

Ministry of the Environment,  
Conservation and Parks

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

Southwestern Region

Direction régionale du Sud-Ouest

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File# SI-ES-LE-540

July 11, 2019

Municipality of Leamington  
111 Erie St. North  
Leamington, ON  
N8H 2Z9

Attention: Mr. Peter Neufeld, CAO  
pneufeld@leamington.ca

Dear Mr. Neufeld:

Re: Leamington (Union) Distribution System  
Inspection Report

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Please find enclosed the Drinking Water System Inspection Report for the unannounced inspection that was conducted at the Leamington (Union) Distribution System (DWS#220004992) on June 18, 2019.

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 on the Drinking Water Ontario website at [www.ontario.ca/drinkingwater](http://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) 490-0761.

Likewise, if you have any questions or concerns regarding this report, please call me at (226) 280-1556.

Yours truly,



Neil Gilbert, P.Eng.  
Provincial Officer – Water Inspector  
Southwestern Region  
Ministry of the Environment, Conservation and Parks  
Sarnia District – Windsor Area Office

Encl.

cc: Dr. Wajid Ahmed, Acting Medical Officer of Health, Windsor-Essex County HU, [wahmed@wechu.org](mailto:wahmed@wechu.org)  
Theresa Marentette, CEO and Chief Nursing Officer, Windsor-Essex County HU, [tmarentette@wechu.org](mailto:tmarentette@wechu.org)  
Phil Wong, Manager, Health Inspection, Windsor-Essex County HU, [pwong@wechu.org](mailto:pwong@wechu.org)  
Robert Sharon, Director of Infrastructure Services, Municipality of Leamington, [rsharon@leamington.ca](mailto:rsharon@leamington.ca)  
Shannon Belleau, Manager of Environmental Services, Municipality of Leamington, [sbelleau@leamington.ca](mailto:sbelleau@leamington.ca)  
Nelson Carvalho, Water Services Supervisor, Municipality of Leamington, [ncarvalho@leamington.ca](mailto:ncarvalho@leamington.ca)  
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Marc Bechard, Water Compliance Supervisor, MECP Sarnia District, [marc.bechard@ontario.ca](mailto:marc.bechard@ontario.ca)



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

**LEAMINGTON DISTRIBUTION SYSTEM - UNION DS  
Inspection Report**

<b>Site Number:</b>	220004992
<b>Inspection Number:</b>	1-L5F4V
<b>Date of Inspection:</b>	Jun 18, 2019
<b>Inspected By:</b>	Neil Gilbert

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Appendix A: Stakeholder Appendix

Appendix B: Inspection Rating Record

## OWNER INFORMATION:

<b>Company Name:</b>	LEAMINGTON, THE MUNICIPALITY OF THE TOWNSHIP OF		
<b>Street Number:</b>	111	<b>Unit Identifier:</b>	
<b>Street Name:</b>	ERIE St N		
<b>City:</b>	LEAMINGTON		
<b>Province:</b>	ON	<b>Postal Code:</b>	N8H 2Z9

## CONTACT INFORMATION

## INSPECTION DETAILS:

<b>Site Name:</b>	LEAMINGTON DISTRIBUTION SYSTEM - UNION DS
<b>Site Address:</b>	LEAMINGTON
<b>County/District:</b>	LEAMINGTON
<b>MECP District/Area Office:</b>	Windsor Area Office
<b>Health Unit:</b>	WINDSOR-ESSEX COUNTY HEALTH UNIT
<b>Conservation Authority:</b>	Essex Region Conservation Authority
<b>MNR Office:</b>	Chatham Regional Office
<b>Category:</b>	Large Municipal Residential
<b>Site Number:</b>	220004992
<b>Inspection Type:</b>	Unannounced
<b>Inspection Number:</b>	1-L5F4V
<b>Date of Inspection:</b>	Jun 18, 2019
<b>Date of Previous Inspection:</b>	Jun 13, 2018

## COMPONENTS DESCRIPTION

<b>Site (Name):</b>	LEAMINGTON (UNION) DISTRIBUTION SYSTEM	
<b>Type:</b>	Other	<b>Sub Type:</b>
<b>Comments:</b>		

The Leamington (Union) Distribution System forms part of a standalone distribution system owned by the Municipality of Leamington. It supplies water to the majority of the Town of Leamington from the Union Area Water Supply System (UAWSS) located in Ruthven, Ontario. The Town of Leamington is part owner of the UAWSS through the Union Water System Joint Board of Management.

According to the drinking water system profile, a population of approximately 31,000 residents is served by the Leamington Distribution System. It therefore falls into the "large municipal residential" category under O.Reg.170/03.

Two 750 mm pressure pipes take treated water (supplied with chloramination for secondary disinfection) from the UAWSS along County Road 34, and a right of way to the north of it, into the Town of Leamington from the west boundary of the municipality. These trunk mains, the Leamington 1500 m3 elevated tank, and the newer 6800 m3 Albuna tower (located in Kingsville at the municipal boundary) are owned by the UAWSS and are not included within the scope of this inspection.

The two elevated storage structures maintain distribution system pressure, controlled and monitored from the UAWSS.

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The Leamington (Union) distribution system also has an interconnect to the Stoney Point Drinking Water System in the Town of Lakeshore at Hwy. 77 and County Road 8. This valve is closed at all times and will only be opened in an emergency.

It should be noted that as of June 4, 2018 the UAWSS is supplying the Leamington (Union) DS with chlorinated water for secondary disinfection purposes. This chlorination is scheduled to run until the end of 2019 at which time a report will follow to determine which secondary disinfection process to use (chloramination or chlorination).

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## 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.**

The Leamington (Union) Distribution System (DWS#220004992) is owned by the Corporation of the Municipality of Leamington. It is a stand alone connected distribution system that receives treated water from the Union Area Water Supply System (UAWSS) (DWS#210000853) located in Ruthven, Ontario. The Town of Leamington is part owner of the UAWSS through the Union Water System Joint Board of Management.

This inspection was conducted on an unannounced basis and the inspection covers the period from June 1, 2018 to May 31, 2019.

### Treatment Processes

- **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.**

During the inspection review period (June 1, 2018 to May 31, 2019), "Form 1- Record of Watermains Authorized as a Future Alteration" forms were prepared for the following two projects:

- 1) 150mm diameter watermain on Conover Ave. and Stewart Crescent (June 1, 2018), and
- 2) 150mm diameter watermain on Mill Street West (July 25, 2018).

### Treatment Process Monitoring

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

As per O.Reg. 170/03 s 7-2 (3), the owner/operating authority of a system that provides secondary disinfection shall ensure that at least seven distribution samples are taken each week and are tested immediately for, (a) free chlorine residual, if the system provides chlorination and does not provide chloramination; or (b) combined chlorine

### Treatment Process Monitoring

residual, if the system provides chloramination. The following rules apply to the distribution samples referred above unless at least one sample is taken on each day of the week: At least four of the samples must be taken on one day of the week, at least 48 hours after the last sample was taken in the previous week. Then, at least three of the samples must be taken on a second day of the week, at least 48 hours after the last sample was taken on the first day of the sampling week. When more than one sample is taken on the same day of the week then each sample must be taken from a different location.

As previously noted, as of June 4, 2018 the UAWSS is supplying the Leamington (Union) DS with chlorinated water, instead of chloramination, for secondary disinfection purposes.

During the inspection review period (June 1, 2018 to May 31, 2019) at least seven distribution samples were collected each week using the 4/3 rule and tested for free and total chlorine residuals.

### Operations Manuals

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

### Logbooks

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

### Security

- **The owner had provided security measures to protect components of the drinking water system.**

All autoflushers and sampling stations are locked and keys are available from the Leamington Water Services and Union Water Supply personnel.

### Certification and Training

- **The overall responsible operator had been designated for each subsystem.**
- **Operators-in-charge had been designated for all subsystems which comprised the drinking water system.**
- **All operators possessed the required certification.**

### Water Quality Monitoring

- **All microbiological water quality monitoring requirements for distribution samples were being met.**

As per O.Reg. 170/03 s10-2, the owner/operating authority for the system shall ensure that if a system serves 100,000 people or less, at least eight distribution samples, plus one additional sample for every 1,000 people served, are taken every month, with at least one sample being taken each week. Each of the distribution samples collected must be tested for E. coli and total coliforms and at least 25 percent of these samples must be tested for general bacteria population expressed as colony counts on a heterotrophic plate count (HPC).



### Water Quality Monitoring

During the inspection review period (June 1, 2018 to May 31, 2019) all microbiological water monitoring requirements for distribution water samples were performed.

- **All haloacetic acid water quality monitoring requirements prescribed by legislation are being conducted within the required frequency and at the required location.**

As per O.Reg. 170/03 s13-6.1, the owner/operating authority of a system that provides chlorination or chloramination shall ensure that at least one distribution sample is taken every calendar quarter and tested for haloacetic acid.

During the inspection review period (June 1, 2018 to May 31, 2019) these samples were collected on July 16, 2018, October 15, 2018, January 7, 2019 and April 1, 2019.

- **All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.**

As per O.Reg. 170/03 s13-6, the owner/operating authority of a system that provides chlorination or chloramination shall ensure that at least one distribution sample is taken in each calendar quarter and have the sample tested for trihalomethanes.

During the inspection review period (June 1, 2018 to May 31, 2019) these samples were collected monthly.

- **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).**

### Reporting & Corrective Actions

- **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.**

A distribution water sample collected on June 22, 2018 from Sample Station SS-L-22 (927 County Road 34) had a free chlorine residual reading of 0.01 mg/L (AWQI#139992). Another low free chlorine residual reading (0.02 mg/L) was measured at the same sampling station on July 20, 2018 (AWQI#140847).

All corrective actions were followed to address these two low chlorine residual events.

It should also be noted, that after these two events, an autoflusher has been installed at this location and no other low chlorine events have occurred during this inspection review period.

- **All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6.**

**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**

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## SIGNATURES

Inspected By:

Neil Gilbert

Signature: (Provincial Officer)



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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**

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# 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](mailto:waterforms@ontario.ca).

For more information on Ontario's drinking water visit [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater)



PUBLICATION TITLE	PUBLICATION NUMBER
<b>FORMS:</b> 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

# Principaux guides et documents de référence sur les réseaux résidentiels municipaux d'eau potable

De nombreux documents utiles peuvent vous aider à exploiter votre réseau d'eau potable. Vous trouverez ci-après une liste de documents que les propriétaires et exploitants de réseaux résidentiels municipaux d'eau potable utilisent fréquemment. Pour accéder à ces documents en ligne, cliquez sur leur titre dans le tableau ci-dessous ou faites une recherche à l'aide de votre navigateur Web. Communiquez avec le ministère au 1-866-793-2588, ou encore à [waterforms@ontario.ca](mailto:waterforms@ontario.ca) si vous avez des questions ou besoin d'aide.



Pour plus de renseignements sur l'eau potable en Ontario, consultez le site [www.ontario.ca/eaupotable](http://www.ontario.ca/eaupotable)

TITRE DE LA PUBLICATION	NUMÉRO DE PUBLICATION
Renseignements sur le profil du réseau d'eau potable	012-2149F
Avis de demande de services de laboratoire	012-2148F
Avis de résultats d'analyse insatisfaisants et de règlement des problèmes	012-4444F
Prendre soin de votre eau potable - Un guide destiné aux membres des conseils municipaux	Site Web
Marche à suivre pour désinfecter l'eau potable en Ontario	Site Web
Stratégies pour minimiser les trihalométhanes et les acides haloacétiques de sous-produits de désinfection	Site Web
Filtration Processes Technical Bulletin (en anglais seulement)	Site Web
Ultraviolet Disinfection Technical Bulletin (en anglais seulement)	Site Web
Guide de présentation d'une demande de modification du permis d'aménagement de station de production d'eau potable	Site Web
Guide sur l'accréditation des exploitants de réseaux d'eau potable et des analystes de la qualité de l'eau de réseaux d'eau potable	Site Web
Guide sur les exigences relatives à la formation des exploitants de réseaux d'eau potable	9802F
Échantillonnage et analyse du plomb dans les collectivités : échantillonnage normalisé ou réduit et admissibilité à l'exemption	Site Web
Liste des personnes-ressources du réseau d'eau potable	Site Web
L'eau potable en Ontario - Norme de gestion de la qualité - Guide de poche	Site Web
Procédure de désinfection des conduites principales	Site Web
Laboratoires autorisés	Site Web



**Inspection Rating Record**

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Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2019-2020)

<b>DWS Name:</b> LEAMINGTON DISTRIBUTION SYSTEM - UNION DS
<b>DWS Number:</b> 220004992
<b>DWS Owner:</b> Leamington, The Corporation Of The Municipality Of
<b>Municipal Location:</b> Leamington

**Regulation:** O.REG 170/03  
**Category:** Large Municipal Residential System  
**Type Of Inspection:** Adhoc  
**Inspection Date:** June 18, 2019  
**Ministry Office:** Windsor Area Office

**Maximum Question Rating:** 195

Inspection Module	Non-Compliance Rating
Treatment Processes	0 / 4
Operations Manuals	0 / 28
Logbooks	0 / 18
Certification and Training	0 / 28
Water Quality Monitoring	0 / 51
Reporting & Corrective Actions	0 / 45
Treatment Process Monitoring	0 / 21
<b>TOTAL</b>	<b>0 / 195</b>

<b>Inspection Risk Rating</b>	<b>0.00%</b>
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<b>FINAL INSPECTION RATING:</b>	<b>100.00%</b>
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Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2019-2020)

**DWS Name:** LEAMINGTON DISTRIBUTION SYSTEM - UNION DS  
**DWS Number:** 220004992  
**DWS Owner:** Leamington, The Corporation Of The Municipality Of  
**Municipal Location:** Leamington

**Regulation:** O.REG 170/03  
**Category:** Large Municipal Residential System  
**Type Of Inspection:** Adhoc  
**Inspection Date:** June 18, 2019  
**Ministry Office:** Windsor Area Office

**Maximum Question Rating:** 195

**Inspection Risk Rating** | 0.00%

**FINAL INSPECTION RATING:** | 100.00%