

**Ministry of the Environment**

Safe Drinking Water Branch  
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**Ministère de l'Environnement**

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March 30, 2015

File no. EL-WE-WE-540

Municipality of West Elgin  
 22413 Hoskins Line  
 Rodney, Ontario N0L 2C0

Attention: Scott Gawley, Administrator/Treasurer  
 Re: West Elgin Distribution System (DWS # 260094627)  
 Inspection conducted on Feb. 24, 2015

The enclosed Drinking Water Inspection Report outlines non-compliance, if any, with Ministry legislation, and policies for the above noted water system. Violations noted in this report, if any, have been evaluated based on community risk. These violations will be monitored for compliance with the minimum standards for drinking water in Ontario as set forth under the *Safe Drinking Water Act* and associated regulations. Where risk is deemed to be high and/or compliance is an ongoing concern, violations will be forwarded to this Ministry's Investigation and Enforcement Branch.

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 F 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.

Please note the attached IRR methodology memo describing how the risk rating model has improved to better reflect the health related and administrative non-compliance found in an inspection report. IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspector's Annual Report.

"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](http://www.ontario.ca/drinkingwater)."

If you have any questions regarding the report, please feel free to call me at (519) 873-5019.

Yours truly,

Stephen Dunn  
 Drinking Water Inspector  
 Ministry of Environment

cc. Elgin St. Thomas Public Health Unit  
 Lower Thames Conservation Authority



**Ministry of the Environment**

**WEST ELGIN DISTRIBUTION SYSTEM**

**Inspection Report**

<b>Site Number:</b>	260094627
<b>Inspection Number:</b>	1-BX2B9
<b>Date of Inspection:</b>	Feb 24, 2015
<b>Inspected By:</b>	Stephen Dunn

**OWNER INFORMATION:**

**Company Name:** WEST ELGIN, THE CORPORATION OF THE MUNICIPALITY OF  
**Street Number:** 22413 **Unit Identifier:** PO Box 490  
**Street Name:** HOSKINS Line  
**City:** RODNEY  
**Province:** ON **Postal Code:** N0L 2C0

**INSPECTION DETAILS:**

**Site Name:** WEST ELGIN DISTRIBUTION SYSTEM  
**Site Address:** WEST ELGIN  
**County/District:** West Elgin  
**MOE District/Area Office:** London District  
**Health Unit:** ELGIN-ST. THOMAS HEALTH UNIT  
**Conservation Authority:** N/A  
**MNR Office:** N/A  
**Category:** Large Municipal Residential  
**Site Number:** 260094627  
**Inspection Type:** Announced  
**Inspection Number:** 1-BX2B9  
**Date of Inspection:** Feb 24, 2015  
**Date of Previous Inspection:**

**COMPONENTS DESCRIPTION**

**Site (Name):** Distribution System  
**Type:** Other **Sub Type:** Other

**Comments:**

The West Elgin Distribution System consists of approximately 160 km of distribution watermain and Rodney Water Tower. The system serves a population of approximately 3955.

## INSPECTION SUMMARY

### INTRODUCTION

- \* The primary focus of this inspection is to confirm compliance with Ministry of the Environment legislation and authorizing documents such as Orders and Certificates of Approval, as well as evaluating conformance with Ministry drinking water related policies and guidelines during the inspection period.

The Ministry is implementing a rigorous and comprehensive approach in the inspection of drinking water systems that focuses on the source, treatment and distribution components of the system as well as management practices.

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 all of the elements required to assess key compliance and conformance issues associated with a "receiver" system to ensure that the system was not being operated or managed in a "deficient" condition, as defined under O. Reg. 172/03. The report does not contain items associated with the inspection of the donor system, such as source waters, intakes/wells and treatment facilities.

Documents and records reviewed in association with this report include, but are not restricted to:

- The West Elgin Distribution System Operation and Maintenance Manual
- Municipal Drinking Water Works Licence (Licence No. 043-101)
- Drinking Water Works Permit (Permit No. 043-201)
- Municipal Drinking Water Works Licence (Licence No. 304-101)
- Drinking Water Works Permit (Permit No. 304-201)
- Operational documents and records maintained by the owner and operating authority from January 1, 2014 to December 31, 2014.

### TREATMENT PROCESSES

- \* The facility and equipment appeared to be maintained and in a fit state of repair.

### TREATMENT PROCESS MONITORING

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

Distribution system samples are tested twice weekly for free chlorine residual with at least four (4) samples typically taken on Mondays and at least three (3) taken 48 hours after the initial samples were taken.

- \* Records confirmed that the maximum free chlorine residual in the distribution system was less than 4.0 mg/L or that the combined chlorine residual was less than 3.0 mg/L.

**DISTRIBUTION SYSTEM**

- \* **There is a backflow prevention program, policy and/or bylaw in place.**

The Corporation of the Municipality of West Elgin instituted a backflow prevention by-law initially in 2002 (By-Law 2002-62). The by-law was amended on a few occasions since its initial creation. The current by-law is designated as By-Law 2009-66 and includes an implementation schedule based on the degree of hazard. Records pertinent to the by-law are maintained at the West Elgin Municipal Office in Rodney.

- \* **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.**
- \* **Existing parts of the distribution system that were taken out of service for inspection, repair or other activities that may lead to contamination, and all new parts of the distribution system that came in contact with drinking water, were disinfected in accordance with Schedule B, Condition 2.3 of the Drinking Water Works Permit.**

- \* **The owner had implemented a program for the flushing of watermains as per industry standards.**

The operating authority flushes watermains in the spring and fall. In addition, the operational staff maintain records for 12 auto-flushers strategically installed throughout the distribution system. The auto-flushers are inspected regularly and calibrated as required for water flow to maintain adequate chlorine residual within the distribution system.

- \* **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.**

- \* **There was a program in place for inspecting and operating hydrants.**

The operating authority inspects and operates hydrants twice per year typically in the spring and fall.

- \* **There was a by-law or policy in place limiting access to hydrants.**

There is no bylaw in place at the present however the Municipality only allows under rare circumstances a contractor to connect to a hydrant and only with a backflow preventer and a water meter.

- \* **The owner has not undertaken efforts to identify, quantify and reduce sources of apparent water loss.**

No formal leak detection program is in place for the West Elgin distribution system. Leaks are usually reported by residents based on observations of excess water volume rising to the surface or from reports by the water treatment plant operations staff of excess flow through a meter, a reduction in water pressure or rapid drops in the water tank elevations. The owner also does review a cost analysis of the water produced and billed to consumers on an annual basis as part of their budgetary process. For 2014, there was a 14.6% loss of water which includes water used in the autoflusher discharge.

### DISTRIBUTION SYSTEM

- \* The distribution system pressure was monitored to alert the operator of conditions which may have lead to loss of pressure below the value under which the system is designed to operate.

OCWA monitors pressure at the two (2) forcemains at Eagle and water tower storage facilities in Rodney, West Lorne and at the water treatment plant through the SCADA system. The points are alarmed with pressure set points.

- \* Based on the records available the owner was able to maintain proper pressures in the distribution 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 did meet the requirements of the Permit and Licence or Approval issued under Part V of the SDWA.

### LOGBOOKS

- \* Logbook entries were made in chronological order.
- \* The record system allowed the reader to unambiguously identify the person who made the logbook entry.
- \* Entries in the logbook were made only by appropriate and authorized personnel.
- \* 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.
- \* 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.
- \* The operator-in-charge ensured that records were maintained of all adjustments made to the processes within his or her responsibility.
- \* Logs or other record keeping mechanisms were available for at least five (5) years.

### SECURITY

**SECURITY**

- \* All storage facilities were completely covered and secure.
  
- \* Air vents and overflows associated with reservoirs and elevated storage structures were not equipped with screens.  
The overflow pipe for the Rodney water tower was not equipped with a screen.
  
- \* The owner had provided security measures to protect components of the drinking-water system.

**CONSUMER RELATIONS**

- \* Water conservation was being practiced by the owner or operating authority.
  
- \* Required documents were available free-of-charge during normal business hours at a location accessible to the public.  
Information specified in O. Reg. 170/03 s. 12. (1) can be requested from the owner by a member of the public during normal business hours from the West Elgin Municipal Office on 22413 Hoskins Line in Rodney. Records for the operating authority OCWA can be accessed at the water treatment plant in Eagle.

**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 activities that were undertaken by uncertified persons in the DW subsystems were overseen by persons having the prescribed qualifications.
  
- \* All operators possessed the required certification.
  
- \* Operator certificates or water quality analyst certificates were displayed in a conspicuous location at the workplace or at the premises from which the subsystem was managed.
  
- \* The classification certificates of the subsystems were conspicuously displayed at the workplace or at premises from which the subsystem was managed.
  
- \* An adequately licenced operator was designated to act in place of the overall responsible operator when the overall responsible operator was unable to act.

**CERTIFICATION AND TRAINING**

- \* The owner/operating authority was aware of the operator training and record keeping requirements, and they were taking reasonable steps to ensure that all operators receive the required training.

**WATER QUALITY MONITORING**

- \* All microbiological water quality monitoring requirements for distribution samples were being met.
- \* All trihalomethanes water quality monitoring requirements prescribed by legislation were conducted within the required frequency.
- \* Trihalomethane samples were being collected from a point in the distribution system or connected plumbing system that was likely to have an elevated potential for the formation of trihalomethanes.
- \* 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.
- \* The drinking water system owner had submitted written notices to the Director that identified the laboratories that were conducting tests for parameters required by legislation, Order Certificate of Approval (OWRA) or a Permit, Licence or Approval issued under Part V of the SDWA.
- \* Based on information provided by the owner/operator, samples were being taken and handled in accordance with instructions provided by the drinking-water system's laboratories.
- \* The owner indicated that the required records are kept and will be kept for the required time period.

**WATER QUALITY ASSESSMENT**

- \* Records show that all water sample results taken during the review period met the Ontario Drinking Water Quality Standards (O. Reg. 169/03).



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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.

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.

**1. The owner has not undertaken efforts to identify, quantify and reduce sources of apparent water loss.**

No formal leak detection program is in place for the West Elgin distribution system. Leaks are usually reported by residents based on observations of excess water volume rising to the surface or from reports by the water treatment plant operations staff of excess flow through a meter, a reduction in water pressure or rapid drops in the water tank elevations. The owner also does review a cost analysis of the water produced and billed to consumers on an annual basis as part of their budgetary process. For 2014, there was a 14.6% loss of water which includes water used in the autoflusher discharge.

**Recommendation:**

If excess water loss is detected in the future, it is recommended that the owner and operating authority conduct a comprehensive leak detection program.

**2. Air vents and overflows associated with reservoirs and elevated storage structures were not equipped with screens.**

The overflow pipe for the Rodney water tower was not equipped with a screen.

**Recommendation:**

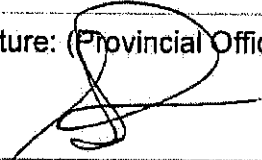
There are no further recommendations as the operating authority confirmed that a screen was installed on the overflow pipe on March 26, 2015.

**SIGNATURES**

Inspected By:

Stephen Dunn

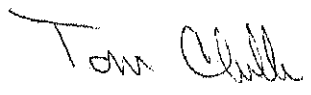
Signature: (Provincial Officer):



Reviewed &amp; Approved By:

Tom Clubb

Signature: (Supervisor):



Review &amp; Approval Date:

March 31, 2015

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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**Stakeholder Appendix**

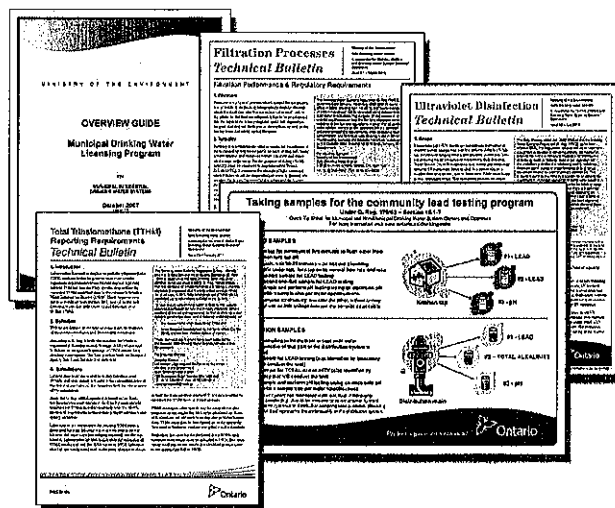
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# Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

Many useful materials are posted on the Ministry of the Environment's **Drinking Water Ontario** website at [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater) to help in the operation of your drinking water system.

Below is a list of key materials frequently used by owners and operators of municipal drinking water systems. To read or download these materials, go to **Drinking Water Ontario** and search in the **Resources** section by **Publication Number**.

Visit **Drinking Water Ontario** for more useful materials. Contact the Public Information Centre if you need assistance or have questions at 1-800-565-4923/416-325-4000 or [picemail.moe@ontario.ca](mailto:picemail.moe@ontario.ca).



PUBLICATION NUMBER	PUBLICATION TITLE
4448e01	Procedure for Disinfection of Drinking Water in Ontario
7152e	Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids
7467	Filtration Processes Technical Bulletin
7685	Ultraviolet Disinfection Technical Bulletin
8215	Total Trihalomethane (TTHM) Reporting Requirements Technical Bulletin (February 2011)
2601e	Overview Guide: Municipal Drinking Water Licensing Program
0000	Municipal Drinking Water Licensing Program Bulletin, Issue 1, January 2011
0000	Certification Guide for Operators and Water Quality Analysts
6560e	Taking Samples for the Community Lead Testing Program
7423e	Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption
7128e	Drinking Water System Contact List
4449e01	Technical Support Document for Ontario Drinking Water Quality Standards



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**Inspection Rating Record**

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**Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2014-2015)**

<b>DWS Name:</b> WEST ELGIN DISTRIBUTION SYSTEM
<b>DWS Number:</b> 260094627
<b>DWS Owner:</b> West Elgin, The Corporation Of The Municipality Of
<b>Municipal Location:</b> West Elgin

**Regulation:** O.REG 170/03  
**Category:** Large Municipal Residential System  
**Type Of Inspection:** Standalone  
**Inspection Date:** February 24, 2015  
**Ministry Office:** London District

**Maximum Question Rating: 274**

Inspection Module	Non-Compliance Rating
Treatment Processes	0 / 14
Distribution System	0 / 21
Operations Manuals	0 / 42
Logbooks	0 / 38
Consumer Relations	0 / 4
Certification and Training	0 / 51
Water Quality Monitoring	0 / 83
Treatment Process Monitoring	0 / 21
<b>TOTAL</b>	<b>0 / 274</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 - 2014-2015)**

**DWS Name:** WEST ELGIN DISTRIBUTION SYSTEM  
**DWS Number:** 260094627  
**DWS Owner:** West Elgin, The Corporation Of The Municipality Of  
**Municipal Location:** West Elgin

**Regulation:** O.REG 170/03  
**Category:** Large Municipal Residential System  
**Type Of Inspection:** Standalone  
**Inspection Date:** February 24, 2015  
**Ministry Office:** London District

**Maximum Question Rating:** 274

**Inspection Risk Rating** 0.00%

**FINAL INSPECTION RATING:** 100.00%