

**Ministry of Environment,  
Conservation and Parks**  
*Drinking Water and Environmental  
Compliance Division*

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**Ministère de l'Environnement,  
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March 27, 2024

**Attention: Zach Drinkwalter Township of Ramara CAO**

**Re: 2023 Drinking Water Inspection Report Davy Drive Subdivision**

Please find enclosed the Ministry of the Environment, Conservation and Parks Inspection Report Davy Drive (Drinking Water System # 220007141 ) inspection. The compliance assessment took place on January 22, 2024.

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

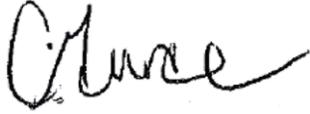
In order to measure individual inspection results, the Ministry has established an inspection compliance risk framework based on the principles of the Inspection, Investigation & Enforcement (II&E) Secretariat and advice of internal and risk experts.

The Inspection Summary Rating Record (IRR), included as Appendix A of the inspection report, provides the Ministry, the system owner and the associated Public Health Units with a summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance. IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspector's Annual Report.

If you have any questions or concerns regarding the rating, please contact Sheri Broeckel, Drinking Water Program Supervisor, at 1 (705) 716-3712.

If you have any questions or concerns regarding this inspection report, please contact the undersigned.

Carly Munce

A handwritten signature in black ink, appearing to read "Carly Munce". The signature is written in a cursive style with a large initial "C" and a long, sweeping tail.



**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 22, 2024  
Site Inspection Date: January 22, 2024  
Inspection End Date: March 14, 2024  
Inspected By: Carly Munce  
Badge #: 1945

*Carly Munce*

(signature)

## **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	DWMR1001000	Question Type	Information
<p><b>Legislative Requirement(s):</b> Not Applicable</p>			
<p><b>Question:</b> What was the scope of this inspection?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b>                      The primary focus of this inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks (MECP) legislation as well as evaluating conformance with ministry drinking water policies and guidelines during the inspection period. The ministry utilizes a comprehensive, multi-barrier approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as management practices.</p> <p>This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O. Reg. 170/03). This inspection has been conducted pursuant to Section 81 of the SDWA.</p> <p>This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.</p> <p>This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.</p> <p>The Davy Drive Subdivision Drinking Water System is owned by the Corporation of the Township of Ramara and operated by the Ontario Clean Water Agency (OCWA) and serves an estimated population of 112 people. The Davy Drive Subdivision Drinking Water System is categorized as a small municipal residential drinking water system, as defined by Ontario Regulation 170/03 and operates under DWS number 220007141.</p> <p>The Davy Drive Subdivision Drinking Water System consists of 4 wells, treatment equipment, two distribution sample points and two blow offs, one at each end of the distribution system. The supply wells are considered to have the potential to be ground water under the direct influence of surface water (GUDI). Treatment is provided by UV inactivation and chlorination for primary disinfection, after filtration. Chlorination is provided for secondary disinfection.</p> <p>Raw water from the four wells is injected with sodium hypochlorite and potassium permanganate prior to passing through two greensand filters to remove the oxidized iron and manganese. Water then flows through cartridge filters, including a one micron</p>			

absolute filter before being dosed by UV light. Both of the UV units are equipped with a solenoid valve which will stop the flow of water in the event of a power failure, malfunction or the required dosage not being delivered by the UV units. Water is then injected with sodium hypochlorite prior to the 43 cubic metre storage standpipe. Two high lift pumps discharge water to the distribution system. There are no storage structures within the distribution system. The distribution system consists of 50 mm diameter polyethylene watermain.

The drinking water inspection included: physical inspection of the treatment equipment and facility; interview with OCWA staff; and a review of relevant documents and data from the period of July 22, 2022 to January 17, 2024 (hereafter referred to as the "inspection review period"). The previous inspection of the Davy Drive Subdivision Drinking Water System was conducted on July 22, 2022.

Question ID	DWMR1000000	Question Type	Information
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Does this drinking water system provide primary disinfection?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> This drinking water system provides for both primary and secondary disinfection and distribution of water.  Chlorination and UV inactivation are used for primary disinfection. Chlorination is used for secondary disinfection.			

Question ID	DWMR1007000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (1);			
<b>Question:</b> Is the owner maintaining the production well(s) in a manner sufficient to prevent entry into the well of surface water and other foreign materials?			
<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.  Subsection 1-2. (1) 1. of Schedule 1 of Ontario Regulation 170/03 requires 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. 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 Operating Authority performs monthly			

inspections of the wells and more extensive maintenance and inspections are regularly scheduled. Raw water samples were collected from each well monthly during the inspection review period. Ground is sloped away from wells so no pooling or ponding. During the inspection review period Well 1 had four raw water sample result values for total coliform other than zero, ranging between 1 cfu/100mL and 10 cfu/100mL. Results for Escherichia coli (E. coli) during the inspection review period had 1 raw water sample result value above zero for Well 1.

During the inspection review period Well 2 had two results for total coliform other than zero ranging between 1 cfu/100 mL and 2 cfu/100 mL .

All other results for E. coli were zero for Well 2 during the inspection review period.

During the inspection review period Well 3 had raw water results other than zero for total coliforms of the inspection review period ranging between 1 cfu/100 mL and 29 cfu/100 mL. Results for Escherichia coli (E. coli) during the inspection review period had 1 raw water sample result value above zero for Well 3.

During the inspection review period Well 4 had raw water results other than zero for total coliforms of the inspection review period ranging between 1 cfu/100 mL and 36 cfu/100 mL. Results for Escherichia coli (E. coli) during the inspection review period had 1 raw water sample result value above zero for Well 4.

The supply wells have been identified as being potentially groundwater under the direct influence of surface water (GUDI). Filtration and UV inactivation were installed to address the GUDI potential.

Question ID	DWMR1009000	Question Type	Legislative
<p><b>Legislative Requirement(s):</b> SDWA   31   (1);</p>			
<p><b>Question:</b> Are measures in place to protect the groundwater and/or GUDI source in accordance with any MDWL and DWWP issued under Part V of the SDWA?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Measures were in place to protect the groundwater and/or GUDI source in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part V of the SDWA.</p> <p>Condition 16.2.8 of Schedule B of Municipal Drinking Water Licence 147-106 Issue Number 5 requires an inspection schedule for all wells associated with the drinking water system, including all production wells, standby wells, test wells and monitoring wells.</p> <p>Condition 16.2.9 of Schedule B of Municipal Drinking Water Licence 147-106 Issue Number 5 requires well inspection and maintenance procedures for the entire well structure of each well including all above and below grade well components.</p>			

Condition 16.2.10 of Schedule B of Municipal Drinking Water Licence 147-106 Issue Number 5 requires remedial action plans for situations where an inspection indicates noncompliance 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	DWMR1014000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Is there sufficient monitoring of flow as required by the MDWL or DWWP issued under Part V of the SDWA?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> There was sufficient monitoring of flow as required by the Municipal Drinking Water Licence or Drinking Water Works Permit issued under Part V of the SDWA.  Condition 2.1 of Schedule C of Municipal Drinking Water Licence 147-106 Issue Number 5 requires 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 is a magnetic flow meter installed on each of the four raw water lines, as well as on the combined raw water header, and a magnetic flow meter installed on the distribution header. Each of the flow meters provides a 4-20 mA signal. Raw and treated water flows are continuously recorded on the SCADA system.			

Question ID	DWMR1016000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Is the owner in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the MDWL issued under Part V of the SDWA?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Municipal Drinking Water Licence issued under Part V of the SDWA.			

Table 1 of Schedule C of Municipal Drinking Water Licence 147-106 Issue Number 5 states that the rated capacity for Davy Drive Water Works is 75.69 m3/day. This value was not exceeded during the inspection review period. There is no maximum flow rate identified in Table 2 of Schedule C of the Licence.

Question ID	DWMR1018000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Has the owner ensured that all equipment is 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 had not ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.  Table 1 of Schedule C of Municipal Drinking Water Licence 147-106 Issue Number 5 states that the rated capacity for Davy Drive Water Works is 75.69 m3/day. This value was not exceeded during the inspection review period. There is no maximum flow rate identified in Table 2 of Schedule C of the Licence.			

Question ID	DWMR1021000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Is the owner/operating authority able to demonstrate that, when required during the inspection period, Form 2 documents were prepared in accordance with their Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner/operating authority was in compliance with the requirement to prepare Form 2 documents as required by their Drinking Water Works Permit during the inspection period.  Over the inspection period 4 Form 2 were completed.  On August 21 2022, Instrumentation and Control, Chlorine/ pH Analyzer- Treated Water.Replacement of malfunctioning analyzer. Same brand, different model from D2CAW to DACb due to the old model no longer available. September 14, 2022 Filtration,-Filter replacement of 2 green sand filters for iron/ manganese removal and back wash pump replacement of filters(2), media and backwash pump that have reached end of their lifespan- like for like. October 31, 2022 UV disinfection system UVs replacement of 2 UV units. Replacement of UV units (2)-Hallet			

30s to be replaced with the new Hallets 705PN NSF. Same brand, different model due to the old model no longer being available.

July 18, 2023

Instrumentation and Control, Davy Drive DWs- flow measurement- treated water replacement of magnetic flow meter on treated water line as part of proactive equipment upgrades -like for like.

Question ID	DWMR1025000	Question Type	Legislative
<p><b>Legislative Requirement(s):</b> SDWA   31   (1);</p>			
<p><b>Question:</b> Were all parts of the drinking water system that came in contact with drinking water (added, modified, replaced or extended) disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All parts of the drinking water system were disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit.</p> <p>Section 2.3 of Schedule B of Drinking Water Works Permit 147-206 Issue Number 5 states 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:</p> <ul style="list-style-type: none"> <li>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.</li> <li>b) Subject to condition 2.3.2, any updated version of the ministry's Watermain Disinfection Procedure;</li> <li>c) AWWA C652 – Standard for Disinfection of Water-Storage Facilities;</li> <li>d) AWWA C653 – Standard for Disinfection of Water Treatment Plants; and</li> <li>e) AWWA C654 – Standard for Disinfection of Wells.</li> </ul> <p>The Operating Authority has developed a Standard Operating Procedure (SOP) for disinfection of drinking water system components. The SOP states that the required standards are to be followed as per the Drinking Water Works Permit.</p>			

Question ID	DWMR1023000	Question Type	Legislative
<p><b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);</p>			
<p><b>Question:</b> Do records indicate that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a DWWP and/or MDWL issued under Part V of the SDWA at all times that water was being supplied to consumers?</p>			

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

Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under O. Reg. 170/03 or a Drinking Water Works Permit and/or Municipal Drinking Water Licence issued under Part V of the SDWA at all times that water was being supplied to consumers.

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.

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 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.

<b>Question ID</b>	DWMR1026000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-6   (1);			
<b>Question:</b> If primary disinfection equipment that does not use chlorination or chloramination is provided,			

is the equipment equipped with alarms or shut-off mechanisms that satisfy the standards described in Section 1-6 (1) of Schedule 1 of Ontario Regulation 170/03?

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

The primary disinfection equipment was equipped with alarms or shut-off mechanisms that satisfied the standards described in Section 1-6 (1) of Schedule 1 of O. Reg. 170/03.

Subsection 1-6. (1) of Schedule 1 of Ontario Regulation 170/03 requires that if primary disinfection equipment that does not use chlorination or chloramination is provided by a drinking water system, the owner of the system and the operating authority for the system shall ensure that the disinfection equipment is designed and operated in accordance with the standards described in subsection (2), or that,

(a) the disinfection equipment has a feature that ensures that no water is directed to users of water treated by the equipment in the event that the equipment malfunctions, loses power or ceases to provide the appropriate level of disinfection; and

(b) if the disinfection equipment malfunctions, loses power or ceases to provide the appropriate level of disinfection, a certified operator takes appropriate action at the location where the equipment is installed before water is again directed to users of water treated by the equipment.

The two NSF certified Hallet 30 UV units that provide primary disinfection for the Davy Drive Subdivision Drinking Water System are each equipped with a solenoid valve that will shut down the supply of water in the event that the UV dosage drops below that required for primary disinfection. There is a lamp UV sensor and a water UV sensor in each of the UV units. In the event that the UV transmittance or intensity drops below the minimum set point, the wiper blade is initiated to try and rectify the issue. If after the wiper blade passes over the quartz sleeve the readings are not above the minimum set points, an alarm is sent to the on-call Operator who is able to check the system remotely with his or her phone, and the solenoid valve closes. While the wiper blade is cleaning, the lowest UV transmittance value is held by the sensor and recorded. Operators attend the site in the event of an alarm. The standpipe provides approximately 1.5 days of storage, so that supply to consumers is not interrupted in the event that the solenoid valves associated with a UV units close. The function of the solenoid valves is tested every three months.

Question ID	DWMR1024000	Question Type	Legislative
<p><b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);</p>			
<p><b>Question:</b> Do records confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated as required?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated so that at all times and all locations in the distribution system the chlorine residual was never less than 0.05 mg/l free or 0.25 mg/l combined.</p>			

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Question ID	DWMMR1034000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-2   (5); SDWA   O. Reg. 170/03   7-2   (6);			
<b>Question:</b> Is the secondary disinfectant residual measured as required for the small municipal residential distribution system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The secondary disinfectant residual was measured as required for the small municipal residential distribution system.  Subsection 7-2 (5) of Schedule 7 of Ontario Regulation 170/03 requires that the owner of a small municipal residential system that provides secondary disinfection and the operating authority for the system shall ensure that at least two distribution samples are taken each week in accordance with subsection (6) and are tested immediately for free chlorine residual, if the system provides chlorination and does not provide chloramination.			

Question ID	DWMMR1030000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-2   (1); SDWA   O. Reg. 170/03   7-2   (2);			
<b>Question:</b> Is primary disinfection chlorine monitoring being conducted at a location approved by MDWL and/or DWWP issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Primary disinfection chlorine monitoring was conducted at a location approved by Municipal Drinking Water Licence and/or Drinking Water Works Permit issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved.  Schedule E of Municipal Drinking Water Licence 147-106 Issue Number 5 indicates that 2+ log removal/inactivation credits are achieved by chlorination in the standpipe. A continuous chlorine analyser is fed sample water after the standpipe, prior to entering the distribution system. The chlorine analyser is equipped with alarm capabilities for high and low levels, as indicated in the Instrument and Control section of Schedule A of Drinking Water Works Permit 147-206 issue Number 5.			

Question ID	DWMMR1032000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-3   (2);			

<p><b>Question:</b> If the drinking water system obtains water from a surface water source and provides filtration, is continuous monitoring of each filter effluent line being performed for turbidity?</p>
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Continuous monitoring of each filter effluent line was being performed for turbidity.</p>

<b>Question ID</b>	DWMR1035000	<b>Question Type</b>	Legislative
<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;			
<b>Question:</b> Are operators examining continuous monitoring test results and are they examining the results within 72 hours of the test?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.  Subsection 6-5. (1) 3. of Schedule 6 of Ontario Regulation 170/03 requires that test results recorded under paragraph 1 or 2 must be examined, within 72 hours after the tests are conducted by a certified operator, in the case of, a small municipal residential system, such as Davy Drive Subdivision Drinking Water System. 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 analyser 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>	DWMR1038000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4;			
<b>Question:</b> Is continuous monitoring equipment that is being utilized to fulfill O. Reg. 170/03 requirements performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format?			
<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 specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format.			

<b>Question ID</b>	DWMR1037000	<b>Question Type</b>	Legislative
<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; SDWA   O. Reg. 170/03   6-5   (1.1);			
<b>Question:</b> Are all continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or MDWL or DWWP or order, equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or Municipal Drinking Water Licence or Drinking Water Works Permit or order, were equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6.  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 primary disinfection is compromised. Operators regularly test the chlorine and turbidity alarms to ensure they are functioning properly.			

<b>Question ID</b>	DWMR1040000	<b>Question Type</b>	Legislative
<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;			
<b>Question:</b> Are all continuous analysers calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.  Annually a third party performs calibrations on the continuous analysers. Operators change probes and electrolyte as required. Operators make comparisons of the continuous analysers with handheld units regularly and make adjustments when the difference is more than approximately 0.2 mg/L.			

<b>Question ID</b>	DWMR1108000	<b>Question Type</b>	Legislative
<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; 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, an			

Order, MDWL, or DWWP issued under Part V, SDWA, has triggered an alarm or an automatic shut-off, did a qualified person respond in a timely manner and take appropriate actions?

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

Where required continuous monitoring equipment used for the monitoring of chlorine residual and/or turbidity triggered an alarm or an automatic shut-off, a qualified person responded in a timely manner and took appropriate actions.

<b>Question ID</b>	DWMMR1039000	<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 is provided, has the owner and operating authority ensured that the equipment has a recording device that continuously records the performance of the disinfection equipment?			
<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 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>	DWMMR1109000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-6   (1);			
<b>Question:</b> If the system uses equipment for primary disinfection other than chlorination or chloramination and the equipment has malfunctioned, lost power or ceased to provide the appropriate level of disinfection, causing an alarm or an automatic shut-off, did a qualified person respond in a timely manner and take appropriate actions?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> 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.  Primary disinfection is achieved for the Davy Drive Subdivision Drinking Water System through ultraviolet inactivation following cartridge filtration, and chlorination. During the inspection period there were alarms an Operators took appropriate action in timely manner.			

<b>Question ID</b>	DWMR1042000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> If UV disinfection is used were duty sensors and reference UV sensors checked and calibrated as per the requirements of Schedule E of the MDWL 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.			
<p>Schedule E of Municipal Drinking Water Licence 147-106 Issue Number 5 states 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:</p> <ol style="list-style-type: none"> <li>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;</li> <li>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;</li> <li>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;</li> <li>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.</li> </ol> <p>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.</p> <p>The Operating Authority has the UV sensors calibrated annually by the equipment manufacturer. During the inspection review period the sensors for both UV units were replaced by ones calibrated by the manufacturer in July 2022.</p>			

<b>Question ID</b>	DWMR1099000	<b>Question Type</b>	Information
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Do records show that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O. Reg. 169/03)?			

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

Records did not show that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O. Reg. 169/03).

During the inspection review period HAA samples were collected from the Davy Drive Subdivision distribution system in May (52 ug/L), August (124 ug/L), November (122 ug/L), December (106 ug/L) 2022. The calculation of the Running Annual Average (RAA) following the December result, was 87.8 g/L which exceeds the standards of 80ug/L. Results for Quarters 1 and 2 of 2023 of 61.2 ug/L and 61.0 ug/L, with an RAA of 90.0 ug/L, remaining above the standard.

As of October 3, 2023 it was reported to MECP that the RAA 74.9ug/L below the standard 80.0ug/L

<b>Question ID</b>	DWMR1082000	<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> For SMR systems, are all microbiological water quality monitoring requirements for distribution samples prescribed by legislation being met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All microbiological water quality monitoring requirements prescribed by legislation for distribution samples in a small municipal residential system were being met.  Section 11-2 of Schedule 11 of Ontario Regulation 170/03 requires that the owner of a drinking water system and the operating authority for the system 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, and ensure that each of the samples taken is tested for Escherichia coli, total coliforms and general bacteria population expressed as colony counts on a heterotrophic plate count (HPC) if secondary disinfection is provided. A distribution sample was collected every two weeks during the inspection review period and tested for the required parameters			

<b>Question ID</b>	DWMR1096000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-3   (1);			
<b>Question:</b> Do records confirm that chlorine residual tests are being conducted at the same time and at the same location that microbiological samples are obtained?			

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

Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.

<b>Question ID</b>	DWMR1084000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-2;			
<b>Question:</b> Are all inorganic water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.  Subsection 13-2 (3) of Schedule 13 of Ontario Regulation 170/03 requires 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 60 months and tested for every parameter set out in Schedule 23. During the inspection review period treated water samples were tested for all Schedule 23 parameters on August 21, 2019. Prior to that treated water samples were tested for all Schedule 23 parameters on August 16, 2016.			

<b>Question ID</b>	DWMR1085000	<b>Question Type</b>	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> Are all organic water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.  Subsection 13-4 (3) of Schedule 13 of Ontario Regulation 170/03 requires 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 60 months and tested for every parameter set out in Schedule 24. During the inspection review period treated water samples were tested for all Schedule 24 parameters on August 21, 2019. Prior to that treated water samples were tested for all Schedule 24 parameters on August 16, 2016.			

Question ID	DWMR1086000	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> Are all haloacetic acid water quality monitoring requirements prescribed by legislation conducted within the required frequency and at the required location?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All haloacetic acid water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.</p> <p>Section 13-6.1 of Schedule 13 of Ontario Regulation 170/03 requires that the owner of a drinking water system that provides chlorination or chloramination and the operating authority for the System shall ensure that at least one distribution sample is taken in each calendar quarter, from a point in the drinking water system's distribution system, or plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of haloacetic acids (HAA), and have the samples tested for haloacetic acids. The standard of 0.80 mg/L for HAA as a reportable limit came into effect on January 1,2020.</p> <p>During the inspection review period sample were collected from the Davy Drive Subdivision distribution system in May (52 ug/L), August (124 ug/L), November (122 ug/L), December (106 ug/L) 2022. The calculation of the Running Annual Average (RAA) following the December result, was 87.8 g/L which exceeds the standards of 80ug/L. Results for Quarters 1 and 2 of 2023 of 61.2 ug/L and 61.0 ug/L, with an RAA of 90.0 ug/L, remaining above the standard.</p> <p>Due to the exceedance of the Ontario Drinking Water Quality Standard for Haloacetic Acids (HAA), MECP requested in January that the sampling frequency for HAA in the Davy Drive distribution system be increased from the quarterly sampling frequency required under section 13.6-1 of Schedule 13 of Ontario Regulation 170/03, to monthly sampling. Results from each of the distribution samples collected during the quarter will were to be averaged and that value used to calculate the running annual average (RAA) with the values from the three previous quarters. At the end of each quarter, it was also requested that a summary of all HAA distribution sampling results be shared with MECP and Health Unit.</p> <p>The most recent RAA showed a result of 62.2 ug/L which is below the 80ug/L limit, but individual samples that have been taken monthly are still tending to be high. MECP requests that monthly sampling continue each month until we have at least two more RAA below the 80 ug/L limit.</p>			

Question ID	DWMR1087000	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> Have all trihalomethane water quality monitoring requirements prescribed by legislation been conducted within the required frequency and at the required location?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.</p> <p>Section 13-6 of Schedule 13 of Ontario Regulation 170/03 requires that the owner of a drinking water system that provides chlorination or chloramination and the operating authority for the system shall ensure that at least one distribution sample is taken in each calendar quarter, from a point in the drinking water system's distribution system, or plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of trihalomethanes (THMs). The samples are to be tested for THMs. During the inspection review period samples were collected and tested for THMs from the Davy Drive Subdivision distribution system in August 3, and November 9, of 2022. February 13, May 2, August 3 and November 6 of 2023.</p>			

Question ID	DWMR1088000	Question Type	Legislative
<p><b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-7;</p>			
<p><b>Question:</b> Are all nitrate/nitrite water quality monitoring requirements prescribed by legislation conducted within the required frequency for the DWS?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency.</p> <p>Section 13-7 of Schedule 13 of Ontario Regulation 170/03 requires that the owner of a drinking water system and the operating authority for the system shall ensure that at least one water sample is taken every three months and tested for nitrate and nitrite. During the inspection review period samples tested for nitrate and nitrite were collected from the treated water point of entry for Davy Drive Subdivision Drinking Water System as required August 3, November 9 of 2022 as well as February 13, May 2, August 3, and November 6 of 2023 as required.</p>			

<b>Question ID</b>	DWMR1089000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-8;			
<b>Question:</b> Are all sodium water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.  Section 13-8 of Schedule 13 of Ontario Regulation 170/03 requires that the owner of a drinking water system and the operating authority for the system shall ensure that at least one water sample is taken every 60 months and tested for sodium. Section 6-1.1 (7) of Schedule 6 of Ontario Regulation 170/03 states that if this Regulation requires 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 12, 2020 from the Davy Drive Subdivision Drinking Water System with a result of 25.2 mg/L. A resample was collected to be tested for sodium on August 24, 2020 with a result of 23.4 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>	DWMR1090000	<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, are all fluoride water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency.  Section 13-9 of Schedule 13 of Ontario Regulation 170/03 requires that if a drinking water system does not provide fluoridation, the owner of the system and the operating authority for the system shall ensure that a water sample is taken at least once every 60 months and tested for fluoride. Section 6-1.1 (7) of Schedule 6 of Ontario Regulation 170/03 states that if this Regulation requires 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.

A treated water sample was collected on August 3, 2022 and tested for fluoride. Prior to that a sample was collected on August 15, 2017, from the treated water sample point at Davy Drive Subdivision Drinking Water System and tested for fluoride.

Question ID	DWMR1102000	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 SMR Systems, have corrective actions (as per Schedule 18 of O. Reg. 170/03) been taken to address adverse conditions, including any other steps as directed by the Medical Officer of Health?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Corrective actions (as per Schedule 18), including any other steps that were directed by the Medical Officer of Health, had been taken to address adverse conditions.</p> <p>Following the reporting of the exceedance of the HAA standard, the township and OCWA both participated in meeting with the MECP and Health Unit. The Health Unit requested that they provided notice to the residents, these went out Febuary 6, 2023. As well the Health Unit requested updates and a formalized plan for reduction of HAA at Davy Drive drinking water system , this was provided on Febuary 2, 2023 and on June 29, 2023. The MECP, requested in January that the sampling frequency for HAA in the Davy Drive distribution system be increased from the quarterly sampling frequency required under section 13.6-1 of Schedule 13 of Ontario Regulation 170/03, to monthly sampling.</p> <p>Some corrective actions that took place were;</p> <ul style="list-style-type: none"> <li>-Additional samples were collected throughout the process to aid in determining where the bulk of the HAA's are being made.</li> <li>-Chlorine dosages were optimized to decrease the production of HAA's.</li> <li>-Reservoir operating level were adjusted to create a shorter retention time.</li> <li>-OCWA's Process Optimization and Technical Services group provided additional troubleshooting and optimization aid.</li> <li>-Ordered and received DPD's to test iron and manganese residual pre and post filter to further optimize chemical dosage and ensure iron and manganese removal is not impacted.</li> <li>-Well #4 was put offline to determine if additional organics are being produced from Well #4.</li> <li>-Trial well #4 while in production and collect treated water samples to determine if it is a</li> </ul>			

contributing factor – Well #4 was placed back online and it did not increase the HAA value.  
 -Review of filter backwash frequency to determine if is a contributing factor – No correlation has been identified.  
 -Review of historic static well levels and weather patterns (temperature, precipitation) to determine if there is an impact on raw water quality.  
 -Well #1 was rehabbed.

OCWA believe that slightly lowering the pre-chlorine dosage ahead of the greensand filters has had a positive impact on lowering HAA levels.

October 3, 2023 revised 2b notice of resolution of the AWQI was received.

Question ID	DWMR1104000	Question Type	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 all required verbal notifications of adverse water quality incidents immediately provided as per O. Reg. 170/03 16-6?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6.			

Question ID	DWMR1113000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   10.1   (3);			
<b>Question:</b> Have all changes to the system registration information been provided to the Ministry within ten (10) days of the change?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All changes to the system registration information were provided within ten (10) days of the change.			

<b>Question ID</b>	DWMMR1059000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   28;			
<b>Question:</b> Do the operations and maintenance manuals contain plans, drawings and process descriptions sufficient for the safe and efficient operation of the system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.  The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system. The Davy Drive Water Works Operations and Maintenance Manual was updated with Ontario Clean Water Agency (OCWA) procedures in January 2022 and the updated Permit and Approval was included in May 2022. The Manual includes an overview of the facility, operation and maintenance programs for the different treatment equipment components, emergency generator and distribution system components. Water quality and flow monitoring maintenance and requirements as well as record and reporting requirements are detailed. The manual includes a CT calculation worksheet, though it isn't typically used as UV inactivation provides all required log removal credits with the exception of two log removal for viruses under normal operating conditions. Contingency and Emergency plans are available to deal with potential problems that may arise with the drinking water system.			

<b>Question ID</b>	DWMMR1060000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Do the operations and maintenance manuals meet the requirements of the DWWP and MDWL issued under Part V of the SDWA?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The operations and maintenance manuals met the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.  Section 16.2 of Schedule B of Municipal Drinking Water Licence 147-106 Issue Number 5 requires that the operations and maintenance manual or manuals, shall include at a minimum: 16.2.1 The requirements of this licence and associated procedures; 16.2.2 The requirements of the drinking water works permit for the drinking water system; 16.2.3 A description of the processes used to achieve primary and secondary disinfection within the drinking water system, including where applicable: 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 b) The validated operating conditions for UV disinfection equipment, including a copy of the			

validation certificate;

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;

16.2.8 An inspection schedule for all wells associated with the drinking water system, including all production wells, standby wells, test wells and monitoring wells;

16.2.9 Well inspection and maintenance procedures for the entire well structure of each well including all above and below grade well components; and

16.2.10 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 Davy Drive Water Works Operations and Maintenance Manual and Contingency and Emergency Plan meet the requirements of the Municipal Drinking Water Licence.

Question ID	DWMR1061000	Question Type	Legislative
<b>Legislative Requirement(s):</b>			
SDWA   O. Reg. 128/04   27   (1); SDWA   O. Reg. 128/04   27   (2); SDWA   O. Reg. 128/04   27   (3); SDWA   O. Reg. 128/04   27   (4); SDWA   O. Reg. 128/04   27   (5); SDWA   O. Reg. 128/04   27   (6); SDWA   O. Reg. 128/04   27   (7);			
<b>Question:</b>			
Are logbooks properly maintained and contain the required information?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b>			
Logbooks were properly maintained and contained the required information.			
The Operating Authority uses electronic logs as well as a number of spreadsheets for the recording of information regarding the Davy Drive Subdivision Drinking Water System. Records include all required information.			

Question ID	DWMR1062000	Question Type	Legislative
<b>Legislative Requirement(s):</b>			
SDWA   O. Reg. 170/03   7-5;			
<b>Question:</b>			
Do records or other record keeping mechanisms confirm that operational testing not performed by continuous monitoring equipment is being done by a certified operator, water quality analyst, or person who meets the requirements of O. Reg. 170/03 7-5?			

**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 being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.

<b>Question ID</b>	DWMR1071000	<b>Question Type</b>	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Has the owner provided security measures to protect components of the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner had provided security measures to protect components of the drinking water system.  The pumphouse which houses the treatment equipment for the Davy Drive Subdivision Drinking Water System is locked and alarmed for forced entry. The pumphouse property is fenced. The four wells and the sample stations are kept locked. There are no other storage structures within the distribution system. The Operating Authority has developed a standard operating procedure to be followed in the event of a security breach.			

<b>Question ID</b>	DWMR1073000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   23   (1);			
<b>Question:</b> Has the overall responsible operator been designated for all subsystems which comprise the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The overall responsible operator had been designated for each subsystem.  The Davy Drive Subdivision Drinking Water System is comprised of a Water Distribution Class 1 and Water Treatment Class 2 subsystem. The Overall Responsible Operator is designated for both of the subsystems. The Operator acting as the ORO is indicated in the electronic logbook on each day that entries are made.			

<b>Question ID</b>	DWMR1074000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   25   (1);			

<p><b>Question:</b> Have operators-in-charge been designated for all subsystems which comprise the drinking water system?</p>
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Operators-in-charge had been designated for all subsystems which comprise the drinking water system.</p> <p>The Davy Drive Subdivision Drinking Water System is comprised of a Water Distribution Class 1 and Water Treatment Class 2 subsystem. The Operators In Charge (OIC) are designated for both of the subsystems. The Operator acting as the OIC is indicated in the electronic logbook on each day that entries are made.</p>

<b>Question ID</b>	DWMR1075000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   22;			
<b>Question:</b> Do all operators possess the required certification?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All operators possessed the required certification.			

<b>Question ID</b>	DWMR1076000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);			
<b>Question:</b> Do only certified operators make adjustments to the treatment equipment?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Only certified operators made adjustments to the treatment equipment.			

Ministry of the Environment, Conservation and Parks - Inspection Summary Rating Record (Reporting Year - 2023-24)

**DWS Name:** DAVY DRIVE SUBDIVISION DRINKING WATER SYSTEM  
**DWS Number:** 220007141  
**DWS Owner:** CORPORATION OF THE TOWNSHIP OF RAMARA  
**Municipal Location:** RAMARA

**Regulation:** O.REG. 170/03  
**DWS Category:** DW Municipal Residential  
**Type of Inspection:** Focused  
**Inspection Date:** Jan-22-2024  
**Ministry Office:** Barrie District Office

**Maximum Risk Rating:** 567

Inspection Module	Non Compliance Risk (X out of Y)
Capacity Assessment	0/30
Certification and Training	0/42
Logbooks	0/18
Operations Manuals	0/28
Reporting & Corrective Actions	0/91
Source	0/14
Treatment Processes	0/253
Water Quality Monitoring	0/91
<b>Overall - Calculated</b>	<b>0/567</b>

**Inspection Risk Rating:** 0.00%

**Final Inspection Rating:** 100.00%

Ministry of the Environment, Conservation and Parks - Detailed Inspection Rating Record (Reporting Year - 2023-24)

**DWS Name:** DAVY DRIVE SUBDIVISION DRINKING WATER SYSTEM  
**DWS Number:** 220007141  
**DWS Owner Name:** CORPORATION OF THE TOWNSHIP OF RAMARA  
**Municipal Location:** RAMARA

**Regulation:** O.REG. 170/03  
**DWS Category:** DW Municipal Residential  
**Type of Inspection:** Focused  
**Inspection Date:** Jan-22-2024  
**Ministry Office:** Barrie District Office

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

Maximum Question Rating: 567

Inspection Risk Rating:	0.00%
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FINAL INSPECTION RATING:	100.00%
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