

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-ES-540

November 30, 2020

The Corporation of the Town of Essex
33 Talbot Street
Essex, Ontario
N8M 1A0

Attention: Mr. Chris Nepszy, CAO
cnepszy@essex.ca

Dear Mr. Nepszy:

Re: Essex Drinking Water System – Harrow-Colchester South
Inspection Report

Please find enclosed the Drinking Water System Inspection Report for the announced “focused” inspection that was conducted at the Essex Drinking Water System – Harrow-Colchester South (DWS#210000130) on November 19, 2020.

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
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Andy Graf, Manager, Environmental Services, Town of Essex, agraf@essex.ca
Karen Burgess, Senior Operations Manager, OCWA, kburgess@ocwa.com
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Dave Jubenville, Essex Regional Manager, OCWA, djubenville@ocwa.com
Katie Stammler, Project Manager Source Water Protection, ERCA, kstammler@erca.org
Marc Bechard, Water Compliance Supervisor, MECP Sarnia District, marc.bechard@ontario.ca



Ministry of the Environment, Conservation and Parks

ESSEX DRINKING WATER SYSTEM - HARROW-COLCHESTER SOUTH
Inspection Report

| | |
|----------------------------|--------------|
| Site Number: | 210000130 |
| Inspection Number: | 1-O086Z |
| Date of Inspection: | Nov 19, 2020 |
| Inspected By: | Neil Gilbert |

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Appendix A: Stakeholder Appendix

Appendix B: Inspection Rating Record

OWNER INFORMATION:

| | | | |
|-----------------------|---------------------------------------|-------------------------|---------|
| Company Name: | ESSEX, THE CORPORATION OF THE TOWN OF | | |
| Street Number: | 33 | Unit Identifier: | |
| Street Name: | TALBOT St S | | |
| City: | ESSEX | | |
| Province: | ON | Postal Code: | N8M 1A0 |

CONTACT INFORMATION

| | | | |
|---------------|---|--------------|----------------|
| Type: | Operating Authority | Name: | Karen Burgess |
| Phone: | (519) 738-3038 | Fax: | (519) 738-3993 |
| Email: | kburgess@ocwa.com | | |
| Title: | Senior Operations Manager, OCWA-Essex Hub | | |

| | | | |
|---------------|--|--------------|----------------|
| Type: | Operating Authority | Name: | Andrew Graf |
| Phone: | (519) 738-6804 x1425 | Fax: | (519) 776-7336 |
| Email: | agraf@essex.ca | | |
| Title: | Manager, Environmental Services, Town of Essex | | |

| | | | |
|---------------|--------------------------------------|--------------|----------------|
| Type: | Operating Authority | Name: | Warren Higgins |
| Phone: | (519) 738-3038 | Fax: | (519) 738-3993 |
| Email: | whiggins@ocwa.com | | |
| Title: | Process & Compliance Tech, Essex Hub | | |

INSPECTION DETAILS:

| | |
|-------------------------------------|---|
| Site Name: | ESSEX DRINKING WATER SYSTEM - HARROW-COLCHESTER SOUTH |
| Site Address: | 405 CLITHEROW Street HARROW ON N0R 1G0 |
| County/District: | ESSEX TOWN |
| 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: | 210000130 |
| Inspection Type: | Announced |
| Inspection Number: | 1-O086Z |
| Date of Inspection: | Nov 19, 2020 |
| Date of Previous Inspection: | Jul 03, 2019 |

COMPONENTS DESCRIPTION

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

| | |
|---------------------|-----------|
| Site (Name): | RAW WATER |
|---------------------|-----------|

Type: Source **Sub Type:** Surface Water

Comments:

The intake pipeline extends approximately 400 m out from the shore and consists of a rock filled timber crib containing a vertical steel bellmouth opening. The bellmouth is connected to a 750 mm diameter, 381 m long intake pipe that is buried 0.6 m below the bottom of Lake Erie. The bellmouth is surrounded by the timber cribbing and a steel top, forming an approximate 3m square structure that projects over 2 to 3 m above the lake bottom. There is a 38 mm diameter PVC pipe installed inside of the intake pipe to deliver sodium hypochlorite solution from an inlet chamber in the low lift pumping station to a diffuser ring in the bellmouth.

The low lift station consists of two manually cleaned, 3 cm wide bar screens, two screen inlet chambers, one microstrainer (with space available for a second microstrainer), four vertical turbine low lift pumps in one common low lift well and a fiberglass sodium hypochlorite chemical storage tank with feed facilities. UPDATE: The microstrainer was replaced by a traveling screen in June 2020.

A 100 kW standby diesel operated generator with transfer switch provides backup power during outages.

Site (Name): TREATED WATER

Type: Treated Water POE

Sub Type: Treatment Facility

Comments:

Operation and maintenance of the Harrow-Colchester S Water Treatment Plant (WTP) is performed by OCWA.

The water treatment plant consists of the following major components:

- a 300 mm, 548 m long low lift discharge main from the low lift pumping station

Clarification:

- one solids contact upflow clarifier with a volume of 905 m³ and a rated flowrate of 10,227 m³/day
- powdered activated carbon mixing, storage system and chemical feed pump
- coagulant storage system and chemical feed pump
- coagulant aid storage system and chemical feed pump
- a filter-aid storage tank and one chemical feed pump (currently not in use)

Filtration:

- two dual media filters equipped with rotary surface agitators each rated at 5,114 m³/day
- one vertical turbine filter backwash pump

Clearwells/Reservoir:

- two clearwells to collect filter effluent
- a two celled in-ground water storage reservoir

High Lift Pumping:

- three high lift pumps in a two compartment high lift pump wet well
- a 250 kW emergency back-up diesel generator

Chlorination:

- a gas chlorination system with two V notch chlorinators with rotameters

Waste Management:

- two earthen sludge settling/storage ponds with storage capacity of 622 m³ each
- valving to allow supernatant to discharge to a storm sewer then on to Lake Erie

Site (Name): HARROW WATER TOWER

Type: Other

Sub Type: Other

Comments:

A 1,137 m³ steel elevated storage tank, located in the former Town of Harrow, provides storage capacity and maintains pressure in the distribution system. The control valve for the elevated storage tower is located in an on-site buried and locked concrete chamber.

Site (Name): DISTRIBUTION SYSTEM

Type: Other

Sub Type: Other

Comments:

The Essex (Harrow Colchester South) Water Distribution Subsystem receives treated water from the Harrow-Colchester South Water treatment Plant and contains 145 km of water mains ranging in size from 2 in. to 14 in., supplying an approximate population of 10,400 residents. Operation and maintenance of the distribution subsystem is performed by the Town of Essex Water Department.

The Essex (Harrow Colchester South) Water Distribution System has two interconnects to the Union (Essex County) Water Distribution System, three interconnects to the Essex (Union WTP) Water Distribution System and two interconnects to the Amherstburg Water Distribution System, only opened for emergencies.

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 related policies and guidelines during the inspection period. The ministry utilizes a comprehensive, multi-barrier approach in the inspection of water systems that focuses on the source, treatment and distribution components 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 a "focused" inspection of the system. Although the inspection involved fewer activities than those normally undertaken in a detailed inspection, it contained critical elements required to assess key compliance issues. This system was chosen for a focused inspection because the system's performance met the ministry's criteria, most importantly that there were no deficiencies as identified in O.Reg. 172/03 over the past 3 years. The undertaking of a focused inspection at this drinking water system does not ensure that a similar type of inspection will be conducted at any point in the future.

This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

This announced "focused" inspection of the Essex Drinking Water System - Harrow-Colchester South (DWS#210000130) was conducted on November 19, 2020. This inspection covers the period of time between July 1, 2019 to September 30, 2020.

Source

- The owner had a harmful algal bloom monitoring plan in place.
Harrow - Colchester South WTP's Operating Procedure (SOP) #OCWA-C3-41 is a procedure used to respond to a blue-green algae bloom.

Capacity Assessment

- There was sufficient monitoring of flow as required by the Municipal Drinking Water Licence or Drinking Water Works Permit issued under Part V of the SDWA.**
Schedule C, Condition 2.1 of the Municipal Drinking Water Licence #029-101 requires that continuous flow measurement and recording shall be undertaken for:
2.1.1 The flow rate and daily volume of treated water that flows from the treatment subsystem to the distribution system.
2.1.2 The flow rate and daily volume of water that flows into the treatment subsystem.
The Harrow-Colchester South DWS has magnetic flow meters for both the raw water entering the treatment plant and for treated water flowing from the plant to the distribution system.
- The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Municipal Drinking Water Licence issued under Part V of the SDWA.**
Schedule C, Condition 1.1 of the Municipal Drinking Water Licence #029-101 states that the maximum daily volume of treated water that flows from the Harrow-Colchester South Water Treatment Plant to the distribution system shall

Capacity Assessment

not exceed 10,228 m³/day.

During the inspection review period (July 1, 2019 to September 30, 2020) the Harrow-Colchester South WTP did not exceed the maximum rated capacity. Based on records, the average daily volume of treated water conveyed to the distribution system was approximately 3,022m³/day. This is approximately 30% of the rated capacity of the drinking water system. A maximum daily volume of treated water conveyed to the distribution system was 5,567m³/day (54% of the rated capacity) which occurred in July 2020.

Treatment Processes

- **The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.**
- **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.**

During the inspection review period, "Form 2 - Record of Minor Modifications or Replacements to the Drinking Water System" forms were prepared for the following projects:

- 1) Compressor replacements (dated July 3, 2019),
- 2) Final effluent flow meter replacement (dated June 12, 2020),
- 3) Replaced low lift MCC (dated June 5, 2020),
- 4) Replace high lift MCC (dated June 5, 2020),
- 5) Replacement of all 4 low lift pumps (dated June 5, 2020), and
- 6) Replaced microstrainer with traveling screen (June 5, 2020).

- **Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a Drinking Water Works Permit and/or Municipal Drinking Water Licence issued under Part V of the SDWA at all times that water was being supplied to consumers.**
- **Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated so that at all times and all locations in the distribution system the chlorine residual was never less than 0.05 mg/l free or 0.25 mg/l combined.**
- **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 representatives were made aware that the updated Ontario Watermain Disinfection Procedure was issued on August 1, 2020. The representatives were 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.

Treatment Process Monitoring

- **Primary disinfection chlorine monitoring was conducted at a location approved by Municipal Drinking Water Licence and/or Drinking Water Works Permit issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved.**
- **Continuous monitoring of each filter effluent line was being performed for turbidity.**
- **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

Treatment Process Monitoring

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.

During the inspection review period (July 1, 2019 to September 30, 2020) at least seven distribution samples were collected each week using the 4/3 rule and tested for free chlorine residuals.

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

Operations Manuals

- **The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.**
- **The operations and maintenance manuals met the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.**

Condition 16.2 under Schedule B of Essex Drinking Water System's Licence (#029-101) notes that the operations and maintenance manuals shall include (at a minimum) the following:

- 16.2.1 The requirements of this licence and associated procedures;
- 16.2.2 The requirements of the drinking water works permit for the drinking water system;
- 16.2.3 A description of the processes used to achieve primary and secondary disinfection within the drinking water system, including where applicable:
 - a) A copy of the CT calculations that were used as the basis for primary disinfection under worst case operating conditions; and
 - b) The validated operating conditions for UV disinfection equipment, including a copy of the validation certificate;
- 16.2.4 Procedures for monitoring and recording the in-process parameters necessary for the control of any treatment subsystem and for assessing the performance of the drinking water system;
- 16.2.5 Procedures for the operation and maintenance of monitoring equipment;
- 16.2.6 Contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset conditions and equipment breakdown;
- 16.2.7 Procedures for dealing with complaints related to the drinking water system, including the recording of the nature of the complaint and any investigation and corrective action taken in respect of the complaint.

A review of Harrow - Colchester South WTP's Operations Manual suggests that these conditions appear to be satisfied.

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.

Security

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

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.
- Only certified operators made adjustments to the treatment equipment.

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 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 (July 1, 2019 to September 30, 2020) all microbiological water monitoring requirements for distribution water samples were performed.

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

As per O.Reg. 170/03 s10-3, the owner/operating authority for the system shall ensure that a water sample (treated) is taken at least once every week and tested for E. coli, total coliforms and general bacteria population expressed as colony counts on a heterotrophic plate count (HPC).

During the inspection review period (July 1, 2019 to September 30, 2020) all microbiological water monitoring requirements for treated water samples were performed.

- All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

As per O.Reg. 170/03 s13-2, the owner/operating authority of a large municipal residential system that obtains water from a raw water supply that is surface water shall ensure that at least one water sample is taken every 12 months and tested for every inorganic parameter set out in Schedule 23.

During the inspection review period (July 1, 2019 to September 30, 2020) this sample was collected on April 8, 2020.

- All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

As per O.Reg. 170/03 s13-4, the owner/operating authority of a large municipal residential system that obtains water from a raw water supply that is surface water shall ensure that at least one water sample is taken every 12 months and tested for every organic parameter set out in Schedule 24.

Water Quality Monitoring

During the inspection review period (July 1, 2019 to September 30, 2020) this sample was collected on April 8, 2020.

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

As per O.Reg. 170/03 s13-6.1, the owner/operating authority of a system that provides chlorination or chloramination shall ensure that at least one distribution sample is taken in each calendar quarter, from a point in the distribution system that is likely to have an elevated potential for the formation of haloacetic acids (HAAs), and have the sample tested for HAAs.

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 (July 1, 2019 to September 30, 2020) these HAA quarterly samples were collected on July 1, 2019 (HAA result = 6.5ug/L), October 2, 2019 (HAA result = <5.3ug/L), January 15, 2020 (HAA result = <5.3ug/L), April 8, 2020 (HAA result = 11ug/L) and July 6, 2020 (HAA result = <5.3ug/L). All of these HAA results were below 80ug/L and the average for the inspection review period was 6.7ug/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 of a system that provides chlorination or chloramination shall ensure that at least one distribution sample is taken in each calendar quarter, from a point in the distribution system that is likely to have an elevated potential for the formation of trihalomethanes (THMs), and have the sample tested for THMs.

During the inspection review period (July 1, 2019 to September 30, 2020) these THM quarterly samples were collected on July 1, 2019 (THM result = 26ug/L), October 2, 2019 (THM result = 22ug/L), January 15, 2020 (THM result = 15 ug/L), April 8, 2020 (THM result = 22ug/L) and July 6, 2020 (THM result = 36ug/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 24ug/L.

- **All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS.**

As per O.Reg. 170/03 s13-7, the owner/operating authority of a system shall ensure that at least one water sample is taken every three months and have the sample tested for nitrate and nitrite.

During the inspection review period (July 1, 2019 to September 30, 2020) these samples were collected on July 1, 2019, October 2, 2019, January 15, 2020, April 8, 2020 and July 6, 2020.

- **All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

As per O.Reg. 170/03 s13-8, the owner/operating authority of a drinking water system shall ensure that at least one water sample is taken every 60 months (+/- 90 days) and tested for sodium.

The operating authority is sampling and testing for sodium annually, which exceeds the testing requirements prescribed by O.Reg. 170/03. The most recent sodium test was on April 8, 2020 (9.01 mg/L) and no concerns were identified.

- **All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

As per O.Reg. 170/03 s13-9, the owner/operating authority of a drinking water system shall ensure that at least one water sample is taken every 60 months (+/- 90 days) and tested for fluoride.

The operating authority is sampling and testing for fluoride annually, which exceeds the testing requirements prescribed by O.Reg. 170/03. The most recent fluoride test was on April 8, 2020 (0.09 mg/L) and no concerns were

Water Quality Monitoring

identified.

- **All water quality monitoring requirements imposed by the MDWL or DWWP issued under Part V of the SDWA were being met.**

Schedule C, Section 4 of Licence #029-101 requires a monthly composite sample of the backwash ponds to be analyzed for total suspended solids.

Sample results for TSS collected during the inspection review period (July 1, 2019 to September 30, 2020) ranged from <2mg/L to 9mg/L. All of these results were below the 25mg/L TSS limit (which is based on an annual average) noted in Table 3 of the Licence. The average TSS result for the inspection review period was 3mg/L.

- **Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.**

Water Quality Assessment

- **Records showed that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O.Reg. 169/03).**

Reporting & Corrective Actions

- **Where required continuous monitoring equipment used for the monitoring of chlorine residual and/or turbidity triggered an alarm or an automatic shut-off, a qualified person responded in a timely manner and took appropriate actions.**

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: ESSEX DRINKING WATER SYSTEM - HARROW-COLCHESTER SOUTH
DWS Number: 210000130
DWS Owner: Essex, The Corporation Of The Town Of
Municipal Location: Essex Town

Regulation: O.REG 170/03

Category: Large Municipal Residential System

Type Of Inspection: Focused

Inspection Date: November 19, 2020

Ministry Office: Windsor Area Office

Maximum Question Rating: 461

| Inspection Module | Non-Compliance Rating |
|--------------------------------|-----------------------|
| Capacity Assessment | 0 / 30 |
| Treatment Processes | 0 / 81 |
| Operations Manuals | 0 / 28 |
| Logbooks | 0 / 14 |
| Certification and Training | 0 / 42 |
| Water Quality Monitoring | 0 / 112 |
| Reporting & Corrective Actions | 0 / 21 |
| Treatment Process Monitoring | 0 / 133 |
| TOTAL | 0 / 461 |

| | |
|------------------------|-------|
| Inspection Risk Rating | 0.00% |
|------------------------|-------|

| | |
|---------------------------------|----------------|
| FINAL INSPECTION RATING: | 100.00% |
|---------------------------------|----------------|

Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2020-2021)

DWS Name: ESSEX DRINKING WATER SYSTEM - HARROW-COLCHESTER SOUTH
DWS Number: 210000130
DWS Owner: Essex, The Corporation Of The Town Of
Municipal Location: Essex Town

Regulation: O.REG 170/03

Category: Large Municipal Residential System

Type Of Inspection: Focused

Inspection Date: November 19, 2020

Ministry Office: Windsor Area Office

Maximum Question Rating: 461

Inspection Risk Rating 0.00%

FINAL INSPECTION RATING: 100.00%