

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

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

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Mr. Jeff Hoskin  
Manager of Operations

Corporation of the Township of Cramahe  
1 Toronto St.  
Colborne, ON K0K 1S0

Dear Mr. Hoskin:

**RE: Colborne WPCP  
2019-20 Compliance Inspection Report 1-L4G9H  
MECP File: SI NO CR ON 540**

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Please find attached the Ministry of the Environment's inspection report for the above facility. The report details the findings of the inspection that began on September 26, 2019.

The Appendix section of the inspection includes the Stakeholder Appendix A with links to key reference and guidance materials available on the Ministry of the Environment's Conservation and Parks (MECP) website.

In the inspection report, any "*Actions Required*" are linked to incidents of non-compliance with regulatory requirements contained within the Act, a regulation, or site-specific approvals, licenses, permits, orders or instructions. Such violations could result in the issuance of mandatory abatement instruments including Orders, tickets, penalties, or referrals to the ministry's Environmental Enforcement and Compliance Office (ECCO).

"*Recommended Actions*" convey information that the owner or operating authority should consider implementing in order to advance efforts already in place to address such issues as emergency preparedness, the availability of information to consumers, and conformance with existing and emerging industrial standards. Please note that items which appear as recommended actions do not, in themselves, constitute violations.

Please note, you will find in the report that bullets are shown in bold print and are the consistent and standard responses to the information gathered during the inspection. Statements shown in regular font provide additional site-specific details.

I would like to thank the staff for the assistance afforded to me during this compliance assessment. If you have any questions or concerns please contact myself or Jacqueline Fuller, Water Supervisor at 705-768-0436.

Yours truly,

A handwritten signature in cursive script that reads "Brittney Wielgos".

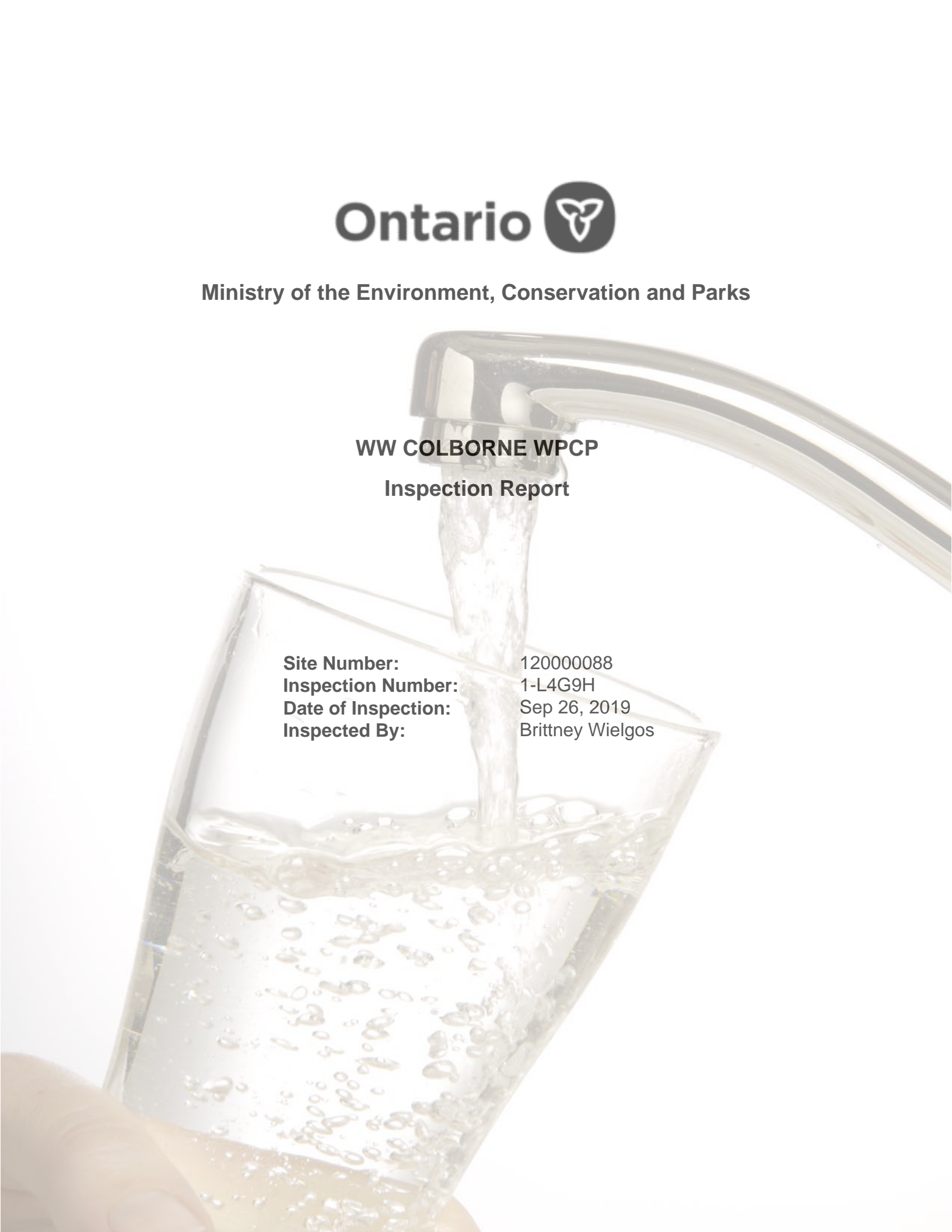
Brittney Wielgos  
Water Inspector  
Drinking Water and Environmental Compliance Division  
Ministry of Environment, Conservation and Parks

cc:

Ted Joynt, ORO, Joynt Water Wastewater Compliance Ltd.  
Holly Grant, Compliance Coordinator, Township of Cramahe  
Dr. Lynn Noseworthy, Medical Officer of Health, Haliburton, Kawartha, Pine Ridge District Health Unit  
Jacqueline Fuller, Water Compliance Supervisor, Peterborough District Office, MECP



Ministry of the Environment, Conservation and Parks

A close-up photograph of a chrome faucet pouring clear water into a clear glass. The water is captured mid-pour, creating a dynamic splash and numerous bubbles within the glass. The background is a plain, light color.

**WW COLBORNE WPCP  
Inspection Report**

<b>Site Number:</b>	120000088
<b>Inspection Number:</b>	1-L4G9H
<b>Date of Inspection:</b>	Sep 26, 2019
<b>Inspected By:</b>	Brittney Wielgos



## **TABLE OF CONTENTS**

1. Waste Water System Owners Information
2. Waste Water System Inspection Report

### **Appendix:**

#### **A. Stakeholders Appendix**

## OWNER INFORMATION:

<b>Company Name:</b>	CRAMAHE, TOWNSHIP OF	<b>Unit Identifier:</b>	
<b>Street Number:</b>	1		
<b>Street Name:</b>	TORONTO St		
<b>City:</b>	COLBORNE		
<b>Province:</b>	ON	<b>Postal Code:</b>	K0K 1S0

## CONTACT INFORMATION

<b>Type:</b>	Main Contact	<b>Name:</b>	Jeff Hoskin
<b>Phone:</b>	(905) 355-2846 xX121	<b>Fax:</b>	
<b>Email:</b>	jhoskin@cramahetownship.ca		
<b>Title:</b>	Manager of Operations		
<hr/>			
<b>Type:</b>	Main Contact	<b>Name:</b>	Holly Grant
<b>Phone:</b>	(905) 355-2821 x126	<b>Fax:</b>	
<b>Email:</b>	holly@cramahetownship.ca		
<b>Title:</b>	Compliance Coordinator		
<hr/>			
<b>Type:</b>	Main Contact	<b>Name:</b>	Ted Joynt
<b>Phone:</b>	(613) 284-7290	<b>Fax:</b>	
<b>Email:</b>	jwwc_1@xplornet.ca		
<b>Title:</b>	ORO		

## INSPECTION DETAILS:

<b>Site Name:</b>	WW COLBORNE WPCP
<b>Site Address:</b>	1108 ONTARIO Street CRAMAHE ON K0K 1S0
<b>County/District:</b>	CRAMAHE
<b>MECP District/Area Office:</b>	Peterborough District
<b>Health Unit:</b>	HALIBURTON, KAWARTHA, PINE RIDGE DISTRICT HEALTH UNIT
<b>Conservation Authority:</b>	
<b>MNR Office:</b>	
<b>Site Number:</b>	120000088
<b>Inspection Type:</b>	Announced
<b>Inspection Number:</b>	1-L4G9H
<b>Date of Inspection:</b>	Sep 26, 2019
<b>Date of Previous Inspection:</b>	Sep 15, 2015

## COMPONENTS DESCRIPTION

<b>Site (Name):</b>	COLBORNE WASTEWATER COLLECTION SYSTEM	
<b>Type:</b>	Sewage Collection System	<b>Sub Type:</b> Nominally Separated Sewers
<b>Comments:</b>		

The Colborne Wastewater Collection System consists of a nominally separated sewage collection system that delivers wastewater to the Colborne Water Pollution Control Plant located at 1108 Ontario Street in the southwest extremity of the town.

**Site (Name):** COLBORNE WASTEWATER COLLECTION SYSTEM  
**Type:** Plant Classification **Sub Type:** Class I  
**Comments:**  
 The Colborne sanitary sewer system is a Class 1 Wastewater Collection System.

**Site (Name):** COLBORNE WATER POLLUTION CONTROL PLANT  
**Type:** Plant Classification **Sub Type:** Class II  
**Comments:**  
 The Colborne Water Pollution Control Plant (WPCP) services a population of approximately of 2,100 in the Village of Colborne.  
 The Colborne WPCP is a conventional activated sludge sewage treatment plant having a rated capacity of 1,750 cubic metres per day. The plant is located at 1 Toronto Street in the west end of the village, in the Township of Cramahe.  
 The Colborne WPCP is classified as a Class 2 Wastewater Treatment System.

**Site (Name):** COLBORNE WATER POLLUTION CONTROL PLANT  
**Type:** Mechanical Sewage Treatment System **Sub Type:** Pre-treatment  
**Comments:**  
 Raw sewage flows by gravity via sanitary sewer on Ontario Street and sewage treatment plant access road through the inlet chamber the raw sewage pumping station approximately 300 metres west of Ontario Street. Inlet chamber includes an emergency peak flow diversion weir and 450 mm diameter diversion sewer to peak flow attenuation pond. The raw sewage pumping station consists of on (1) comminutor and two (2) submersible pumps (one duty and one standby), each rated at 60.4 L/s at 8.3 m TDH.  
 Raw sewage is directed through two (2) grit channels each with a peak flow rate of 4,838 cubic metres per day and one (1) manual bar screen. Raw sewage flow is metered using a Parshall flume.

**Site (Name):** COLBORNE WATER POLLUTION CONTROL PLANT  
**Type:** Mechanical Sewage Treatment System **Sub Type:** Secondary Treatment  
**Comments:**  
 Screened raw sewage is directed through influent channel with three (3) inlet ports to the aeration tank equipped with fine bubble aeration system supported by two (2) air blowers, followed by secondary clarifier with sludge and scum removal mechanisms. Treated sewage is then directed through an effluent channel with a Parshall flume.  
 Sludge collection system consists of a sludge hopper equipped with two (2) return/waste activated sludge pumps (one duty, one standby), either returning the sludge to the aeration tank inlet channel or wasting sludge into the biosolids storage pond.  
 Scum removal system comprises a scum tank equipped with one (1) scum pump directing the scum to the biosolids storage pond. The scum removal system is manually operated by the operation staff.

**Site (Name):** COLBORNE WATER POLLUTION CONTROL PLANT  
**Type:** Mechanical Sewage Treatment System **Sub Type:** Chemical Addition  
**Comments:**  
 An alum feed system for phosphorus removal consists of one (1) 28,000 L capacity covered alum storage tank with secondary containment located within the facility, two (2) chemical feed pumps (one duty, one standby), each with a rated capacity of 60 litres per hour to dose alum to the effluent stream of the aeration tank.

**Site (Name):** COLBORNE WATER POLLUTION CONTROL PLANT  
**Type:** Method of Disinfection **Sub Type:** Chlorination

**Comments:**  
 Disinfection system consists of one (1) 7,700 Litres sodium hypochlorite storage tank and two (2) metering pumps (one duty, one standby), each rated at 80 L/hour at 400 kPa and paced to the effluent flow, with a feed line for injection into the effluent forcemain to an outfall to Lake Ontario. In 2013, the chlorine injection point was changed from a direct injection into the forcemain to a drip injection at the effluent pump suction well.

**Site (Name):** COLBORNE WATER POLLUTION CONTROL PLANT  
**Type:** Method of Disinfection **Sub Type:** Dechlorination

**Comments:**  
 Dechlorination system consists of one (1) 200 Litres sodium bisulphite storage tank and two (2) metering pumps (one duty, one standby), each rated at 80 L/hour at 400 kPa and paced with effluent flow, with a feed line for injection into the effluent forcemain after the chlorine contact zone.

**Site (Name):** COLBORNE WASTEWATER COLLECTION SYSTEM  
**Type:** Biosolids Storage Method **Sub Type:** On-Site Storage Capacity

**Comments:**  
 Biosolids generated in the secondary clarifier are directed to one (1) 4,000 cubic metres capacity biosolids storage pond.

**Site (Name):** COLBORNE WASTEWATER COLLECTION SYSTEM  
**Type:** Stand-by Power Generation **Sub Type:** STP Generator

**Comments:**  
 One (1) 350 kilowatt diesel generator set equipped with a 7,500 Litres capacity double walled fuel storage tank is located in the dewatering building. The generator set is capable of supporting all of the equipment installed at the WPCP.

**Site (Name):** COLBORNE WASTEWATER COLLECTION SYSTEM  
**Type:** Stand-by Power Generation **Sub Type:** Pumping station

**Comments:**  
 One (1) 20 kilowatt diesel generator set equipped with a 1,000 Litres capacity double walled fuel storage tank is located at the dechlorination facility pumping station.

**Site (Name):** COLBORNE WATER POLLUTION CONTROL PLANT  
**Type:** Effluent Discharge Receiver **Sub Type:** Surface Water

**Comments:**  
 The treated effluent from the Colborne WPCP is discharged to Lake Ontario.

**Site (Name):** COLBORNE WASTEWATER COLLECTION SYSTEM  
**Type:** Effluent Discharge Frequency **Sub Type:** Continuous

**Comments:**  
 The treated effluent is discharged continuously to Lake Ontario.

## 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 policies and guidelines during the inspection period.**

**This wastewater treatment and collection system is subject to the legislative requirements of the Ontario Water Resources Act (OWRA) and the Environmental Protection Act (EPA) and regulations made therein. This inspection has been conducted pursuant to Section 15 of the OWRA and Section 156 of the EPA.**

**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 26, 2019, Provincial Officer Brittney Wielgos began an announced inspection of the Colborne Water Pollution Control Plant (WPCP). The Colborne WPCP is located at 1108 Ontario Street, in the Village of Colborne, Township of Cramahe.

The inspection included a compliance assessment of applicable Ministry of Environment, Conservation and Parks (MECP) legislation, an inspection of the procedures used within the WPCP and a review of records. The Colborne WPCP and wastewater collection system is owned and operated by the Township of Cramahe.

The wastewater inspection included visual inspection of the extended aeration process; effluent pumping station and the dechlorination facility, located approximately 1.25 km from the plant.

Documents reviewed in conjunction with this inspection include:  
-Environmental Compliance Approval (ECA) NUMBER: 6245-AB6HDR

Additional documentation maintained by the Township of Cramahe covering the time period from January 1, 2017 - September 26, 2019, was also reviewed.

### Authorizing/Control Documents

- **The owner had a valid Environmental Compliance Approval for the sewage works.**

Colborne Water Pollution Control Plant operated under ECA NUMBER 6245-AB6HDR issued August 8, 2016.

### Capacity Assessment

- **The annual average daily flow was approaching the rated capacity of the sewage works.**

The rated capacity for Colborne WPCP is 1750 m<sup>3</sup>/day, this is based on the cumulative total flow to the sewage works. Based on the influent flow data provided, the annual average flow rates reached during the inspection review period are as follow:

- 2018 Annual Average Flow 1663.7 m<sup>3</sup>/day; 95% of the rated capacity.
- 2017 Annual Average Flow 1626.7 m<sup>3</sup>/day; 93% of the rated capacity

In July 2018, D.M. Wills Associates Limited was contracted by the Township of Cramahe to conduct an Inflow and Infiltration study for the existing sanitary sewer system in the Village of Colborne. The study consisted of smoke testing, completed in May 2018; CCTV inspection of pipes, completed in May 2018 and visual inspection of



**Capacity Assessment**

maintenance holes along primary collection trunks, completed in June 2018.

The Township started repair work in 2019 and continues to evaluate sources of infiltration.

- **The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity prescribed by the Environmental Compliance Approval.**
- **The owner was in conformance with the designed rated capacity for average daily flow into the sewage works.**

The rated capacity for the Cobourg WPCPC is 1750 m<sup>3</sup>/day. The rated capacity of a sewage treatment plant, in accordance with the ECA, is defined as the average daily flow which the sewage treatment works have been approved to handle, calculated as the cumulative total sewage flow to the sewage works during a calendar year, divided by the number of days during which sewage was flowing to the sewage treatment works that year.

The annual average daily flows measured during the inspection period were:

- 2018 Annual Average Flow 1663.7 m<sup>3</sup>/day
- 2017 Annual Average Flow 1626.7 m<sup>3</sup>/day.

- **Flow measuring devices were installed, calibrated and maintained in accordance with the requirements of the Environmental Compliance Approval.**

The installation of the flow measuring device for the measurement of the influent entering the sewage works is required for monitoring of the rated capacity for the average daily flow which the works are approved to handle.

Flow monitoring devices were installed at the following locations as required by the ECA:

- One Parshall flume is located downstream of the grit channels
- One Parshall flume is located after the clarifier

During the inspection one electromagnetic flow meter located at the dechlorination facility was identified and use to monitor effluent flow to Lake Ontario. The electromagnetic flow meter is not included in the ECA.

Calibration records provided for review suggest that all flow measuring devices were calibrated annually and last calibrated by Franklin Empire on August, 2019.

**Treatment Processes**

- **All monitoring equipment other than flow monitoring devices were installed, calibrated and maintained in accordance with any Environmental Compliance Approval.**
- **The owner had ensured that all equipment/components associated with the works was installed in accordance with the Environmental Compliance Approval.**  
A physical inspection of the works was conducted on September 26, 2019. At the time of the inspection all equipment/components appeared to be installed in accordance with the ECA.
- **The works, related equipment and appurtenances were being operated and maintained to achieve compliance prescribed by the Environmental Compliance Approval.**
- **The owner of the sewage works had complied with all additional requirements of the Environmental Compliance Approval pertaining to the operation and maintenance of the sewage works.**

**Treatment Processes**

Condition 6(1) of the ECA requires the owner to exercise due diligence to ensure that at all times the works and related equipment and used to achieve compliance with the ECA are properly operated and maintained.

- **The operator-in-charge had ensured that all equipment used in the processes was monitored, maintained, inspected, tested and evaluated.**

Cramahe Township operators utilize procedure WWTP-18 - 'Facility Inspection Routine' for daily inspection that occur daily between Monday to Friday. The operators conduct visual checks of the treatment process which include: the influent sewage pumps; grit channel; aeration tank; clarifier; dechlorination building and final effluent sampling station. The operators also review 24-hour SCADA data and respond to any alarms or abnormal events.

On weekends and outside of normal operating hours, the Colborne WPCP can be monitored remotely by the operators.

- **The owner/operating authority was able to demonstrate that best efforts were used to achieve the objectives listed in the Environmental Compliance Approval conditions.**

Condition 5(1) of the ECA requires the owner use best efforts to meet the effluent objectives by designing constructing, and operating the Works in such a way that the concentrations of effluent parameters listed in Table 1 of the ECA are not exceeded in the effluent of the works.

Review of analytical data show that the Township did not meet the effluent objective for the for the monthly average of the following parameters for several months during the inspection review period: total suspended solids; total phosphorous; total chlorine and E.coli.

This facility utilizes written reports, trained operators. operation monitoring and testing, calibration of pertinent equipment and monitors to maintain "best efforts" with Condition 5 of the ECA.

- **The sewage works effluent was essentially free of foreign substances on the day of the inspection.**

**Effluent Quality and Quantity**

- **The sewage works effluent limits were prescribed by the Environmental Compliance Approval.**

- **The sewage works effluent sample results demonstrated compliance with BOD5 or CBOD5 limits prescribed by the Environmental Compliance Approval.**

The ECA requires the sewage works effluent samples not exceed the monthly average of 25 mg/L and the monthly average waste loading of 43.8 kg/day CBOD5.

Sampling records provided for review at the time of the inspection demonstrated compliance with CBOD5 effluent limits and objectives.

- **The sewage works effluent sample results did not demonstrate compliance with total suspended solids limits prescribed by the Environmental Compliance Approval.**

The ECA requires the sewages works effluent samples not exceed the monthly average of 25 mg/L total suspended solids (TSS) and the monthly average loading of 43.8 kg/day.

The monthly TSS average loading was exceeded once during the inspection period. In May 2017, the monthly average TSS concentration in the final effluent resulted in 22.25 mg/L and monthly average loading of 52.06 kg/day. The WPCP reported that during the early weeks of May, the WPCP was under high flows due to heavy rain and infiltration into the collection system, which resulted n the increase of loadings.

### Effluent Quality and Quantity

The exceedance was reported to the Ministry of the Environment, Conservation and Parks in accordance with Condition 9(6) of the ECA.

- **The sewage works effluent sample results did not demonstrate compliance with total phosphorous limits prescribed by the Environmental Compliance Approval.**

The ECA requires the sewage works effluent samples not exceed the monthly average of 0.7 mg/L total phosphorous (TP) and the monthly average loading of 1.2 kg/day.

The monthly TP concentration was exceeded once during the inspection period. In July, 2019, the monthly average TP concentration in the final effluent resulted in 1.16 mg/L and monthly average loading of 0.89 kg/day.

The exceedance was reported to the Ministry of the Environment, Conservation and Parks in accordance with Condition 9(6) of the ECA.

- **The sewage works effluent sample results demonstrated compliance with total chlorine residual limits prescribed by the Environmental Compliance Approval.**

The ECA requires the sewage works effluent samples for total chlorine not exceed the monthly average of 0.02 mg/L.

Sampling records provided for review at the time of the inspection demonstrated compliance with total chlorine effluent limits.

- **The sewage works effluent sample results demonstrated compliance with total ammonia/total ammonia nitrogen/ionized ammonia limits prescribed by the Environmental Compliance Approval.**

The ECA requires the sewage works effluent samples not exceed a monthly average of total ammonia nitrogen (TAN):

May 1 to October 31 - 4 mg/L

November 1 to April 30 - 8 mg/L

Sampling records provided for review at the time of the inspection demonstrated compliance with TAN effluent limits.

- **The sewage works effluent sample results did not demonstrate compliance with microbiological parameter limits prescribed by the Environmental Compliance Approval.**

The ECA requires the sewage works effluent samples not exceed the monthly average concentration of 200 organisms (CFU) per 100 mL Monthly Geometric Mean Density for E.coli.

The monthly average concentration for E.coli was exceeded in August of 2018, the result was 225.6 CFU/100mL. The Township reported that the high readings of E.coli occurred several days after planned maintenance on the aeration tank, which began on July 23, 2018. The maintenance consists of draining the aeration tank, removing accumulated debris, sand and other grit, including inspection for broken diffusers. The Township reported that higher readings were expected as the system balanced over time from disturbance in normal practice. Dosing was monitored and altered slightly, flows were lower than average, E.coli levels were monitored closely and returned back to normal.

The exceedance was reported to the Ministry of the Environment, Conservation and Parks in accordance with Condition 9(6) of the ECA.

- **The sewage works effluent sample results demonstrated compliance with pH limits prescribed by the Environmental Compliance Approval.**



**Monitoring Requirements**

- Total Phosphorous; and,
- Total Kleldahl Nitrogen.

- **The owner had maintained the monitoring records for the period prescribed by the Environmental Compliance Approval.**

The information and records related to the operation and monitoring records were retained and filed onsite at the Colborne WPCP.

- **The owner had maintained the monitoring records since the date of the last inspection.**
- **All exceedances of any prescribed parameters were reported in accordance with the Environmental Compliance Approval.**

Condition 9(2) of the ECA requires that the owner report to the Water Supervisor or designate, any exceedance of any parameter specified in Condition 6 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedance.

All verbal and written reports were submitted to the MECP in accordance with the ECA for the inspection period.

**Reporting Requirements**

- **The reporting requirements were prescribed by an Environmental Compliance Approval.**

Reporting requirements are outlined under Condition 9 of the ECA.

- **All annual performance reports did not meet the submission and contents requirements of the Environmental Compliance Approval.**

Condition 9(5) of the ECA requires that the owner prepare and submit a performance report on an annual basis. The reports must contain, but not be limited to, the following information:

- a) a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 6, including an overview of the success and adequacy of the Works;
- b) a description of any operating problems encountered and corrective actions taken;
- c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;
- d) a summary of any effluent quality assurance or control measures undertaken in reporting period;
- e) a summary of the calibration and maintenance carried out on all effluent monitoring equipment; and
- f) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 5.
- g) a tabulation of the volume of sludge generated in the reporting period, an outline of anticipated volumes to be generated the next reporting period and a summary of all locations to where the sludge was disposed;
- h) a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- l) a summary of all By-pass, spill or abnormal discharge events;
- j) a copy of all Notice of Modifications submitted to the Water Supervisor as a result of Schedule B, Section 1, with a status report on the implementation of each modification;
- k) a report summarizing all modifications completed as a result of Schedule B, Section 3; and
- l) any other information the Water Supervisor requires from time to time.

It was noted during the review of the 2017 and 2018 annual Performance Reports that the following information was not included:

**Reporting Requirements**

- influent flow data;
- a description of efforts made and results achieved in meeting the Effluent Objectives;
- the 2017 annual report did not contain Total Ammonia Nitrogen (TAN) monitoring data

Review of the 2017 and 2018 annual report submissions indicate that the content requirements outlined in the ECA are not being met.

- **All other reporting requirements prescribed by the Environmental Compliance Approval were met.**

**Biosolids Management**

- **Records confirm that biosolids were transferred to a Ministry approved facility for disposal or utilization.**

Condition 9 (5)(g) of the ECA requires the annual performance report to contain a tabulation of the volume of sludge generated in the report period, an outline of anticipated volumes to be generated in the next reporting period and a summary of the location to where the sludge was disposed.

In October 2016, approximately 2486m<sup>3</sup> of liquid aerobically digested sewage biosolids was removed from the Colborne WPCP and land applied at Greydafton Farms Inc. in Grafton, Ontario. The 2017 and 2018 annual performance reports indicate that no sludge was removed or land applied.

The Township estimates that approximately 700 to 800 m<sup>3</sup> of sludge is accumulated each year.

- **Records confirm that biosolids were transported for disposal or utilization by Ministry approved haulers.**

In October 2016, the Township retained the services of Terratec Environmental Ltd. to prepare a NASM plan to remove approximately 2486m<sup>3</sup> of liquid aerobically digested sewage biosolids from the Colborne WPCP. Biosolids were land applied at Greydafton Farms Inc. in Grafton, Ontario.

- **The owner of the facility had written contingency plans or other management methods in place to be used in the event that the facility's sludge storage capacity was not sufficient.**

Operators at Cramahe Township utilize procedure WTP-14 'Biosolids Removal Contingency Plan' which outlines alternative methods of disposal of biosolids if land application is not possible. The procedure indicates if the biosolids cell reaches solids capacity, the solids will be trucked through a licenced waste hauler to Durham York Energy Centre for incineration.

It is highly recommended that the Township update the procedure to reflect how solids capacity is assessed and frequency of assessment. Furthermore, it is recommended approved haulers be included in the contingency plan.

- **There was not a process in place to ensure biosolids sample results are reviewed and interpreted by the Municipality.**

The Township of Cramahe does not have a procedure or process in place to ensure biosolids sample results are reviewed and interpreted by staff.

- **Testing for biosolids required by legislation was conducted by accredited laboratories.**

**Certification and Training**

- **The classification certificates of the subsystems were conspicuously displayed at the workplace or at premises from which the subsystem was managed.**

### Certification and Training

The Colborne WPCP is classified as a Class 2 water pollution control plant and a Class 1 water collection system, the certificates are displayed at the WPCP. The facility received a Class 2 Wastewater Facility certificate on February 28, 1997 and Class 1 wastewater collection system certificate on August 10, 1992.

- **Operator licences were displayed in a conspicuous location at the workplace or at the premises from which the subsystem was managed.**

Operator licences were displayed at the Colborne WPCPC at the time of the inspection.

- **The overall responsible operator had been designated for the wastewater treatment and collection works.**

Subsection 15(1) or O.Reg.129/04 "Licencing of Sewage Works Operators" states that the owner of a facility shall designate an overall responsible operator who holds a licence that is applicable to that type of facility and this is of the same class as or higher than the class of the facility.

Ted Joynt is designated as the overall responsible operator (ORO) for the Colborne WPCP.

The Colborne WPCP is classified as a Class 2 WPCP and Class 1 water collection system. During the inspection review period, Ted Joynt possessed a Class 4 Waste Water Treatment Certificate that expires March 31, 2020 and a Class 2 Wastewater Collection Certificate that expires December 31, 2020.

During the inspection review period, the ORO and alternates possessed the appropriate operator certificates to serve in this capacity.

- **An adequately licensed operator was designated to act in place of the overall responsible operator when the overall responsible operator was unable to act.**

Operators at Colborne WPCP utilize procedure WWTP-19 'ORO Absent Chain of Command' which identifies Phil Kelly as the ORO alternate.

Phil Kelly holds a Class 1 Wastewater Treatment certificate that expires on September 30, 2022.

- **All operators had the appropriate level of licences for the wastewater treatment and collection works.**
- **All operators have the appropriate level of training and or experience for the wastewater treatment and collection facilities in accordance with the requirements of the Environmental Compliance Approval.**
- **Only licenced operators made adjustments to the treatment equipment.**
- **Operators-in-charge were designated for the wastewater treatment plant and all associated collection works.**
- **The operator-in-charge ensured that records were maintained of all adjustments made to the processes within his or her responsibility.**

### Logbooks

- **The logs and other record keeping mechanisms complied with the record keeping requirements.**
- **Logs and other record keeping mechanisms were available for at least two (2) years.**

### Operations Manuals

- **The operations and maintenance manuals did not meet the requirements of the Environmental Compliance Approval.**

Condition 7(2) of the ECA requires the Colborne WPCP to maintain an operations manual that includes, but not necessarily limited to, the following information:

- a) operating procedures for routine operations of the Works;
- b) inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;
- c) repair and maintenance programs, including the frequency of repair and maintenance for the Works;
- d) procedures for the inspection and calibration of monitoring equipment;
- e) a spill prevention control and countermeasures plan, consisting of contingency plans and procedures for dealing with equipment breakdowns, potential spills and any other abnormal situations including notification of the Water Supervisor; and
- f) procedures for receiving, responding and recording public complaints, including recording and any follow-up actions taken

The following procedures were reviewed in conjunction with the operations manual and found to be incomplete:

- WWTP-01 Process Maintenance and Operations Procedure
- WWTP-05 Coagulant Tank Inspection and Cleaning
- WWTP-16 Biosolids Removal Procedure
- WWTP-14 Biosolids Removal Contingency Plan
- WWTP-17 Generator Inspection and Test Procedure
- WWTP-1 Biosolids Level Measurement and Inspection

- **Operators and maintenance personnel had ready access to operations and maintenance manuals.**  
The operations and maintenance manual for the Colborne WPCP was available at the sewage works.
- **The operations and maintenance manuals contained up-to-date plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.**

**Contingency/Emergency Planning**

- **Spill containment was provided for the process chemicals and/or standby power generator fuel.**
- **The owner had provided security measures for the facility.**  
The Colborne WPCP is fenced and gated. The entry doors to the sewage treatment plant are equipped with a security alarm system.  
  
The de-chlorination facility is locked and a sign is posted at the entry door restricting access to authorized personnel.



## 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.

**1. The sewage works effluent sample results did not demonstrate compliance with total suspended solids limits prescribed by the Environmental Compliance Approval.**

The ECA requires the sewage works effluent samples not exceed the monthly average of 25 mg/L total suspended solids (TSS) and the monthly average loading of 43.8 kg/day.

The monthly TSS average loading was exceeded once during the inspection period. In May 2017, the monthly average TSS concentration in the final effluent resulted in 22.25 mg/L and monthly average loading of 52.06 kg/day. The WPCP reported that during the early weeks of May, the WPCP was under high flows due to heavy rain and infiltration into the collection system, which resulted in the increase of loadings.

The exceedance was reported to the Ministry of the Environment, Conservation and Parks in accordance with Condition 9(6) of the ECA.

**Action(s) Required:**

No further actions required.

**2. The sewage works effluent sample results did not demonstrate compliance with total phosphorous limits prescribed by the Environmental Compliance Approval.**

The ECA requires the sewage works effluent samples not exceed the monthly average of 0.7 mg/L total phosphorous (TP) and the monthly average loading of 1.2 kg/day.

The monthly TP concentration was exceeded once during the inspection period. In July, 2019, the monthly average TP concentration in the final effluent resulted in 1.16 mg/L and monthly average loading of 0.89 kg/day.

The exceedance was reported to the Ministry of the Environment, Conservation and Parks in accordance with Condition 9(6) of the ECA.

**Action(s) Required:**

No further actions required.

**3. The sewage works effluent sample results did not demonstrate compliance with microbiological parameter limits prescribed by the Environmental Compliance Approval.**

The ECA requires the sewage works effluent samples not exceed the monthly average concentration of 200 organisms (CFU) per 100 mL Monthly Geometric Mean Density for E.coli.

The monthly average concentration for E.coli was exceeded in August of 2018, the result was 225.6 CFU/100mL. The Township reported that the high readings of E.coli occurred several days after planned maintenance on the aeration tank, which began on July 23, 2018. The maintenance consists of draining the aeration tank, removing accumulated debris, sand and other grit, including inspection for broken diffusers. The Township reported that higher readings were expected as the system balanced over time from disturbance in normal practice. Dosing was monitored and altered slightly, flows were lower than average, E.coli levels were monitored closely and returned back to normal.

The exceedance was reported to the Ministry of the Environment, Conservation and Parks in accordance with Condition 9(6) of the ECA.

**Action(s) Required:**

No further actions required.

**4. All annual performance reports did not meet the submission and contents requirements of the Environmental Compliance Approval.**

Condition 9(5) of the ECA requires that the owner prepare and submit a performance report on an annual basis. The reports must contain, but not be limited to, the following information:

- a) a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 6, including an overview of the success and adequacy of the Works;
- b) a description of any operating problems encountered and corrective actions taken;
- c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;
- d) a summary of any effluent quality assurance or control measures undertaken in reporting period;
- e) a summary of the calibration and maintenance carried out on all effluent monitoring equipment; and
- f) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 5.
- g) a tabulation of the volume of sludge generated in the reporting period, an outline of anticipated volumes to be generated the next reporting period and a summary of all locations to where the sludge was disposed;
- h) a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- i) a summary of all By-pass, spill or abnormal discharge events;
- j) a copy of all Notice of Modifications submitted to the Water Supervisor as a result of Schedule B, Section 1, with a status report on the implementation of each modification;
- k) a report summarizing all modifications completed as a result of Schedule B, Section 3; and
- l) any other information the Water Supervisor requires from time to time.

It was noted during the review of the 2017 and 2018 annual Performance Reports that the following information was not included:

- influent flow data;
- a description of efforts made and results achieved in meeting the Effluent Objectives;
- the 2017 annual report did not contain Total Ammonia Nitrogen (TAN) monitoring data

Review of the 2017 and 2018 annual

**Action(s) Required:**

The Township of Cramahe shall include the influent flows and the results achieved in meeting the Effluent Objectives as per Condition 9(5) of the ECA in future Annual Reports.

**5. The operations and maintenance manuals did not meet the requirements of the Environmental Compliance Approval.**

Condition 7(2) of the ECA requires the Colborne WPCP to maintain an operations manual that includes, but not necessarily limited to, the following information:

- a) operating procedures for routine operations of the Works;
- b) inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;
- c) repair and maintenance programs, including the frequency of repair and maintenance for the Works;
- d) procedures for the inspection and calibration of monitoring equipment;
- e) a spill prevention control and countermeasures plan, consisting of contingency plans and procedures for dealing with equipment breakdowns, potential spills and any other abnormal situations including notification of the Water Supervisor; and
- f) procedures for receiving, responding and recording public complaints, including recording and any follow-up

actions taken

The following procedures were reviewed in conjunction with the operations manual and found to be incomplete:

- WWTP-01 Process Maintenance and Operations Procedure
- WWTP-05 Coagulant Tank Inspection and Cleaning
- WWTP-16 Biosolids Removal Procedure
- WWTP-14 Biosolids Removal Contingency Plan
- WWTP-17 Generator Inspection and Test Procedure
- WWTP-1 Biosolids Level Measurement and Inspection

**Action(s) Required:**

By December 20, 2019, the Township of Cramahe shall review and update the following procedures:

- WWTP-01 Process Maintenance and Operations Procedure
- WWTP-05 Coagulant Tank Inspection and Cleaning
- WWTP-16 Biosolids Removal Procedure
- WWTP-14 Biosolids Removal Contingency Plan
- WWTP-17 Generator Inspection and Test Procedure
- WWTP-1 Biosolids Level Measurement and Inspection

The Township shall provide copies of the updated procedures prescribed above to the undersigned Provincial Officer for review.



**Municipality.**

The Township of Cramahe does not have a procedure or process in place to ensure biosolids sample results are reviewed and interpreted by staff.

**Recommendation:**

The Township shall develop and implement a procedure for biosolids that are land applied under the Nutrient Management Act. The procedure shall include details pertaining to biosolids sample result, the review and interpretation by the Township.

By no later than December 20, 2019, the Township shall provide a copy of the procedure to the undersigned Provincial Officer.

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**SIGNATURES**

Inspected By:

Brittney Wielgos

Signature: (Provincial Officer)



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Reviewed & Approved By:

Jackie Fuller

Signature: (Supervisor)



Review & Approval Date:

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.

**APPENDIX A**  
**STAKEHOLDER APPENDIX**

# Helpful Resources for Municipal Wastewater Owners and Operators

Many useful materials are available to help you operate your wastewater system. Below is a list of key materials owners and operators of municipal wastewater 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  
[AskMECPWastewaterCompliance@ontario.ca](mailto:AskMECPWastewaterCompliance@ontario.ca).

For more information on wastewater visit  
[www.ontario.ca/page/wastewater-operators-training-and-licences](http://www.ontario.ca/page/wastewater-operators-training-and-licences)



PUBLICATION TITLE	PUBLICATION NUMBER
Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater	Website
Guide to Applying for an Environmental Compliance Approval	Website
Environmental Registration – Standby Power Systems Fact Sheet	8544E
F-5-1 Determination of Treatment Requirements for Municipal and Private Sewage Treatment Works Discharging to Surface Waters	Website
F-8 Provision And Operation Of Phosphorus Removal Facilities At Municipal, Institutional And Private Sewage Treatment Works	Website
F-10-1 Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only)	Website
Water Management, Policies, Guidelines: Provincial Water Quality Objectives	Website
Licensing Guide for Operators of Wastewater Treatment Facilities	Website



# Ressources utiles pour les propriétaires et les exploitants d'installations municipales d'eaux usées

De nombreux documents utiles peuvent vous aider à exploiter votre installation d'eaux usées. Vous trouverez ci-après une liste de documents que les propriétaires et exploitants d'installations municipales d'eaux usées utilisent fréquemment.

Pour accéder à ces documents en ligne, cliquez sur leur titre dans le tableau ci-dessous ou faites une recherche à l'aide de votre navigateur Web. Communiquez avec le ministère au 1-866-793-2588, ou encore à

[AskMECPWastewaterCompliance@ontario.ca](mailto:AskMECPWastewaterCompliance@ontario.ca)

si vous avez des questions ou besoin d'aide.

Pour plus de renseignements sur l'eau potable en Ontario, consultez le site

<https://www.ontario.ca/fr/page/exploitants-de-reseaux-deaux-usees-formation-et-permis>



PUBLICATION TITLE	PUBLICATION NUMBER
Protocole sur l'échantillonnage et l'analyse des eaux usées industrielles et municipales	Site Web
Guide pour soumettre une demande d'autorisation environnementale	Site Web
Environmental Registration – Standby Power Systems Fact Sheet (en anglais seulement)	8544F
F-5-1 Établissement des exigences visant le traitement des effluents d'usines de traitement des eaux usées municipales ou privées lorsque ces effluents se déversent dans les eaux de surface	Site Web
F-8 Fournitures et utilisation d'installations d'élimination du phosphore dans les usines de traitement des eaux d'égout municipales, institutionnelles et privées	Site Web
F-10-1 Procédures d'échantillonnage et d'analyse des eaux provenant d'usines de traitement des eaux d'égouts municipales, institutionnelles ou privées (flux de déchets liquides seulement)	Site Web
Gestion de l'eau : politiques, lignes directrices, objectifs provinciaux de qualité de l'eau	Site Web
Guide sur l'accréditation des exploitants d'installations d'eaux usées	Site Web