

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

Central Region

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

**Ministère de l'Environnement de la Protection
de la nature et des Parcs**
*Division de la conformité en matière d'eau
potable et d'environnement*

Région du Centre

Bureau du district de Barrie
1201-54 chemin Cedar Pointe
Barrie ON L4N 5R7
Tél: (705) 739-6441
1-800-890-8511
Télé: (705) 739-6440



January 20, 2022

Zach Drinkwalter, Acting Chief Administrative Officer/Director of Finance
The Township of Ramara
2297 Highway 12, PO Box 130
Brechin, ON, L0K 1B0
(email: zdrinkwalter@ramara.ca)

Dear Mr. Drinkwalter

RE: Communal Drinking Water Inspection Report #1-31508440
Park Lane Subdivision Drinking Water System
Date of MECP Inspection: November 19, 2021

Please find enclosed the Ministry of the Environment, Conservation and Parks Inspection Report for the Park Lane Subdivision Drinking Water System (Water Works # 220007132) inspection. The physical inspection process took place on November 19, 2021.

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.

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. IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspector's Annual Report.

Please note that due to a change in IT systems, the Inspection Rating Report (IRR) cannot be generated at the same time as the inspection report. The IRR will be sent separately and prior to any public release (typically within 1-2 month of the completion of the inspection).

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 or concerns regarding this inspection report, please contact the undersigned.

Respectfully,



Mark Kowalyk
Drinking Water Inspector – Provincial Officer # 1707
Barrie District Office
Drinking Water and Environmental Compliance Division
Ministry of the Environment, Conservation and Parks

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*Wes Henneberry, SPC Manager, OCWA, whenneberry@ocwa.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
Nick Leroux, Senior Operations Manager, NLeroux@ocwa.com
Joe Foley, Overall Responsible Operator, OCWA, jfoley@ocwa.com
Medical Officer of Health, Simcoe-Muskoka District Health Unit
Barrie District Office File, MECP*



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

Inspection Report

System Number:	220007132
Inspection Start Date:	11/19/2021
Inspection End Date:	01/20/2022
Inspected By:	Mark Kowalyk
Badge #:	1707

A handwritten signature in black ink, appearing to be 'W. E. G.', written over a horizontal line.

(signature)

NON-COMPLIANCE/NON-CONFORMANCE ITEMS

The following item(s) have been identified as non-compliance/non-conformance, based on a "No" response captured for a legislative or best management practice (BMP) question (s), respectively.

Question Group: Water Quality Monitoring

Question ID	MRDW1097000	
Question	Question Type	Legislative Requirement
If the drinking water system obtains water from a ground water source, is turbidity being tested at least once every month from each well that is supplying water to the system?	Legislative	SDWA O. Reg. 170/03 7-3 (1.1)
Observation/Corrective Action(s)		
<p>Turbidity was not being tested at least once every month from each well that is supplying water to the system. Section 7-3 of Schedule 7 of Ontario Regulation 170/03 requires that the owner of a drinking water system and the operating authority for the system shall ensure that a water sample is taken at least once every month, from a location that is before raw water enters the treatment system, and is tested for turbidity. If the drinking water system obtains water from a raw water supply that is ground water, the owner of the system and the operating authority for the system shall ensure that a sample is taken from each well that is supplying water to the system. There are two groundwater supply wells for the Park Lane Subdivision Drinking Water System.</p> <p>During the inspection review period, monthly raw water turbidity samples were not collected in September 2020 for Well #1 and Well #2.. As a corrective action, Operations staff were provided and trained on facility sampling calendars which list the requirement for monthly raw water turbidity sampling from each raw water source.</p>		

INSPECTION DETAILS

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

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

Question ID	MRDW1001000	
Question	Question Type	Legislative Requirement
What was the scope of this inspection?	Information	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. 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>On Friday November 19, 2021, an unannounced on-site physical inspection of the Park Lane Subdivision Drinking Water System was conducted. The Park Lane Subdivision Drinking Water System serves an estimated population of 47 people with all of the available 19 lots being developed. The drinking water system is owned by the Corporation of the Township of Ramara but since September 1, 2020, has been operated by the Ontario Clean Water Agency. 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.</p> <p>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 used for disinfection 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> <p>This inspection was conducted pursuant to section 81 of the Safe Drinking Water Act in order to assess compliance with the requirements of Ontario Regulation 170/03 and Ministry control documents. The drinking water inspection included: physical inspection of the treatment equipment and facility; interview with Township of Ramara staff; and a review of relevant documents and data from the period of July 14, 2020 to November 19, 2021 (hereafter referred to as the "inspection review period").</p>		

Question ID	MRDW1000000	
Question	Question Type	Legislative Requirement
Does this drinking water system provide primary disinfection?	Information	Not Applicable
Observation		
<p>This Drinking Water System provides for both primary and secondary disinfection and distribution of water. Section 1-3 of Schedule 1 Ontario Regulation 170/03 requires the Owner of a drinking water system that obtains water from a raw water supply that is ground water to ensure provision of water treatment equipment that is designed to be capable of achieving, at all times, primary disinfection in accordance with the Ministry's Procedure for Disinfection of Drinking Water in Ontario, including at least 99 per cent removal or inactivation of viruses by the time water enters the distribution system.</p>		

Question ID	MRDW1007000	
Question	Question Type	Legislative Requirement
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	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.</p> <p>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 from each of the wells each week during the inspection review period. Operators inspect the wells regularly.</p>		

Question ID	MRDW1009000	
Question	Question Type	Legislative Requirement
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	SDWA 31 (1)
Observation		
<p>Measures were in place to protect the groundwater and/or GUDI source in accordance with any 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 3 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 3</p>		

requires well inspection and maintenance procedures for the entire well structure of each well including all above and below grade well components.
Condition 16.2.10 of Schedule B of Municipal Drinking Water Licence 147-102 Issue Number 3 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, as well as comparison of well level monitoring data and calibration of the flow meters. The Plan includes a list of conditions that may indicate a problem with the well casing or structure. The Plan includes a monthly well inspection checklist, monthly water level monitoring checks, yearly well performance inspection check list and a 5-year checklist of the unexposed well structure.
Operators regularly checked the well caps and above grade structures of the production wells during the inspection review period.

Question ID	MRDW1010000	
Question	Question Type	Legislative Requirement
Are trends in source water quality being monitored?	BMP	Not Applicable
Observation		
Trends in source water quality were being monitored. Raw water microbiological results are reviewed when the results are received. Quarterly sampling for major ions, nitrate and nitrite is performed for each of the two production wells, and the results summarized in the Park Lane Subdivision Drinking Water System Annual Report.		

Question ID	MRDW1014000	
Question	Question Type	Legislative Requirement
Is there sufficient monitoring of flow as required by the MDWL or DWWP issued under Part V of the SDWA?	Legislative	SDWA 31 (1)
Observation		
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 3 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 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. Daily log print outs include the 24 hour flows, flow since midnight, percentage of allowable raw water taken and min, max and average flows from each of the raw water wells, the total raw water flow and the volume entering the distribution system.		

Question ID	MRDW1015000	
Question	Question Type	Legislative Requirement
Are the flow measuring devices calibrated or verified in accordance with the requirements of the MDWL issued under Part V of the SDWA?	Legislative	SDWA 31 (1)
Observation		
<p>The flow measuring devices were calibrated or verified in accordance with the requirements of the MDWL issued under Part V of the SWDA. Condition 3 of Schedule C of Municipal Drinking Water Licence Number 147-102 Issue 3 states that:</p> <p>3.1 All flow measuring devices that are required by regulation, by a condition in the Drinking Water Works Permit, or by a condition otherwise imposed by the Ministry of the Environment, Conservation and Parks, shall be checked and calibrated in accordance with the manufacturer's instructions.</p> <p>3.2 If the manufacturer's instructions do not indicate how often to check and calibrate a flow measuring device, the equipment shall be checked and calibrated at least once every 12 months during which the drinking water system is in operation.</p> <p>3.2.1 For greater certainty, if condition 3.2 applies, the equipment shall be checked and calibrated not more than 30 days after the first anniversary of the day the equipment was checked and calibrated in the previous 12-month period.</p> <p>On January 21, 2021, the two flow meters underwent testing for calibration verification. A review of the submitted Flow Meter Verification Report shows that the flow meters passed calibration.</p>		

Question ID	MRDW1016000	
Question	Question Type	Legislative Requirement
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	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 3 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.</p> <p>Table 2 of Schedule C of Municipal Drinking Water Licence 147-102 issue 3 states that the maximum rate for Well #1 is 68 L/m and the maximum rate for Well #2 is 68 L/M. Well #1 and Well #2 pumps can operate simultaneously for a period of time, never to exceed 6 hours per day, such that the rated capacity of 50 m3/d is not exceeded.</p> <p>There was one day on January 21, 2021, where the maximum flow rates of 68 L/m was exceeded for Well #1 (74.958L/m) and Well #2 (75.006 L/m). It was confirmed that on this day, both flow meters received calibration.</p>		

Question ID	MRDW1017000	
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Question	Question Type	Legislative Requirement
Were appropriate records of flows and any capacity exceedances made in accordance with the MDWL issued under Part V of the SDWA?	Legislative	SDWA 31 (1)
Observation		
<p>Appropriate records of flows and any capacity exceedances were made in accordance with the Municipal Drinking Water Licence issued under Part V of the SDWA. Condition 2.1 of Schedule C of Municipal Drinking water Licence Number 147-102 Issue 3 requires that for each treatment subsystem identified in column 1 of Table 1 and in addition to any other flow measurement and recording that may be required, continuous flow measurement and recording shall be undertaken for:</p> <p>2.1.1 - The flow rate and daily volume of treated water that flows from the treatment subsystem to the distribution system.</p> <p>2.1.2 - The flow rate and daily volume of water that flows into the treatment subsystem.</p> <p>Flow meters are installed on each of the raw water lines supplying the Park Lane Subdivision Drinking Water System as well as on the combined raw water line and distribution header. The SCADA system records the measurements from the flow meters each minute.</p> <p>Condition 2.3 of Schedule C of Municipal Drinking Water Licence Number 4 states that where a rated capacity from Table 1 or a maximum flow rate from Table 2 is exceeded, the following shall be recorded:</p> <p>2.3.1 The difference between the measured amount and the applicable rated capacity or maximum flow rate specified in Table 1 or Table 2;</p> <p>2.3.2 The time and date of the measurement;</p> <p>2.3.3 The reason for the exceedance; and</p> <p>2.3.4 The duration of time that lapses between the applicable rated capacity or maximum flow rate first being exceeded and the next measurement where the applicable rated capacity or maximum flow rate is no longer exceeded.</p> <p>During the inspection review period, there was one instance where the maximum flow rate of 68L/s was exceeded for Well # 1 and Well #2. This exceedance was associated with the calibration of flow meters.</p>		

Question ID	MRDW1030000	
Question	Question Type	Legislative Requirement
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	SDWA O. Reg. 170/03 7-2 (1), SDWA O. Reg. 170/03 7-2 (2)
Observation		
<p>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. The continuous chlorine analyser is fed sample water from the point after the standpipe where the intended CT is achieved, prior to the water entering the distribution system.</p>		

Question ID	MRDW1038000	
Question	Question Type	Legislative Requirement
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	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	MRDW1036000	
Question	Question Type	Legislative Requirement
Where continuous monitoring equipment is not used for chlorine residual analysis, are samples tested using an acceptable portable device?	Legislative	SDWA O. Reg. 170/03 6-7 (1)
Observation		
Samples for chlorine residual analysis were tested using an acceptable portable device. The Park Lane Subdivision Drinking Water System utilizes the HACH direct read out colourimeters for assessing the secondary disinfection performance, as required by section 6-7 of Schedule 6 of Ontario Regulation 170/03.. These units are assessed each month against the secondary standards to ensure accuracy. A complete recalibration of each unit is completed annually.		

Question ID	MRDW1037000	
Question	Question Type	Legislative Requirement
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	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		
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.		

Question ID	MRDW1035000	
Question	Question	Legislative

	Type	Requirement
Are operators examining continuous monitoring test results and are they examining the results within 72 hours of the test?	Legislative	SDWA O. Reg. 170/03 6-5 (1) 1-4,SDWA O. Reg. 170/03 6-5 (1)5-10
Observation		
<p>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 small municipal residential system such as Park Lane Subdivision Drinking Water System.</p> <p>An Operator typically reviews the data recorded by the continuous monitoring equipment each day. Data is able to be reviewed remotely and comments entered electronically onto the daily log sheets. There was one instance during the inspection review period when there were two consecutive days that the daily log sheets did not indicate that a review of the data had taken place. An Operator reviews the data recorded by the continuous monitoring equipment each day from Monday to Friday and once over the weekend.</p>		

Question ID	MRDW1040000		
Question	Question Type	Legislative Requirement	
Are all continuous analysers calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation?	Legislative	SDWA O. Reg. 170/03 6-5 (1) 1-4,SDWA O. Reg. 170/03 6-5 (1)5-10	
Observation			
<p>All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation. Subsection 6-5 (1) 8 of Schedule 6 of Ontario Regulation 170/03 states that the continuous monitoring equipment must be checked and calibrated in accordance with the manufacturer's instructions. Subsection 6-5(1)10 states that if the manufacturer's instructions do not indicate how often to check and calibrate the continuous monitoring equipment and paragraph 9 does not apply, the equipment must be checked and calibrated as often as necessary to ensure that test results are within the following margins of error: i. In the case of free chlorine residual, 0.05 milligrams per litre, if the concentrations usually measured by the equipment are less than or equal to 1.0 milligrams per litre, and proportionally higher if the concentrations usually measured are greater than 1.0 milligrams per litre, ii. In the case of free chlorine residual and total chlorine residual measured for the purpose of determining combined chlorine residual, 0.05 milligrams per litre, if the concentrations usually measured by the equipment are less than or equal to 1.0 milligrams per litre, and proportionally higher if the concentrations usually measured are greater than 1.0 milligrams per litre, iii. 0.1 Nephelometric Turbidity Units (NTU), in the case of turbidity. Most days that Operators attend the pumphouse they compare the hand held colorimeter value for free chlorine residual with the continuous analyser. 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</p>			

secondary standards periodically, and are serviced by the manufacturer if the secondary verification is not within the required range. The hand held colorimeter was calibrated and verified on January 21, 2021 by a qualified external company. The continuous analyser probe and electrolyte are changed as required and calibrated annually by a service technician. The electrolyte was changed on October 23, 2021 and the analysers were last serviced by a technician on January 21, 2021.

Question ID	MRDW1108000	
Question	Question Type	Legislative Requirement
Where continuous monitoring equipment used for the monitoring of free chlorine residual, total chlorine residual, combined chlorine residual or turbidity, required by Regulation 170, 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	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. Following a review of log books and the supporting information provided in conjunction with the inspection, it appears that when required, an operator was dispatched and arrived in a timely manner to respond to any alarm occurrences. There were no concerns identified with operator entries in the logs.		

Question ID	MRDW1031000	
Question	Question Type	Legislative Requirement
Are operators aware of the operational criteria necessary to achieve primary disinfection within the drinking water system?	BMP	Not Applicable
Observation		
Operators were aware of the operational criteria necessary to achieve primary disinfection within the drinking water system. Operators are familiar with the operational criteria necessary to achieve primary disinfection. A CT calculator is also available so that details of each specific parameter can be entered and a calculation performed to ensure primary disinfection is being achieved at all times. CT related procedures also exist within the Operations and Maintenance Manual.		

Question ID	MRDW1034000	
Question	Question Type	Legislative Requirement
Is the secondary disinfectant residual measured as required for the small municipal residential distribution system?	Legislative	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 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. 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). During the inspection review period free chlorine residuals were measured in the Park Lane Subdivision distribution system as required.</p>		

Question ID	MRDW1018000	
Question	Question Type	Legislative Requirement
Has the owner ensured that all equipment is installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?	Legislative	SDWA 31 (1)
Observation		
<p>The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit. During the inspection, installed equipment appeared to meet the description contained in Schedule A of Drinking Water Works Permit 147-202 Issue Number 3. In the system description overview, it notes that the Park Lane Subdivision Drinking Water System obtains its drinking water from Wells # 1 and 2. There is not a Schedule C associated with the Permit.</p>		

Question ID	MRDW1023000	
Question	Question Type	Legislative Requirement
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	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 Ontario Regulation 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. In April 2016, a 63m³ standpipe was installed to provide contact time and replaced the previous five (5) chlorine contact tanks. Following completion of the intended contact time, free chlorine residuals are maintained</p>		

within the distribution system for secondary disinfection purposes. 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 in the event of a low chlorine alarm to confirm that primary disinfection has been achieved.

During the course of the inspection review period, the chlorine residual did not fall below the required level for primary disinfection except during maintenance activities, such as testing the low chlorine alarm, cleaning the analyzer, or replacing with a new analyzer.

Question ID	MRDW1024000	
Question	Question Type	Legislative Requirement
Do records confirm 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?	Legislative	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. Section 1-2. (2) 4. of Schedule 1 of Ontario Regulation 170/03 requires that if the drinking water system's water treatment equipment provides chlorination or chloramination for secondary disinfection, the equipment is operated so that, at all times and at all locations within the distribution system, the free chlorine residual is never less than 0.05mg/L, if the drinking water system provides chlorination and does not provide chloramination. During the inspection review period, there were no free chlorine residual results resulting in the Park Lane Subdivision distribution system below 0.05mg/L. The lowest recorded distribution reading for free chlorine residual during the inspection review period was on July 30, 2021 where the value was 0.57 mg/L.		

Question ID	MRDW1027000	
Question	Question Type	Legislative Requirement
Does the owner have evidence indicating that all chemicals and materials which come in contact with water within the drinking water system have met all applicable AWWA and ANSI standards in accordance with the DWWP and MDWL issued under Part V of the SDWA?	Legislative	SDWA 31 (1)
Observation		
The owner had evidence indicating that all chemicals and materials that come in contact with water within the drinking water system met the AWWA and ANSI standards in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part V of the SDWA. Condition 14.1 of Municipal Drinking Water Licence 147-102 Issue Number 3 states		

that all chemicals and materials used in the alteration or operation of the drinking water system that come into contact with water within the system shall meet all applicable standards set by both the American Water Works Association ("AWWA") and the American National Standards Institute ("ANSI") safety critical standards NSF/60, NSF/61, NSF/372.
The Park Lane Subdivision Drinking Water System uses NSF certified potassium permanganate and sodium hypochlorite.

Question ID	MRDW1028000	
Question	Question Type	Legislative Requirement
Are up-to-date plans for the drinking water system kept in place, or made available in such a manner, that they may be readily viewed by all persons responsible for all or part of the operation of the drinking water system in accordance with the DWWP and MDWL issued under Part V of the SDWA?	Legislative	SDWA 31 (1)
Observation		
Up-to-date plans for the drinking water system were kept in a place, or made available in such a manner, that they could be readily viewed by all persons responsible for all or part of the operation of the drinking water system in accordance with the DWWP and MDWL issued under Part V of the SDWA. Condition 15.3 of Schedule B of Municipal Drinking Water Licence 147-102 Number 3 requires that process flow diagrams and process and instrumentation diagrams for any treatment subsystem shall be kept in place, or made available in such a manner, that they may be readily viewed by all persons responsible for all or part of the operation of the drinking water system. Operations and maintenance manuals for the Park Lane Subdivision Drinking Water System are located at the pumphouse. Additionally, hardcopies and electronic copies of the plans at also located in the Township of Ramara Office. Operators are aware of where the operations and maintenance manuals are located.		

Question ID	MRDW1029000	
Question	Question Type	Legislative Requirement
Where a potential bypass of primary or secondary treatment equipment exists, have measures been taken to ensure that raw or partially treated water is not directed to the distribution system?	BMP	Not Applicable
Observation		
Where a potential bypass of primary or secondary treatment equipment existed, measures were taken to ensure that raw or partially treated water was not directed to the distribution system. The configuration of the treatment piping allows for the bypass of the standpipe where contact time is afforded. A lockout is on the bypass valve to prevent it from being inadvertently opened.		

Question ID	MRDW1043000	
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Question	Question Type	Legislative Requirement
Are the process wastewater and residual solids/sludges being treated, handled and disposed of in accordance with the design requirements approved under the Drinking Water Works Permit and the Municipal Drinking Water Licence?	Legislative	SDWA 31 (1)
Observation		
The process wastewater and residual solids/sludges were treated, handled and disposed of in accordance with the design requirements approved under the Drinking Water Works Permit and the Municipal Drinking Water Licence. According to Schedule A - Waste Residual Management in Drinking Water Works Permit 147-102 Issue Number 3, supernatant from the backwash wastewater holding tank is discharged to a ditch, whereas, the accumulated settled solids at the bottom of the backwash storage tank are removed by a sewage pump truck.		

Question ID	MRDW1044000	
Question	Question Type	Legislative Requirement
Does the process wastewater discharge monitoring program and discharge quality comply with requirements established in the MDWL issued under Part V of the SDWA?	Legislative	SDWA 31 (1)
Observation		
<p>The process wastewater discharge monitoring program and discharge quality complied with requirements established in the Municipal Drinking Water Licence Issued under Part V of the SDWA. Condition 1.5 of Schedule C of Municipal Drinking Water Licence 147-102 Issue 3 states that in respect of an effluent discharged into the natural environment from a treatment subsystem or treatment subsystem component listed in column 1 or Table 3:</p> <p>1.5.1 The annual average concentration of a test parameter identified in column 2 shall not exceed the value in column 3 of the same row, and</p> <p>1.5.2 The maximum concentration of a test parameter identified in column 2 shall not exceed the value in column 4 of the same row.</p> <p>Table 3 states that the backwash waste holding tank supernatant total suspended solids shall not exceed an annual average concentration of 15mg/L.</p> <p>Condition 4.2 of Schedule C of Municipal Drinking Water License 147-102 Issue 3 states that each treatment subsystem or treatment subsystem component identified in column 1 of Table 7 and in addition to any other sampling, testing and monitoring that may be required, sampling, testing and monitoring shall be undertaken for a test parameter listed in column 2 using the sample type identified in column 3 at the sampling frequency listed in column 4 and at the monitoring location listed in column 5 of the same row.</p> <p>Table 7 states that the backwash waste holding tank supernatant is to be tested for total suspended solids in manual composite sample quarterly from the point of discharge.</p> <p>Since the last physical inspection on July 14, 2020 , the backwash water was sampled on August 19, 2020 and November 19, 2020, The average concentration of total suspended in 2020 was 6.0 mg/L , In 2021, the backwash water was sampled on February 9, 2021, May 12, 2021, August 9, 2021 and November 2, 2021.The average concentration of total suspended in 2021 was 2.3mg/L ,</p>		

Question ID	MRDW1046000	
Question	Question Type	Legislative Requirement
Is there a backflow prevention program, policy and/or bylaw in place that addresses cross connections and connections to high hazard facilities?	BMP	Not Applicable
Observation		
<p>There is a backflow prevention program, policy and/or bylaw in place. The Owner of the Park Lane Subdivision Drinking Water System has installed backflow preventers on all service connections within the system. There are only residential service connections within the system. The backflow preventers were installed as part of the water metering program.</p> <p>The Corporation of the Township of Ramara has a cross connection bylaw which requires backflow prevention devices for all industrial, commercial, institutional, agricultural and multi-residential buildings, or if a condition exists in any building or structure that may be hazardous or detrimental to the potable water supply as determined by the Township, including lawn sprinkler systems for residential connections.</p>		

Question ID	MRDW1047000	
Question	Question Type	Legislative Requirement
Does the owner have a program or maintain a schedule for routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks within the distribution system?	BMP	Not Applicable
Observation		
<p>The owner had a program or maintained a schedule for routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks within the distribution system. When routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks occurs, operators capture and document this information on the daily log sheets.</p>		

Question ID	MRDW1048000	
Question	Question Type	Legislative Requirement
Has the owner implemented a program for the flushing of watermains as per industry standards?	BMP	Not Applicable
Observation		
<p>The owner had implemented a program for the flushing of watermains as per industry standards. Annually, in the fall, the Park Lane Subdivision Drinking Water System is flushed. The Owner has not received complaints regarding water quality.</p>		

Question ID	MRDW1049000	
Question	Question Type	Legislative Requirement
Do records confirm that disinfectant residuals are routinely checked at the extremities and dead ends of the distribution	BMP	Not Applicable

system?		
Observation		
Records confirmed that disinfectant residuals were routinely checked at the extremities and "dead ends" of the distribution system. There are three (3) sample stations installed throughout the Park Lane Subdivision. One at each end and one in the old pumphouse. Free chlorine residuals are routinely measured at all of the sample stations.		

Question ID	MRDW1050000	
Question	Question Type	Legislative Requirement
Is there a program in place for inspecting and exercising valves?	BMP	Not Applicable
Observation		
A program was in place for inspecting and exercising valves. The Park Lane Subdivision Drinking Water System Operations Manual contains a procedure for valve maintenance. Each distribution system main valve is to be opened once per year to ensure it is in good working order. If a valve is found to require replacement or maintenance, actions will be taken to rectify the problem. Valves are exercised in the fall during flushing.		

Question ID	MRDW1053000	
Question	Question Type	Legislative Requirement
Is the Owner able to maintain proper pressures in the distribution system and is pressure monitored to alert the operator of conditions which may lead to loss of pressure below the value under which the system is designed to operate?	BMP	Not Applicable
Observation		
The owner was able to maintain proper pressures in the distribution system and pressure was monitored to alert the operator of conditions which may lead to loss of pressure below the value under which the system is designed to operate. There were no complaints of low water pressure from residents of the Park Lane Subdivision Drinking Water System during the inspection review period. Water pressure is measured in the pumphouse on the distribution header. The pressure switch is connected to the SCADA system and will alarm for both high and low pressure conditions. The installation of the standpipe and high lift pumps will assist in maintaining a more constant pressure in the distribution system.		

Question ID	MRDW1058000	
Question	Question Type	Legislative Requirement
Do operators and maintenance personnel have ready access to operations and maintenance manuals?	Legislative	SDWA O. Reg. 128/04 28
Observation		
Operators and maintenance personnel had ready access to operations and maintenance manuals.		

Operations and maintenance manuals for the Park Lane Subdivision Drinking Water System are located at the pumphouse and at the Township of Ramara Office. Operators are aware of where the operations and maintenance manuals are located.

Question ID	MRDW1063000	
Question	Question Type	Legislative Requirement
For every required operational test and for every required sample, is a record made of the date, time, location, name of the person conducting the test and result of the test?	Legislative	SDWA O. Reg. 170/03 6-10 (1)
Observation		
For every required operational test and every required sample, a record was made of the date, time, location, name of the person conducting the test and result of the test. Section 6-10 of Ontario Regulation 170/03 requires that the owner of a drinking water system and the operating authority for the system shall ensure that, for every sample required by this Regulation, a record is made of the date and time the sample was taken, the location where the sample was taken, the name of the person who took the sample, and the result of the test where applicable. All required information was recorded during the inspection review period, either on the chain of custody form for samples submitted to an accredited laboratory, or on the logsheets for the Park Lane Subdivision Drinking Water System.		

Question ID	MRDW1064000	
Question	Question Type	Legislative Requirement
Did the operator-in-charge ensure that records were maintained of all adjustments made to the processes within his or her responsibility?	Legislative	SDWA O. Reg. 128/04 26 (2)
Observation		
The operator-in-charge ensured that records were maintained of all adjustments made to the processes within his or her responsibility. Records are reviewed Monday to Friday from continuous analysers, as well as once on the weekends. The Operator in Charge is notified of any abnormal conditions through alarms. A maintenance schedule is completed, as well as visual inspections. Any abnormal conditions are immediately rectified.		

Question ID	MRDW1065000	
Question	Question Type	Legislative Requirement
Are logs and other record keeping mechanisms available for at least five (5) years?	Legislative	SDWA O. Reg. 128/04 27 (6)
Observation		
Logs or other record keeping mechanisms were available for at least five (5) years.		

Question ID	MRDW1059000	
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Question	Question Type	Legislative Requirement
Do the operations and maintenance manuals contain plans, drawings and process descriptions sufficient for the safe and efficient operation of the system?	Legislative	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	Question Type	Legislative Requirement
Do the operations and maintenance manuals meet the requirements of the DWWP and MDWL issued under Part V of the SDWA?	Legislative	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 3 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</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 for 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 noncompliance with respect to regulatory requirements and/or risk to raw well water quality.</p> <p>The Park Lane Water Works Operations and Maintenance manual meets the requirements of the Municipal Drinking Water Licence.</p>		

Question ID	MRDW1061000	
Question	Question Type	Legislative Requirement
<p>Are logbooks properly maintained and contain the required information?</p>	Legislative	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		
<p>Logbooks were properly maintained and contained the required information. Section 27 of Ontario Regulation 128/04 states that:</p> <p>(1) The owner or operating authority of a subsystem shall ensure that logs or other record-keeping mechanisms are provided to record information concerning the operation of the subsystem. O. Reg. 128/04, s. 27 (1).</p> <p>(2) Entries in the logs or other record-keeping mechanisms shall be made chronologically. O. Reg. 128/04, s. 27 (2).</p> <p>(3) No person shall make an entry in a log or other record-keeping mechanism unless the person is an overall responsible operator, an operator-in-charge or is authorized to make an entry by the owner, the operating authority, the overall responsible operator or an operator-in-charge. O. Reg. 128/04, s. 27 (3).</p> <p>(4) A person who makes an entry in a log or other record-keeping mechanism shall do so in a manner that permits the person to be unambiguously identified as the maker of the entry. O. Reg. 128/04, s. 27 (4).</p> <p>(5) An operator-in-charge or a person authorized by an operator-in-charge shall record the following information in the logs or other record-keeping mechanisms in respect of each operating shift:</p> <ol style="list-style-type: none"> 1. The date, the time of day the shift began and ended and the number or designation of the shift. 2. The names of all operators on duty during the shift. 3. Any departures from normal operating procedures that occurred during the shift and the time they occurred. 4. Any special instructions that were given during the shift to depart from normal operating procedures and the person who gave the instructions. 5. Any unusual or abnormal conditions that were observed in the subsystem during the shift, any action that was taken and any conclusions drawn from the observations. 6. Any equipment that was taken out of service or ceased to operate during the shift and any action taken to maintain or repair equipment during the shift. O. Reg. 128/04, s. 27 (5). <p>(6) The owner or operating authority shall ensure that logs and other record-keeping mechanisms</p>		

are accessible at the subsystem,
 (a) for at least five years after the last entry in it was made, in the case of a log or record-keeping mechanism that is kept in a book or document form or kept on a similarly fixed basis; or
 (b) for at least five years after each entry in it was made, in the case of a log or record-keeping mechanism that is kept on a loose-leaf or electronic basis or kept on a similarly continuous basis.
 Logbooks for the Park Lane Subdivision Drinking Water System are kept in a variety of ways. Each day, a print out from SCADA data is done automatically at 6:00hrs with a summary of the previous day. These print outs include flow data, chlorine and potassium permanganate levels and dosages, treated water turbidity and free chlorine residuals, operator initials of OIC and operators on duty. Operators fill in values when they are in the pumphouse for turbidity, chlorine residuals, pump hours, backwash times and any comments. Operators could be more specific about the times associated with comments, such as when low chlorine alarm tests are performed. Logs are also kept for the distribution chlorine residuals and weekly, monthly and yearly checklists.

Question ID	MRDW1062000	
Question	Question Type	Legislative Requirement
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	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	MRDW1066000	
Question	Question Type	Legislative Requirement
Is spill containment provided for process chemicals and standby power generator fuel?	BMP	Not Applicable
Observation		
Spill containment was provided for process chemicals and/or standby power generator fuel. Spill containment is provided for the sodium hypochlorite and potassium permanganate used in the treatment process. The standby power generator uses propane as fuel. The propane storage tank appears to be in good condition.		

Question ID	MRDW1067000	
Question	Question Type	Legislative Requirement
Are clean-up equipment and materials in place for the clean up of spills?	BMP	Not Applicable
Observation		

Clean-up equipment and materials were in place for the clean up of spills. Spill response kits are located in Operator vehicles.

Question ID	MRDW1068000	
Question	Question Type	Legislative Requirement
If available, are standby power generators tested under normal load conditions?	BMP	Not Applicable
Observation		
Standby power generators were tested under normal load conditions. The Park Lane Subdivision Drinking Water System is equipped with a propane fuelled generator capable of powering the water treatment plant. The generator is exercised weekly in a non-load condition, and tested every month under load, unless it was called on in response to a power outage since the previous load test. Annually the generator undergoes a resistance load test by an outside company.		

Question ID	MRDW1069000	
Question	Question Type	Legislative Requirement
Are all storage facilities completely covered and secure?	BMP	Not Applicable
Observation		
All storage facilities were completely covered and secure. The standpipe is completely covered, the vents are screened and the ladder for accessing the hatch is locked. The overflow for the standpipe is equipped with a duck bill check valve. There are no other storage facilities associated with the Park Lane Subdivision Drinking Water System.		

Question ID	MRDW1070000	
Question	Question Type	Legislative Requirement
Are air vents and overflows associated with reservoirs and elevated storage structures equipped with screens?	BMP	Not Applicable
Observation		
Air vents and overflows associated with reservoirs and elevated storage structures were equipped with screens.		

Question ID	MRDW1071000	
Question	Question Type	Legislative Requirement
Has the owner provided security measures to protect components of the drinking water system?	BMP	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	MRDW1072000	
Question	Question Type	Legislative Requirement
Has the owner and/or operating authority undertaken efforts to promote water conservation and reduce water losses in their system?	BMP	Not Applicable
Observation		
The owner and/or operating authority undertook efforts to promote water conservation and reduce water losses in their system. All service connections are outfitted with water meters. The Owner has a bylaw to regulate the supply of water, including restrictions for lawn watering and non-domestic water use.		

Question ID	MRDW1073000	
Question	Question Type	Legislative Requirement
Has the overall responsible operator been designated for all subsystems which comprise the drinking water system?	Legislative	SDWA O. Reg. 128/04 23 (1)
Observation		
The overall responsible operator has been designated for each subsystem. The Park Lane 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.		

Question ID	MRDW1074000	
Question	Question Type	Legislative Requirement
Have operators in charge been designated for all subsystems for which comprise the drinking water system?	Legislative	SDWA O. Reg. 128/04 25 (1)
Observation		
Operators-in-charge had been designated for all subsystems which comprised the drinking water system. The Park Lane Subdivision Drinking Water System is comprised of a Water Distribution Class 1 and Water Treatment Class 1 subsystem. The Operator in Charge is designated for both of the subsystems.		

Question ID	MRDW1075000	
Question	Question Type	Legislative Requirement
Do all operators possess the required certification?	Legislative	SDWA O. Reg. 128/04 22
Observation		
All operators possessed the required certification.		

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Question ID	MRDW1076000	
Question	Question Type	Legislative Requirement
Do only certified operators make adjustments to the treatment equipment?	Legislative	SDWA O. Reg. 170/03 1-2 (2)
Observation		
Only certified operators made adjustments to the treatment equipment.		

Question ID	MRDW1078000	
Question	Question Type	Legislative Requirement
In instances where the overall responsible operator was unable to act, was an adequately certified operator designated to act in place of the overall responsible operator?	Legislative	SDWA O. Reg. 128/04 23 (1), SDWA O. Reg. 128/04 23 (2), SDWA O. Reg. 128/04 23 (3), SDWA O. Reg. 128/04 23 (4), SDWA O. Reg. 128/04 23 (5), SDWA O. Reg. 128/04 23 (6), SDWA O. Reg. 128/04 23 (7)
Observation		
An adequately licenced operator was designated to act in place of the overall responsible operator when the overall responsible operator was unable to act.		

Question ID	MRDW1099000	
Question	Question Type	Legislative Requirement
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)?	Information	Not Applicable
Observation		
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 course of the inspection review period, three (3) AWQI's were observed. On June 23, 2021, samples were collected from the three (3) sample taps. Sample tap #3 showed		

that both Total Coliform and Escherichia coli = 720, The free chlorine residual at time of sample was 0.96 mg/L.. Two sets of resamples were collected on June 25 and June 26, 2021. Results received did not indicate any further adverse conditions.

On June 24, 2021, resamples collected to fulfill previous AWQI resampling once again yielded a Total Coliforms = 35, Escherichia coli = 0 at Station 1, free chlorine residual = 1.22mg/L.. At Sample Station 3, Total Coliforms = 21 and Escherichia coli = 12 with free chlorine residual 1.09 mg/L. Two sets of resamples were collected on June 25 and June 26, 2021. Results received did not indicate any further adverse conditions to either of the sample stations.

On October 6, 2021, samples collected from Sample Station #1 showed that Total Coliform = 6, Escherichia coli = 0 with a free chlorine residual = 1.86mg/L. Resamples collected on October 8, 2021 showed that results received did not indicate any further adverse conditions.

Question ID	MRDW1080000	
Question	Question Type	Legislative Requirement
Are all microbiological water quality monitoring requirements for raw water samples prescribed by legislation being met?	Legislative	SDWA O. Reg. 170/03 11-3 (1),SDWA O. Reg. 170/03 11-3 (3)
Observation		
All microbiological water quality monitoring requirements for raw water samples were being met. Section 11-3 of Schedule 11 of Ontario Regulation 170/03 requires that if a drinking water system obtains water from a raw water supply that is ground water or a drinking water system is deemed under Section 2 to obtain water from a raw water supply that is surface water, the owner of the system and the operating authority for the system shall ensure that a water sample is taken at least once every month from the raw water in each well that is supplying water to the system, before any treatment is applied to the water. 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 coil and total coliforms. After a review of the submitted reports, raw water microbiological sample requirements were met by the Park Lane Subdivision Drinking Water System.		

Question ID	MRDW1084000	
Question	Question Type	Legislative Requirement
Are all inorganic water quality monitoring requirements prescribed by legislation conducted within the required frequency?	Legislative	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 of Schedule 13 of Ontario Regulation 170/03 requires that the owner of a small residential 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 every parameter set out in Schedule 23.
During the inspection review period, treated samples were collected on August 21, 2019.

Question ID	MRDW1085000	
Question	Question Type	Legislative Requirement
Are all organic water quality monitoring requirements prescribed by legislation conducted within the required frequency?	Legislative	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 of Schedule 13 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 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		

Question ID	MRDW1086000	
Question	Question Type	Legislative Requirement
Are all haloacetic acid water quality monitoring requirements prescribed by legislation conducted within the required frequency and at the required location?	Legislative	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 are being 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 requirement to sample for HAA came into effect on January 1, 2017. The standard 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 on November 19, 2020, February 9, 2021, May 12, 2021, August 4, 2021, and November 2, 2021, as required.

Question ID	MRDW1087000	
Question	Question Type	Legislative Requirement
Have all trihalomethane water quality monitoring requirements prescribed by legislation been conducted within the required frequency and at the required location?	Legislative	SDWA O. Reg. 170/03 13-6 (1)
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 every three months 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 from the Park Lane Subdivision distribution system and tested for THMs on November 19, 2020, February 9, 2021, May 12, 2021 and August 4, 2021, and November 2, 2021, as required.		

Question ID	MRDW1088000	
Question	Question Type	Legislative Requirement
Are all nitrate/nitrite water quality monitoring requirements prescribed by legislation conducted within the required frequency for the DWS?	Legislative	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 on November 19, 2020, February 9, 2021, May 12, 2021, August 4, 2021, and November 2, 2021, as required.		

Question ID	MRDW1089000	
Question	Question Type	Legislative Requirement
Are all sodium water quality monitoring requirements prescribed by legislation conducted within the required frequency?	Legislative	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 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>A treated water sample for sodium was last sampled on August 12, 2020 with a follow-up resample on August 24, 2020.</p>		

Question ID	MRDW1090000	
Question	Question Type	Legislative Requirement
Where fluoridation is not practiced, are all fluoride water quality monitoring requirements prescribed by legislation conducted within the required frequency?	Legislative	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 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>On August 15, 2017, a fluoride sample was collected from the treated water sample point at Park Lane Subdivision Drinking Water System.</p>		

Question ID	MRDW1092000	
Question	Question Type	Legislative Requirement

Has the owner ensured that water samples are taken at the prescribed location?	Legislative	SDWA O. Reg. 170/03 6-2
Observation		
<p>The owner ensured that water samples were taken at the prescribed location. Section 6-2 of Schedule 6 of Ontario Regulation 170/03 states that unless otherwise specified, a person who is required to ensure that samples are taken under this Regulation, shall ensure that they are taking from the point at which water enters the drinking water systems' distribution system or plumbing that is connected to the drinking water system.</p> <p>Nitrate, nitrite, organic and inorganic samples, as well as treated water microbiological samples were collected from the treated water sampling point in the Park Lane Subdivision pumphouse.</p>		

Question ID	MRDW1095000	Question	Question Type	Legislative Requirement
		Have all lead sampling requirements prescribed by Schedule 15.1 of O.R. 170/03 been met?	Legislative	SDWA O. Reg. 170/03 15.1-10, SDWA O. Reg. 170/03 15.1-4 (1),SDWA O. Reg. 170/03 15.1-5 (1), SDWA O. Reg. 170/03 15.1-5 (10),SDWA O. Reg. 170/03 15.1-5 (11), SDWA O. Reg. 170/03 15.1-5 (12),SDWA O. Reg. 170/03 15.1-5 (2), SDWA O. Reg. 170/03 15.1-5 (3),SDWA O. Reg. 170/03 15.1-5 (4), SDWA O. Reg. 170/03 15.1-5 (5),SDWA O. Reg. 170/03 15.1-5 (6), SDWA O. Reg. 170/03 15.1-5 (7),SDWA O. Reg. 170/03 15.1-5 (8), SDWA O. Reg.

	<p>170/03 15.1-5 (9),SDWA O. Reg. 170/03 15.1-7 (1), SDWA O. Reg. 170/03 15.1-7 (2),SDWA O. Reg. 170/03 15.1-7 (3), SDWA O. Reg. 170/03 15.1-7 (4),SDWA O. Reg. 170/03 15.1-9 (1), SDWA O. Reg. 170/03 15.1-9 (2),SDWA O. Reg. 170/03 15.1-9 (3), SDWA O. Reg. 170/03 15.1-9 (4),SDWA O. Reg. 170/03 15.1-9 (5), SDWA O. Reg. 170/03 15.1-9 (6),SDWA O. Reg. 170/03 15.1-9 (7), SDWA O. Reg. 170/03 15.1-9 (8),SDWA O. Reg. 170/03 15.1-9 (9)</p>
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Observation

All sampling requirements for lead prescribed by schedule 15.1 of O. Reg. 170/03 were being met. Park Lane Subdivision Drinking Water System has met the requirements to be eligible for reduced sampling under section 15.1-5 (10) of Schedule 15.1 of Ontario Regulation 170/03. As such, one distribution sample is required to be sampled in each winter and summer period (December 15 to April 15, and June 15 to October 15), and be tested for total alkalinity and for pH.

During the inspection review period, a lead sample, along with alkalinity and pH was collected on March 11, 2019, and the required second lead sample was collected on August 21, 2019. Distribution water lead samples are next required in 2022.

Question ID	MRDW1096000		
Question	Question	Legislative	

	Type	Requirement
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	SDWA O. Reg. 170/03 6-3 (1)
Observation		
<p>Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained. Subsection 6-3 of Schedule 6 of Ontario Regulation 170/03 states that if this Regulation requires a water sample to be taken and tested for a microbiological parameter, the owner of the drinking water system and the operating authority for the system shall ensure that another sample is taken at the same time from the same location and is tested immediately for free chlorine residual, if the system provides chlorination and does not provide chloramination.</p> <p>During the inspection review period, free chlorine residuals were tested at the same time and from the same location as treated water and distribution microbiological samples. The chlorine residual results were recorded on the chain of custody forms submitted to the laboratory and in the personal logs of Operators.</p> <p>In addition, during the course of the physical inspection of the Park Lane Subdivision Drinking Water System, four (4) grab samples of treated water were collected. The HACH chlorine analyser showed that at Station #1, the chlorine residual was 1.71mg/L, at Station #2, the chlorine residual was 1.70mg/L, Station #3, the chlorine residual was 1.66mg/L with a final grab sample taken at the pumphouse. The pumphouse chlorine residual was 1.72mg/L. The continuous chlorine analyser which is located within the pumphouse showed a reading of 1.71mg/L.</p>		

Question ID	MRDW1097000	Question	Question Type	Legislative Requirement
		If the drinking water system obtains water from a ground water source, is turbidity being tested at least once every month from each well that is supplying water to the system?	Legislative	SDWA O. Reg. 170/03 7-3 (1.1)
Observation				
<p>Turbidity was not being tested at least once every month from each well that is supplying water to the system. Section 7-3 of Schedule 7 of Ontario Regulation 170/03 requires that the owner of a drinking water system and the operating authority for the system shall ensure that a water sample is taken at least once every month, from a location that is before raw water enters the treatment system, and is tested for turbidity. If the drinking water system obtains water from a raw water supply that is ground water, the owner of the system and the operating authority for the system shall ensure that a sample is taken from each well that is supplying water to the system. There are two groundwater supply wells for the Park Lane Subdivision Drinking Water System.</p> <p>During the inspection review period, monthly raw water turbidity samples were not collected in September 2020 for Well #1 and Well #2.. As a corrective action, Operations staff were provided and trained on facility sampling calendars which list the requirement for monthly raw water turbidity sampling from each raw water source.</p>				

Question ID	MRDW1098000	Question	Question	Legislative

	Type	Requirement
Has the owner indicated that the required records are kept and will be kept for the required time period?	Legislative	SDWA O. Reg. 170/03 13 (1), SDWA O. Reg. 170/03 13 (2), SDWA O. Reg. 170/03 13 (3)
Observation		
The owner indicated that the required records are kept and will be kept for the required time period.		

Question ID	MRDW1100000		
Question	Question Type	Legislative Requirement	
Did any reportable adverse/exceedance conditions occur during the inspection period?	Information	Not Applicable	
Observation			
There were reportable adverse/exceedances during the inspection period.			

Question ID	MRDW1102000		
Question	Question Type	Legislative Requirement	
Have corrective actions (as per Schedule 18) been taken to address adverse conditions, including any other steps as directed by the Medical Officer of Health?	Legislative	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	

Observation
Corrective actions (as per Schedule 18) had been taken to address adverse conditions, including any other steps that were directed by the Medical Officer of Health.

Question ID	MRDW1104000	
Question	Question Type	Legislative Requirement
Were all required verbal notifications of adverse water quality incidents immediately provided as per O. Reg. 170/03 16-6?	Legislative	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)
Observation		
All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6.		

Question ID	MRDW1105000	
Question	Question Type	Legislative Requirement
Were all required written notices of adverse water quality incidents provided as per O. Reg. 170/03 16-7?	Legislative	SDWA O. Reg. 170/03 16-7 (1),SDWA O. Reg. 170/03 16-7 (2),SDWA O. Reg. 170/03 16-7 (3),SDWA O. Reg. 170/03 16-7 (4),SDWA O. Reg. 170/03 16-7 (5)
Observation		
All required written notices of adverse water quality incidents were provided as per O. Reg.		

170/03 16-7. Written notices were submitted to the Medical Officer of Health, the Spills Action Centre, as well as the owner.

Question ID	MRDW1106000	
Question	Question Type	Legislative Requirement
Were all required written notices of issue resolution provided as per O. Reg.. 170/03 16-9?	Legislative	SDWA O. Reg. 170/03 16-9 (1),SDWA O. Reg. 170/03 16-9 (2)
Observation		
In instances where written notice of issue resolution was required by regulation, the notice was provided as per O. Reg. 170/03 16-9.		

Question ID	MRDW1110000	
Question	Question Type	Legislative Requirement
Was an Annual Report containing the required information prepared by February 28 of the following year?	Legislative	SDWA O. Reg. 170/03 11 (6)
Observation		
The Annual Report containing the required information was prepared by February 28th of the following year. The 2020 Annual Report was prepared by the operating authority, on behalf of the owner, for the Park Lane Subdivision Drinking Water System. A copy of the report was made available to the public through the municipality's website on February 26, 2021. A copy is also available for review at the municipal offices.		

Question ID	MRDW1082000	
Question	Question Type	Legislative Requirement
Are all microbiological water quality monitoring requirements for distribution samples prescribed by legislation being met?	Legislative	SDWA O. Reg. 170/03 11-2 (1),SDWA O. Reg. 170/03 11-2 (2),SDWA O. Reg. 170/03 11-2 (6)
Observation		
All microbiological water quality monitoring requirements for distribution samples prescribed by legislation were being met. Subsection 11-2(1) of Schedule 11 of, Ontario Regulation 170/03 requires the owner and the operating authority of a small municipal residential drinking water system to ensure that at least one distribution sample is taken every two weeks, if the system provides treatment equipment in accordance with Schedule 2 and the equipment is operated in accordance with that Schedule, as is the case for the Park Lane Subdivision Drinking Water		

System.
Subsection 11-2(2) further stipulates that each of the distribution samples collected are tested for E.Coli, total coliforms and general bacteria population expressed as colony counts on a heterotrophic plate count, if subsection 2-5(1) of Schedule 2 applies to the system.
Records provided and reviewed in the course of this inspection indicate that the owner has complied with these sampling requirements,

Question ID	MRDW1111000	
Question	Question Type	Legislative Requirement
Have Summary Reports for municipal council been completed on time, include the required content, and distributed in accordance with the regulatory requirements?	Legislative	SDWA O. Reg. 170/03 22-2 (1),SDWA O. Reg. 170/03 22-2 (2),SDWA O. Reg. 170/03 22-2 (3),SDWA O. Reg. 170/03 22-2 (4)
Observation		
Summary Reports for municipal council were completed on time, included the required content, and were distributed in accordance with the regulatory requirements.		