface water would be directed away from the pumphouse.

According to the hydrogeological report prepared by an environmental engineering consultant in April 2001 and appended within the First Engineer's Report, Well #1 was constructed in 1970 by a licensed well contractor. The well was constructed in granitic bedrock using an air percussion drilling rig to a depth of 74.7 metres below ground level, with 3.4 metres of casing in the rock and the remainder of the well bore constructed without casing. In October 2000 the well was sleeved with a 127-millimetre diameter casing by a licensed well contractor to 6.7 metres and the annulus was grouted with bentonite. The sleeving procedure was used to stop the trickling of shallow groundwater into the well, which was thought to have been responsible for periodic total coliform bacteria being detected in the raw water. Following rehabilitation of the well, testing indicated a maximum well yield of 23 L/min. The 50 mm diameter discharge line connected to the well pump header within the pumphouse is equipped with a manually operated valve used to restrict the flow to 23 L/min.

The above grade connection is made by a pitless adaptor, making the well more accessible for inspection. The well cap is aluminum, bolted and locked to the casing, screened, sealed and vermin proof. The casing extends approximately 40 cm above the floor of the pumphouse. An environmental engineering consultant report prepared June 9, 2011, to investigate the potential of the Davy Drive Drinking Water System supply wells being groundwater under the direct influence of surface water (GUDI) concluded that Well 1 had a low risk of being under the direct influence of surface water and that it should be considered as potentially GUDI.

Source: Well #2

Type: Potentially GUDI

Davy Drive production Well #2 (Well ID No. 5731001) is located approximately 30 metres west of the pumphouse and is equipped with a 1.5 HP Berkeley submersible pump at a depth of 61 m with a rated capacity of 23 L/min (33 m<sup>3</sup>/d). The well is situated within an estate subdivision approximately 200 metres from the Black River. The contour of the immediately adjacent properties is such that surface water would be directed away from the well head.

According to the hydrogeological report prepared by an environmental engineering consultant in April 2001 and appended within the First Engineer's Report, Well #2 was constructed in 1995 by a licensed well contractor. The well was constructed in granitic bedrock using an air percussion drilling rig to a depth of 76.2 metres below ground level, with 6.7 metres of 152-millimetre diameter casing grouted into the bedrock.

The below grade connection is made with a pitless adaptor with a 50-millimetre diameter discharge line connected to the well pump header in the pumphouse. The well cap is aluminum, bolted and locked to the casing, screened, sealed and vermin proof with the casing extending approximately 60 centimetres above grade.

An environmental engineering consultant report prepared June 9, 2011, to investigate the potential of the Davy Drive Drinking Water System supply wells being groundwater under the direct influence of surface water (GUDI) concluded that Well 2 had a low risk of being under the direct influence of surface water and that it should be considered as potentially GUDI.

Source: Well #3

Type: Potentially GUDI

Davy Drive production Well #3 (Well ID No. 5737806) is located approximately 60 metres north of the pumphouse and is equipped with a 1.0 HP Goulds submersible pump at a depth of 60 m with a rated capacity of 65 L/min (93.6 m<sup>3</sup>/d). The well is situated within an estate subdivision approximately 200 metres from the Black River. The contour of the immediately adjacent properties is such that surface water would be directed away from the well head.

According to the "Construction and Testing of Well 3" report prepared by an environmental engineering consultant in April 2003, Well #3 was constructed in 2002 by a licensed well contractor. The well was constructed in granitic bedrock using an air rotary drilling rig to a depth of 60 metres below ground level, with 9.1 metres of 152-millimetre diameter casing grouted into the bedrock.

The below grade connection is made with a pitless adaptor with a 50-millimetre diameter discharge line connected to the well pump header in the pumphouse. The well cap is aluminum, bolted and locked to the casing, screened, sealed and vermin proof with the casing extending approximately 40 centimetres above grade.

An environmental engineering consultant report prepared June 9, 2011, to investigate the potential of the Davy Drive Subdivision Drinking Water System supply wells being groundwater under the direct influence of surface water (GUDI) concluded that Well 3 had a moderate risk of being under the direct influence of surface water and that it should be considered as potentially GUDI.

Source: Well #4

Type: Potentially GUDI

Davy Drive production Well #4 (Well ID No. 7046944 Well Tag No. A039445) is located approximately 80 metres north of the pumphouse. It was constructed in December 2006 by a licensed well contractor. The well was constructed in granite using the air percussion drilling method. The depth of the well is 30.48 metres below ground level. The 152 mm diameter steel casing is grouted using neat cement slurry to a depth of 6.09 metres. The well is equipped with a 1.5 HP Goulds submersible pump at a depth of 30 m and a rated capacity of 75 L/min (108 m<sup>3</sup>/d), with a 50-millimetre diameter discharge line connected to the well pump header.

An environmental engineering consultant report prepared June 9, 2011, to investigate the potential of the Davy Drive Drinking Water System supply wells being groundwater under the direct influence of surface water (GUDI) concluded that Well 4 had a low risk of being under the direct influence of surface water and that it should be considered as potentially GUDI.

Treated Water

Raw water from Wells #1, #2, #3, and #4 enter the pumphouse through separate 50-millimetre raw water headers. Well #1 is situated within the pumphouse so raw water is conveyed directly from the casing through an above grade pitless adaptor into a 50-millimetre pipe and into the treatment train.

Each raw water header is equipped with an ABB magnetic flow meter used for measuring raw water flows and a smooth-bore raw water sample tap and pressure gage. After passing through the flow meters, the raw water then combines into a single header where it passes through another flow meter that controls the flow paced sodium hypochlorite injection system. One 450 litre pressure tank maintains pressure when the well pumps are not running.

In order to improve treatability of the raw water, an iron and manganese removal system has been installed. The raw water passes two sodium hypochlorite injection points, supplied by two chemical metering pumps (manual duty and standby). At this stage, the sodium hypochlorite is pretreatment used to oxidize iron in the raw water. The system also consists of a 60-litre solution tank in a secondary containment basin, two potassium permanganate metering pumps (one duty, one stand-by) complete with 4-20 mA control, automatic switchover and contact outputs for alarm notification of duty pump failure, and two feed lines discharging into the combined raw water header upstream of an in-line mixer.

After being dosed with sodium hypochlorite and potassium permanganate, the water enters two automatic green sand filters, each capable of treating the entire design flow, each complete with diaphragm control/isolation valves, check valves and inspection portals. The filter system is also equipped with one backwash pump and a 13,500-litre concrete backwash waste holding tank that discharges supernatant to a ditch east of the pumphouse. Backwash cycles are initiated manually, typically once per week for each filter, or more if required.

#### Distribution

The Davy Drive water supply system is designed to service 42 residential lots when fully developed. There were approximately 34 lots developed at the time of inspection and the system is categorized as a Small Municipal Residential System as defined by Ontario Regulation 170/03.

The distribution system is comprised of 50-millimetre poly-vinyl chloride water main, isolation valves, two blow-offs and two designated sampling stations.

#### 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:

Municipal Drinking Water Licence #147-106 Issue #6 (Licence) and Drinking Water Works Permit 147-206 Issue #5 (Permit) were issued to The Corporation Of The Township Of Ramara on September 22, 2022, and on February 4, 2022, respectively. The Licence expires February 3, 2027, and an application to renew the Licence must be made before August 4, 2026.

Water takings from source Wells #1, #2, #3, and #4 are permitted in accordance with Permit to Take Water (PTTW) #7187-AQPS6B issued August 30, 2017. The PTTW allows the owner to take a maximum of 15,550 Litres per day (L/d) at a rate not exceeding 25 Litres per minute (L/min) from Well #1, a maximum of 11,640 Litres per day (L/d) at a rate not exceeding 20 Litres per minute (L/min) from Well #2, a maximum of 49,500 Litres per day (L/d) at a rate not exceeding 60 Litres per minute (L/min) from Well #3, a maximum of 49,500 Litres per day (L/d) at a rate not exceeding 75 Litres per minute (L/min) from Well #4, and a total maximum taking allowance from all four wells of 75,690 L/d. PTTW #7187-AQPS6B expires on August 30, 2027.

### **Background and Compliance**

The Davy Drive Subdivision Drinking Water System was last inspected by the Ministry on August 28, 2024. There was no non-compliance with legislative requirements or actions required identified during the August 28, 2024, inspection.

## **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	DWMR1007001	Question Type	Legislative
<p><b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (1)1;</p>			
<p><b>Question:</b> 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?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> 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.</p> <p>Subsection 1-2(1)1 of Schedule 1 of Ontario Regulation 170/03 prescribes that the owner of a drinking water system shall ensure that any well that serves as an entry point of raw water supply is constructed and maintained to prevent surface water and other foreign materials from entering the well.</p> <p>There are four supply wells for Davy Drive Subdivision Drinking Water System. Each of the wells has a secure cap and screened vent. Well 1 is located in the pumphouse and the other three wells are located outside on the pumphouse property. Notices are posted that the area is a well head protection zone. The wells are all accessible for cleaning, treatment, repair, testing, inspection and visual examination and the operating authority performs monthly inspections of the wells.</p> <p>Raw water samples were collected from each well monthly during the inspection review period, with the following results:</p> <p>Well #2 1 Total Coliform – July 2025.</p> <p>Well #3 1 Total Coliform – September 2024; 2 Total Coliforms – October 2024; 1 Total Coliform – March 2025; 4 Total Coliforms – June 2025; 2 Total Coliforms – August 2025; 1 Total Coliform – September 2025; 2 Total Coliforms – January 2026.</p> <p>Well #4</p>			

2 Total Coliforms – October 2024;  
 1 Total Coliform – November 2024;  
 2 Total Coliforms – January 2025;  
 1 Total Coliform – February 2025;  
 1 Total Coliform – March 2025;  
 2 Total Coliforms – April 2025;  
 1 E. Coli – June 2025;  
 36 Total Coliforms – June 2025;  
 8 Total Coliforms – July 2025;  
 11 Total Coliforms – September 2025;  
 1 Total Coliform – October 2025.

A review of the raw water quality sample results for the inspection review period suggests that Wells #3 and #4 are potentially groundwater under the direct influence (GUDI) of surface water.

Question ID	DWMR1009001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> 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?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Measures were in place to protect the groundwater and/or GUDI source.  Condition 16.2.8 of Schedule B of Municipal Drinking Water Licence 147-106 Issue Number 6 prescribes an inspection schedule for all wells associated with the drinking water system, including all production wells, standby wells, test wells and monitoring wells. Condition 16.2.9 of Schedule B of Municipal Drinking Water Licence 147-106 Issue Number 6 prescribes well inspection and maintenance procedures for the entire well structure of each well including all above and below grade well components. Condition 16.2.10 of Schedule B of Municipal Drinking Water Licence 147-106 Issue Number 6 prescribes 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 operating authority has developed a Well Inspection, Maintenance and Monitoring Plan. The Plan outlines the steps for performing monthly well inspections, monthly water level monitoring and inspections of unexposed well structure. The indicators of the well casing being potentially compromised and infiltration of surface contamination are outlined. Monthly well inspections were documented in the Davy Drive logbook during the inspection review period.			

Question ID	DWMR1014001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Was flow monitoring performed as required by the Municipal Drinking Water Licence or Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Flow monitoring was performed as required.  Condition 2.1 of Schedule C of Municipal Drinking Water Licence 147-106 Issue Number 6 prescribes that for each treatment subsystem, continuous flow measurement and recording shall be undertaken for the flow rate and daily volume of treated water that flows from the treatment subsystem to the distribution system, and the flow rate and daily volume of water that flows into the treatment subsystem. There are four magnetic flow meters installed at the drinking water system. One flow meter measures the raw water flow, one measures the treated water flow entering the distribution system and there is a flow meter installed on each of the filter effluent lines. Each of the flow meters provides a 4-20 mA signal. Instantaneous flow rates are measured by each flow measuring device and continuously trended and recorded on the Supervisory Control and Data Acquisition (SCADA) system associated with the drinking water system. Totalized daily flows are calculated based on the water meter readings. The data from each of the flow meters was reviewed and results indicate that the required data is being collected.			

Question ID	DWMR1016001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Was the owner in compliance with the conditions associated with maximum flow rate or the rated/operational capacity in the Municipal Drinking Water Licence?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner was in compliance with the conditions associated with maximum flow rate and/or the rated/operational capacity conditions.  Condition 1.1, Schedule C of the Licence stipulates that the maximum daily volume of treated water that flows from the treatment system to the distribution system shall not exceed 75.69 cubic metres per day (m <sup>3</sup> /day). During the inspection review period, the maximum flow rate recorded occurred in August 2025, when a water flow rate of 36.0 m <sup>3</sup> was reported, equating to approximately 48% of the plant rated capacity. There were no exceedances of the maximum flow rate and/or rated capacity. A review of records made during this inspection review period indicates that the Davy Drive Subdivision Drinking Water System was not operated to exceed the plant rated			

capacity set out in the Licence.

Question ID	DWMR1018001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Did the owner ensure that equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner ensured that equipment was installed as required.  A review of the equipment installed within the Davy Drive Subdivision Drinking Water System was referenced to the equipment identified in Schedule A of Permit 147-206 Issue #5. The equipment identified in the Permit appeared to be installed at the time of the physical inspection.			

Question ID	DWMR1021001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Were Form 2 documents prepared as required?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Form 2 documents were prepared as required.  The operating authority prepared a Form 2 document on April 28, 2025, for the replacement of the raw water flowmeter due to end of life.			

Question ID	DWMR1025001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> 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?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All parts of the drinking water system were disinfected as required.  Section 2.3 of Schedule B of Drinking Water Works Permit 147-206 (Issue #5) prescribes that all parts of the drinking water system in contact with drinking water that are added, modified, replaced, extended shall be disinfected in accordance with a procedure approved by the Director or in accordance with the applicable provisions of the following documents:			

- a) Until August 3, 2022, the ministry's Watermain Disinfection Procedure, dated November 2015. As of August 4, 2022, the ministry's Watermain Disinfection Procedure, dated August 1, 2020.
- b) Subject to condition 2.3.2, any updated version of the ministry's Watermain Disinfection Procedure;
- c) AWWA C652 – Standard for Disinfection of Water-Storage Facilities;
- d) AWWA C653 – Standard for Disinfection of Water Treatment Plants; and
- e) AWWA C654 – Standard for Disinfection of Wells.

The operating authority has developed a Standard Operating Procedure (SOP) for disinfection of drinking water system components. The SOP prescribes that the required standards are to be followed as per the Drinking Water Works Permit.

In accordance with Condition 2.3, Schedule B of the Permit, the operating authority adheres to the American Water Works Association (AWWA) disinfection standards when watermains and other drinking water system appurtenances are installed, replaced or repaired.

Prior to any repaired watermain being placed back into service following disinfection, the operating authority has ensured microbiological sampling was conducted in accordance with the applicable AWWA standards.

Question ID	DWMR1023001	Question Type	Legislative
<p><b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);</p>			
<p><b>Question:</b> 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?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities prescribed.</p> <p>Section 1-2(2) of Schedule 2 of Ontario Regulation 170/03 prescribes that the owner of a drinking water system and the operating authority for the system shall ensure the following:</p> <ol style="list-style-type: none"> <li>1. The water treatment equipment is in operation whenever water is being supplied.</li> <li>2. The water treatment equipment is operated in accordance with the Ministry's Procedure for Disinfection of Drinking Water in Ontario.</li> <li>3. The water treatment equipment required by section 1-3 or 1-4 is operated in a manner that achieves the design capabilities it is required to have under that section.</li> </ol> <p>Primary disinfection for the Davy Drive Subdivision Drinking Water System is achieved by UV inactivation and sodium hypochlorite injection. Sodium hypochlorite is also used for secondary disinfection.</p> <p>In efforts to ensure minimum treatment is provided at all times, a series of fail safes have been incorporated into the SCADA system. Internal alarms based on the UV sensors will close the solenoid valve associated with each of the two UV units if the required dosage is not being provided. Dosage is calculated based on the measured UV transmittance (UVT) and UV intensity which is calculated based on the measured voltage. The UV transmittance and</p>			

UV intensity will cause alarms if either value is below the setpoint. For UVT the alarm setpoint is 75%. The manufacturer indicated that there is an accuracy of +/- 5% for the UVT sensor. The units NSF certification is based on a level of 70% UVT so a threshold of 75% was chosen to account for the accuracy range.

The intensity alarm setpoint is 70% for an audible alarm and notifies operators that the lamp is nearing the end of life. At 60% UV intensity the operator would be called out and the solenoid valve would close. The chlorine residual alarm set point is at a level intended to afford an operator time to respond prior to disinfection being compromised.

Schedule E of Municipal Drinking Water Licence 147-106 Issue Number 5 indicates that UV disinfection accounts for 2-log inactivation of Cryptosporidium Oocysts, 3-log inactivation of Giardia Cysts and 2-log inactivation of viruses. Chlorination is accredited with 2+ log removal of viruses. The one-micron absolute cartridge filters are not accredited with any removal credits in the Licence.

The Procedure for Disinfection of Drinking Water in Ontario indicates that in order for cartridge filters to claim the 2.0-log cryptosporidium oocyst removal credit, the cartridge bag filters should normally meet the performance criterion for filtered water turbidity to be continuously monitored for less than 1 NTU of the measurements each month. This criteria was met for each of the filter trains during the inspection review period.

In order to determine if primary disinfection was achieved at the Davy Drive Subdivision Drinking Water System during the inspection review period, flow rates, free chlorine residuals, turbidity values, UV dosage values, UV intensity values, UV transmittance values, sample results and the logsheets were reviewed. These records indicate that during the inspection review period the treatment equipment was operated as required to achieve the disinfection requirements, in accordance with the requirements of section 1-2(2) of Schedule 2 of Ontario Regulation 170/03.

<b>Question ID</b>	DWMR1026001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-6   (2);			
<b>Question:</b> If primary disinfection equipment did not use chlorination or chloramination, was the equipment equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 1-6 of O. Reg. 170/03?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Primary disinfection equipment was equipped with alarms or shutoff mechanisms that satisfied the standards.  The alarms and shutoff mechanisms connected to the dual UV disinfection system are tested regularly by the operating authority to ensure proper functioning at all times.			

<b>Question ID</b>	DWMR1024001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> 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.

Section 1-2(2)(4) of Schedule 2 of Ontario Regulation 170/03 prescribes that the owner of a drinking water system and the operating authority for the system shall ensure the following: If the drinking water system's water treatment equipment provides chlorination or chloramination for secondary disinfection, the equipment is operated so that, at all times and at all locations within the distribution system,

- i. the free chlorine residual is never less than 0.05 milligrams per litre, if the drinking water system provides chlorination and does not provide chloramination, or
- ii. the combined chlorine residual is never less than 0.25 milligrams per litre, if the drinking water system provides chloramination.

There were no records which indicated free chlorine residuals less than 0.20 mg/L at any time during the inspection review period. During the inspection review period, the lowest recorded distribution system free chlorine residual concentration was 0.42 mg/L.

<b>Question ID</b>	DWMR1034001	<b>Question Type</b>	Legislative
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**Legislative Requirement(s):**

SDWA | O. Reg. 170/03 | 7-2 | (5); SDWA | O. Reg. 170/03 | 7-2 | (6);

**Question:**

Was secondary disinfectant residual tested as required for the small municipal residential distribution system?

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

Secondary disinfectant residual was tested as required.

Subsections 7-2(5) of Schedule 7, Ontario Regulation 170/03 prescribes that the owner of a small municipal residential system that provides secondary disinfection to ensure that at least two distribution system samples are taken each week and tested immediately for free chlorine residual.

Records provided by the operating authority reviewed during the course of this inspection indicate that the operating authority complied with these requirements, testing free chlorine residual for secondary disinfection monitoring purposes at least twice per week. During the inspection review period, the lowest recorded distribution system free chlorine residual concentration was 0.42 mg/L.

<b>Question ID</b>	DWMR1035001	<b>Question Type</b>	Legislative
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**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.

Subsection 6-5(1)(3) of Schedule 6 of Ontario Regulation 170/03 prescribes that test results recorded under paragraph 1 or 2 must be examined by a certified operator within 72 hours after the tests are conducted.

During the inspection review period records indicate that trending data was reviewed within 72 hours of the test being conducted. Operators are able to log on remotely to view the continuous analyzer data. The operating authority has developed a Standard Operating Procedure for how operators are to complete the review of continuous monitoring data.

<b>Question ID</b>	DWMR1038001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4;			
<b>Question:</b> 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?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> 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.  Section 6-5(1)1-4 of Schedule 6 of Ontario Regulation 170/03 prescribes that free chlorine residual at the treatment plant be recorded with a frequency of every 5 minutes and that turbidity be recorded with a minimum frequency of every 15 minutes. The Supervisory Control and Data Acquisition (SCADA) system at the Davy Drive Subdivision water treatment plant records the continuous monitoring data with a frequency of 20 second intervals complete with date, time, sampling location, and result. The chlorine residual is being recorded in milligrams per litre (mg/L) and turbidity is being recorded in Nephelometric Turbidity Units (NTU) in order to comply with the requirements of section 6-5(1)1-4 of Schedule 6 of Ontario Regulation 170/03.			

<b>Question ID</b>	DWMR1037001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)5-10; SDWA   O. Reg. 170/03   6-5   (1.1);			
<b>Question:</b> 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

Subsection 6-5(1.1) of Schedule 6 of Ontario Regulation 170/03 prescribes that the continuous monitoring equipment must cause an alarm to sound immediately at the following locations if the equipment malfunctions or loses power or a test result for a parameter is above the maximum alarm standard or below the minimum alarm standard specified in the Table to this section for the parameter:

- i. The location where the equipment conducts tests.
- ii. A location where a person is present, if a person is not always present at the location where the equipment conducts tests.
- iii. Every designated facility served by the drinking water system, unless the system is a large municipal residential system or a small municipal residential system.

In the event that the continuous chlorine or turbidity analysers record a value below or above the set points an alarm is sent to an operator. The setpoints exceed the requirements of the Table in Schedule 6 of Ontario Regulation 170/03. The low chlorine alarm setpoint is at a level high enough to try and afford an operator enough time to respond before disinfection is compromised. Operators regularly test the chlorine and turbidity alarms to ensure they are functioning properly.

The Davy Drive Subdivision water treatment plant is equipped with continuous monitoring for chlorine residual in the treated water entering the distribution system. The low chlorine residual alarm set point is at 0.60 mg/L.

Question ID	DWMR1040001	Question Type	Legislative
<p><b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4; SDWA   O. Reg. 170/03   6-5   (1)5-10;</p>			
<p><b>Question:</b> Were all continuous analysers calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All continuous analysers were calibrated, maintained, and operated as required.</p> <p>Subsection 6-5(1)(8) of Schedule 6 of Ontario Regulation 170/03 prescribes that the continuous monitoring equipment must be checked and calibrated in accordance with the manufacturer's instructions. Subsection 6-5(1)(10) prescribes that if the manufacturer's instructions do not indicate how often to check and calibrate the continuous monitoring equipment and paragraph 9 does not apply, the equipment must be checked and calibrated as often as necessary to ensure that test results are within the following margins of error:</p> <ul style="list-style-type: none"> <li>i. In the case of free chlorine residual, 0.05 milligrams per litre, if the concentrations usually measured by the equipment are less than or equal to 1.0 milligrams per litre, and proportionally higher if the concentrations usually measured are greater than 1.0 milligrams</li> </ul>			

per litre,  
 ii. In the case of free chlorine residual and total chlorine residual measured for the purpose of determining combined chlorine residual, 0.05 milligrams per litre, if the concentrations usually measured by the equipment are less than or equal to 1.0 milligrams per litre, and proportionally higher if the concentrations usually measured are greater than 1.0 milligrams per litre,  
 iii. 0.1 Nephelometric Turbidity Units (NTU), in the case of turbidity.  
 The operating authority ensured that the continuous monitoring equipment was checked and calibrated on a regular basis, in accordance with the requirements of section 6-5 of Schedule 6 of Ontario Regulation 170/03.

<b>Question ID</b>	DWMR1108001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)5-10; SDWA   O. Reg. 170/03   6-5   (1.1);			
<b>Question:</b> 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?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> A qualified person responded as required and took appropriate actions.  In the event of a low chlorine alarm the on-call operator is notified and the high lift pumps lock out. If the chlorine analyser registers a reading below 0.3 mg/L, the final turbidity is above 1.0 NTU, or the tower level is low, the on-call operator is notified immediately. Operators are able to log-on remotely to see the SCADA system and determine if a response is needed. Operators responded appropriately in a timely manner for alarm conditions during the inspection review period.			

<b>Question ID</b>	DWMR1039001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-6   (3);			
<b>Question:</b> If primary disinfection equipment that does not use chlorination or chloramination was used, did the owner and operating authority ensure the equipment had a recording device that continuously recorded the performance of the disinfection equipment?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner and operating authority ensured that the primary disinfection equipment had a recording device that continuously recorded the performance of the disinfection equipment.  The two UV units installed for primary disinfection at the Davy Drive Subdivision Drinking Water System continuously record intensity and transmittance which are calculated based on			

the voltage. The UV dosage is also recorded, calculated with the real time intensity and transmittance values.

<b>Question ID</b>	DWMR1109001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-6   (1); SDWA   O. Reg. 170/03   1-6   (2);			
<b>Question:</b> If the system used equipment for primary disinfection other than chlorination or chloramination and the equipment malfunctioned, lost power, or ceased to provide the appropriate level of disinfection, causing an alarm or an automatic shut-off, did a certified operator respond as required and take appropriate actions?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> A certified operator responded as required and took appropriate actions.  Primary disinfection is achieved for the Davy Drive Subdivision Drinking Water System through ultraviolet inactivation following cartridge filtration, and chlorination. When failure(s) of primary disinfection equipment, other than that used for chlorination or chloramination, caused an alarm to sound or an automatic shut-off to occur, a certified operator responded in a timely manner and took appropriate actions.			

<b>Question ID</b>	DWMR1042001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> If UV disinfection was used, were duty sensors and reference UV sensors checked and calibrated as per the requirements of Schedule E of the Municipal Drinking Water Licence or at a frequency as otherwise recommended by the UV equipment manufacturer?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All UV sensors were checked and calibrated as required.  Schedule E of Municipal Drinking Water Licence 147-106 (Issue # 5) prescribes that in order for UV disinfection to be able to claim the log removal credits outlined in the Schedule E table the following criteria must be met for the duty sensor checks and calibration: 1. Duty UV sensors shall be checked on at least once every 720 hours of run time against a reference UV sensor or at a frequency as otherwise recommended by the UV equipment manufacturer; 2. When comparing a duty UV sensor to a reference UV sensor, the calibration ratio (intensity measured with the duty UV sensor/intensity measured with the reference UV sensor) shall be less than or equal to 1:2; 3. If the calibration ratio is greater than 1:2, the duty UV sensor shall be replaced with a calibrated UV sensor or a UV sensor correction factor shall be applied while the problem with the UV sensor is being resolved;			

4. Reference UV sensors shall be checked against a Master Reference Assembly at a minimum frequency of once every three years or on a more frequent basis depending upon the recommendations of the equipment manufacturer.

The manufacturer of the UV units installed at Davy Drive Subdivision Drinking Water System recommends that the UV sensors be calibrated once per year. It should be noted that in the event of a drift from the factory calibration the sensor would only drift downwards, resulting in premature alarms rather than a risk to disinfection requirements not being met without alarms being initiated.

The operating authority has the UV sensors calibrated annually by the equipment manufacturer.

Question ID	DWMR1099001	Question Type	Information
<p><b>Legislative Requirement(s):</b> Not Applicable</p>			
<p><b>Question:</b> Do records show that water provided by the drinking water system met the Ontario Drinking Water Quality Standards?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records showed that all water sample results met the Ontario Drinking Water Quality Standards.</p> <p>The standards for drinking water quality in Ontario are prescribed in Ontario Regulation 169/03 "Ontario Drinking Water Quality Standards" (ODWQS). Background and supporting information for each of the standards can be found in the Ministry's 'Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines".</p> <p>Results of sampling conducted during this inspection review period met the microbiological and chemical requirements of the ODWQS.</p> <p>It should be noted that samples collected from the Davy Drive Subdivision Drinking Water System have historically indicated elevated levels of sodium in the treated water. Where the concentration of sodium exceeds 20 mg/L in a drinking water sample the owner is required to make a report in accordance with subsection 16-3(1) of Schedule 16 of Ontario Regulation 170/03, if such a report had not been made in the previous 60 months. The owner last made the required notifications in August of 2025, when a sample collected August 5, 2025, rendered a sodium result of 23.4 mg/L. Resampling confirmed the elevated sodium concentration with a result of 25.3 mg/L. In accordance with the Schedule 17, Ontario Regulation 170/03 requirements, the results were reported to the local office of the Medical Officer of Health so that the information may be passed onto physicians in the area. The aesthetic objective for sodium in drinking water is 200 mg/L at which it can be detected by a salty taste. Consumption of sodium in excess of 10 grams per day by normal adults does not result in any apparent adverse health effects. In addition, the average intake of sodium from water is only a small fraction of that consumed in a normal diet. A maximum acceptable concentration for sodium in drinking water has, therefore, not been specified. Persons suffering from hypertension or congestive heart disease may require a sodium- restricted diet, in which case, the intake of sodium from drinking water could become significant. The local</p>			

Medical Officer of Health is required to be notified when the sodium concentration exceeds 20 mg/L, so that this information may be passed on to local physicians.

<b>Question ID</b>	DWMR1082001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   11-2   (1); SDWA   O. Reg. 170/03   11-2   (2); SDWA   O. Reg. 170/03   11-2   (6);			
<b>Question:</b> Were distribution microbiological sampling requirements prescribed by Schedule 11-2 of O. Reg. 170/03 for small municipal residential systems met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Distribution microbiological sampling requirements were met.  Subsection 11-2 of Schedule 10 of Ontario Regulation 170/03 prescribes that the owner of a drinking water system and the operating authority for the system shall ensure that at least one distribution sample is taken every two weeks, if the system provides treatment equipment in accordance with Schedule 1 or 2 and the equipment is operated in accordance with that Schedule. The owner of the drinking water system and the operating authority for the system shall ensure that each of the samples taken is tested for Escherichia coli, total coliforms and general bacteria population expressed as colony counts on heterotrophic plate count (HPC). Records provided for review period indicate that the owner and operating authority are collecting a distribution sample every two weeks in order to comply with the regulatory requirement. Each of those samples were tested for E. Coli., total coliforms, and HPC.			

<b>Question ID</b>	DWMR1096001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-3   (1);			
<b>Question:</b> Did records confirm that chlorine residual tests were conducted at the same time and location as microbiological samples?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records confirmed that chlorine residual tests were conducted as required.  Subsection 6-3(1) of Schedule 6 of Ontario Regulation 170/03 prescribes that if a microbiological sample required by the regulation is taken, that another sample must be taken at the same time from the same location and tested immediately for free chlorine residual. Records provided by the owner and reviewed during the course of this inspection indicate that the owner ensured that a free chlorine residual was taken at the time of all microbiological samples. Operational staff recorded the free available chlorine residual tests directly on the Laboratory Sample Submission /Chain of Custody form at the same time that microbiological samples were obtained. The chlorine residuals associated with microbiological sample were then included by the laboratory on the analytical report associated with results of the			

microbiological test.

Question ID	DWMR1084001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-2;			
<b>Question:</b> Were inorganic parameter sampling requirements prescribed by Schedule 13-2 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Inorganic parameter sampling requirements were met.			
<p>Subsection 13-2(1) of Schedule 13 of Ontario Regulation 170/03 prescribes that the owner of a small municipal residential system and the operating authority for the system shall ensure that, at least one water sample is taken every 36 months and tested for every parameter set out in Schedule 23, if the system obtains water from a raw water supply that is ground water. Subsection 6-1.1(6) of Schedule 6 of Ontario Regulation 170/03 prescribes that if this Regulation prescribes at least one water sample to be taken every 36 months and tested for a parameter, the owner of the drinking water system and the operating authority for the system shall ensure that at least one sample that is taken during a 36-month period for the purpose of being tested for that parameter is taken not more than 60 days before or after the first anniversary of the day a sample was taken for that purpose in the previous 36-month period. The most recent treated water samples tested for every Schedule 23 parameter were collected on August 7, 2024.</p>			

Question ID	DWMR1085001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-4   (1); SDWA   O. Reg. 170/03   13-4   (2); SDWA   O. Reg. 170/03   13-4   (3);			
<b>Question:</b> Were organic parameter sampling requirements prescribed by Schedule 13-4 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Organic parameter sampling requirements were met.			
<p>Section 13-4 of Schedule 13 of Ontario Regulation 170/03 prescribes that the owner of a small municipal residential system and the operating authority for the system shall ensure that, at least one water sample is taken every 36 months and tested for every parameter set out in Schedule 24, if the system obtains water from a raw water supply that is ground water. Subsection 6-1.1(6) of Schedule 6 of Ontario Regulation 170/03 prescribes that if this Regulation prescribes at least one water sample to be taken every 36 months and tested for a parameter, the owner of the drinking water system and the operating authority for the system shall ensure that at least one sample that is taken during a 36-month period for the purpose of being tested for that parameter is taken not more than 60 days before or after the first</p>			

anniversary of the day a sample was taken for that purpose in the previous 36-month period. The most recent treated water samples tested for every Schedule 24 parameter were collected on August 7, 2024.

Question ID	DWMR1086001	Question Type	Legislative
<p><b>Legislative Requirement(s):</b> 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);</p>			
<p><b>Question:</b> Were haloacetic acid sampling requirements prescribed by Schedule 13-6 of O. Reg. 170/03 met?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Haloacetic acid sampling requirements were met.</p> <p>Section 13-6.1 of Schedule 13 of Ontario Regulation 170/03 prescribes the owner and the operating authority to ensure that at least one distribution sample is taken every 3 months from a point in the drinking water system's distribution system, or in plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of haloacetic acids (HAA), and tested for haloacetic acids. Section 6-1.1 of Schedule 6 of Ontario Regulation 170/03 prescribes that these samples be taken at least 60 days, and not more than 120 days: after a sample was taken for that purpose in the previous three-month period. Haloacetic acid sampling is typically conducted from the sampling stations installed at locations of minimal distance from the treatment facility likely to have an elevated potential for the formation of haloacetic acids. The standard of 0.80 mg/L for HAA as a reportable limit came into effect on January 1, 2020. Haloacetic acid testing is being completed in the Davy Drive Subdivision distribution system as required on a quarterly basis. A review of the results indicate that there are no exceedances of the running annual average.</p>			

Question ID	DWMR1087001	Question Type	Legislative
<p><b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-6   (1); SDWA   O. Reg. 170/03   13-6   (2); SDWA   O. Reg. 170/03   13-6   (3); SDWA   O. Reg. 170/03   13-6   (4); SDWA   O. Reg. 170/03   13-6   (5); SDWA   O. Reg. 170/03   13-6   (6);</p>			
<p><b>Question:</b> Were trihalomethane sampling requirements prescribed by Schedule 13-6 of O. Reg. 170/03 met?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Trihalomethane sampling requirements were met.</p> <p>Section 13-6 of Schedule 13 of Ontario Regulation 170/03 prescribes the owner and the operating authority to ensure that at least one distribution sample is taken every 3 months</p>			

from a point in the drinking water system's distribution system, or in plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of Trihalomethanes (THMs), and tested for THMs. Section 6-1.1 of Schedule 6 of Ontario Regulation 170/03 prescribes that these samples be taken at least 60 days, and not more than 120 days, after a sample was taken for that purpose in the previous three-month period.

Trihalomethane testing is being completed in the Davy Drive Subdivision distribution system as required on a quarterly basis. A review of the results indicate that there are no exceedances of the running annual average. The sample locations are indicative of a long retention time in the distribution system.

<b>Question ID</b>	DWMR1088001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-7;			
<b>Question:</b> Were nitrate/nitrite sampling requirements prescribed by Schedule 13-7 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Nitrate/nitrite sampling requirements were met.			
Section 13-7 of Schedule 13 of Ontario Regulation 170/03 prescribes the owner and the operating authority to ensure that at least one water sample is taken every three months and tested for nitrates and nitrites.			
Section 6-1.1 of Schedule 6 of Ontario Regulation 170/03 prescribes that these samples be taken at least 60 days, and not more than 120 days, after a sample was taken for that purpose in the previous three-month period.			
Nitrate/nitrite testing is being completed in the Davy Drive Subdivision system as required on a quarterly basis. A review of the results indicates that there are no exceedances.			

<b>Question ID</b>	DWMR1089001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-8;			
<b>Question:</b> Were sodium sampling requirements prescribed by Schedule 13-8 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Sodium sampling requirements were met.			
Section 13-8 of Schedule 13 of Ontario Regulation 170/03 prescribes that the owner of a municipal residential drinking water system ensure that a treated water sample is taken every 60 months and is tested for sodium.			
Section 6-1.1(7) of Schedule 6 of Ontario Regulation 170/03 prescribes that if this Regulation prescribes at least one water sample to be taken every 60 months and tested for a			

parameter, the owner of the drinking water system and the operating authority for the system shall ensure that at least one sample that is taken during a 60-month period and for the purpose of being tested for that parameter is taken not more than 90 days before or after the fifth anniversary of the day a sample was taken for that purpose in the previous 60-month period.

The most recent treated water sample tested for sodium was collected on August 5, 2025, from the Davy Drive Subdivision Drinking Water System with a result of 23.4 mg/L. A resample was collected and tested for sodium on August 11, 2025, with a result of 25.3 mg/L. Sodium results greater than 20 mg/L are an ongoing occurrence for the Davy Drive Subdivision Drinking Water System.

<b>Question ID</b>	DWMR1090001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-9;			
<b>Question:</b> Where fluoridation is not practiced, were fluoride sampling requirements prescribed by Schedule 13-9 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Fluoride sampling requirements were met.  Section 13-9 of Schedule 13 of Ontario Regulation 170/03 prescribes the owner and the operating authority to ensure that at least one water sample is taken every 60 months and tested for fluoride. The last fluoride sample was taken on August 3, 2022, with a value of 0.21 mg/L.			

<b>Question ID</b>	DWMR1104001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   16-6   (1); SDWA   O. Reg. 170/03   16-6   (2); SDWA   O. Reg. 170/03   16-6   (3); SDWA   O. Reg. 170/03   16-6   (3.1); SDWA   O. Reg. 170/03   16-6   (3.2); SDWA   O. Reg. 170/03   16-6   (4); SDWA   O. Reg. 170/03   16-6   (5); SDWA   O. Reg. 170/03   16-6   (6);			
<b>Question:</b> Were immediate verbal notification requirements for adverse water quality incidents met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Immediate verbal notification requirements for adverse water quality incidents were met.  The operating authority ensured that the reportable event which occurred during the inspection review period was reported as required. Specifically, the operating authority reported that a treated water sample collected on August 5, 2025, exceeded the reportable standard for sodium. The operating authority ensured that all required corrective actions were taken, in accordance with the requirements of Schedule 17 of Ontario Regulation 170/03. The operating authority ensured that all required notifications were made, in accordance with the			

requirements of Schedule 16 of Ontario Regulation 170/03.

Question ID	DWMR1102001	Question Type	Legislative
<p><b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   18-10   (1); SDWA   O. Reg. 170/03   18-11; SDWA   O. Reg. 170/03   18-12; SDWA   O. Reg. 170/03   18-13; SDWA   O. Reg. 170/03   18-14; SDWA   O. Reg. 170/03   18-2; SDWA   O. Reg. 170/03   18-3; SDWA   O. Reg. 170/03   18-4; SDWA   O. Reg. 170/03   18-5; SDWA   O. Reg. 170/03   18-6; SDWA   O. Reg. 170/03   18-9;</p>			
<p><b>Question:</b> For small municipal residential systems, were corrective actions, including any steps directed by the Medical Officer of Health, taken to address adverse conditions?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Corrective actions were taken to address adverse conditions.</p> <p>The operating authority ensured that the reportable event which occurred during the inspection review period was reported as required. Specifically, the operating authority reported that a treated water sample collected on August 5, 2025, exceeded the reportable standard for sodium. The operating authority ensured that all required corrective actions were taken, in accordance with the requirements of Schedule 17 of Ontario Regulation 170/03.</p>			

Question ID	DWMR1060001	Question Type	Legislative
<p><b>Legislative Requirement(s):</b> SDWA   31   (1);</p>			
<p><b>Question:</b> Did the operations and maintenance manual(s) meet the requirements of the Municipal Drinking Water Licence?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The operations and maintenance manual(s) met the requirements of the Municipal Drinking Water Licence.</p> <p>Condition 16, Schedule B of the Licence prescribes that an up-to-date operations and maintenance manual or manuals shall be maintained and applicable parts of the manual or manuals shall be made available for reference to all persons responsible for all or part of the operation or maintenance of the drinking water system. Furthermore, the operations and maintenance manual(s) shall include at a minimum:</p> <p>16.2.1 The requirements of this licence and associated procedures;</p> <p>16.2.2 The requirements of the drinking water works permit for the drinking water system;</p> <p>16.2.3 A description of the processes used to achieve primary and secondary disinfection within the drinking water system including where applicable:</p> <p>a) A copy of the CT calculations that were used as the basis for primary disinfection under worst case operating conditions and other operating conditions, if applicable; and</p> <p>b) The validated operating conditions for UV disinfection equipment, including a copy of the validation certificate;</p>			

16.2.4 Procedures for monitoring and recording the in-process parameters necessary for the control of any treatment subsystem and for assessing the performance of the drinking water system;

16.2.5 Procedures for the operation and maintenance of monitoring equipment;

16.2.6 Contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset conditions and equipment breakdown;

16.2.7 Procedures for dealing with complaints related to the drinking water system, including the recording of the nature of the complaint and any investigation and corrective action taken in respect of the complaint.

Procedures necessary for the operation and maintenance of any alterations to the drinking water system must also be incorporated into the operations and maintenance manual prior to the alterations coming into operation. All of the procedures included or referenced within the operations and maintenance manual must be implemented.

The operations and maintenance manual and the separate set of contingency plans for the drinking water system appear to address all of these topics sufficiently, providing the utility operators enough information to effectively operate the drinking water system. The operations and maintenance manuals, as well as the Contingency and Emergency Plan meet the requirements of the Licence and Permit for the facility. The manuals are kept up to date and revised as changes occur.

<b>Question ID</b>	DWMR1062001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-5;			
<b>Question:</b> 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?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> 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.  The logbooks of the drinking water system identify that only the certified utility operators are the individuals that are performing the operational tests throughout the system.			

<b>Question ID</b>	DWMR1071001	<b>Question Type</b>	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> 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 pumphouse which houses the water treatment equipment for the Davy Drive Subdivision Drinking Water System is locked and alarmed for forced entry. The pumphouse property is fenced. The four supply wells, the water storage structure, and the distribution system sample stations are kept locked. The operating authority has developed a standard operating procedure to be followed in the event of a security breach.

<b>Question ID</b>	DWMR1073001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   23   (1);			
<b>Question:</b> Was an overall responsible operator designated for all subsystems which comprise the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> An overall responsible operator was designated for all subsystem.			
In accordance with Ontario Regulation 128/04 (Certification of Drinking Water System Operators and Water Quality Analysts) made under the SDWA, the Davy Drive Subdivision Drinking Water System is comprised of a Water Distribution and Supply Class I subsystem and a Water Treatment Class II subsystem. At the time of this inspection, an individual possessing a Class III Water Treatment subsystem certificate and a Class III Water Distribution and Supply subsystem certificate has been designated to act in the capacity of Overall Responsible Operator (ORO). The operator acting as the ORO is indicated in the electronic logbook on each day that entries are made.			

<b>Question ID</b>	DWMR1074001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   25   (1);			
<b>Question:</b> Were operators-in-charge designated for all subsystems which comprise the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Operators-in-charge were designated for all subsystems.			
In accordance with Ontario Regulation 128/04 (Certification of Drinking Water System Operators and Water Quality Analysts) made under the SDWA, the Davy Drive Subdivision Drinking Water System is comprised of a Water Distribution and Supply Class I subsystem and a Water Treatment Class II subsystem. The operator acting as the operator-in-charge (OIC) is indicated in the electronic logbook on each day that entries are made.			

<b>Question ID</b>	DWMR1075001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   22;			
<b>Question:</b> Were all operators certified as required?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All operators were certified as required.  Section 22 ('Owner or operating authority responsibility') of Ontario Regulation 128/04 ('Certification of Drinking Water Systems Operators and Water Quality Analysts') prescribes that the owner of a drinking water system and the operating authority for the system shall ensure that adjustments to the water treatment equipment are carried out only by certified operators or emergency substitute operators. Operator certification records provided by the operating authority verify that all operators were certified as required, in accordance with the requirements of section 22 of Ontario Regulation 128/04.			

<b>Question ID</b>	DWMR1076001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);			
<b>Question:</b> Were adjustments to the treatment equipment only made by certified operators?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Adjustments to the treatment equipment were only made by certified operators.  Section 1-2(2)(5) of Schedule 1 of Ontario Regulation 170/03 prescribes that the owner of a drinking water system and the operating authority for the system shall ensure that adjustments to the water treatment equipment are carried out only by certified operators or emergency substitute operators. Operational records of the inspection review period verify that adjustments to the water treatment equipment were carried out only by certified operators, in accordance with the requirements of section 1-2(2)(5) of Schedule 1 of Ontario Regulation 170/03.			

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

<b>DWS Name:</b>	DAVY DRIVE SUBDIVISION DRINKING WATER SYSTEM
<b>DWS Number:</b>	220007141
<b>DWS Owner:</b>	CORPORATION OF THE TOWNSHIP OF RAMARA
<b>Municipal Location:</b>	RAMARA
<b>Regulation:</b>	O.REG. 170/03
<b>DWS Category:</b>	DW Municipal Residential
<b>Type of Inspection:</b>	Focused
<b>Compliance Assessment Start Date:</b>	Jan-20-2026
<b>Ministry Office:</b>	Barrie District Office

**Maximum Risk Rating:** 503

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	0/87
Source	0/14
Treatment Processes	0/211
Water Quality Monitoring	0/91
<b>Overall - Calculated</b>	<b>0/503</b>

<b>Inspection Risk Rating:</b>	<b>0.00%</b>
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<b>Final Inspection Rating:</b>	<b>100.00%</b>
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Ministry of the Environment, Conservation and Parks - Detailed Inspection Rating Record (Reporting Year - 2025-26)

<b>DWS Name:</b>	DAVY DRIVE SUBDIVISION DRINKING WATER SYSTEM
<b>DWS Number:</b>	220007141
<b>DWS Owner Name:</b>	CORPORATION OF THE TOWNSHIP OF RAMARA
<b>Municipal Location:</b>	RAMARA
<b>Regulation:</b>	O.REG. 170/03
<b>DWS Category:</b>	DW Municipal Residential
<b>Type of Inspection:</b>	Focused
<b>Compliance Assessment Start Date:</b>	Jan-20-2026
<b>Ministry Office:</b>	Barrie District Office

*All legislative requirements were met. No detailed rating scores.*

Maximum Question Rating: 503

Inspection Risk Rating:	0.00%
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<b>FINAL INSPECTION RATING:</b>	<b>100.00%</b>
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# 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.

[ontario.ca/drinkingwater](http://ontario.ca/drinkingwater)

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:

$$\text{RISK} = \text{LIKELIHOOD} \times \text{CONSEQUENCE}$$

(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
<b>Medium</b> Administrative Consequence	<b>Major</b> Administrative Consequence	<b>Minor</b> Environmental Consequence	<b>Minor</b> Health Consequence	<b>Medium</b> Environmental Consequence	<b>Major</b> Environmental Consequence	<b>Medium</b> Health Consequence	<b>Major</b> 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)
<b>R=4</b>	<b>R=2</b>	<b>R=6</b>	<b>R=12</b>	<b>R=15</b>	<b>R=6</b>	<b>R=21</b>	<b>R=16</b>

## 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).

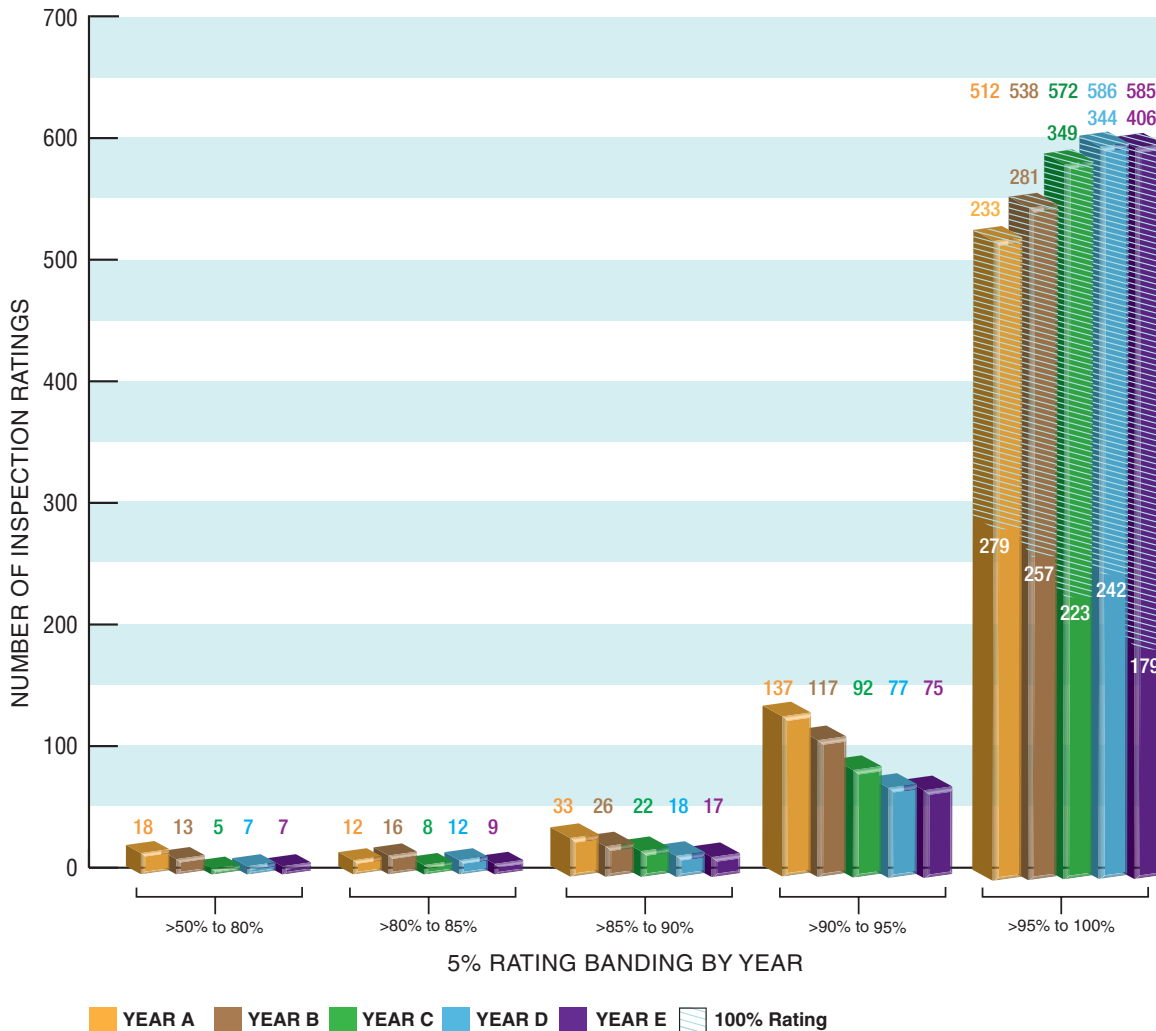
The risk ratings of all non-compliant answers are summed and divided by the sum of the risk ratings of all questions asked (maximum question rating). The resulting inspection risk rating (as a percentage) is subtracted from 100 per cent to arrive at the final inspection rating.

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

For further information, please visit [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater)