

Ministry of the Environment,
Conservation and Parks

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

Southwestern Region

Direction régionale du Sud-Ouest

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File# SI-ES-KI-540

October 15, 2020

Town of Kingsville
2021 Division Road North
Kingsville, ON
N9Y 2Y9

Attention: Mr. John Norton, CAO
jnorton@kingsville.ca

Dear Mr. Norton:

Re: Kingsville Distribution System
Inspection Report

Please find enclosed the Drinking Water System Inspection Report for the Kingsville Distribution System (DWS#220003403). This year's inspection was conducted remotely and the telephone interview/questionnaire was held on October 8, 2020. There was no physical inspection conducted at your drinking water system this year.

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, 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
Kristy McBeth, Director of Health Protection, Windsor-Essex County HU, kmcbeth@wechu.org
Phil Wong, Manager, Environmental Health, Windsor-Essex County HU, pwong@wechu.org
Victoria Peczulis, Manager, Environmental Health, Windsor-Essex County HU, vpeczulis@wechu.org
Andrew Plancke, Director of Municipal Services, Town of Kingsville, aplancke@kingsville.ca
Shaun Martinho, Manager of Public Works, Town of Kingsville, smartinho@kingsville.ca
Erica Allen, Supervisor of Public Works, Town of Kingsville, eallen@kingsville.ca
Rodney Bouchard, Manager, Union AWSS, rbouchard@unionwater.ca
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Dave Jubenville, Essex Regional Manager, OCWA, djubenville@ocwa.com
Samuel Wen, PCT (A), OCWA, swen@ocwa.com
Marc Bechard, Water Compliance Supervisor, MECP Sarnia District, marc.bechard@ontario.ca



Ministry of the Environment, Conservation and Parks

**KINGSVILLE DISTRIBUTION SYSTEM
Inspection Report**

Site Number:	220003403
Inspection Number:	1-P00P5
Date of Inspection:	Oct 08, 2020
Inspected By:	Neil Gilbert

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Appendix A: Stakeholder Appendix

Appendix B: Inspection Rating Record

OWNER INFORMATION:

Company Name:	KINGSVILLE, THE CORPORATION OF THE TOWN OF		
Street Number:	2021	Unit Identifier:	
Street Name:	DIVISION Rd N		
City:	KINGSVILLE		
Province:	ON	Postal Code:	N9Y 2Y9

CONTACT INFORMATION

Type:	Owner	Name:	Shaun Martinho
Phone:	(519) 733-2305	Fax:	
Email:	smartinho@kingsville.ca		
Title:	Manager of Public Works		

INSPECTION DETAILS:

Site Name:	KINGSVILLE DISTRIBUTION SYSTEM
Site Address:	KINGSVILLE
County/District:	KINGSVILLE
MECP District/Area Office:	Windsor Area Office
Health Unit:	WINDSOR-ESSEX COUNTY HEALTH UNIT
Conservation Authority:	
MNR Office:	
Category:	Large Municipal Residential
Site Number:	220003403
Inspection Type:	Special Announced
Inspection Number:	1-P00P5
Date of Inspection:	Oct 08, 2020
Date of Previous Inspection:	Aug 21, 2019

COMPONENTS DESCRIPTION

Site (Name):	MOE DWS Mapping	Sub Type:	
Type:	DWS Mapping Point		

Site (Name):	Kingsville (Union) Distribution System	Sub Type:	Other
Type:	Other		

Comments:
The Kingsville Distribution System is a standalone distribution system which supplies water to the majority of the Town of Kingsville from the Union Area Water Supply System (UAWSS) located in Ruthven, Ontario. The Town of Kingsville 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 21,600 residents is served by the Kingsville Distribution System. It therefore falls into the "large municipal residential" category under O. Regulation 170/03. Several transmission mains, from 300 to 750 mm, take treated water from the UAWSS to the community of Kingsville, north to the Cottam reservoir (servicing Essex), and to Kingsville's northwestern boundary with the community of Essex. The major transmission mains, the Kingsville 1100 m3 elevated tank, the Cottam reservoir, and the 6800 m3

Albuna tower (servicing Leamington) are owned by the UAWSS and are not included within the scope of this inspection. The Kingsville elevated storage tank maintains distribution system pressure, controlled and monitored from the UAWSS.

It should be noted that as of June 4, 2018 the UAWSS is supplying the Kingsville DS with chlorinated water (instead of chloramination) for secondary disinfection purposes.

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" and was conducted remotely. 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 Kingsville Distribution System (DWS#220003403) is a standalone distribution system which supplies water to the majority of the Town of Kingsville from the Union Area Water Supply System (UAWSS) located in Ruthven, Ontario.

The Town of Kingsville 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 21,600 residents is served by the Kingsville Distribution System. It therefore falls into the "large municipal residential" category under O. Regulation 170/03.

This inspection was conducted remotely and the inspection review period was August 1, 2019 to August 31, 2020.

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.
- The owner/operating authority was in compliance with the requirement to prepare Form 2 documents as required by their Drinking Water Works Permit during the inspection period.
- 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 system's representative was made aware that the updated Ontario Watermain Disinfection Procedure was issued on August 1, 2020. The representative was advised that the municipality is required to modify its watermain repair/commissioning procedures and forms to meet the updated procedure's documentation requirements by the date required in its DWWP.

- The owner had evidence indicating that all chemicals and 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.

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 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 Kingsville DS with chlorinated water, instead of chloramination, for secondary disinfection purposes.

During the inspection review period (August 1, 2019 to August 31, 2020) at least seven distribution samples were collected each week using the 4/3 rule and tested for free and total chlorine residuals.

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

Distribution System

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

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

The Town of Kingsville's By-Law # 39-2001 is a by-law that regulates cross connections and backflow prevention.

- **The owner had implemented a program for the flushing of water mains as per industry standards.**
- **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.**
- **There was a by-law or policy in place limiting access to hydrants.**

There is a policy in place and it was noted that a by-law is currently in draft form and awaiting for endorsement.

- **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.**

It was also noted that there are three remote pressure sensors installed in various hydrants at the extremities of the distribution system. These sensors monitor pressures, flow rates and temperatures and the measured real-time data is tied into the Union WTP's SCADA system.

- **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 Manuals

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

The Town of Kingsville's Operational Plan for the Kingsville Environmental Services was recently revised (Revision 8) and approved by Council on Nov. 26, 2019.

- 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.
- 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.

Within the Kingsville Distribution System, all autoflushers and sampling stations are locked.

Consumer Relations

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

The Town of Kingsville's By-law # 55-2003 is a by-law that regulates the external use of water from the municipal distribution systems.

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.

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

Water Quality Monitoring

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 (August 1, 2019 to August 31, 2020) 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 shall ensure that a minimum of one sample is collected and tested for haloacetic acid (HAA) per calendar quarter.

On January 1, 2020, the O.Reg. 169/03 standard for HAA (80ug/L) came into effect and is expressed as a RAA, where RAA is defined as "the running annual average of quarterly results" for HAA for a drinking water system.

During the inspection review period (August 1, 2019 to August 31, 2020), these HAA samples were collected on Oct. 10, 2019 (HAA result = 15.8ug/L), Jan. 7, 2020 (HAA result = <5.3ug/L), Feb. 4, 2020 (HAA result = <5.3ug/L), Apr. 6, 2020 (HAA result = 17.1ug/L) and July 7, 2020 (HAA result = 19.3ug/L). All of these HAA results were below 80ug/L and the average for the inspection review period was 12.6ug/L.

- **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 shall ensure that a minimum of one sample is collected and tested for trihalomethanes (THM) per calendar quarter.

During the inspection review period (Aug. 1, 2019 to Aug. 31, 2020) these THM samples were collected monthly from Aug. 6, 2019 to Dec. 2, 2019 (5 THM results ranging from 16ug/L to 44ug/L) and then quarterly samples were collected on Jan. 7, 2020 (THM result = 16ug/L), Apr. 6, 2020 (THM result = 24ug/L) and July 7, 2020 (THM result = 39ug/L).

The Ontario Drinking Water Quality Standard (ODWQS) for THM is 100 ug/L (expressed as a running annual average of quarterly results). All of the THM results were below 100ug/L and the average for the inspection review period was 32.4ug/L.

- **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.**

This drinking water system is exempt from plumbing lead sampling as per the exemption in O.Reg. 170/03 Schedule 15.1. Under this exemption and as per subsection 15.1-5 (10), the owner/operating authority are required to test for pH and alkalinity during each of the two periods described in subsection 15.1-5 (5) (i.e. Dec. 15 to Apr. 15 and June 15 to Oct. 15) in every 12-month period and to test for lead during each of the two periods described in subsection 15.1-5 (5) in every third 12-month period. In accordance with the "Reduced Sampling Table" (found in O.Reg. 170/03 Schedule 15.1) and based on the population served by the Kingsville Distribution System, at least four sampling points must be tested in the distribution system per period (i.e. Dec. 15 to Apr. 15 and June 15 to Oct. 15).

During the inspection review period (Aug. 1, 2019 to Aug. 31, 2020), water samples were collected from four locations within the distribution system on Sept. 10, 2019 (tested for alkalinity and pH) and Mar. 26, 2020 (tested for lead, alkalinity and pH).

- **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

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.

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 - 2020-2021)

DWS Name: KINGSVILLE DISTRIBUTION SYSTEM
DWS Number: 220003403
DWS Owner: Kingsville, The Corporation Of The Town Of
Municipal Location: Kingsville

Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Standalone
Inspection Date: October 8, 2020
Ministry Office: Windsor Area Office

Maximum Question Rating: 244

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	0 / 4
Treatment Process Monitoring	0 / 29
TOTAL	0 / 244

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

DWS Name: KINGSVILLE DISTRIBUTION SYSTEM
DWS Number: 220003403
DWS Owner: Kingsville, The Corporation Of The Town Of
Municipal Location: Kingsville

Regulation: O.REG 170/03

Category: Large Municipal Residential System

Type Of Inspection: Standalone

Inspection Date: October 8, 2020

Ministry Office: Windsor Area Office

Maximum Question Rating: 244

Inspection Risk Rating	0.00%
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FINAL INSPECTION RATING:	100.00%
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