

**Ministry of the Environment  
and Climate Change**

Drinking Water and Environmental  
Compliance Division

Owen Sound District Office  
101 17<sup>th</sup> St. E, 3<sup>rd</sup> Floor  
Owen Sound ON N4K 0A5

**Ministère de l'Environnement et  
de l'Action en matière de  
changement climatique**

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

Bureau du district de Owen Sound  
101, 17<sup>e</sup> rue Est, 3<sup>e</sup> étage  
Owen Sound ON N4K 0A5



March 19, 2018

**The Corporation of the Town of South Bruce Peninsula  
315 George St., P.O. Box 310  
Wiarton, Ontario  
N0H 2T0**

Attention: Brad McRoberts, CAO

Re: 2017/2018 Inspection Report 1-F6FZH  
Huron Woods Drinking Water System  
Drinking Water Licence # 094-103 # 3  
Drinking Water Works Permit 094-203, Issue # 3

The enclosed report documents findings of the inspection that was performed on January 18, 2018.

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](http://www.ontario.ca/environment-and-energy/municipal-drinking-water-systems-licencing-registration-and-permits) (<http://www.ontario.ca/environment-and-energy/municipal-drinking-water-systems-licencing-registration-and-permits>), 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,

Shayne Finlay  
Provincial Officer

Water Inspector  
519-376-2024 / Cell 519-270-8955  
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ec:     -John Ritchie, Water Compliance Supervisor, MOECC  
          - Leo Paul Frigault, Operations Manager, OCWA  
          - Dr. Hazel Lynn, Medical Officer of Health, Grey-Bruce Health Unit  
          - John Bittorf, Water Resources Coordinator, Grey Sauble Conservation Authority

c:       File SI BR SB CD 540



**Ministry of the Environment and Climate Change**

**HURON WOODS DRINKING WATER SYSTEM  
Inspection Report**

<b>Site Number:</b>	220007775
<b>Inspection Number:</b>	1-F6FZH
<b>Date of Inspection:</b>	Jan 18, 2018
<b>Inspected By:</b>	Shayne Finlay

**OWNER INFORMATION:**

<b>Company Name:</b>	SOUTH BRUCE PENINSULA, THE CORPORATION OF THE TOWN OF		
<b>Street Number:</b>	315	<b>Unit Identifier:</b>	Box 310
<b>Street Name:</b>	GEORGE St		
<b>City:</b>	WIARTON		
<b>Province:</b>	ON	<b>Postal Code:</b>	N0H 2T0

**CONTACT INFORMATION**

<b>Type:</b>	Operating Authority	<b>Name:</b>	Megan Edney
<b>Phone:</b>	(519) 534-1600	<b>Fax:</b>	
<b>Email:</b>	medney2@ocwa.com		
<b>Title:</b>	Process Compliance Technician (OCWA).		

<b>Type:</b>	Operating Authority	<b>Name:</b>	Leo-Paul Frigault
<b>Phone:</b>	(519) 534-1600	<b>Fax:</b>	
<b>Email:</b>	lfrigault@ocwa.com		
<b>Title:</b>	OCWA - Operations Manager, West Highlands Hub.		

<b>Type:</b>	Owner	<b>Name:</b>	Brad McRoberts
<b>Phone:</b>	(519) 534-1400 x122	<b>Fax:</b>	(519) 534-4976
<b>Email:</b>	tsbpcao@bmts.com		
<b>Title:</b>	Chief Administrative Officer		

**INSPECTION DETAILS:**

<b>Site Name:</b>	HURON WOODS DRINKING WATER SYSTEM
<b>Site Address:</b>	86 BIRCH ST SAUBLE BEACH N0H 2G0
<b>County/District:</b>	The South Bruce Peninsula
<b>MOECC District/Area Office:</b>	Owen Sound Area Office
<b>Health Unit:</b>	GREY BRUCE HEALTH UNIT
<b>Conservation Authority:</b>	Grey Sauble Conservation Authority
<b>MNR Office:</b>	Ministry of the Environment Owen Sound Area Office
<b>Category:</b>	Small Municipal Residential
<b>Site Number:</b>	220007775
<b>Inspection Type:</b>	Announced
<b>Inspection Number:</b>	1-F6FZH
<b>Date of Inspection:</b>	Jan 18, 2018
<b>Date of Previous Inspection:</b>	Jan 30, 2017

**COMPONENTS DESCRIPTION**

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

<b>Site (Name):</b>	Well 6
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**Type:** Source **Sub Type:** GUDI

**Comments:**

Well 6 is an overburden well drilled to a depth of 16.6 metres. The well has a 250 mm diameter casing and is equipped with a submersible well pump rated at 5.3 L/s at a TDH (total dynamic head) of 15 metres. The water discharges to a 50 mm diameter header into the pumphouse.

Well 6 (identified as Well 4 on PTTW 6262-86RPTX) is the primary production well supplying the Huron Woods drinking water system.

**Site (Name):** Well 1  
**Type:** Source **Sub Type:** GUDI

**Comments:**

NOTE Well#1 has been removed from the PTTW February 2016.

Well 1 is a bedrock well drilled to a depth of 123.4 metres. The well has a 125 mm diameter casing and is equipped with a submersible deep well pump rated at 1.21 L/s at a TDH of 83.3 metres. The water discharges to a 50 mm header into the pumphouse. Well 1 is maintained as a backup source.

**Site (Name):** Well 2  
**Type:** Source **Sub Type:** GUDI

**Comments:**

NOTE Well#2 has been removed from the PTTW February 2016

Well 2 is a bedrock well drilled to a depth of 45.1 metres. The well has a 125 mm diameter casing and is equipped with a submersible well pump rated at 0.6 L/s at a TDH of 74.2 metres. The water flows to a 50 mm diameter raw water header discharging to the pumphouse. Well 2 is maintained as a backup source.

**Site (Name):** Well 3  
**Type:** Source **Sub Type:** GUDI

**Comments:**

NOTE Well#3 has been removed from the PTTW February 2016.

Well 3 is a bedrock well drilled to a depth of 109.7 metres. The well has a 125 mm diameter casing and is equipped with a submersible pump rated at 1.51 L/s at a TDH of 105 metres. The well discharges to a 50 mm diameter header into the pumphouse.

Well 3 is maintained as a backup source.

**Site (Name):** Test Well 2 (TW2 or PW1)  
**Type:** Source **Sub Type:** GUDI

**Comments:**

The Engineer's Report indicates that this well is not connected to the drinking water system, however there is a raw water header that extends to the pumphouse. The final connection has not been made and the report indicates that the well is not equipped with pumps.

During an expansion in 1999 to include the Walker Estates subdivision this well was made available. The well can only be utilized should the Huron Woods water system exceed its rated capacity.

**Site (Name):** Pumphouse  
**Type:** Treated Water POE **Sub Type:** Pumphouse

**Comments:**

Treatment for the Huron Woods drinking water system includes: iron and manganese removal (sodium hypochlorite with greensand filtration), cartridge filtration (5 micron), UV disinfection and chlorination (sodium hypochlorite).

The CT calculation was provided by the Operating Authority. According to the Procedure for Disinfection of Drinking

Water in Ontario for a 4 log (99.99%) Inactivation of Viruses by Free Chlorine with a Raw Water temperature of 5 degrees Celsius, with a pH between 6 – 9 the required CT value = 8

Clearwell capacity = 232m<sup>3</sup>

Auto shutdown of Highlift pump = 60%

Baffle ratio = 0.1

Flow rate = 5.3 L/sec. (0.318 m<sup>3</sup>/min)

Effective Contact time =  $(232 \times 0.6 \times 0.1) / 0.318$

Effective Contact Time =  $13.92 / 0.318 = 43.7$  min

CT (required) = Disinfection Residual Concentration (mg/L) x Effective contact time (min)

Thus the minimum disinfection residual can be calculated using the following formula:

Minimum Disinfection Residual (mg/L) = CT (required) / Effective contact time (min)

Minimum Disinfection Residual (mg/L) =  $8 / 43.7 = 0.183$

A minimum Free Chlorine Concentration of 0.19 mg/L is required to meet primary disinfection with a minimum clearwell volume of 13.92 m<sup>3</sup> (60%).

**Site (Name):** Distribution System

**Type:** Other

**Sub Type:** Other

**Comments:**

Treated water is directed to the distribution system via a 150 mm diameter discharge header which connects to the 75 mm diameter and 100 mm diameter watermains along Birch Street. The water distribution system serves approximately less than one hundred service connections along Birch Street, Frederick Lane, Maple Port Crescent, Graham Crescent and Walker Way. The water system is approved to service one hundred and twenty-two connections.

## INSPECTION SUMMARY:

### Introduction

- **The primary focus of this inspection is to confirm compliance with Ministry of the Environment and Climate Change (MOECC) legislation as well as evaluating conformance with ministry drinking water 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 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 January 18, 2017 Provincial Officer Shayne Finlay began conducting the inspection of the Huron Woods Well Supply located in the Municipality of South Bruce Peninsula. The system is operated by OCWA. This year's inspection cycle covers the period from December 21, 2016 - January 18, 2018. There were no Adverse Water quality Incidents (AWQI'S) during this year's inspection cycle.

### Source

- **The owner was maintaining the production well(s) in a manner sufficient to prevent entry into the well of surface water and other foreign materials.**

The Huron Woods Well Supply has 4 Wells which have well casing sealed with proper vermin proof caps. Well casings are extended at least 40 cm above ground and surface drainage does not collect or pond in the vicinity of the well due to mounding around well casings. Wells # 1,2,3 have been removed as sources from the PTTW # 7701-A6SPYQ in February 2016 and are used for monitoring purposes only. It's recommended that the Owner have the wells properly abandoned.

- **The owner was maintaining the municipal wells not being used as a raw water supply in a manner to prevent the entry of surface water and other foreign materials.**
- **Measures were in place to protect the groundwater and/or GUDI source in accordance with any the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part V of the SDWA.**

Well inspection and maintenance procedures for the entire well structure including all above and below grade components are required by Schedule B (Section 16.2) of the Huron Woods drinking water system Licence (94-103).

Well inspection procedures are included in the operations and maintenance manual.

- **Trends in source water quality were being monitored.**

### Permit To Take Water

- **The owner was in compliance with all conditions of the PTTW.**

### Capacity Assessment

### 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.**

There are three water meters:

- One raw water meter for the raw water header
- One total raw water meter located after the common header from all four production wells
- One treated water meter prior to treated water exiting the pumphouse

- **The flow measuring devices were calibrated or verified in accordance with the requirements of the Municipal Drinking Water Licence issued under Part V of the SDWA.**

Flow meters were calibrated May 9, 2017 by Flowmetix Technical Services.

- **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 owner was issued PTTW 7701-A6SPYQ on February 12, 2016. Wells 1,2,3 have been removed from the PTTW. The PTTW holder shall only take from Well 4: 318 L/min and 457,632 L/day. It is noted that Well 6 is identified as Well 4 on the PTTW.

The drinking water system was issued a Municipal Licence # 094-103 with a licence renewal date of March 29, 2015. The rated capacities listed in Schedule C are listed as: 743 cubic meters per day.

- **Appropriate records of flows and any capacity exceedances were made in accordance with the Municipal Drinking Water Licence issued under Part V of the SDWA.**

### 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 that the Huron Woods WS was operated to achieve the necessary CT requirements and UV performance criteria for primary disinfection during the inspection cycle. Further details about the CT calculation provided by OCWA dated October 24, 2011 can be found in the components section of the report.

- **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 clearwell and into the distribution system for secondary disinfection purposes to reduce the potential for microbial re-growth within the distribution system, and in accordance with section 1-5 of Schedule 1, O.Reg.170/03.

- **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.**

The UV disinfection units are equipped with alarms for UV intensity and lamp status. There is an automatic shut-off associated with the UV intensity alarm. All alarms or lockouts are documented on the SCADA system and in logbooks. When critical alarm values have been triggered well pumps are shut down so improperly



### Treatment Processes

disinfected water isn't directed into the clear well.

- **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.**
- **Up-to-date plans for the drinking-water system were kept in a place, or made available in such a manner, that they could be readily viewed by all persons responsible for all or part of the operation of the drinking water system in accordance with the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.**

### 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.**
- **Operators were aware of the operational criteria necessary to achieve primary disinfection within the drinking water system.**
- **Continuous monitoring of each filter effluent line was being performed for turbidity.**

For small municipal residential systems that use surface water or GUDI as the source and are required to provide filtration, Reg.170/03, Schedule 7 section 7(3)(2) requires continuous monitoring equipment of each filter effluent line. The water system has two (2) Ferrosand Filter system units with an iron-oxidizing sodium hypochlorite feed system with injection point located prior to the Ferrosand Filter units. One (1) cartridge filter housing, pretreatment for the ultraviolet disinfection system, with 5 micron cartridge filters. Continuous monitoring of turbidity is measured via one analyzer located downstream of the cartridge filters and UV units.

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

Subsection 7-2 (5) of schedule 7, O.Reg.170/03 the owner of a small municipal residential system that provides secondary disinfection and the operating authority for the system shall ensure that at least two distribution samples are taken each week in accordance with subsection (6) and are tested immediately for, (a) free chlorine residual. Records provided by the owner and reviewed during the inspection indicate that the owner complied with these requirements, testing free chlorine residual for secondary disinfection monitoring purposes 2 days each week and at least 48 hours apart.

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

The operators review the daily SCADA system at least every 72 hours. The operator conducting the review signs and dates the daily SCADA report.

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

### Treatment Process Monitoring

turbidity. The low alarm set point for the treated water chlorine analyzer is 0.50 mg/L. When reached the system locks out ensuring the system meets their CT requirements. The turbidity analyzer set point downstream of the filters is 0.30 NTU. Should 0.70 NTU be reached the system 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.**
- **All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.**

Routine analyzer maintenance, accuracy verification checks and calibrations are conducted by the operator which are recorded in plant logs and daily SCADA reports.

### Process Wastewater

- **The process wastewater and residual solids/sludges were treated, handled and disposed of in accordance with the design requirements approved under the Drinking Water Works Permit and the Municipal Drinking Water Licence.**
- **The process wastewater discharge monitoring program and discharge quality complied with requirements established in the Municipal Drinking Water Licence Issued under Part V of the SDWA.**

### 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 owner had a program or maintained a schedule for routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks within the distribution system.**
- **Existing parts of the distribution system that are taken out of service for inspection, repair or other activities that may lead to contamination, and all new parts of the distribution system that come in contact with drinking water, were disinfected in accordance with Schedule B, Condition 2.3 of the Drinking Water Works Permit, or an equivalent procedure (i.e. the Watermain Disinfection Procedure).**
- **The owner had implemented a program for the flushing of watermains 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 by-law or policy in place limiting access to hydrants.**
- **The owner was able to maintain proper pressures in the distribution system and pressure was monitored to**

### Distribution System

alert the operator of conditions which may lead to loss of pressure below the value under which the system is designed to operate.

### Operations Manuals

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

### Logbooks

- Logbooks were properly maintained and contained the required information.
- Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.
- For every required operational test and every required sample, a record was made of the date, time, location, name of the person conducting the test and result of the test.
- The operator-in-charge ensured that records were maintained of all adjustments made to the processes within his or her responsibility.
- Logs or other record keeping mechanisms were available for at least five (5) years.

### Contingency/Emergency Planning

- Spill containment was provided for process chemicals and/or standby power generator fuel.
- Clean-up equipment and materials were in place for the clean up of spills.
- Standby power generators were tested under normal load conditions.

### Security

- All storage facilities were completely covered and secure.
- Air vents and overflows associated with reservoirs and elevated storage structures were equipped with screens.
- The owner had provided security measures to protect components of the drinking water system.

### Consumer Relations

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

### **Certification and Training**

- **The overall responsible operator had been designated for each subsystem.**  
James Learn is the designated overall responsible operator for the South Bruce Peninsula drinking water systems.
- **Operators in charge had been designated for all subsystems which comprised the drinking-water system.**
- **All activities that were undertaken by uncertified persons in the DW subsystems were overseen by persons having the prescribed qualifications.**  
Records provided by the OA for review indicate that licenced operators appear to be the only persons who are adjusting water treatment equipment and processes at the water treatment plant.
- **All operators possessed the required certification.**  
Records provided by the OA for review indicate that licenced operators appear to be the only persons who are adjusting water treatment equipment and processes at the water treatment plant.
- **Only certified operators made adjustments to the treatment equipment.**
- **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 raw water samples were being met.**  
Raw water samples are taken monthly from well #6.
- **All microbiological water quality monitoring requirements for distribution samples prescribed by legislation were being met.**  
For SMR DWS, distribution bacteriological samples shall be taken:  
1) once every 2 weeks provided that the system is in compliance with Schedule 1 of O. Reg.170/03, or  
2) one sample every week if the system does not meet the requirements of Schedule 1 of O. Reg.170/03.  
Each sample must be tested for EC + TC and, if secondary disinfection is provided, must also be tested for HPC; these requirements have been met.
- **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 60 months and tested for each parameter listed in Schedule 23; this requirement has been met. The most recent samples were collected on January 10, 2016 and there were no concerns identified from the results.
- **All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

### Water Quality Monitoring

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 60 months and tested for each parameter listed in Schedule 24; this requirement has been met. The most recent samples were collected on January 10, 2016 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 of Schedule 13, O.Reg.170/03 requires the Owner and Operating authority to ensure that at least one water sample is taken every three months and tested for nitrates and nitrites. 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 OA complied with these requirements when they conducted the required sampling on January 9, 2017, April 4, 2017, July 10, 2017, October 16, 2017 and January 9, 2018. Of note 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.

- **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, 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 Owner complied with these requirements when they conducted the required monitoring on 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, 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 Owner complied with these requirements when they conducted the required sampling on January 9, 2017, April 3, 2017, July 10, 2017, October 16, 2017 and January 9, 2018. There were no concerns identified with the sample results.

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

Section 13-7 of Schedule 13, O.Reg.170/03 requires the Owner and Operating authority to ensure that at least one water sample is taken every three months and tested for nitrates and nitrites. 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 Owner complied with these requirements when they conducted the required monitoring on January 9, 2017, April 3, 2017, July 10, 2017, October 16, 2017 and January 9, 2018. There were no concerns identified with the sample results.

- **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 January 9, 2017 with a result of 7.51 mg/L.

### Water Quality Monitoring

- **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 January 9, 2017, and achieved a result of 0.17 mg/L.
- **The owner ensured that water samples were taken at the prescribed location.**
- **All water quality monitoring requirements imposed by the Municipal Drinking Water Licence and Drinking Water Works Permit were being met.**  
Additional monitoring requirements outlined in Schedule C of Licence number 094-104 include quarterly sampling of suspended solids in the backwash water. During the inspection period suspended solids were sampled quarterly and the 2017 annual average was 2 mg/L.
- **All sampling requirements for lead prescribed by schedule 15.1 of O. Reg. 170/03 were being met.**  
This system qualifies for the plumbing exemption as per Ontario Regulation 170/03 Schedule 15.1-5 (9) (10). Two (2) distribution lead samples are taken during each sampling period (i.e. 4 distribution samples for the year). Distribution lead sampling occurs every 36 months. The most recent distribution lead sampling occurred in 2015. The next round of lead sampling is scheduled for 2018.
- **Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.**
- **The drinking water system owner submitted written notices to the Director that identified the laboratories that were conducting tests for parameters required by legislation, Order, Drinking Water Works Permit or Municipal Drinking Water Licence.**
- **The owner indicated that the required records are kept and will be kept for the required time period.**

### 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.**
- **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.**
- **The Annual Report containing the required information was prepared by February 28th of the following year.**
- **Summary Reports for municipal council were completed on time, included the required content, and were**

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**Reporting & Corrective Actions**

distributed in accordance with the regulatory requirements.

- All changes to the system registration information were provided within ten (10) days of the change.

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## NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

Not Applicable



## **SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES**

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

**Not Applicable**

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**SIGNATURES**

Inspected By:

Shayne Finlay

Signature: (Provincial Officer)

Reviewed &amp; Approved By:

John Ritchie

Signature: (Supervisor)

Review &amp; Approval Date: 19/03/2018

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.



**Ontario**

**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 - 2017-2018)**

<b>DWS Name:</b>	HURON WOODS DRINKING WATER SYSTEM
<b>DWS Number:</b>	220007775
<b>DWS Owner:</b>	South Bruce Peninsula, The Corporation Of The Town Of
<b>Municipal Location:</b>	The South Bruce Peninsula

**Regulation:** O.REG 170/03  
**Category:** Small Municipal Residential System  
**Type Of Inspection:** Detailed  
**Inspection Date:** January 18, 2018  
**Ministry Office:** Owen Sound District Office

**Maximum Question Rating: 683**

Inspection Module	Non-Compliance Rating
Source	0 / 40
Permit To Take Water	0 / 12
Capacity Assessment	0 / 42
Treatment Processes	0 / 89
Process Wastewater	0 / 20
Distribution System	0 / 25
Operations Manuals	0 / 42
Logbooks	0 / 30
Certification and Training	0 / 57
Water Quality Monitoring	0 / 131
Reporting & Corrective Actions	0 / 54
Treatment Process Monitoring	0 / 141
<b>TOTAL</b>	<b>0 / 683</b>

<b>Inspection Risk Rating</b>	<b>0.00%</b>
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<b>FINAL INSPECTION RATING:</b>	<b>100.00%</b>
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**Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2017-2018)**

<b>DWS Name:</b> HURON WOODS DRINKING WATER SYSTEM
<b>DWS Number:</b> 220007775
<b>DWS Owner:</b> South Bruce Peninsula, The Corporation Of The Town Of
<b>Municipal Location:</b> The South Bruce Peninsula

**Regulation:** O.REG 170/03  
**Category:** Small Municipal Residential System  
**Type Of Inspection:** Detailed  
**Inspection Date:** January 18, 2018  
**Ministry Office:** Owen Sound District Office

**Maximum Question Rating:** 683

<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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**Ontario**

**Ministry of the Environment and Climate Change  
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.



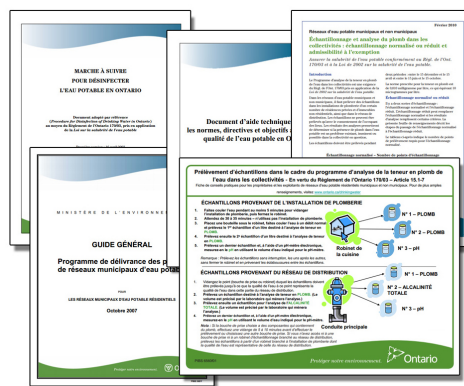
PUBLICATION TITLE	PUBLICATION NUMBER
Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils	7889e01
FORMS: Drinking Water System Profile Information, Laboratory Services Notification, Adverse Test Result Notification Form	7419e, 5387e, 4444e
Procedure for Disinfection of Drinking 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

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