

Ministry of the Environment,
Conservation and Parks

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

Southwestern Region

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File# SI-ES-LE-540

July 5, 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 (Wheatley) Distribution System
Inspection Report

Please find enclosed the Drinking Water System Inspection Report for the inspection that was conducted at the Leamington (Wheatley) Distribution System (DWS#260087048) 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.

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
Theresa Marentette, CEO and Chief Nursing Officer, Windsor-Essex County HU, tmarentette@wechu.org
Phil Wong, Manager, Health Inspection, Windsor-Essex County HU, pwong@wechu.org
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Nelson Carvalho, Water Services Supervisor, Municipality of Leamington, ncarvalho@leamington.ca
Lilly Snobelen, Manager Compliance and Quality Standards, C-K PUC, lillys@chatham-kent.ca
Marc Bechard, Water Compliance Supervisor, MECP Sarnia District, marc.bechard@ontario.ca



Ministry of the Environment, Conservation and Parks

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

Site Number:	260087048
Inspection Number:	1-L5F12
Date of Inspection:	Jun 18, 2019
Inspected By:	Neil Gilbert

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Appendix A: Stakeholder Appendix

Appendix B: Inspection Rating Record

OWNER INFORMATION:

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

CONTACT INFORMATION

INSPECTION DETAILS:

Site Name:	LEAMINGTON DISTRIBUTION SYSTEM - WHEATLEY DS
Site Address:	LEAMINGTON, ONTARIO
County/District:	LEAMINGTON
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:	260087048
Inspection Type:	Announced
Inspection Number:	1-L5F12
Date of Inspection:	Jun 18, 2019
Date of Previous Inspection:	May 30, 2018

COMPONENTS DESCRIPTION

Site (Name):	Leamington (Wheatley) Distribution System		
Type:	Other	Sub Type:	Other
Comments:			

The Leamington (Wheatley) Distribution System forms part of a stand-alone water distribution system owned by the Municipality of Leamington. The other subsystem which forms part of it is the Leamington (Union) Distribution System. They are both connected to each other at several inter-connections valves which are closed at all times except in emergency situations. The scope of this inspection is limited to the Leamington (Wheatley) distribution system. This distribution system does not contain storage, pumping or re-chlorination facilities.

There are 181 residential and commercial service connections served by the Leamington (Wheatley) Distribution System. It therefore falls into the "large municipal residential" category under O. Regulation 170/03. Treated drinking water is supplied by the Wheatley Drinking Water System which is owned and operated by the Chatham-Kent Public Utilities Commission (C-K PUC), which takes its source of raw water from Lake Erie. Pressure in the distribution system is maintained by the Wheatley tower, which the Chatham-Kent PUC governs by controlling tower levels. A water supply agreement, renewed on January 1, 2016, between the Chatham-Kent PUC and the Municipality of Leamington, authorizes the Chatham-Kent PUC to conduct testing and monitoring services of the Leamington (Wheatley) DS in accordance with the provisions of O. Reg. 170/03 s. 5 (4) on Leamington's behalf. Leamington's Water Services is responsible for all other aspects of the operation, including maintenance and repairs of the water distribution infrastructure.

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 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 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 (Wheatley) Distribution System (DWS#260087048) is owned by the Corporation of the Municipality of Leamington. It is a stand alone connected distribution system that "receives" treated water from a separately owned "donor" system, the Chatham-Kent Drinking Water System - Wheatley (DWS#220003332). There is a water supply agreement (as per O.Reg. 170/03, s5(4)) between the Chatham-Kent PUC and the Municipality of Leamington which authorizes the Chatham-Kent PUC to conduct testing and monitoring in the Leamington (Wheatley) DS. Leamington's Water Services is responsible for all other aspects of the operation, including maintenance and repair, of the water distribution system. This inspection covers the period from June 1, 2018 to May 31, 2019.

Treatment Process Monitoring

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

Under an O.Reg. 170/03 section 5(4) agreement, the "donor" (Chatham-Kent PUC) must ensure that the "receiver's" distribution system is sampled as though it were an extension of their own system.

As per O.Reg. 170/03 s 7-2(3), the owner/operating authority of a system that provides secondary disinfection (the donor in this case) 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 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. A 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.

During the inspection review period (June 1, 2018 to May 31, 2019), the required free chlorine residuals were taken in conjunction with sampling of the Wheatley DWS program. One sample was taken each week within the Leamington (Wheatley) Distribution System within this program.

- **Samples for chlorine residual analysis were tested using an acceptable portable device.**

Distribution System

- **There is a backflow prevention program, policy and/or bylaw in place.**
The Municipality of Leamington's By-Law#281-01 is a by-law that provides for backflow prevention and to regulate water service connections to the municipal water system.
- **The owner had implemented a program for the flushing of watermains as per industry standards.**
The Leamington Water Services performs quarterly flushing of the watermains at the hydrants and sampling stations.
- **Records confirmed that disinfectant residuals were routinely checked at the extremities and "dead ends" of the distribution system.**
- **A program was in place for inspecting and exercising valves.**
All valves in the system are inspected and exercised annually.
- **There was a program in place for inspecting and operating hydrants.**
All hydrants are inspected and operated annually. In addition, a full maintenance check of the hydrants are performed every 2 years.
- **There was a by-law or policy in place limiting access to hydrants.**
The Municipality of Leamington doesn't have a by-law to regulate the operation of municipal fire hydrants however they have a policy that limits the operation of fire hydrants to municipal staff and fire fighters. Contractors must fill out the "Leamington Water Services Fire Hydrant Meter Connection Rental" Form when a connection is required. A municipal employee will install the flow meter unit at the hydrants at the beginning and end of each day that water is required.
- **The receiving system was claiming exemptions to O. Reg. 170/03 available under subsection 5(4), and the agreement with the donor satisfied the requirements prescribed by subsection 5(4).**
This distribution system receives water continuously from the Chatham-Kent Wheatley DWS. A review of the January 1, 2016 water supply agreement with the Chatham-Kent PUC appears to satisfy the requirements prescribed by O.Reg. 170/03 section 5(4).
- **The donor had provided an Annual Report to the receiver drinking water system.**

Operations Manuals

- **Operators and maintenance personnel had ready access to operations and maintenance 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

- **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.**

Logbooks

- 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.
- Logs or other record keeping mechanisms were available for at least five (5) years.

Security

- The owner had provided security measures to protect components of the drinking water system.
The two auto-flushers and three sampling stations found in this distribution system are all locked.

Consumer Relations

- The owner and/or operating authority undertook efforts to promote water conservation and reduce water losses in their system.

The Municipality of Leamington's By-Law #426-03 regulates the use of water for the purposes of lawn watering. Water sprinkling restrictions are in effect from May 1st to September 30th. Residents occupying an even numbered address are to water on even numbered calendar days only. Residents with odd numbered addresses water on odd calendar days only. Residents are to water during the off peak hours (5am to 8am and 6pm to 11:59pm).

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.
- An adequately licenced operator was designated to act in place of the overall responsible operator when the overall responsible operator was unable to act.

Water Quality Monitoring

- All microbiological water quality monitoring requirements for distribution samples were being met.
Under an O.Reg. 170/03 section 5(4) agreement, the "donor" (Chatham-Kent PUC) must ensure that the "receiver's" distribution system is sampled as though it were an extension of their own system. As per O.Reg. 170/03 s10-2 , the owner/operating authority (the donor system in this case) 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). During the inspection review period (June 1, 2018 to May 31, 2019) the Leamington (Wheatley) distribution system portion was sampled three times per week (except for 3 occasions when 2 samples were collected), resulting in at least a minimum of 11 samples per month. All of these samples were tested for E. coli, total coliforms and HPC. This sampling and testing would have also satisfied O.Reg. 170/03 s10-2 if it were sampled as an individual system.
- All haloacetic acid water quality monitoring requirements prescribed by legislation are being conducted within the required frequency and at the required location.

Water Quality Monitoring

Under an O.Reg. 170/03 section 5(4) agreement, the "donor" (Chatham-Kent PUC) must ensure that the "receiver's" distribution system is sampled as though it were an extension of their own system.

As per O.Reg 170/03 s13-6.1, the owner/operating authority (the donor system in this case) shall ensure that a minimum of one sample is collected and tested for haloacetic acid per calendar quarter.

During the inspection review period (June 1, 2018 to May 31, 2019) no samples were collected within the Leamington (Wheatley) DS, however, the Chatham-Kent PUC's sampling program met minimum requirements within the larger connected distribution system.

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

Under an O.Reg. 170/03 section 5(4) agreement, the "donor" (Chatham-Kent PUC) must ensure that the "receiver's" distribution system is sampled as though it were an extension of their own system.

As per O.Reg 170/03 s13-6, the owner/operating authority (the donor system in this case) shall ensure that a minimum of one sample is collected and tested for trihalomethanes per calendar quarter.

During the inspection review period (June 1, 2018 to May 31, 2019) no samples were collected within the Leamington (Wheatley) DS, however, the Chatham-Kent PUC's sampling program met minimum requirements within the larger connected distribution system.

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

During the inspection review period (June 1, 2018 to May 31, 2019) the Chatham-Kent PUC collected 2 water samples from the Leamington (Wheatley) Distribution System and they were tested for pH, alkalinity and lead. The samples were collected on June 18, 2018 (summer period) and December 17, 2018 (winter period).

- **Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.**
- **The owner indicated that the required records are kept and will be kept for the required time period.**

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

- **Summary Reports for municipal council were completed on time, included the required content, and were distributed in accordance with the regulatory requirements.**
- **All changes to the system registration information were provided within ten (10) days of the change.**

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:

Neil Gilbert

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

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 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

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

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

DWS Name: LEAMINGTON DISTRIBUTION SYSTEM - WHEATLEY DS
DWS Number: 260087048
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: Standalone
Inspection Date: June 18, 2019
Ministry Office: Windsor Area Office

Maximum Question Rating: 199

Inspection Module	Non-Compliance Rating
Operations Manuals	0 / 42
Logbooks	0 / 22
Certification and Training	0 / 35
Water Quality Monitoring	0 / 63
Reporting & Corrective Actions	0 / 8
Treatment Process Monitoring	0 / 29
TOTAL	0 / 199

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 - 2019-2020)

DWS Name: LEAMINGTON DISTRIBUTION SYSTEM - WHEATLEY DS
DWS Number: 260087048
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: Standalone
Inspection Date: June 18, 2019
Ministry Office: Windsor Area Office

Maximum Question Rating: 199

Inspection Risk Rating	0.00%
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FINAL INSPECTION RATING:	100.00%
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