

Ministry of the Environment,  
Conservation & Parks

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

Owen Sound District Office

Bureau de district d'Owen Sound

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October 29, 2019

Sent by Email: [cao@kincardine.net](mailto:cao@kincardine.net)

The Municipality of Kincardine,  
1475 Concession 5,  
Kincardine ON., N2Z 2X6

Attention: Sharon Chambers  
CAO

**Re:** 2019/20 Inspection  
Report 1-KVMOJ Kincardine Drinking Water System  
Drinking Water Licence # 088-102  
Drinking Water Works Permit #088-202

The enclosed report documents findings of the inspection that was performed on September 18, 2019.

Two sections of the report, namely "Actions Required" and "Recommended Actions", specify due dates for the submission of information or plans to my attention.

Please note that "Actions Required" are linked to incidents of non-compliance with regulatory requirements contained within an Act, a Regulation, or site-specific approvals, orders or instructions; "Recommended Actions" convey information that the owner or operating authority should consider implementing in order to conform with existing and emerging industry standards.

The report includes an Inspection Summary Rating Record as an appendix. This record forms part of the ministry's comprehensive, risk-based inspection process. The rating provides a quantitative measure of the inspection results for this specific drinking water system for the reporting year. An inspection rating that is less than 100 per cent does not mean that the drinking water from the system is unsafe. The primary goals of this assessment are to encourage ongoing improvement of drinking water systems and to measure this progress from year to year.

I would like to remind you that Section 19 of the Safe Drinking Water Act, 2002 (Standard of Care) creates a number of obligations for individuals who exercise decision-making authority over

municipal drinking water systems, including members of municipal councils. "Taking Care of Your Drinking Water: A guide for members of municipal council", a publication found on the [Drinking Water Ontario website](https://www.ontario.ca/page/taking-care-your-drinking-water-guide-members-municipal-councils) (<https://www.ontario.ca/page/taking-care-your-drinking-water-guide-members-municipal-councils>), provides further information about these obligations.

Should you have any questions regarding the content of the enclosed report, please do not hesitate to contact me.

Yours truly,

A handwritten signature in black ink, appearing to read "S. Finlay". The signature is fluid and cursive, with the first letter "S" being large and prominent.

Shayne Finlay  
Water Compliance Inspector  
Phone: 519-270-8955  
e-mail: shayne.finlay@ontario.ca

Enclosure

cc: Dr. Ian Arra, Medical Officer of Health, Grey-Bruce Health Unit  
Mark Smith, Drinking Water Inspections Program Supervisor  
Carl Seider, Project Manager, Source Water Protection Program  
Donna Hardman, Compliance Officer, Municipality of Kincardine  
Shamus Anderson, Overall Responsible Operator, Municipality of Kincardine  
Adam Weishar, Director of Public Works, Municipality of Kincardine  
c: File SI-BR-K-540 (2019)



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

**KINCARDINE DRINKING WATER SYSTEM  
Inspection Report**

<b>Site Number:</b>	220002716
<b>Inspection Number:</b>	1-KVMOJ
<b>Date of Inspection:</b>	Sep 18, 2019
<b>Inspected By:</b>	Shayne Finlay

## OWNER INFORMATION:

<b>Company Name:</b>	KINCARDINE, THE CORPORATION OF THE MUNICIPALITY OF		
<b>Street Number:</b>	1475	<b>Unit Identifier:</b>	
<b>Street Name:</b>	CONCESSION #5 Conc		
<b>City:</b>	KINCARDINE		
<b>Province:</b>	ON	<b>Postal Code:</b>	N2Z 2X6

## CONTACT INFORMATION

<b>Type:</b>	Operator	<b>Name:</b>	Shamus Anderson
<b>Phone:</b>	(519) 396-4660	<b>Fax:</b>	(519) 396-4673
<b>Email:</b>	orokincwaterserv@bmts.com		
<b>Title:</b>	Overall Responsible Operator - Water and Wastewater Supervisor		

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<b>Type:</b>	Owner	<b>Name:</b>	Sharon Chambers
<b>Phone:</b>	(519) 396-3018	<b>Fax:</b>	(519) 396-8288
<b>Email:</b>	cao@kincardine.net		
<b>Title:</b>	Chief Administrative Officer		

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<b>Type:</b>	Main Contact	<b>Name:</b>	Donna Hardman
<b>Phone:</b>	(519) 396-4660	<b>Fax:</b>	(519) 396-4673
<b>Email:</b>	dhardman@bmts.com		
<b>Title:</b>	Compliance Officer		

## INSPECTION DETAILS:

<b>Site Name:</b>	KINCARDINE DRINKING WATER SYSTEM
<b>Site Address:</b>	155 DURHAM Street KINCARDINE ON N2Z 1A4
<b>County/District:</b>	KINCARDINE
<b>MECP District/Area Office:</b>	Owen Sound Area Office
<b>Health Unit:</b>	GREY BRUCE HEALTH UNIT
<b>Conservation Authority:</b>	Saugeen Conservation
<b>MNR Office:</b>	Owen Sound Field Office
<b>Category:</b>	Large Municipal Residential
<b>Site Number:</b>	220002716
<b>Inspection Type:</b>	Unannounced
<b>Inspection Number:</b>	1-KVMOJ
<b>Date of Inspection:</b>	Sep 18, 2019
<b>Date of Previous Inspection:</b>	Sep 05, 2018

## COMPONENTS DESCRIPTION

<b>Site (Name):</b>	MOE DWS Mapping	<b>Sub Type:</b>
<b>Type:</b>	DWS Mapping Point	

<b>Site (Name):</b>	RAW WATER
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**Type:** Source

**Sub Type:** Surface

**Comments:**

The raw water source for the Kincardine Water Treatment Plant is Lake Huron. Water is drawn from an intake crib located on the lake bottom approximately 765 meters northwest of the low-lift pumping station. Water flows into the low-lift pumping station by gravity. Lake levels are subject to annual and longer term fluctuations. The January 30, 2001, Engineer's Report states that the raw water quality is generally satisfactory and it is believed that the present depth of water over the intake is approximately 4.7 meters. This raw water source can be very turbid at certain times of the year such as at spring runoff, lake turnover, and when there are strong west winds.

**Site (Name):** TREATMENT PLANT

**Type:** Treated Water POE

**Sub Type:** Pumphouse

**Comments:**

The Town of Kincardine's Water Treatment Plant treatment process consists of the following:

- \* A 765 m long, 500 mm diameter raw water intake pipe and intake structure located on the bottom of Lake Huron having an intake capacity of 18 750 cubic meters per day. This enters a low-lift pumping station having a firm capacity of 146 L/s consisting of a two celled concrete pump well with a volume of 101 cubic meters, equipped with a removable screen and three vertical turbine pumps rated at 49 L/s and two at 97 L/s.
- \* A coagulant feed system consisting of storage tanks/totes, two metering pumps and spill containment.
- \* A polymer (coagulant aid) feed system consisting of one automatic polymer make-up system complete with hopper, volumetric feeder, dissolver cone, preparation tank and mixer, and solution tank. There are three metering pumps and spill containment.
- \* Two clarifier units consisting of two ballasted floc high rate sedimentation units, each having one injection tank with mixer, one coagulation tank with mixer, one maturation tank with mixer, one settling tank, two recirculation pumps and two hydrocyclones.
- \* Four multi-media (anthracite, sand and gravel) gravity filters, three having a surface area of 13.9 m<sup>2</sup> and one having a surface area of 13.5 m<sup>2</sup>. A fifth filter has been provided for but is presently not charged with filter media and is not being used. There is filter-to-waste piping functionality for all filters.
- \* A three-compartment clearwell, located immediately north of the water treatment plant, having a total volume of 4120 m<sup>3</sup> at maximum water level.
- \* High lift pumping facilities consisting of a concrete storage reservoir having a total volume of 63.5 m<sup>3</sup> at maximum water level, and three vertical turbine high-lift pumps rated at 130 L/s.
- \* A filter backwash treatment system consisting of a backwash settling tank having a total volume of 227 m<sup>3</sup> and equipped with sludge and supernatant pumps that can discharge either to the sanitary sewer or to Lake Huron. At the time of the inspection, discharge to the sanitary sewer was occurring.
- \* Disinfection facilities include three vacuum feed-gas chlorinators (one standby), two on-line gas cylinders, chlorine application points to allow chlorination at the intake (seasonally for zebra mussel control), at the low-lift pump well, upstream of the flocculation tanks, upstream of the filters, in the filter effluent prior to discharge to the clearwell, and in the high-lift pump well. There is also a chlorine gas leak detector in the water treatment plant.
- \* There is standby power consisting of a 600 kW diesel generator.

**Site (Name):** PROCESS WASTEWATER PRE-TREATED

**Type:** Other

**Sub Type:** Other

**Comments:**

Process waste water from the backwashing of the dual media gravity filters is directed to a 227 m<sup>3</sup> enclosed two cell concrete backwash settling tank. This tank is located immediately south of the water treatment plant and is equipped with a supernatant chamber and a sludge pump. The supernatant and sludge can be discharged to Lake Huron or the municipal sanitary sewer system. At the time of the inspection, discharges were being sent to the sanitary sewer due to the need for a dechlorination system in order to discharge the waste water to the Lake with no potential adverse affect.

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**Site (Name):** STANDPIPE AND DISTRIBUTION SYSTEM

**Type:** Other

**Sub Type:** Other

**Comments:**

A 3,360 cubic meter standpipe, constructed around 1984, is located northwest of the corner of McPherson Crescent and Durham Street. A booster station is located near the base of the standpipe and both are used to maintain distribution pressure and provide stored water for fire protection. It was constructed in 1984. There is a back-up diesel generator pump in a fenced building at the base of the standpipe. There are no treatment facilities at the standpipe. The Town of Kincardine's water distribution system serves a connected population of approximately 8,700 persons.

Kincardine's distribution system has approximately 352 fire hydrants, numerous blow-offs, and dead-ends that are mapped on the Operator's GPS/GIS program.

The Town of Kincardine constructed a water pipeline from Kincardine northward towards the Village of Tiverton (Kincardine Shoreline Project). This pipeline now includes the following subdivisions as part of the Town of Kincardine's distribution system:

- Lake Huron Highlands
- Port Head Estates,
- Craig Eskrick, and
- Inverhuron Provincial Park.

The Municipality also provides treated water to a stand-alone distribution system within the neighbouring municipality of Huron-Kinloss. The distribution system services some houses in Huronville. There is a servicing agreement between municipalities. Huronville has a separate drinking water system # 260046709 and a separate Ministry inspection report is to be completed for it.

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**Site (Name):** PRESSURE BOOSTER AND RECHLORINATION FACILITY

**Type:** Treated Water POE

**Sub Type:** Booster Station

**Comments:**

A pressure boosting and rechlorination substation located at the intersection of Alma Street and Jordan Road in the Municipality of Kincardine was constructed in 2005, primarily to serve the northern end of the distribution system near Inverhuron Provincial Park. The facility consists of two chemical metering pumps (one duty, one standby), each rated at 0.59 L/h, complete with automatic switchover and annunciation on pump failure, one sodium hypochlorite tank complete with containment tank, two residual chlorine analyzers (one pre-rechlorination, one post-rechlorination), and one flow meter.

## 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.

On September 18, 2019, Provincial Officer Shayne Finlay inspected the Kincardine drinking water system with assistance from Shamus Anderson Municipality of Kincardine. The Kincardine drinking water system is owned and operated by the Municipality of Kincardine. The inspection review period is from September 5, 2018 to September 18, 2019.

### Source

- The owner had a harmful algal bloom monitoring plan in place.

The municipality tested for microcystin in raw and treated water in the months of June and July 2019.

### 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.
- 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.

The Kincardine Drinking Water System has the following control documents in place:

- Municipal Drinking Water Licence Number: 088-102 Issue Number: 2 issued November 6, 2015 with a rated capacity of 11,563 m<sup>3</sup>/d.
- Drinking Water Works Permit 088-202 Issue Number: 4 issued April 20, 2017.
- PTTW 8678-94WMK9 with a drinking water source from Lake Huron issued February 19, 2013 with a max taking of 18900 m<sup>3</sup>/d (13140 l/m).

### Treatment Processes

### 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.
- 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 reviewed indicate the drinking water system was operated to achieve the necessary CT requirements and filter performance criteria for primary disinfection purposes during the inspection cycle.

- 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.

Free available chlorine residual is maintained out of the treatment plant and into the distribution system for secondary disinfection purposes to reduce the potential for microbial re-growth within the distribution system in accordance with section 1-5 of Schedule 1, O.Reg. 170/03.

- 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 primary disinfection equipment was equipped with alarms or shut-off mechanisms that satisfied the standards described in Section 1-6 (1) of Schedule 1 of Ontario Regulation 170/03.

When the filtered effluent turbidity meter reaches 1 NTU for 300 seconds an alarm sequence is triggered and the filters are locked out, ceasing water production and preventing any adverse conditions.

### 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.

Each filter is continuously monitored and records the turbidity at all times while the filters are running.

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

Subsections 7-2 (3) of Schedule 7, O. Reg. 170/03 requires the Owner and Operating Authority (OA) of a large municipal residential system that provides secondary disinfection to ensure that at least seven distribution system samples are taken each week and tested immediately for free chlorine residual. Where secondary disinfection monitoring is not being done on a daily basis, Subsection 7- 2(4) of Schedule 7. O. Reg. 170/03 requires that at least four of the seven required tests be taken on one day of the week at least 48 hours after the last samples were taken the week previous, while the remaining three tests are required to be collected within the same week and at least 48 hours after the initial four. Records provided by the OA and reviewed during the inspection indicate that the OA complied with these requirements, testing free chlorine residual for secondary disinfection monitoring purposes daily, 7 days a week. The municipality continuously monitors free chlorine at the Inverhuron booster station and information is stored on a data logger.

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

The data logger and SCADA trends are reviewed by a licenced operator at a minimum of every 72 hours. Abnormal



### Treatment Process Monitoring

operating conditions are documented on SCADA log sheet which is dated and initialed. In addition, the Compliance Officer is responsible for the review of relevant sampling, testing and monitoring results and providing monthly summaries of the data.

- **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.**

The water treatment plant is equipped with continuous analyzers and alarms for free chlorine and turbidity. The alarm set points for the POE chlorine analyzer provides a low alarm call out at 0.6 mg/l and locks out high lift pumps at 0.5 mg/l. When reached, the system locks out ensuring the system meets their CT requirements. The DWS 4 filter trains are set to auto-backwash when turbidity reaches 0.5 NTU. When turbidity reaches 0.95 NTU operators are notified. If turbidity reaches 1 NTU for 300 seconds an alarm sequence is triggered and the filters are locked out, ceasing water production and preventing any adverse conditions.

- **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.**
- **The owner and operating authority ensured that the primary disinfection equipment had a recording device that continuously recorded the performance of the disinfection equipment.**
- **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.**

As per Condition 16, Schedule B of the Licence # 088-102 prescribes that an up-to-date operations and maintenance manual or manuals is maintained and applicable parts of the manual or manuals are made available for reference by all persons responsible for all or part of the operation or maintenance of the drinking water system. The OPS manual was updated in May 2017 and meets the Licence requirements.

### 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.**

The designated overall responsible operator is Shamus Anderson.

### Certification and Training

- **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.**

Records provided for review indicate that the operators appear to be the only persons who are adjusting water treatment equipment and processes at the water treatment plant.

### Water Quality Monitoring

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

The owner of a large municipal residential drinking water system shall ensure that if the system serves a population of 100,000 or less, at least 8 distribution samples plus one for every thousand people served by the system are taken every month. At least one of the samples must be taken each week. As Kincardine population is over 1000 residents, eight samples must be collected monthly as a minimum requirement from the distribution system plus 1 sample per thousand. These samples are required to be tested for E.Coli and total coliform; and at least 25 percent of the samples are required to be tested for general bacteria populations expressed as colony counts on a heterotrophic plate count. A review of the sample results supplied by the Owner indicates that the operators are routinely collecting five distribution samples each week in order to comply with the regulatory requirement. Each of those samples were tested for E.Coli, total coliform, and approximately half of the samples were tested for general bacteria populations expressed as colony counts on a heterotrophic plate count.

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

Section 10-3 of Schedule 10, O. Reg. 170/03 requires the Owner and the OA to ensure samples are collected at least once every week from the system's treated water at the point of entry into the distribution system. The samples collected are required to be tested for E. Coli and total coliform, and general bacteria populations expressed as colony counts on a heterotrophic plate count. Records reviewed in the course of this inspection indicate that the Owner complied with these requirements.

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

Sampling and testing for inorganic parameters has been conducted for the drinking water system in accordance with Schedule 13-2 of Ontario Regulation 170/03. The regulation requires that samples are to be collected every 12 months and tested for each parameter listed in Schedule 23; this requirement has been met. The most recent samples were collected on October 15, 2018 and there were no concerns identified from the results.

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

Sampling and testing for organic parameters has been conducted for the drinking water system in accordance with Schedule 13-4 of Ontario Regulation 170/03. The regulation requires that samples are to be collected every 12 months and tested for each parameter listed in Schedule 24; this requirement has been met. The most recent samples were collected on October 15, 2018 and there were no concerns identified from the results.

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

Section 13-6.1 (1) of Schedule 13, O. Reg. 170/03 requires the Owner and the Operating Authority to ensure that at least one distribution sample is taken every 3 months from a point in the drinking water system's distribution system that is connected to the drinking water system, that is likely to have an elevated potential for the formation of

### Water Quality Monitoring

Haloacetic Acids (HAA), and tested for HAAs. Section 6-1.1 of Schedule 6, O. Reg.170/03 requires that these samples be taken at least 60 days, and not more than 120 days, after a sample was taken for that purpose in the previous three month period. The standard for Haloacetic Acids does not come into effect until January 1, 2020. It will be expressed as a Running Annual Average (RAA), where the RAA is defined as the average for quarterly HAA results for a drinking water system. HAAs will generally form at the beginning of the distribution system. Sampling occurred July 8, 2018, October 15, 2018, January 14, 2019, April 8, 2019, and July 8, 2019.

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

Section 13-6 of Schedule 13, O.Reg.170/03 requires the Owner and the Operating Authority to ensure that at least one distribution sample is taken every 3 months from a point in the drinking water system's distribution system, or in plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of Trihalomethanes (THMs), and tested for THMs. Section 6-1.1 of Schedule 6, Reg.170/03 requires that these samples be taken at least 60 days, and not more than 120 days, after a sample was taken for that purpose in the previous three month period. Sampling occurred July 8, 2018, October 15, 2018, January 14, 2019, April 8, 2019 and July 8, 2019.

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

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

Section 13-8 of Schedule 13, O. Reg.170/03 requires that the Owner and the Operating Authority ensure that a treated water sample is taken every 60 months and is tested for sodium. Records provided by the Owner and reviewed during the inspection, indicate that the Owner conducted sampling for sodium on November 5, 2018 and achieved a result of 4.46 mg/L.

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

Section 13-9 of Schedule 13, O.Reg.170/03 requires the Owner and the Operating Authority to ensure that at least one water sample is taken every 60 months and tested for Fluoride. The Owner last conducted Fluoride sampling on October 15, 2018 and achieved a result of 0.06 mg/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

- **Corrective actions (as per Schedule 17) had been taken to address adverse conditions, including any other steps that were directed by the Medical Officer of Health.**
- **All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6.**

The owner of the drinking water system reported 2 AWQI's during the inspection cycle:  
 -AWQI #147951 a category 2 watermain break

**Reporting & Corrective Actions**

-AWQI #145082 a category 2 watermain break

- **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.**
- **When the primary disinfection equipment, other than that used for chlorination or chloramination, has failed causing an alarm to sound or an automatic shut-off to occur, a certified operator 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:

Shayne Finlay

Signature: (Provincial Officer)



Reviewed & Approved By:

Mark Smith

Signature: (Supervisor)



Review & Approval Date:

October 29, 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.



Ministry of the Environment and Climate Change  
Drinking Water Inspection Report

## **APPENDIX A**

### **INSPECTION SUMMARY RATING RECORD**



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

**DWS Name:** KINCARDINE DRINKING WATER SYSTEM  
**DWS Number:** 220002716  
**DWS Owner:** Kincardine, The Corporation Of The Municipality Of  
**Municipal Location:** Kincardine

**Regulation:** O.REG 170/03  
**Category:** Large Municipal Residential System  
**Type Of Inspection:** Focused  
**Inspection Date:** September 18, 2019  
**Ministry Office:** Owen Sound District Office

**Maximum Question Rating:** 548

Inspection Module	Non-Compliance Rating
Capacity Assessment	0 / 30
Treatment Processes	0 / 98
Operations Manuals	0 / 28
Logbooks	0 / 14
Certification and Training	0 / 42
Water Quality Monitoring	0 / 112
Reporting & Corrective Actions	0 / 87
Treatment Process Monitoring	0 / 137
<b>TOTAL</b>	<b>0 / 548</b>

Inspection Risk Rating	0.00%
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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 - 2019-2020)

**DWS Name:** KINCARDINE DRINKING WATER SYSTEM  
**DWS Number:** 220002716  
**DWS Owner:** Kincardine, The Corporation Of The Municipality Of  
**Municipal Location:** Kincardine

**Regulation:** O.REG 170/03

**Category:** Large Municipal Residential System

**Type Of Inspection:** Focused

**Inspection Date:** September 18, 2019

**Ministry Office:** Owen Sound District Office

**Maximum Question Rating:** 548

<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, Conservation and Parks  
Drinking Water Inspection Report**

**APPENDIX B**

**REFERENCE GUIDE FOR STAKEHOLDERS**

# 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 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).

For more information on Ontario's drinking water visit [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater) and email [drinking.water@ontario.ca](mailto:drinking.water@ontario.ca) to subscribe to drinking water news.



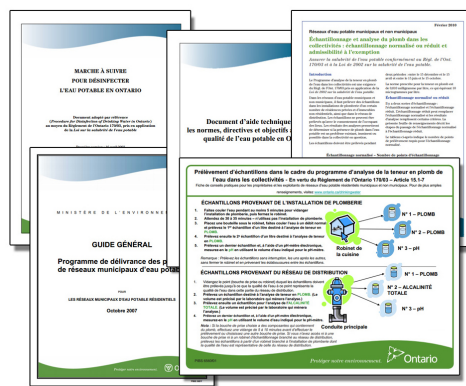
PUBLICATION TITLE	PUBLICATION NUMBER
Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils	7889e01
FORMS: Drinking Water System Profile Information, Laboratory Services Notification, Adverse Test Result Notification Form	7419e, 5387e, 4444e
Procedure for Disinfection of Drinking Water in Ontario	4448e01
Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids	7152e
Total Trihalomethane (TTHM) Reporting Requirements Technical Bulletin (February 2011)	8215e
Filtration Processes Technical Bulletin	7467
Ultraviolet Disinfection Technical Bulletin	7685
Guide for Applying for Drinking Water Works Permit Amendments, Licence Amendments, Licence Renewals and New System Applications	7014e01
Certification Guide for Operators and Water Quality Analysts	
Guide to Drinking Water Operator Training Requirements	9802e
Taking Samples for the Community Lead Testing Program	6560e01
Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption	7423e
Guide: Requesting Regulatory Relief from Lead Sampling Requirements	6610
Drinking Water System Contact List	7128e
Technical Support Document for Ontario Drinking Water Quality Standards	4449e01

[ontario.ca/drinkingwater](http://ontario.ca/drinkingwater)

# 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 Centre d'information au public au 1 800 565-4923 ou au 416 325-4000, ou encore à [picemail.moe@ontario.ca](mailto:picemail.moe@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) ou envoyez un courriel à [drinking.water@ontario.ca](mailto:drinking.water@ontario.ca) pour suivre l'information sur l'eau potable.

TITRE DE LA PUBLICATION	NUMÉRO DE PUBLICATION
Prendre soin de votre eau potable – Un guide destiné aux membres des conseils municipaux	7889f01
Renseignements sur le profil du réseau d'eau potable, Avis de demande de services de laboratoire, Formulaire de communication de résultats d'analyse insatisfaisants et du règlement des problèmes	7419f, 5387f, 4444f
Marche à suivre pour désinfecter l'eau potable en Ontario	4448f01
Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids (en anglais seulement)	7152e
Total Trihalomethane (TTHM) Reporting Requirements: Technical Bulletin (février 2011) (en anglais seulement)	8215e
Filtration Processes Technical Bulletin (en anglais seulement)	7467
Ultraviolet Disinfection Technical Bulletin (en anglais seulement)	7685
Guide de présentation d'une demande de modification du permis d'aménagement de station de production d'eau potable, de modification du permis de réseau municipal d'eau potable, de renouvellement du permis de réseau municipal d'eau potable et de permis pour un nouveau réseau	7014f01
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	
Guide sur les exigences relatives à la formation des exploitants de réseaux d'eau potable	9802f
Prélèvement d'échantillons dans le cadre du programme d'analyse de la teneur en plomb de l'eau dans les collectivités	6560f01
Échantillonnage et analyse du plomb dans les collectivités : échantillonnage normalisé ou réduit et admissibilité à l'exemption	7423f
Guide: Requesting Regulatory Relief from Lead Sampling Requirements (en anglais seulement)	6610
Liste des personnes-ressources du réseau d'eau potable	7128f
Document d'aide technique pour les normes, directives et objectifs associés à la qualité de l'eau potable en Ontario	4449f01

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