

September 29, 2021

Town of Lakeshore
419 Notre Dame St.
Belle River, ON N0R 1A0

File: SI-ES-LA-540

Attention: Mr. Truper McBride, CAO

**Re: Municipality of Lakeshore Drinking Water System – Union Distribution System;
Inspection Report**

Please find enclosed the Inspection Report for the inspection of the Lakeshore (Union) Distribution System (DWS# # 260004995) on September 21, 2021.

The format of the enclosed report has been updated, and you will note that the non-compliance and/or non-conformance items are now detailed at the beginning of the report. All questions that were assessed are included in the Inspection Details Section.

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/external risk experts. The Inspection Rating Report (IRR) provides the Ministry, the system owner and the local 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 Inspectors' 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 this report, please call me at (226) 280-1406.

Yours truly,



Emily Awad
Water Inspector, Provincial Officer #1823
Drinking Water and Environmental Compliance Division
Sarnia/Windsor District

Encl.

cc: Garry Punt, Team Leader – Water Management, Krystal Kalbol, Corporate Leader – Operations, Albert Dionne, Division Leader – Water Management, Kyle Davis, Water Compliance, Town of Lakeshore;
Samuel Wen, Process & Compliance Technician, OCWA;
Nicole Dupuis, Chief Executive Officer, Kristy McBeth, Director of Health Protection, Phil Wong, Manager, Health Inspection Department, Victoria Peczulis, Manager, Environmental Health, Windsor-Essex County Health Unit;
Marc Bechard, Supervisor, Ministry of the Environment, Conservation and Parks.



MUNICIPALITY OF LAKESHORE DRINKING WATER SYSTEM -
UNION DS

Inspection Report

System Number: 260004995
Inspection Start Date: 09/07/2021
Inspection End Date: 09/29/2021
Inspected By: Emily Awad
Badge #: 1823

A handwritten signature in cursive script, appearing to read "Emily Awad".

(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 undersigned 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>Additionally, this review includes an assessment of compliance/conformance in relation to the following:</p> <ul style="list-style-type: none">• Drinking Water Operator and Water Quality Analyst Certification Regulation (O. Reg. 128/04)• Drinking Water System Licence 031-101, Issue Number 4, issued May 21, 2021• Drinking Water Works Permit 031-201, Issue Number 5, issued May 21, 2021• Ontario Drinking Water Quality Standards (ODWQS; O. Reg. 169/03) based on water quality data generated since the previous inspection. <p>A remote inspection was conducted on September 21, 2021 for the inspection period November 1, 2020 to August 31, 2021. The inspection included a review of the documentation provided and interview of staff.</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 only secondary disinfection and distribution of water. Primary disinfection is undertaken by another regulated Drinking Water System which provides treated water to this Drinking Water System.

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		
<p>The secondary disinfectant residual was measured as required for the distribution system.</p> <p>Secondary disinfection is supplied entirely by the Union Water Supply System (UWSS). No re-chlorination takes place after entering the Lakeshore distribution system.</p> <p>Logs show that distribution system chlorine residuals were taken and measured seven times per week as required; four and three samples on separate days, at least 48 hours apart.</p> <p>Records from the inspection period show that none of the samples had free chlorine residuals (FCR) less than 0.05 mg/L during the inspection period. FCR measurements ranged from 0.41 to 1.96 mg/L. An audit sample was taken on September 23, 2021 at LS-09 and the secondary disinfectant residual was sufficient (FCR= 0.86 mg/L; total chlorine residual (TCR)=1.08 mg/L).</p>		

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 extended) disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit?	Legislative	SDWA 31 (1)
Observation		
<p>All parts of the drinking water system were disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit.</p> <p>According to the Watermain Break Repair Standard Operating Procedure (SOP #2000397), all parts of the drinking water system are disinfected in accordance with the ministry's Watermain Disinfection Procedure and other procedures.</p>		

Question ID	MRDW1062000	
Question	Question Type	Legislative Requirement
Do records or other record keeping mechanisms confirm that	Legislative	SDWA O. Reg.

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?		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.		
Chlorine residual monitoring, conducted during regular compliance sampling, was done by certified operators from OCWA. Chlorine residual sampling during maintenance flushing of hydrants and blow-offs is conducted by the Lakeshore Water Distribution operators.		

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.		
The Contingency binder and the standard operating procedures meet the requirements of Condition 16.2, Schedule B of the Drinking Water System Licence.		
Copies of the Municipal Drinking Water System Licence and Drinking Water Works Permit are kept in a separate binder available to operators.		

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.		
This is a standalone distribution system with no treatment, rechlorination, booster or storage facilities.		
It was noted by the operating authority that all sampling stations, boundary meters and the one (1) auto flusher are locked.		

Question ID	MRDW1073000	
Question	Question	Legislative

	Type	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 ORO for the distribution system holds class 3 certification; exceeding the water distribution subsystem class 1 certification of the Lakeshore (Union) distribution system.		

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.		
OICs for each shift are identified in a designated field in the Daily Operational Logbook.		

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	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).		
A total coliform count of 1 was reported in a sample collected on April 26, 2021 from sample station LS-09.		

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	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.			
As required under Sch 10-2, O. Regulation 170/03, a minimum of one sample per week, and at least 12 samples per month must be taken and analysed for E. coli and total coliforms. In addition, at least 25% of the distribution microbiological samples must be analysed for heterotrophic plate count (HPC).			
The operating authority surpassed the minimum sampling requirements. The distribution system was sampled at a minimum of four locations every week from nine sample stations, on a rotational basis, resulting in a minimum of 16 samples per month. Half of the samples taken were analysed for HPC.			

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.		
As required under Sch. 13-6.1 of O. Regulation 170/03, samples must be taken and analysed for haloacetic acids in every calendar quarter (60-120 days after previous sample). Samples were taken as required, and within the prescribed time frame. The running annual average for the last four quarters is 16.75 ug/L.		

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.		
As required under Sch. 13-6 of O. Regulation 170/03, samples must be taken and analysed for Trihalomethanes in every calendar quarter (60-120 days after previous sample). Samples were taken as required, and within the prescribed time frame. The running annual average for the last four quarters is 45.75 ug/L.		

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.		
A total coliform count of 1 was reported in a sample collected on April 26, 2021 from sample station LS-09.		

Question ID	MRDW1101000	
Question	Question Type	Legislative Requirement

Have corrective actions (as per Schedule 17) been taken to address adverse conditions, including any other steps as directed by the Medical Officer of Health?	Legislative	SDWA O. Reg. 170/03 17-1, SDWA O. Reg. 170/03 17-10 (1),SDWA O. Reg. 170/03 17-10 (2),SDWA O. Reg. 170/03 17-11,SDWA O. Reg. 170/03 17-12,SDWA O. Reg. 170/03 17-13,SDWA O. Reg. 170/03 17-14,SDWA O. Reg. 170/03 17-2,SDWA O. Reg. 170/03 17-3,SDWA O. Reg. 170/03 17-4,SDWA O. Reg. 170/03 17-5,SDWA O. Reg. 170/03 17-6,SDWA O. Reg. 170/03 17-9
Observation		
Corrective actions (as per Schedule 17) had been taken to address adverse conditions, including any other steps that were directed by the Medical Officer of Health.		
The Windsor-Essex County Health Unit required that two sets of resamples be taken 24 hours apart. The resamples were taken at LS-09 and upstream and downstream stations. There was no detection of total coliform in the resamples.		

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	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		
<p>The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.</p> <p>The distribution system manuals contain general and specific procedures and directions related to distribution maintenance and repair activities, as well as contingencies. Distribution operators have access to maps produced on the owner's GIS system. The GIS maps identify locations of watermain, water services, hydrants, valves, blow-offs, and curb-stops as well as archived drawings and maps. Water distribution operators access this system via tablets or the garage computer.</p>		

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		
<p>Logbooks were properly maintained and contained the required information.</p> <p>The Daily Operational Log includes the operators on each shift, the operator in charge (OIC) and the overall responsible operator (ORO), as well as general details on the work completed by each operator. More specific information, including the time and date, can be found in the work order system as well as the valve maintenance and hydrant maintenance spreadsheets.</p>		