

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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December 19, 2019

Sent by Email: brad.mcroberts@southbrucepeninsula.com

Town of South Bruce Peninsula 315 George Street, PO Box 310, Wiarton, Ontario, NOH 2T0

Attention: Brad McRoberts, CAO

Dear Mr. McRoberts:

Re: 2019/2020 Inspection Report 1-KVMSQ Oliphant Drinking Water System

Municipal Drinking Water Licence #094-105 Drinking Water Works Permit #094-205

The enclosed report documents findings of the inspection that was performed on December 11, 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-guidemembers-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,

Bob Graham

Water Compliance Inspector

Ministry of the Environment, Conservation and Parks

Phone: 519-374-0216 e-mail: Robert.g.graham@ontario.ca

Enclosure

ec: Carl Seider, Project Manager, Source Water Protection Program Leo-Paul Frigault, Senior Operations Manager, OCWA Megan Edney, Process Compliance Technician, OCWA Mark Smith, Water Compliance Supervisor, MECP Dr. Ian Arra, Medical Officer of Health, GBHU

c: File SI-BR-SBP -FL-540 (2019)



Ministry of the Environment, Conservation and Parks

OLIPHANT DRINKING WATER SYSTEM Inspection Report

Site Number: 220007695
Inspection Number: 1-KVMSQ
Date of Inspection: Dec 11, 2019
Inspected By: Robert Graham



OWNER INFORMATION:

Company Name: SOUTH BRUCE PENINSULA, THE CORPORATION OF THE TOWN OF

Street Number: 315 Unit Identifier: Box 310

Street Name: GEORGE St City: WIARTON

Province: ON Postal Code: N0H 2T0

CONTACT INFORMATION

Type: Operating Authority Name: Megan Edney

Phone: (519) 534-1600 **Fax:**

Email: medney2@ocwa.com

Title: Process Compliance Technician (OCWA).

Type: Operating Authority Name: Leo-Paul Frigault

Phone: (519) 534-1600 **Fax:**

Email: Ifrigault@ocwa.com

Title: OCWA - Operations Manager, West Highlands Hub.

Type: Owner **Name:** Brad McRoberts **Phone:** (519) 534-1400 x122 **Fax:** (519) 534-4976

Phone: (519) 534-1400 x122 **Email:** tsbpcao@bmts.com

Title: Chief Administrative Officer

INSPECTION DETAILS:

Site Name: OLIPHANT DRINKING WATER SYSTEM
5 TIDDLEHEAD Lane WIARTON ON NOH 2TO

County/District: THE SOUTH BRUCE PENINSULA

MECP District/Area Office:

Health Unit:

Conservation Authority:

Owen Sound Area Office

GREY BRUCE HEALTH UNIT

Grey Sauble Conservation Authority

MNR Office: Midhurst District Office
Category: Small Municipal Residential

Site Number:220007695Inspection Type:UnannouncedInspection Number:1-KVMSQDate of Inspection:Dec 11, 2019Date of Previous Inspection:Jun 08, 2019

COMPONENTS DESCRIPTION

Site (Name): MOE DWS Mapping

Type: DWS Mapping Point Sub Type:

Site (Name): Distribution System



Ministry of the Environment, Conservation and Parks Inspection Report

Type: Other Sub Type: Other

Comments:

The Oliphant Well Supply supplies water to the former Fiddlehead and Cammidge & Collins distribution systems. There are approximately 33 homes served by this drinking water system.

Site (Name): Pumphouse

Type: Treated Water POE Sub Type: Pumphouse

Comments:

The pumphouse is located at 7 Fiddlehead Lane in Oliphant (Lot 13). The drinking water system is designed to include: iron and DOC removal (via potassium permangante, polymer and greensand filtration); and disinfection through the use of filtration (coagulant, static fixer and clarifier), UV and chlorination (sodium hypochlorite). Ammonium sulphate is added upstream of the clearwell to allow for the use of chloramination as secondary disinfection in the distribution system.

At the time of the inspection the treatment equipment was not in operation with the exception of the trim chlorination system. The municipality began transporting water from the Wiarton drinking water system on January 19, 2011 at which time secondary disinfection was switched to chlorination.

Site (Name): Well #2

Type: Source Sub Type: GUDI

Comments:

Well 2 is drilled to a depth of 36.6 metres. It has a 150 mm diameter casing and is equipped with a submersible pump rated at 3.78 L/sec.

Site (Name): Well #1

Type: Source Sub Type: GUDI

Comments:

Well 1 is located 3.6 metres south of the pumphouse and is drilled to a depth of approximately 27.4 metres. It has a steel casing provided to a depth of approximately 15 metres. The lack of overburden protection in conjunction with the limited depth of well casing into the bedrock leaves the well vulnerable to surface water contamination and influences. The well is equipped with a submersible pump rated at 3.78L/sec.



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, multibarrier 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 December 11, 2019 Provincial Officer Bob Graham conducted an inspection of the Oliphant Drinking Water System (DWS). The Oliphant DWS is owned by the Town of South Bruce Peninsula and operated by the Ontario Clean Water Agency (OCWA). Assistance with the inspection was provided by Leo-Paul Frigault, OCWA Senior Operations Manager, James Learn, OCWA Overall Responsible Operator (ORO), Megan Edney, OCWA Process & Compliance Technician and OCWA Operators Daniel Caesar and Justin Porter.

At the time of the inspection drinking water was being transported from the Wiarton Water Treatment Plant to the pumphouse and the Oliphant DWS was operating as a storage reservoir and a re-chlorination station. Ontario Regulation 170/03 Section 5 Exemptions: residential systems gives Oliphant WS relief from sampling nitrate and nitrite, sodium, fluoride, inorganic and organics while transporting water. During the inspection review period, from June 9, 2018 to the date of inspection, December 11, 2019, there were no Adverse Water Quality Incidents (AWQIs) reported to the MECP Spills Action Centre.

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.
- 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.

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 Licence for the Oliphant DWS (094-105) requires monitoring and recording of flow rate and the daily volume of water conveyed into the treatment system and conveyed into the distribution system. Transported water is currently



Capacity Assessment

delivered directly into the clearwell so monitoring of flow rate into the treatment system is not necessary. The operating authority continues to monitor and record flow rate and the daily volume of water conveyed into the distribution system. The 2018/2019 Average water usage is approximately 10 -12 cubic metres per day.

• 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 Licence for the Oliphant drinking water system (094-105) requires monitoring and recording of flow rate and the daily volume of water conveyed into the treatment system and conveyed into the distribution system. Transported water is currently delivered directly into the clearwell so monitoring of flow rate into the treatment system is not necessary. The operating authority continues to monitor and record flow rate and the daily volume of water conveyed into the distribution system.

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.

At the time of the inspection the Oliphant DWS was receiving transported water. Selected equipment was maintained for operation including the high lift pumps, reservoir/clearwell, the trim chlorination system, analyzers and the backup power supply system.

 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.

Primary disinfection equipment is installed however it is not in use. The Operating Authority re-chlorinates the hauled water as needed.

- 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.

Treatment Process Monitoring

• 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 SCADA system monitoring test results daily and sign/date the daily SCADA reports.

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



Treatment Process Monitoring

shut-off mechanisms that satisfy the standards described in Schedule 6.

The distribution water chlorine analyzer has a low, low alarm set point of 0.50 mg\L and a high, high alarm setpoint of 2.0 mg/L, at which point operators are notified via alarm dialer.

The turbidity analyzer has an alarm set point of 3.50 NTU, at which point operators are notified via alarm dialer. Should the chlorine analyzer read 1.3 mg/L concentration in the clearwell(s) a trim chlorinator is activated to increase chlorine concentration in the clearwell(s).

- 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.
 - Operations manuals were updated in 2017.
- The operations and maintenance manuals met the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.

Logbooks

 Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.

Security

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

The pump house and treatment facility has lockable doors equipped with an intruder alarm. The drilled wells were locked and signage restricts access to the site. At the time of inspection there was no apparent visual evidence of unauthorized access and/or vandalism.

Certification and Training

- The overall responsible operator had been designated for each subsystem.
 - The ORO for the Oliphant DWS is James Learn, with back-up being provided by Andrew Bellamy and Greg McCorquodale.
- Operators-in-charge had been designated for all subsystems which comprised the drinking water system.
- All operators possessed the required certification.

During the inspection period operators working in the Oliphant DWS included:



Certification and Training

ORO James Learn: Class 3 Water Treatment Subsystem, Class 2 Water Distribution Subsystem and Water Quality Analyst Certificate.

Back-up ORO Greg McCorquodale: Class 3 Water Treatment Subsystem, Class 2 Water Distribution and Supply Subsystem.

Back-up ORO Andrew Bellamy: Class 4 Water Treatment Subsystem, Class 3 Water Distribution and Supply Subsystem.

Benjamin Madill: Class 2 Water Treatment Subsystem, Class 2 Water Distribution and Supply Subsystem.

Daniel P. Caesar: Class 1 Water Treatment Subsystem, Class 2 Water Distribution and Supply Subsystem.

Justin D. Porter: Class 1 Water Treatment Subsystem Class 1 Water Distribution and Supply Subsystem.

Only certified operators made adjustments to the treatment equipment.

Water Quality Monitoring

• 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; the OA samples weekly and this requirement has been met.

 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 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 for the inspection period occurred July 9, 2018 (16.4 ug/L), October 1, 2018 (29.0 ug/L), January 8, 2019 (29.1 ug/L), April 1, 2019 (20.2 ug/L), July 8, 2019 (29.9 ug/L) and October 7, 2019 (31.2 ug/L).

• 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.

Sampling for the inspection period occurred on July 9, 2018 (35 ug/L), October 1, 2018 (55 ug/L), January 8, 2019



Water Quality Monitoring

(45 ug/L), April 1, 2019 (34 ug/L), July 8, 2019 (48 ug/L) and October 7, 2019 (58 ug/L). The inspection review period running annual average (RAA) concentration for THM is 45.83 ug/L. The Ontario Drinking Water Quality Standard is a RAA concentration of 100 ug/L.

- All water quality monitoring requirements imposed by the MDWL or DWWP issued under Part V of the SDWA were being met.
- Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.

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).



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

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OLIPHANT DRINKING WATER SYSTEM Date of Inspection: 11/12/2019 (dd/mm/yyyy)



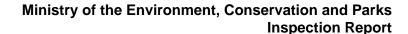
SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES

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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OLIPHANT DRINKING WATER SYSTEM Date of Inspection: 11/12/2019 (dd/mm/yyyy)





SIGNATURES

Inspected By: Signature: (Provincial Officer)

Robert Graham

Reviewed & Approved By: Signature: (Supervisor)

Mark Smith Mark Smith

Review & Approval Date:

December 19, 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, Conservation and Parks Drinking Water Inspection Report

APPENDIX A

INSPECTION SUMMARY RATING RECORD



Ministry of the Environment, Conservation and Parks Drinking Water Inspection Report

APPENDIX B

REFERENCE GUIDE FOR STAKEHOLDERS

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

DWS Name: OLIPHANT DRINKING WATER SYSTEM

DWS Number: 220007695

DWS Owner: South Bruce Peninsula, The Corporation Of The Town Of

Municipal Location: The South Bruce Peninsula

Regulation: O.REG 170/03

Category: Small Municipal Residential System

Type Of Inspection: Focused

Inspection Date: December 11, 2019

Ministry Office: Owen Sound District Office

Maximum Question Rating: 347

Inspection Module Non-Compliance Rat		
Source	0 / 14	
Capacity Assessment	0 / 30	
Treatment Processes	0 / 77	
Operations Manuals	0 / 28	
Logbooks	0 / 14	
Certification and Training	0 / 42	
Water Quality Monitoring	0 / 51	
Treatment Process Monitoring	0 / 91	
TOTAL	0 / 347	

Inspection Risk Rating 0.00%

FINAL INSPECTION RATING: 100.00%

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

DWS Name: OLIPHANT DRINKING WATER SYSTEM

DWS Number: 220007695

DWS Owner: South Bruce Peninsula, The Corporation Of The Town Of

Municipal Location: The South Bruce Peninsula

Regulation: O.REG 170/03

Category: Small Municipal Residential System

Type Of Inspection: Focused

Inspection Date: December 11, 2019

Ministry Office: Owen Sound District Office

Maximum Question Rating: 347

Inspection Risk Rating 0.00%

FINAL INSPECTION RATING: 100.00%

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	012-2149E
Laboratory Services Notification	012-2148E
Adverse Test Result Notification	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 cidessous 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 portable 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

