

Ministry of the Environment,  
Conservation and Parks

Drinking Water and  
Environmental Compliance  
Division

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

Division de la conformité en matière  
d'eau potable et d'environnement

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June 06, 2019

File no. EL-AY-540

The Corporation of the Town of Aylmer  
46 Talbot Street,  
Aylmer, ON,  
N5H 1J7

Attention: Bill Berry, Manager of Water Operations

**Re: Aylmer Distribution System (DWS# 260002136) Inspection Report  
Inspection performed on May 07<sup>th</sup>, 2019**

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Dear Mr. Berry,

The enclosed Drinking Water Inspection Report outlines non-compliance, if any, with Ministry legislation and policies for the above noted water system. "Actions Required" are linked to incidents of non-compliance with regulatory requirements contained within an Act, Regulation, site-specific approvals, orders or instructions. These violations will be monitored for compliance. Where risk is deemed to be high and/or compliance is an ongoing concern, violation(s) will be forwarded to this Ministry's Investigation and Enforcement Branch. "Recommendations" convey information that the owner or operating authority should consider implementing to conform with existing and emerging industry best practices.

Should you have any questions regarding this inspection report, please contact me at (519) 926-1785.

Sincerely,

A handwritten signature in cursive script that reads "Andrew Winkler".

Andrew Winkler  
Provincial Officer - Water Inspector  
Drinking Water & Environmental Compliance Division  
Ministry of the Environment, Conservation and Parks  
733 Exeter Road, London, ON, N6E 1L3  
[andrew.winkler@ontario.ca](mailto:andrew.winkler@ontario.ca)

ec: Southwestern Public Health  
Catfish Creek Conservation Area



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

**AYLMER DISTRIBUTION SYSTEM**

**Inspection Report**

<b>Site Number:</b>	260002136
<b>Inspection Number:</b>	1-LCM18
<b>Date of Inspection:</b>	May 07, 2019
<b>Inspected By:</b>	Andrew Winkler

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### OWNER INFORMATION:

<b>Company Name:</b>	AYLMER, THE CORPORATION OF THE TOWN OF	<b>Unit Identifier:</b>	
<b>Street Number:</b>	46		
<b>Street Name:</b>	TALBOT St W		
<b>City:</b>	AYLMER		
<b>Province:</b>	ON	<b>Postal Code:</b>	N5H 1J7

### INSPECTION DETAILS:

<b>Site Name:</b>	AYLMER DISTRIBUTION SYSTEM
<b>Site Address:</b>	AYLMER
<b>County/District:</b>	AYLMER
<b>MECP District/Area Office:</b>	London District
<b>Health Unit:</b>	ELGIN-ST. THOMAS HEALTH UNIT
<b>Conservation Authority:</b>	
<b>MNR Office:</b>	
<b>Category:</b>	Large Municipal Residential
<b>Site Number:</b>	260002136
<b>Inspection Type:</b>	Unannounced
<b>Inspection Number:</b>	1-LCM18
<b>Date of Inspection:</b>	May 07, 2019
<b>Date of Previous Inspection:</b>	

### COMPONENTS DESCRIPTION

<b>Site (Name):</b>	MOE DWS Mapping	<b>Sub Type:</b>	
<b>Type:</b>	DWS Mapping Point		
<b>Site (Name):</b>	Distribution System	<b>Sub Type:</b>	Other
<b>Type:</b>	Other		
<b>Comments:</b>			

Treated water is supplied to the Town of Aylmer from the Elgin Area Primary Water Supply System, the Elgin Middlesex Pumping Station, and the Aylmer Secondary System. When required, two pumps, located at the Elgin Middlesex Pumping Station in St. Thomas, pump water to Aylmer through a 450 mm dia. secondary transmission main (the Aylmer Secondary System). The main leaves the Pumping Station and proceeds along the north side of Hwy #3, through the Municipality of Central Elgin and Malahide Township until it connects to the Aylmer Distribution System at Bodkin Ave. Depending on system pressure and demand, the Secondary System may be used to directly feed the distribution system or may be used to fill a 4,300 m3 standpipe located at 23 Myrtle Street. There is a continuous chlorine monitor, a tower level indicator and pressure sensor located at the standpipe.

The Aylmer Distribution System consists of approximately 42 kilometers of water main of varying sizes (50 mm to 450mm) and types (cast iron, ductile iron, DR-18 plastic, transite). There are approximately 2,860 service connections in the Town of Aylmer, nine meter chambers, 200 fire hydrants and approximately 347 street valves within the system.

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**Site (Name):** Standpipe Reservoir**Type:** Other**Sub Type:** Reservoir**Comments:**

The standpipe located at 23 Myrtle Street, was constructed in 1986 and is 11 metres in diameter and 46 metres in height with a capacity of 4,300 cubic metres. There is a continuous chlorine analyzer, tower level indicator and pressure sensor on the intake/discharge line. The analyzers are connected to the Supervisory Control and Data Acquisition (SCADA) System. SCADA is monitored by the system owner and remotely by the Elgin Area Primary Water System.

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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 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 system was inspected on May 07, 2019 by Andrew Winkler (Provincial Officer) with the Ministry of Environment, Conservation and Parks (MECP). The system owner was present during the inspection.

Documents and records reviewed in relation to this inspection included but may not have been limited to:

- Municipal Drinking Water Licence Number: 044-101, Issue Number: 2, Dated: June 7, 2016;
- Drinking Water Works Permit Number: 044-201, Issue Number: 2, Dated: June 7, 2016;
- 2018 Annual Report; and
- Microbiological and chemical test results.

The inspection review period included June 01, 2018 to April 30, 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.

In 2018, a construction project occurred where a section of the historic watermain was replaced with new PVC DR18 pipe. The new pipe was installed along Victoria Street from Gerard Street to South Street East.

- The owner had records indicating that all 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.

The 2018 watermain replacement project included the installation of pipe made of material that met AWWA specifications.

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**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.**

The town experienced three watermain breaks during this review period. Each incident was classified as a Category 1 watermain break with no evident or suspected contamination. Records demonstrated that the owner took appropriate actions for each incident.

- **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.**

Documents were located in the office at 32 Chipchase Court and were available to all responsible persons.

**Treatment Process Monitoring**

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

Continuous monitoring equipment located at the standpipe was used to measure chlorine residual within the system at the required frequency. In the event the continuous equipment stopped working, portable manually operated chlorine analyzers were available as back up.

- **Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.**

Using SCADA, operators reviewed chlorine residuals within 72 hours of testing.

- **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.**

Continuous testing analyzers in the system were equipped with alarms. The alarm system sends alerts to operators in the event that chlorine increases to a relatively high or low concentration.

- **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.**

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

An independent third party was contracted to perform annual instrument calibrations.

Using a portable chlorine analyzer, the owner performed monthly verification checks of the continuous chlorine analyzer.

**Distribution System**

- **The owner had up-to-date documents describing the distribution components as required.**

Updates made to the town's watermains were completed in November 2018. These updates were captured in the revised Aylmer Watermain Master document (February 2019 edition).

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**Distribution System**

- **There is a backflow prevention program, policy and/or bylaw in place.**  
The Town of Aylmer By-law (09-09) contains requirements related to the installation, inspection and testing of cross connection control and backflow prevention devices.
- **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.**  
Every three (3) years, an independent third party had been scheduled to perform visual inspections of the standpipe. A remotely operated submersible vehicle was utilized to inspect the inside underwater section of the structure. The last inspection occurred in 2016 and the next inspection is scheduled for June 2019.
- **The owner had implemented a program for the flushing of watermains as per industry standards.**  
The flushing program occurs annually during the spring.
- **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.**  
A program exists where prioritized valves are inspected and exercised each year.
- **There was a program in place for inspecting and operating hydrants.**  
A program exists where hydrants are inspected and operated annually from mid to late summer.
- **There was a by-law or policy in place limiting access to hydrants.**  
Access to hydrants is restricted by By-law number 09-09.
- **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.**  
Instruments that monitor water pressure in the system were also equipped with alarms. Operators would be alerted if system pressure became relatively high or low.
- **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.**  
Operations and maintenance manuals are kept in the office located at 32 Chipchase Court, Aylmer.
- **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.**



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**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.**

Records demonstrated that operational tests not performed by continuous equipment included testing for chlorine residual and pH. These field tests were performed by a certified operator.

- **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.**

**Contingency/Emergency Planning**

- **Spill containment was provided for process chemicals and/or standby power generator fuel.**

At the time of inspection, a fuel storage tank full of diesel was observed in the building at the base of the standpipe. The tank was used to store fuel for a diesel powered water pump that is no longer in use. The fuel tank visually appeared to be in good condition and was stored within a permanent cement berm.

In the event of electrical power outage, a small portable gasoline powered generator was available to run the continuous analyzers at the standpipe. Gasoline was not stored on-site.

- **Clean-up equipment and materials were in place for the clean up of spills.**  
Granular absorbent material, sufficient to contain small fuel spills was stored next to the fuel tank in the building at the base of the standpipe.
- **Standby power generators were tested under normal load conditions.**

**Security**

- **All storage facilities were completely covered and secure.**  
The standpipe was the only storage facility in this system. The structure was built with sealed roof with locked hatch.
- **Air vents and overflows associated with reservoirs and elevated storage structures were equipped with screens.**
- **The owner had provided security measures to protect components of the drinking water system.**

**Consumer Relations**

- **The owner and/or operating authority undertook efforts to promote water conservation in their system.**  
Through By-law 09-09, the Town of Aylmer has the ability to restrict outdoor water usage during the months of July and August.

### 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.
- All haloacetic acid water quality monitoring requirements prescribed by legislation are being conducted within the required frequency and at the required location.
- All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.
- The owner ensured that water samples were taken at the prescribed location.
- All sampling requirements for lead prescribed by schedule 15.1 of O. Reg. 170/03 were being met.
- Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.  
Chlorine residual test results were recorded on the forms sent with samples to the laboratory.
- The owner indicated that the required records are kept and will be kept for the required time period.  
Records have been kept for at least 15 years.

### 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

- Where required continuous monitoring equipment used for the monitoring of chlorine residual triggered an alarm, a qualified person responded in a timely manner and took appropriate actions.  
On multiple occasions, power blips caused the alarm system to alert the operator. For each alarm, the operator responded appropriately and documented the event in the log book.
- Summary Reports for municipal council were completed on time, included the required content, and were distributed in accordance with the regulatory requirements.

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**Reporting & Corrective Actions**

- **All changes to the system registration information were not provided within ten (10) days of the change.**  
The Drinking Water System Profile Information included the former Director of Operations. At the time of inspection, the information listed on the Drinking Water System Profile Information was out of date for more than 10 days. The system profile information was updated before the issuance of this report.

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## **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.**

- 1. All changes to the system registration information were not provided within ten (10) days of the change.**

**Action(s) Required:**

Regulation 170/03:

10.1 (2) The owner of a drinking water system that commenced operation before this section came into force shall give the Director a written notice containing information about the system within 60 days after this section comes into force.

(3) If there is any change to the information given to the Director under subsection (1) or (2), the owner of the drinking water system shall give the Director written notice of the change within 10 days of the change.

At the time of inspection, the information listed on the Drinking Water System Profile Information was out of date for more than 10 days.

Actions Required: Before the issuance of this report, the owner provided the ministry with up-to-date information. As a result, there are no further actions required by the owner.

**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

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Inspected By:

Andrew Winkler

Signature: (Provincial Officer)

Reviewed & Approved By:

Mark Smith

Signature: (Supervisor)



Review & Approval Date:

June 6, 2019

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.



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**Key Reference and Guidance Material for Drinking Water Systems**

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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

**Ontario**



**Ministry of the Environment, Conservation and Parks  
Drinking Water System Inspection Report  
Appendix B**

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**Inspection Rating Record**

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

<b>DWS Name:</b> AYLMER DISTRIBUTION SYSTEM
<b>DWS Number:</b> 260002136
<b>DWS Owner:</b> Aylmer, The Corporation Of The Town Of
<b>Municipal Location:</b> Aylmer

**Regulation:** O.REG 170/03  
**Category:** Large Municipal Residential System  
**Type Of Inspection:** Standalone  
**Inspection Date:** May 7, 2019  
**Ministry Office:** London District

**Maximum Question Rating: 331**

Inspection Module	Non-Compliance Rating
Treatment Processes	0 / 37
Distribution System	0 / 4
Operations Manuals	0 / 42
Logbooks	0 / 22
Certification and Training	0 / 35
Water Quality Monitoring	0 / 71
Reporting & Corrective Actions	4 / 29
Treatment Process Monitoring	0 / 91
<b>TOTAL</b>	<b>4 / 331</b>

<b>Inspection Risk Rating</b>	<b>1.21%</b>
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<b>FINAL INSPECTION RATING:</b>	<b>98.79%</b>
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Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2019-2020)

<b>DWS Name:</b> AYLNER DISTRIBUTION SYSTEM
<b>DWS Number:</b> 260002136
<b>DWS Owner:</b> Aylmer, The Corporation Of The Town Of
<b>Municipal Location:</b> Aylmer
<b>Regulation:</b> O.REG 170/03
<b>Category:</b> Large Municipal Residential System
<b>Type Of Inspection:</b> Standalone
<b>Inspection Date:</b> May 7, 2019
<b>Ministry Office:</b> London District

Non-compliant Question(s)	Question Rating
<b>Reporting &amp; Corrective Actions</b>	
Have all changes to the system registration information been provided to the Ministry within ten (10) days of the change?	4
<b>TOTAL QUESTION RATING</b>	<b>4</b>

Maximum Question Rating: 331

Inspection Risk Rating	1.21%
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<b>FINAL INSPECTION RATING:</b>	<b>98.79%</b>
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