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Ministry of the Environment,
Conservation and Parks

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

Barrie District

1201-54 Cedar Pointe Drive
Barrie ON L4N 5R7
Tel: (705) 739-6441
1-800-890-8511
Fax: (705) 739-6440

District de Barrie

1201-54 chemin Cedar Pointe
Barrie ON L4N 5R7
Tél: (705) 739-6441
1-800-890-8511
Télééc: (705) 739-6440

July 29, 2022

Attention: Zach Drinkwalter Township of Ramara CAO

**Re: 2022 Drinking Water Inspection Report
Park Lane Subdivision Drinking Water System**

Please find enclosed the Ministry of the Environment, Conservation and Parks Inspection Report for Park Lane Subdivision Drinking Water System (Water Works # 220007132). The physical inspection process took place on June 28, 2022.

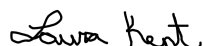
The primary focus of this inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks legislation and authorizing documents, as well as evaluating conformance with Ministry drinking water-related policies and guidelines during the inspection review period.

No issues of non-compliance or best management practices were identified in the inspection. No Provincial Officer's Orders were issued in conjunction with this inspection.

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) 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. Please note that due to a recent change in IT systems, the IRR cannot currently be generated at the same time as the inspection report. The IRR will be sent separately, typically within one to two months, and prior to any public release. 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 705-716-3712.

If you have any questions regarding the inspection report please feel free to contact the undersigned at (705) 716-5655 or laura.kent@ontario.ca.

Sincerely,



Laura Kent
Water Inspector
Provincial Officer
Barrie District Office, Ministry of the Environment Conservation and Parks

CC Nick Leroux, Ontario Clean Water Agency, Senior Operations Manager, nleroux@owca.com
Josh Kavanagh, Director of Infrastructure, Township of Ramara, jkavanagh@ramara.ca
Dyana Marks, Resources Technician, Township of Ramara, dmarks@ramara.ca
Christine Craig, Process & Compliance Technician, OCWA, ccraig@ocwa.com
Joe Foley, Overall Responsible Operator, OCWA, jfoley@ocwa.com
Medical Officer of Health, Simcoe Muskoka District Health Unit
Barrie District Office File, Ministry of the Environment, Conservation and Parks



PARK LANE SUBDIVISION DRINKING WATER SYSTEM
7992 PARK LANE CRES, RAMARA, ON, L0K 2B0
Inspection Report

System Number: 220007132
Entity: CORPORATION OF THE
TOWNSHIP OF RAMARA
Inspection Start Date: 06/28/2022
Inspection End Date: 07/25/2022
Inspected By: Laura Kent
Badge #: 1123

Laura Kent

(signature)

NON-COMPLIANCE/NON-CONFORMANCE ITEMS

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

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

INSPECTION DETAILS

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

Ministry Program: DRINKING WATER | **Regulated Activity:**

Question ID	MRDW1001001	Question Type	Information
Question:			
What was the scope of this inspection?			
Legislative Requirement	Not Applicable		
Observation			
<p>The primary focus of this inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks (MECP) legislation as well as evaluating conformance with ministry drinking water policies and guidelines during the inspection period. The ministry utilizes a comprehensive, multi-barrier approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as management practices.</p> <p>This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O. Reg. 170/03). This inspection has been conducted pursuant to Section 81 of the SDWA.</p> <p>This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.</p> <p>The Park Lane Subdivision Drinking Water System serves an estimated population of 50 people. The drinking water system is owned by the Corporation of the Township of Ramara and operated by the Ontario Clean Water Agency (OCWA). The Park Lane Subdivision Drinking Water System is categorized as a small municipal residential drinking water system, as defined by Ontario Regulation 170/03 and operates under drinking water system (DWS) number 220007132.</p> <p>The Park Lane Subdivision Drinking Water System consists of 2 wells, treatment equipment, three distribution sample points, one in the old pumphouse and one at each end of the distribution system, along with blow offs. Treatment is provided by chlorination for primary and secondary disinfection. In April 2016 a 63 m3 capacity standpipe was installed to achieve contact time prior to water being directed to the distribution system. Sodium hypochlorite is also used for iron oxidation and potassium permanganate is used for iron and manganese oxidation. Green sand filters remove the oxidized iron and manganese. There are no storage structures within the distribution system. The distribution system consists of approximately 125 m of 50 mm diameter polyethylene watermain.</p>			

The drinking water inspection included: physical inspection of the treatment equipment and facility; interviews with OCWA staff; and a review of relevant documents and data from the period of November 19, 2021 to June 28, 2022 (hereafter referred to as the "inspection review period"). The previous inspection of the Park Lane Subdivision Drinking Water System was conducted on November 19, 2021.

Question ID	MRDW1000001	Question Type	Information
Question: Does this drinking water system provide primary disinfection?			
Legislative Requirement	Not Applicable		
Observation			
This Drinking Water System provides for both primary and secondary disinfection and distribution of water.			

Question ID	MRDW1018001	Question Type	Legislative
Question: Has the owner ensured that all equipment is installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?			
Legislative Requirement	SDWA 31 (1);		
Observation			
The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit. At the time of inspection the installed equipment at the Park Lane Subdivision pumphouse appeared to be installed as per the description in Schedule A of Drinking Water Works Permit 147-202 Issue Number 4 and the process flow diagram contained in Schedule D. Schedule C of Drinking Water Works Permit 147-202 Issue Number 4 lists the installation of the standpipe and other upgrades in Table 2.			

Question ID	MRDW1021001	Question Type	Legislative
Question: 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?			
Legislative Requirement	SDWA 31 (1);		
Observation			

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. During the inspection review period two Form 2s were completed for the Park Lane Subdivision Drinking Water System. One for the replacement of the greensand filters used for iron and manganese removal and the other for the replacement of the treated water flow meter.

Question ID	MRDW1025001	Question Type	Legislative
Question:			
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?			
Legislative Requirement	SDWA 31 (1);		
Observation			
<p>All parts of the drinking water system were disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit. Section 2.3 of Schedule B of Drinking Water Works Permit 147-202 Issue Number 4 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"> 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. Subject to condition 2.3.2, any updated version of the ministry's Watermain Disinfection Procedure; b) AWWA C652 – Standard for Disinfection of Water-Storage Facilities; c) AWWA C653 – Standard for Disinfection of Water Treatment Plants; and d) AWWA C654 – Standard for Disinfection of Wells. <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	MRDW1024001	Question Type	Legislative
Question:			
Do records confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated as required?			
Legislative Requirement	SDWA O. Reg. 170/03 1-2 (2);		
Observation			

Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated so that at all times and all locations in the distribution system the chlorine residual was never less than 0.05 mg/l free or 0.25 mg/l combined. During the inspection review period the lowest chlorine residual measured in the Park Lane Subdivision distribution system was 0.45 mg/L and the highest value was 2.20 mg/L.
At the time of inspection the Inspector measured the free chlorine residual at sample station #3 with a result of 1.19 mg/L. The Operator measured the free chlorine residual at the same location at the same time with a result of 1.18 mg/L.

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

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

continuous analyser data.

Question ID	MRDW1037001	Question Type	Legislative
Question:			
Are all continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or MDWL or DWWP or order, equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6?			
Legislative Requirement	SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10; SDWA O. Reg. 170/03 6-5 (1.1);		
Observation			
<p>All continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or Municipal Drinking Water Licence or Drinking Water Works Permit or order, were equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6. Subsection 6-5. (1.1) of Schedule 6 of Ontario Regulation 170/03 requires 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:</p> <ul style="list-style-type: none"> 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. <p>In the event that the continuous chlorine analyser records 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 low chlorine alarm to ensure it is functioning properly. There are no designated facilities served by Park Lane Subdivision Drinking Water System.</p>			

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

All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation. Most days that Operators attend the pumphouse they compare the hand held colorimeter value for free chlorine residual with the continuous analyser value. In the event that the discrepancy is greater than approximately 0.2 mg/L, the span of the continuous analyser is changed. The hand held units undergo a verification with secondary standards periodically, and are serviced, including verification, by a third party company annually. The continuous analyser probe and electrolyte are changed as required and calibrated annually by a service technician. At the time of inspection the Inspector measured the free chlorine residual at the Park Lane treated water tap. The result was 1.29 mg/L using a hand held colourimeter that was verified with secondary standards on the day the test was performed. The Operator measured the free chlorine residual from the same tap at the same time and had a result of 1.28 mg/L. The analyser read 1.14 mg/L. Earlier the morning of the inspection the analyser was calibrated from 1.26 ppm to 1.18 ppm. After the Inspector and Operator measured the free chlorine residuals the analyser was calibrated from 1.15 ppm to 1.28 ppm.

Question ID	MRDW1108001	Question Type	Legislative
Question:			
Where continuous monitoring equipment used for the monitoring of free chlorine residual, total chlorine residual, combined chlorine residual or turbidity, required by O. Reg. 170/03, an Order, MDWL, or DWWP issued under Part V, SDWA, has triggered an alarm or an automatic shut-off, did a qualified person respond in a timely manner and take appropriate actions?			
Legislative Requirement	SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10; SDWA O. Reg. 170/03 6-5 (1.1);		
Observation			
Where required continuous monitoring equipment used for the monitoring of chlorine residual and/or turbidity triggered an alarm or an automatic shut-off, a qualified person responded in a timely manner and took appropriate actions. According to the Park Lane Subdivision logbook an Operator responded to three alarms during the inspection review period; one for low chlorine, one for high chlorine and one for high turbidity. Response time was in a timely manner and appropriate actions were taken for each event.			

Question ID	MRDW1034001	Question Type	Legislative
Question:			
Is the secondary disinfectant residual measured as required for the small municipal residential distribution system?			
Legislative Requirement	SDWA O. Reg. 170/03 7-2 (5); SDWA O. Reg. 170/03 7-2 (6);		

Observation
<p>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.</p> <p>Subsection (6) states that at least one of the distribution samples referred to in subsection (5) must be taken at least 48 hours after, and during the same week as, one of the other distribution samples referred to in subsection (5).</p> <p>During the inspection review period a free chlorine residual was measured in the Park Lane Subdivision distribution system on at least two days each week, with at least 48 hours between samples as required.</p>

Question ID	MRDW1099001	Question Type	Information
Question:			
Do records show that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O. Reg. 169/03)?			
Legislative Requirement	Not Applicable		
Observation			
Records showed that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O. Reg. 169/03).			

Question ID	MRDW1082001	Question Type	Legislative
Question:			
For SMR systems, are all microbiological water quality monitoring requirements for distribution samples prescribed by legislation being met?			
Legislative Requirement	SDWA O. Reg. 170/03 11-2 (1); SDWA O. Reg. 170/03 11-2 (2);		
Observation			
All microbiological water quality monitoring requirements prescribed by legislation for distribution samples in a small municipal residential system were being met. Subsection 11-2 of Schedule 11 of Ontario Regulation 170/03 requires that the owner of a small municipal residential 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 a heterotrophic plate count (HPC), as Park Lane Subdivision Drinking Water System has secondary disinfection.
During the inspection review period one distribution sample was collected every two weeks from the Park Lane Subdivision distribution system and tested for all the required parameters.

Question ID	MRDW1096001	Question Type	Legislative
Question: Do records confirm that chlorine residual tests are being conducted at the same time and at the same location that microbiological samples are obtained?			
Legislative Requirement	SDWA O. Reg. 170/03 6-3 (1);		
Observation			
Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.			

Question ID	MRDW1086001	Question Type	Legislative
Question: Are all haloacetic acid water quality monitoring requirements prescribed by legislation conducted within the required frequency and at the required location?			
Legislative Requirement	SDWA O. Reg. 170/03 13-6.1 (1); SDWA O. Reg. 170/03 13-6.1 (2); SDWA O. Reg. 170/03 13-6.1 (3); SDWA O. Reg. 170/03 13-6.1 (4); SDWA O. Reg. 170/03 13-6.1 (5); SDWA O. Reg. 170/03 13-6.1 (6);		
Observation			
All haloacetic acid water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location. 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.			

During the inspection review period a sample was collected from the Park Lane Subdivision distribution system in February 2022 and May 2022 and tested for HAA as required. The average for HAA during the inspection review period was 71.9 ug/L. The Park Lane Subdivision Drinking Water System is not eligible for reduced sampling of HAAs at this time, as there have been results above 0.040 mg/L in the previous 12 consecutive calendar quarters. The Operating Authority is aware that the running annual average for HAA is approaching the Ontario Drinking Water Quality Standard Of 0.08 mg/L. The sample results are being monitored. Annual flushing is performed and the chlorine residuals are monitored. The Operating Authority should continue the in place measures to monitor the HAA levels, and may wish to consider further investigation into measures that could reduce the HAA levels.

Question ID	MRDW1087001	Question Type	Legislative
Question:			
Have all trihalomethane water quality monitoring requirements prescribed by legislation been conducted within the required frequency and at the required location?			
Legislative Requirement	SDWA O. Reg. 170/03 13-6 (1); SDWA O. Reg. 170/03 13-6 (2); SDWA O. Reg. 170/03 13-6 (3); SDWA O. Reg. 170/03 13-6 (4); SDWA O. Reg. 170/03 13-6 (5); SDWA O. Reg. 170/03 13-6 (6);		
Observation			
All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location. Section 13-6 of Schedule 13 of 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 Park Lane distribution system in February 2022 and May 2022. The average for THMs during the inspection review period was 72 ug/L. The Park Lane Subdivision Drinking Water System is not eligible for reduced sampling of THMs at this time, as there have been results above 0.050 mg/L in the previous 12 consecutive calendar quarters.			

Question ID	MRDW1094001	Question Type	Legislative
Question:			

Are all water quality monitoring requirements imposed by the MDWL and DWWP being met?	
Legislative Requirement	SDWA 31 (1);
Observation	
<p>All water quality monitoring requirements imposed by the MDWL or DWWP issued under Part V of the SDWA were being met. Condition 1.5 of Schedule C of Municipal Drinking Water Licence 147-102 Issue Number 4 states that in respect of an effluent discharged into the natural environment from a treatment system or treatment subsystem component listed in column 1 of Table 3:</p> <p>1.5.1 the annual average concentration of a test parameter identified in column 2 shall:</p> <p>a) not exceed the value in column 3 of the same row; and</p> <p>b) be calculated at least once monthly as the running annual average based on the previous twelve months of results:</p> <p>Table 3 of Schedule C of Municipal Drinking Water Licence 147-102 Issue Number 4 states that the backwash waste holding tank supernatant must be sampled for total suspended solids with an annual average concentration limit of 25 mg/L and total chlorine residual annual average concentration limit of 0.02 mg/L. Table 7 of Schedule C of Municipal Drinking Water Licence 147-102 Issue Number 4 states that the total suspended solids samples are to be a manual composite sample at the point of discharge quarterly, and total chlorine residual is to be a monthly grab sample at the point of discharge.</p> <p>Condition 1.5.6 of Schedule C of Municipal Drinking Water Licence 147-102 Issue Number 4 states that the requirement for the owner to comply with conditions 1.5.1 to 1.5.2 for the Total Chlorine Residual shall come into effect on February 4, 2023.</p> <p>During the inspection review period the backwash water was sampled at the point of discharge in February and May as required. The average of the total suspended solids results during the inspection review period was 4.5 mg/L.</p>	

Question ID	MRDW1059000	Question Type	Legislative
Question:			
Do the operations and maintenance manuals contain plans, drawings and process descriptions sufficient for the safe and efficient operation of the system?			
Legislative Requirement	SDWA O. Reg. 128/04 28;		
Observation			
The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.			

Question ID	MRDW1060000	Question Type	Legislative
Question:			

Do the operations and maintenance manuals meet the requirements of the DWWP and MDWL issued under Part V of the SDWA?	
Legislative Requirement	SDWA 31 (1);
Observation	
<p>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 147-102 Issue Number 4 requires that the operations and maintenance manual or manuals, 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> <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;</p> <p>16.2.5 Procedures for the operation and maintenance of monitoring equipment;</p> <p>16.2.6 Contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset conditions and equipment breakdown;</p> <p>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;</p> <p>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;</p> <p>16.2.9 Well inspection and maintenance procedures that consider the entire well structure of each well including all above and below grade well components; and</p> <p>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.</p> <p>The Park Lane Water Works Operations and Maintenance Manual and Contingency and Emergency Plan meet the requirements of the Municipal Drinking Water Licence.</p>	

Question ID	MRDW1061001	Question Type	Legislative
Question:			
Are logbooks properly maintained and contain the required information?			
Legislative Requirement	SDWA O. Reg. 128/04 27 (1); SDWA O. Reg. 128/04 27 (2); SDWA O. Reg. 128/04 27 (3); SDWA O. Reg. 128/04 27 (4); SDWA O. Reg. 128/04 27 (5); SDWA O. Reg. 128/04 27 (6); SDWA O. Reg. 128/04 27 (7);		

Observation
Logbooks were properly maintained and contained the required information.

Question ID	MRDW1062001	Question Type	Legislative
Question:			
Do records or other record keeping mechanisms confirm that operational testing not performed by continuous monitoring equipment is being done by a certified operator, water quality analyst, or person who meets the requirements of O. Reg. 170/03 7-5?			
Legislative Requirement	SDWA O. Reg. 170/03 7-5;		
Observation			
Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.			

Question ID	MRDW1071000	Question Type	BMP
Question:			
Has the owner provided security measures to protect components of the drinking water system?			
Legislative Requirement	Not Applicable		
Observation			
The owner had provided security measures to protect components of the drinking water system. The outside well, the sample stations, standpipe and the old pumphouse where the original well is located are locked, as well as the pumphouse which is also alarmed for forced entry. There are no other storage structures within the distribution system.			

Question ID	MRDW1073001	Question Type	Legislative
Question:			
Has the overall responsible operator been designated for all subsystems which comprise the drinking water system?			
Legislative Requirement	SDWA O. Reg. 128/04 23 (1);		
Observation			
The overall responsible operator had been designated for each subsystem. The Park Lane Village Subdivision Drinking Water System is comprised of a Water Distribution Class 1 and Water Treatment Class 1 subsystem. The Overall Responsible			

Operator is designated for both of the subsystems and have the appropriate certification. The Operator acting as the ORO is indicated in the electronic logbook on each day that entries are made.

Question ID	MRDW1074001	Question Type	Legislative
Question: Have operators-in-charge been designated for all subsystems for which comprise the drinking water system?			
Legislative Requirement	SDWA O. Reg. 128/04 25 (1);		
Observation			
Operators-in-charge had been designated for all subsystems which comprise the drinking water system. The Park Lane Village Subdivision Drinking Water System is comprised of a Water Distribution Class 1 and Water Treatment Class 1 subsystem. The Operator-in-Charge (OIC) is designated for both subsystems and have the appropriate certification. The Operator acting as the OIC is indicated in the electronic logbook on each day that entries are made.			

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

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

Question ID	MRDW1007001	Question Type	Legislative
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Question:	
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?	
Legislative Requirement	SDWA O. Reg. 170/03 1-2 (1);
Observation	
<p>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 two supply wells for Park Lane Subdivision Drinking Water System. Each of the wells has a secure cap and screened vent. The original well is located in the former pumphouse. Raw water samples were collected monthly during the inspection review period. All raw water microbiological results were zero. Operators perform inspections at least monthly of the wells.</p>	

Question ID	MRDW1009001	Question Type	Legislative
Question:			
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?			
Legislative Requirement	SDWA 31 (1);		
Observation			
<p>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. Condition 16.2.8 of Schedule B of Municipal Drinking Water Licence 147-102 Issue Number 4 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 147-102 Issue Number 4 requires well inspection and maintenance procedures for the entire well structure of each well including all above and below grade well components.</p> <p>Condition 16.2.10 of Schedule B of Municipal Drinking Water Licence 147-102 Issue Number 4 requires 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 schedule for inspection of the two production wells supplying water for the Park Lane Subdivision drinking water system. The inspection schedule includes both above and below grade well components. Indicators that the seal or well casing may not be adequate are detailed.</p> <p>The Operating Authority has a procedure in the event that there is suspected unsafe water</p>			

as well as a procedure to follow in the event that an alternate water source is required. During the inspection review period the logbook noted that an Operator checked the wells each month.

Question ID	MRDW1014001	Question Type	Legislative
Question:			
Is there sufficient monitoring of flow as required by the MDWL or DWWP issued under Part V of the SDWA?			
Legislative Requirement	SDWA 31 (1);		
Observation			
<p>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 147-102 Issue Number 4 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.</p> <p>There is a magnetic flow meter installed on each of the two 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. During the annual calibration of the flow meters in January 2022 the treated water flow meter was not able to be put back in service due to a malfunction. The treated water flows had to be estimated based on the combined raw water flows from January 13, 2022 to February 10, 2022, when a new treated water flow meter was installed.</p>			

Question ID	MRDW1016001	Question Type	Legislative
Question:			
Is the owner in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the MDWL issued under Part V of the SDWA?			
Legislative Requirement	SDWA 31 (1);		
Observation			
<p>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 147-102 Issue Number 4 states that the rated capacity for Park Lane Subdivision Drinking Water System is 50 m³/day. The rated capacity was not exceeded during the inspection review period. Table 2 of Schedule C of Municipal Drinking Water Licence 147-102 Issue Number 4 states</p>			

that the maximum flow rate for Well No. 1 is 68 L/min and the maximum flow rate for Well No. 2 is 68 L/min. The maximum flow rates were not exceeded during the inspection review period.

Question ID	MRDW1023001	Question Type	Legislative
Question:			
Do records indicate that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a DWWP and/or MDWL issued under Part V of the SDWA at all times that water was being supplied to consumers?			
Legislative Requirement	SDWA O. Reg. 170/03 1-2 (2);		
Observation			
<p>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 Park Lane Subdivision Drinking Water System is achieved by chlorination and the use of the chlorine contact/concentration time (CT) concept to ensure the provision of effective pathogen inactivation. The effective disinfectant contact time required for the CT concept is attained within the 63 m3 standpipe that was installed in 2016 to replace the five contact tanks that were previously used for storage and contact time. Following completion of the intended contact time, free chlorine residuals are maintained within the distribution system for secondary disinfection purposes.</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. Fail safes include, the low alarm set point being at a level which affords sufficient time for an Operator to respond, prior to the chlorine residual dropping below the level required for primary disinfection. Operators perform CT calculations regularly.</p> <p>In order to determine if primary disinfection was achieved at the Park Lane Subdivision Drinking Water System during the inspection review period, flow rates, free chlorine residuals, turbidity values, reservoir levels 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.</p>			

Question ID	MRDW1030000	Question Type	Legislative
Question:			
Is primary disinfection chlorine monitoring being conducted at a location approved by MDWL and/or DWWP issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved?			

Legislative Requirement	SDWA O. Reg. 170/03 7-2 (1); SDWA O. Reg. 170/03 7-2 (2);
Observation	
Primary disinfection chlorine monitoring was conducted at a location approved by Municipal Drinking Water Licence and/or Drinking Water Works Permit issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved.	

Question ID	MRDW1084001	Question Type	Legislative
Question:			
Are all inorganic water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Legislative Requirement	SDWA O. Reg. 170/03 13-2;		
Observation			
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. The most recent treated water samples collected and tested for all Schedule 23 parameters was on August 21, 2019. Previously samples were tested for Schedule 23 parameters on August 16, 2016.			

Question ID	MRDW1088000	Question Type	Legislative
Question:			
Are all nitrate/nitrite water quality monitoring requirements prescribed by legislation conducted within the required frequency for the DWS?			
Legislative Requirement	SDWA O. Reg. 170/03 13-7;		
Observation			
All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS. 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 Park Lane Subdivision Drinking Water System in February 2022 and May 2022 as required.			

Question ID	MRDW1089000	Question Type	Legislative
Question:			
Are all sodium water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Legislative Requirement	SDWA O. Reg. 170/03 13-8;		
Observation			
<p>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.</p> <p>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.</p> <p>The most recent treated water sample tested for sodium was collected on August 18, 2020 from the Park Lane Subdivision Drinking Water System. The result was 60.9 mg/L. A resample was collected on August 24, 2020 with a result of 57.6 mg/L.</p>			

Question ID	MRDW1090000	Question Type	Legislative
Question:			
Where fluoridation is not practiced, are all fluoride water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Legislative Requirement	SDWA O. Reg. 170/03 13-9;		
Observation			
<p>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.</p> <p>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</p>			

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 15, 2017 from Park Lane and tested for fluoride. Prior to that a fluoride sample was collected on August 22, 2012.

Question ID	MRDW1085001	Question Type	Legislative
Question: Are all organic water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Legislative Requirement	SDWA O. Reg. 170/03 13-4 (1); SDWA O. Reg. 170/03 13-4 (2); SDWA O. Reg. 170/03 13-4 (3);		
Observation			
All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency. 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. The most recent treated water samples tested for all Schedule 24 parameters were collected on August 21, 2019. Previously samples were collected for Schedule 24 parameters on August 16, 2016.			