

**Ministry of the Environment,
Conservation and Parks**

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**Ministère de l'Environnement, de la
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January 5, 2021

File: SI-ES-LA-540

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

Attention: Mr. Truper McBride, CAO

Re: Town of Lakeshore (Union) Drinking Water System Inspection Report

Please find enclosed the Drinking Water System Inspection Report for the inspection that was conducted at the Town of Lakeshore (Union) Drinking Water System (DWS# 260004995) on November 10, 2020.

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 council" 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/external risk experts. The Inspection Summary Rating Record (IRR), included as Appendix B of the inspection report, 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. If you have any questions or concerns regarding the rating, please contact Marc Bechard, Water Compliance Supervisor, at 519-383-3778.

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, Supervisor, Water Operations, Darryl Dunsby, Compliance Coordinator, Darrin Johnston, Water Treatment Operator, Krystal Kalbol, Director of Engineering & IS, Albert Dionne, Manager Environmental Services, Town of Lakeshore;
Samuel Wen, Process & Compliance Technician, Union Water Supply System;
Dr. Wajid Ahmed, Medical Officer of Health (A), Theresa Marentette, Director of Health Protection, 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.



Ministry of the Environment, Conservation and Parks

TOWN OF LAKESHORE DRINKING WATER SYSTEM - UNION DS
Inspection Report

Site Number:	260004995
Inspection Number:	1-NXSNO
Date of Inspection:	Nov 10, 2020
Inspected By:	Emily Awad

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Appendix A: Key Reference and Guidance Material

Appendix B: Inspection Summary Rating Record

OWNER INFORMATION:

Company Name:	LAKESHORE, THE CORPORATION OF THE TOWN OF	Unit Identifier:	
Street Number:	419		
Street Name:	NOTRE DAME St		
City:	BELLE RIVER		
Province:	ON	Postal Code:	N0R 1A0

CONTACT INFORMATION

Type:	Operating Authority	Name:	Darryl Dunsby
Phone:	(519) 796-6780	Fax:	(519) 728-4110
Email:	ddunsby@lakeshore.ca		
Title:	Compliance Coordinator		

Type:	Operating Authority	Name:	Darrin Johnston
Phone:	(519) 728-9142	Fax:	(519) 728-4110
Email:	djohnston@lakeshore.ca		
Title:	Water Treatment Working Foreman - ORO		

Type:	Operator	Name:	Sam Wen
Phone:	(519) 326-4447	Fax:	(519) 326-0450
Email:	swen@owca.com		
Title:	Process & Compliance Technician		

Type:	Operating Authority	Name:	Garry Punt
Phone:	(226) 345-2079	Fax:	(519) 728-4110
Email:	gpunt@lakeshore.ca		
Title:	Water Operations Supervisor		

INSPECTION DETAILS:

Site Name:	TOWN OF LAKESHORE DRINKING WATER SYSTEM - UNION DS
Site Address:	LAKESHORE
County/District:	LAKESHORE
MECP District/Area Office:	Windsor Area Office
Health Unit:	WINDSOR-ESSEX COUNTY HEALTH UNIT
Conservation Authority:	Essex Region Conservation Authority
MNR Office:	
Category:	Large Municipal Residential
Site Number:	260004995
Inspection Type:	Announced
Inspection Number:	1-NXSNO
Date of Inspection:	Nov 10, 2020
Date of Previous Inspection:	Nov 12, 2019

COMPONENTS DESCRIPTION

Site (Name): LAKESHORE (UNION) DISTRIBUTION SYSTEM
Type: Other **Sub Type:** Class I

Comments:

The Lakeshore (Union) Distribution System is a standalone distribution system which supplies water to the area of the Town of Lakeshore roughly bounded by Rochester Townline Road to the east, Manning Road to the west, the King's Highway 401 to the north and Lakeshore's southern municipal boundaries with the Town of Essex, Town of Kingsville and Municipality of Leamington. Source water is from the Union Area Water Supply System (UWSS) located in Ruthven, Ontario. The Town of Lakeshore is part owner of the UWSS through the UWSS Joint Management Board. According to the drinking water system profile, a population of approximately 4,066 residents in 1,452 service connections are served by the Lakeshore (Union) Distribution System. It therefore falls into the "large municipal residential" category under O. Regulation 170/03.

Transmission mains take treated water (supplied with chlorination for secondary disinfection) from the UWSS to the service area via metered connection points with Essex and Kingsville. The major transmission mains, are owned by the UWSS and are not included within the scope of this inspection. Distribution system pressure is maintained by:

- Booster pumps at the Cottam reservoir in Kingsville, controlled and monitored from the UWSS;
- The elevated storage tank in the community of Essex, and
- Two control valves, housed in underground chambers, which govern pressure to the tower supplied by the Cottam reservoir.

INSPECTION SUMMARY:

Introduction

- 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.

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 report is based on an inspection of a "stand alone connected distribution system". This type of system receives treated water from a separately owned "donor" system. This report contains the elements required to assess key compliance and conformance issues associated with a "receiver" system. This report does not contain items associated with the inspection of the donor system, such as source waters, intakes/wells and treatment facilities.

This report is based on a "focused" inspection of the system. Although the inspection involved fewer activities than those normally undertaken in a detailed inspection, it contained critical elements required to assess key compliance issues. This system was chosen for a focused inspection because the system's performance met the ministry's criteria, most importantly that there were no deficiencies as identified in O.Reg. 172/03 over the past 3 years. The undertaking of a focused inspection at this drinking water system does not ensure that a similar type of inspection will be conducted at any point in the future.

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.

Specifically, this review includes an assessment of compliance/conformance in relation to the following:

- Drinking Water Systems Regulation (O. Reg. 170/03)
- Drinking Water Operator and Water Quality Analyst Certification Regulation (O. Reg. 128/04)
- Drinking Water System Licence 031-101, Issue Number 2, issued June 6, 2016
- Drinking Water Works Permit 031-201, Issue Number 4, issued June 6, 2016
- Ontario Drinking Water Quality Standards (ODWQS; O. Reg. 169/03) based on water quality data generated since the previous inspection.

The inspection was conducted on November 10, 2020 and covers the period from December 1, 2019 to October 31, 2020.

Treatment Processes

- **Where an activity has occurred that could introduce contamination, all parts of the drinking water system were disinfected in accordance with Schedule B, Condition 2.3 of the Drinking Water Works Permit.**
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.

Treatment Process Monitoring

- **The secondary disinfectant residual was measured as required for the distribution system.**

Secondary disinfection is supplied entirely by the Union Water Supply System (UWSS). No re-chlorination takes place after entering the Lakeshore distribution system.

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.

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 0.43 to 1.66 mg/L. An audit sample was taken on November 9, 2020 at SS-LS-08 and the secondary disinfectant residual was sufficient (FCR= 0.94 mg/L; total chlorine residual (TCR) =1.06 mg/L).

Operations Manuals

- **The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.**

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.

- **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.

Logbooks

- **Logbooks were properly maintained and contained the required information.**

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.

- **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.

Security

- **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.

Security

It was noted by the operating authority that all sampling stations, boundary meters and the one (1) auto flusher are locked.

Certification and Training

- **The overall responsible operator had 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.
- **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 Log book.
- **All operators possessed the required certification.**

Water Quality Monitoring

- **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 eight sample stations, on a rotational basis, resulting in a minimum of 16 samples per month. Half of the samples taken were analysed for HPC.
- **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 15.7 ug/L.
- **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). Monthly sampling was conducted until December 2019, during the switch from chloramine to free chlorine disinfection at the Union Area Water Supply System. The operating authority resumed quarterly sampling in 2020. The running annual average for the last four quarters is 47.25 ug/L.
- **Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.**

Water Quality Assessment

- **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).**

NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

Not Applicable

SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

Not Applicable

SIGNATURES

Inspected By:

Emily Awad

Signature: (Provincial Officer)

Reviewed & Approved By:

Marc Bechard

Signature: (Supervisor)

Review & Approval Date:

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.



Stakeholder Appendix

Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

Many useful materials are available to help you operate your drinking water system. Below is a list of key materials owners and operators of municipal residential drinking water systems frequently use.

To access these materials online click on their titles in the table below or use your web browser to search for their titles. Contact the Ministry if you need assistance or have questions at 1-866-793-2588 or waterforms@ontario.ca.

For more information on Ontario's drinking water visit www.ontario.ca/drinkingwater



PUBLICATION TITLE	PUBLICATION NUMBER
FORMS: Drinking Water System Profile Information Laboratory Services Notification Adverse Test Result Notification	012-2149E 012-2148E 012-4444E
Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils	Website
Procedure for Disinfection of Drinking Water in Ontario	Website
Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids	Website
Filtration Processes Technical Bulletin	Website
Ultraviolet Disinfection Technical Bulletin	Website
Guide for Applying for Drinking Water Works Permit Amendments, & License Amendments	Website
Certification Guide for Operators and Water Quality Analysts	Website
Guide to Drinking Water Operator Training Requirements	9802E
Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption	Website
Drinking Water System Contact List	7128E01
Ontario's Drinking Water Quality Management Standard - Pocket Guide	Website
Watermain Disinfection Procedure	Website
List of Licensed Laboratories	Website



Inspection Rating Record

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2020-2021)

DWS Name: TOWN OF LAKESHORE DRINKING WATER SYSTEM - UNION DS
DWS Number: 260004995
DWS Owner: Lakeshore, The Corporation Of The Town Of
Municipal Location: Lakeshore

Regulation: O.REG 170/03

Category: Large Municipal Residential System

Type Of Inspection: Adhoc

Inspection Date: November 10, 2020

Ministry Office: Windsor Area Office

Maximum Question Rating: 167

Inspection Module	Non-Compliance Rating
Treatment Processes	0 / 21
Operations Manuals	0 / 28
Logbooks	0 / 18
Certification and Training	0 / 28
Water Quality Monitoring	0 / 51
Treatment Process Monitoring	0 / 21
TOTAL	0 / 167

Inspection Risk Rating	0.00%
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FINAL INSPECTION RATING:	100.00%
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Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2020-2021)

DWS Name: TOWN OF LAKESHORE DRINKING WATER SYSTEM - UNION DS
DWS Number: 260004995
DWS Owner: Lakeshore, The Corporation Of The Town Of
Municipal Location: Lakeshore

Regulation: O.REG 170/03

Category: Large Municipal Residential System

Type Of Inspection: Adhoc

Inspection Date: November 10, 2020

Ministry Office: Windsor Area Office

Maximum Question Rating: 167

Inspection Risk Rating	0.00%
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FINAL INSPECTION RATING:	100.00%
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