



DUNDALK DRINKING WATER SYSTEM
75 DUNDALK ST, SOUTHGATE, ON, N0C 1B0

Inspection Report

System Number: 220001753
Inspection Start Date: 10/12/2021
Inspection End Date: 12/08/2021
Inspected By: Matt Shannon
Badge #: 1021

A rectangular box containing a handwritten signature in black ink, which appears to read "Matt Shannon".

(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: 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.</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 inspection review period is October 28, 2020 to October 12, 2021.</p>			

Question ID	MRDW1000000		
Question		Question Type	Legislative Requirement
Does this drinking water system provide primary disinfection?		Information	Not Applicable
Observation			
This Drinking Water System provides for both primary and secondary disinfection and distribution of water.			

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			

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.

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		
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.		

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.		

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.		

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		
The flow measuring devices were calibrated or verified in accordance with the requirements of the MDWL issued under Part V of the SWDA.		

Question ID	MRDW1016000	
Question	Question	Legislative

	Type	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		
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.		

Question ID	MRDW1017000	
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		
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.		

Question ID	MRDW1013000	
Question	Question Type	Legislative Requirement
Is the owner in compliance with all conditions of the PTTW?	Legislative	OWRA 34 (3)
Observation		
<p>The owner was in compliance with all conditions of the PTTW.</p> <p>As part of the requirements in the Permit to Take Water 3051-B3MLLX (PTTW), issued September 28, 2018, the Permit Holder shall maintain a record of all water takings. This record shall include the dates and duration of water takings, and the total measured amounts of water pumped per day for each day that water is taken under the authorization of the PTTW. A separate record shall be maintained for each source. The total amounts of water pumped shall be measured using flow meters. The Permit Holder shall measure and record static (non-pumping) and/or pumping water levels in the production wells and in the observation well (OW4 - WWR 2515004) once per month. The Permit Holder shall keep all required records up to date and available at or near the site of the taking and shall produce the records immediately for inspection by a Provincial Officer upon his or her request. The maximum daily taking from the system shall not exceed 2,817,360 L/day. These requirements were met and all records were complete.</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	Legislative	SDWA O. Reg. 170/03 7-2 (1), SDWA O. Reg.

intended CT has just been achieved?		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	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.		

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	MRDW1039000		
Question	Question Type	Legislative Requirement	
If primary disinfection equipment that does not use chlorination or chloramination is provided, has the owner and operating authority ensured that the equipment has a recording device that continuously records the performance of the disinfection equipment?	Legislative	SDWA O. Reg. 170/03 1-6 (3)	
Observation			
The owner and operating authority ensured that the primary disinfection equipment had a recording device that continuously recorded the performance of the disinfection equipment.			

Question ID	MRDW1042000		
Question	Question Type	Legislative Requirement	
If UV disinfection is used were duty sensors and reference UV sensors checked and calibrated as per the requirements of Schedule E of the MDWL or at a frequency as otherwise recommended by the UV equipment manufacturer?	Legislative	SDWA 31 (1)	
Observation			
All UV sensors were checked and calibrated as required.			

Question ID	MRDW1035000		
Question	Question Type	Legislative 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			
Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.			
Continuous monitoring data is reviewed on a daily basis from the Dundalk public works depot. With the updated SCADA installed in all three treatment facilities, continuous monitoring data can be reviewed from any of the three well locations in addition to the works depot.			

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		
All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.		

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.		

Question ID	MRDW1109000	
Question	Question Type	Legislative Requirement
If the system uses equipment for primary disinfection other than chlorination or chloramination and the equipment has malfunctioned, lost power or ceased to provide the appropriate level of disinfection, causing an alarm or an automatic shut-off, did a qualified person respond in a timely manner and take appropriate actions?	Legislative	SDWA O. Reg. 170/03 1-6 (1)
Observation		
When the primary disinfection equipment, other than that used for chlorination or chloramination, has failed causing an alarm to sound or an automatic shut-off to occur, a certified operator responded in a timely manner and took appropriate actions.		

Question ID	MRDW1033000	
Question	Question Type	Legislative Requirement
Is the secondary disinfectant residual measured as required for the large municipal residential distribution system?	Legislative	SDWA O. Reg. 170/03 7-2 (3), SDWA O. Reg. 170/03 7-2 (4)
Observation		
The secondary disinfectant residual was measured as required for the distribution system.		

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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.			

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			
The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.			

Question ID	MRDW1020000		
Question		Question Type	Legislative Requirement
Is the owner/operating authority able to demonstrate that, when required during the inspection period, Form 1 documents were prepared in accordance with their Drinking Water Works Permit?		Legislative	SDWA 31 (1)
Observation			
The owner/operating authority was in compliance with the requirement to prepare Form 1 documents as required by their Drinking Water Works Permit during the inspection period.			

Question ID	MRDW1021000		
Question	Question Type	Legislative Requirement	
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	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.			

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		
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.		
Wells D3, D4 and D5 are groundwater sources and each require chlorination to meet primary disinfection. In addition to chlorination at Well D3, UV disinfection is also used to create a multi-barrier disinfection approach.		
The disinfection system is designed so when free chlorine residuals drop below 0.35 mg/L the trim chlorination system injects chlorine until residuals reach 0.70 mg/L. Per the CT calculation provided to MECP Municipal Water and Wastewater Permissions Section in January 2021, the chlorine alarms are set at 0.25 mg/L for each of the three wells. Under the worst case situations for each of the three treatment facilities, this chlorine residual will meet primary disinfection requirements.		
Chlorine residuals were adequate during this inspection period for each of the three wells.		

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.		

Question ID	MRDW1025000	
Question	Question Type	Legislative Requirement
Were all parts of the drinking water system that came in contact with drinking water (added, modified, replaced or	Legislative	SDWA 31 (1)

extended) disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit?		
Observation		
All parts of the drinking water system were disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit.		

Question ID	MRDW1026000	
Question	Question Type	Legislative Requirement
If primary disinfection equipment that does not use chlorination or chloramination is provided, is the equipment equipped with alarms or shut-off mechanisms that satisfy the standards described in Section 1-6 (1) of Schedule 1 of Ontario Regulation 170/03?	Legislative	SDWA O. Reg. 170/03 1-6 (1)
Observation		
The primary disinfection equipment was equipped with alarms or shut-off mechanisms that satisfied the standards described in Section 1-6 (1) of Schedule 1 of Ontario Regulation 170/03.		

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.		

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.

Question ID	MRDW1045000	
Question	Question Type	Legislative Requirement
Has the owner updated the document describing the distribution components within 12 months of completion of alterations to the system?	Legislative	SDWA 31 (1)
Observation		
The owner had up-to-date documents describing the distribution components as required.		

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		
There is a backflow prevention program, policy and/or bylaw in place.		

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		
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.		
The well 4 reservoir was inspected and cleaned out in 2021.		

Question ID	MRDW1048000	
Question	Question Type	Legislative Requirement
Has the owner implemented a program for the flushing of watermain as per industry standards?	BMP	Not Applicable
Observation		
The owner had implemented a program for the flushing of watermain as per industry standards.		

Question ID	MRDW1049000	
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Question	Question Type	Legislative Requirement
Do records confirm that disinfectant residuals are routinely checked at the extremities and dead ends of the distribution system?	BMP	Not Applicable
Observation		
Records confirmed that disinfectant residuals were routinely checked at the extremities and "dead ends" of the distribution system.		

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.		
Inspecting and exercising valves is performed on an annual basis. A valve exercising trailer was purchased and used for the valve exercising program starting in 2018.		

Question ID	MRDW1051000	
Question	Question Type	Legislative Requirement
Is there a program in place for inspecting and operating hydrants?	BMP	Not Applicable
Observation		
There was a program in place for inspecting and operating hydrants.		
The inspection and operating hydrants is performed on an annual basis.		

Question ID	MRDW1052000	
Question	Question Type	Legislative Requirement
Is there a by-law or policy in place limiting access to hydrants?	BMP	Not Applicable
Observation		
There was a by-law or policy in place limiting access to hydrants.		
Access to hydrants is found in the Township of Southgate By-law No. 12-2011Part 10 (e).		

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.		

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. A new operations and maintenance manual was completed in November 2020 by Triton Engineering Services to incorporate Well D5 and associated treatment.		

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.		

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.		

Question ID	MRDW1065000	
Question	Question	Legislative

	Type	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	
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		
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.		

Question ID	MRDW1061000	
Question	Question Type	Legislative Requirement
Are logbooks properly maintained and contain the required information?	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		

Logbooks were properly maintained and contained the required information.

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.		

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.		

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.		

Question ID	MRDW1069000	
Question	Question	Legislative

	Type	Requirement
Are all storage facilities completely covered and secure?	BMP	Not Applicable
Observation		
All storage facilities were completely covered and secure.		
The chlorine contact reservoirs are kept locked and are equipped with hatch sensors to trigger an alarm if opened by an unauthorized person.		

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 owner undertakes weekly property and security checks of the drinking water system documented in a written log. Security measures in place to protect components of the drinking-water system include: - perimeter fencing of each well pumphouse, - locked gates, reservoir hatches and ladders, - intruder alarms, and, - signage restricting access.		

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.		
A water conservation notice with restrictions is included on the reverse of each water bill.		

Question ID	MRDW1073000	
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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.		

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.		

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.		

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	MRDW1077000	
Question	Question Type	Legislative Requirement
If the subsystem has been replaced or altered, since the issuance of the existing subsystem certificate of classification, has the owner of the subsystem applied for the re-determination of the type and class of the subsystem or determined that the alteration is not sufficient to trigger an application?	Legislative	SDWA O. Reg. 128/04 3 (3)

Observation
The subsystem had been replaced or altered, since the issuance of the existing subsystem certificate of classification and the owner applied for the re-determination of the type and class of the subsystem or had determined that the alteration(s) was not sufficient to trigger an application.

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 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	MRDW1079000	
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 10-4 (1),SDWA O. Reg. 170/03 10-4 (2),SDWA O. Reg. 170/03 10-4 (3)
Observation	All microbiological water quality monitoring requirements for raw water samples were being met.	

Question ID	MRDW1081000	
Question	Question Type	Legislative Requirement
Are all microbiological water quality monitoring requirements for distribution samples being met?	Legislative	SDWA O. Reg. 170/03 10-2 (1),SDWA O. Reg. 170/03 10-2 (2),SDWA O. Reg. 170/03 10-2 (3)
Observation	All microbiological water quality monitoring requirements for distribution samples were being met.	

Question ID	MRDW1083000	
Question	Question Type	Legislative Requirement
Are all microbiological water quality monitoring requirements for treated samples being met?	Legislative	SDWA O. Reg. 170/03 10-3
Observation		
All microbiological water quality monitoring requirements for treated samples were being met.		

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.		
Schedule 23 inorganic sampling last occurred from Well D3, D4 and D5 in March 2021. Schedule 23 inorganic sampling is required to be performed once every 36 months.		

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.		
Schedule 24 organic sampling last occurred from Well D3, D4 and D5 in March 2021. Schedule 24 organic sampling is required to be performed once every 36 months.		

Question ID	MRDW1086000	
Question	Question Type	Legislative Requirement
Are all haloacetic acid water quality monitoring requirements prescribed by legislation conducted within the	Legislative	SDWA O. Reg. 170/03 13-6.1

required frequency and at the required location?		(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		
<p>All haloacetic acid water quality monitoring requirements prescribed by legislation are being conducted within the required frequency and at the required location.</p> <p>Ontario Regulation 170/03 requires the owner of a drinking water system that provides chlorination and the operating authority for the system to 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.</p> <p>During the inspection review period, all HAA samples had a concentration below the method detection limit of 5.3 ug/L.</p>		

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		
<p>All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location. The 2021 running annual average for trihalomethanes in the Dundalk distribution system was 16.8 ug/L. The Ontario Drinking Water Quality Standard for trihalomethanes is a running annual average concentration of 100 ug/L.</p>		

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.

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.</p> <p>In accordance with the Dundalk Municipal Drinking Water Licence # 110-101, Issue Number 5, Schedule C, Condition 5 Table 5, sodium is required to be tested annually at the point of entrance to the distribution system at Well 3 and Well 4. Sodium samples were taken in March 2021 and July 2021. The results for the July 2021 samples were 30.0 mg/L for Well 3 and 28.5 mg/L for Well 4, both samples exceeding the reporting threshold of 20 mg/L for sodium. As sodium was last reported and corrective action taken in March 2018, no reporting or corrective actions are due until 2023.</p> <p>The Grey Bruce Health Unit has previously provided written direction to the owner/operator, for distribution to users, regarding sodium exceedances in the Dundalk municipal drinking water in a Health Unit letter dated March 20, 2013. In turn, the owner forwards a Health Unit Sodium Fact Sheet to Dundalk DWS users with municipal water bills.</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.</p> <p>Fluoride was last sampled from Well D3 & D4 treatment facilities in March 2017. Both results were below the Ontario Drinking Water Quality Standard of 1.5 mg/L. Fluoride was sampled from Well D5 treatment facility in January 2020. The initial sample had a fluoride concentration of 2.0 mg/L and the resample had a fluoride concentration of 2.5 mg/L.</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
The owner ensured that water samples were taken at the prescribed location.

Question ID	MRDW1094000	
Question	Question Type	Legislative Requirement
Are all water quality monitoring requirements imposed by the MDWL and DWWP being met?	Legislative	SDWA 31 (1)
Observation		
All water quality monitoring requirements imposed by the MDWL or DWWP issued under Part V of the SDWA were being met.		
The MDWL requires radionuclides to be samples from Well D3 - point of entry to the distribution system on an annual basis. This sampling was performed in March 2021.		

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. 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)
Observation		
All sampling requirements for lead prescribed by schedule 15.1 of O. Reg. 170/03 were being met.		

Question ID	MRDW1096000		
Question	Question Type	Legislative 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		
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	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		
Turbidity was being tested at least once every month from each well that is supplying water to the system.		

Question ID	MRDW1098000	
Question	Question Type	Legislative 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 no reportable adverse/exceedances during the inspection period.		

Question ID	MRDW1113000	
Question	Question Type	Legislative Requirement
Have all changes to the system registration information been provided to the Ministry within ten (10) days of the change?	Legislative	SDWA O. Reg. 170/03 10.1 (3)

Observation
All changes to the system registration information were provided within ten (10) days of the change.

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.			

Question ID	MRDW1114000		
Question		Question Type	Legislative Requirement
Does the owner have evidence that, when required, all legal owners associated with the DWS were notified of the requirements of the Licence & Permit?		Legislative	SDWA 31 (1)
Observation			
The owner had evidence that all required notifications to all legal owners associated with the Drinking Water System had been made during the inspection period.			

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.		