Ontario

Ministry of the Environment
Ministère de l'Environnement

Communal Sewage Inspection Report

Client:	The Corporation of the Town of Carleton Place Mailing Address: 175 Bridge St, Carleton Place, Ontario, Canada, K7C 2V8 Physical Address: 175 Bridge St, Carleton Place, Town, County of Lanark, Ontario, Canada, K7C 2V8 Telephone: (613)257-6200, FAX: (613)257-8170, email: dyoung@carletonplace.ca Client #: 4245-4Q2PKK, Client Type: Municipal Government, NAICS: 562112		
Inspection Site Address:	Carleton Place Water Pollution Control Plant Address: 122 Patterson Cres, Carleton Place, Town, County of Lanark, K7C 4P3 District Office: Ottawa GeoReference: Map Datum: NAD83, Zone: 18, Accuracy Estimate: 10 -100 metres eg. Topographic Map, Method: Map, UTM Easting: 410475, UTM Northing: 4999750, , LIO GeoReference: Zone: 18, UTM Easting: 410653.97, UTM Northing: 4999810.0, Latitude: 45.14611, Longitude: -76.136505		
Contact Name:	Deborah Turner David Young	**Title:**	ORO/Process & Compliance Technician Director of Public Works
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Last Inspection Date:	2010/12/15		
Inspection Start Date:	2012/01/24	**Inspection Finish Date:**	2012/01/24
Region:	Eastern		

1.0 INTRODUCTION

On January 24, 2012, an inspection of the sewage treatment plant serving the Town of Carleton Place was undertaken to assess the owner/operating authority's compliance with Ministry of Environment's Certificate(s) of Approval, and to review facility treatment performance with respect to meeting discharge criteria in accordance with Certificate(s) of Approval, Procedure F-5-5 (Determination of Treatment Requirements For Municipal and Private Combined and Partially Separated Sewer Systems, Procedure F-5-1 (Levels of Treatment for Municipal and Private Sewage Treatment Works Discharging to Surface Waters) and Procedure F-8 (Provision and Operation of Phosphorus Removal Facilities at Municipal, Institutional and Private Sewage Treatment Works) as specified by Ministry policies and guidelines.

The scope of the inspection consists solely of a review of the 2011 operating season to determine compliance with the operation of the sewage works and determine status of conformance of Procedure F-5-5 in relation to monitoring, reporting and recording bypass and overflow events. A separate inspection report will be completed for the air inspection program.

Plant Description:
The Carleton Place Water Pollution Control Plant is approved under the current CofA 5001-7FTZ4A which includes preliminary and primary treatment followed by a nitrifying activated sludge process that utilizes aeration. There are three physical/chemical clarifiers that are brought on line for treatment during wet weather flows that bypass secondary treatment. The plant practices the addition of alum or equivalent coagulant as well as lime for phosphorus removal. A polymer addition system can be also utilized at the

plant for enhanced TP removal in the physical/chemical process. Both the secondary treated effluent and the physical/chemical process effluent (i.e., during wet weather flow) are combined then pass through a UV disinfection system. Sludge is co-thickened and then stabilized in a two-stage anaerobic digestion process. Biosolids are stored in an on-site storage tank and utilized on agricultural land. The Town of Carleton Place does accept a relatively small volume of septage at the Carleton Place Water Pollution Control Plant. The operating authority - OCWA monitors volumes and collects audits samples. In 2011 Kingfish Pumping Service off loaded a total of 204.052 m3 of septage to be treated at the Carleton Place Water Pollution Control Plant. The Town is continuing to grow at a rate of 2% annually which consists of mostly residential.

Collection System:
The sewage is conveyed to the sewage treatment plant by 9 pump stations located throughout the collection system in which 7 out of the 9 pump stations have back up power. All pump stations are alarmed. The operators inspect all sewage pump stations weekly and check outposts 3 times per week. According to OCWA, all sewage pump stations are equipped with pumps capable of handling peak flows. The operating authority has contingency plans in place for upset conditions/emergency situations. Many of the pump stations have no overflow capabilities. The Town is still in the process of developing an operations manual/plan for the collection system. The Town cleans the storm and sanitary sewers on a rotating schedule.

Deborah Turner OCWA Process & Compliance Technician and Mandi Larose OCWA Wastewater Treatment Operator were present for the inspection.

1.1 AUTHORIZING AND CONTROL DOCUMENT INFORMATION

Authorizing/ Control Document	Number	Issue Date	Effluent Limits (yes/no)	Effluent Monitoring Requirements (yes/no)	Effluent Reporting Requirements (yes/no)
Certificate of Approval	5001-7FZT4A	2008/10/03	Yes	Yes	Yes

The Certificate of Approval 5001-7FTZ4A was issued to include the following proposed works:

- expansion and upgrading of the existing Control Building at the Sewage Treatment Plant (STP)
- installation of a new dewatering centrifuge process in the Sludge Management Facility
- installation of sludge transfer equipment
- installation of a new polymer system in the Centrifuge Room of the Sludge Management Facility, with rated capacity of 13.6 kilograms per hour, to supply polymer to the dewatering process
- installation of a Centrate Equalization Tank
- installation of a Septage Receiving Tank
- installation of a new odour control facility to treat odorous air from the existing headworks and the new dewatering and septage receiving facilities (CofA for air is under review)
- installation of a new alkalinity addition system with a new sodium hydroxide solution feed system to provide supplemental alkalinity to the raw sewage
- increase corner benching for the secondary clarifiers
- installation of a glycol recirculation pump at the boiler room to transfer heat to the building addition (Sludge Management Facility)

All of the proposed works listed above have been constructed however due health and safety issues related to high hydrogen sulfide in the sludge management facility which occurred during a trial/training run of the new dewatering centrifuge certain components of the proposed works are not operational. The cause of the high hydrogen sulfide has been attributed to ventilation issues. Repairs are in the process of being implemented. The equipment will need to be tested again and training for staff prior to full operations of the sludge management facility.

There are also two Notices issued which constitutes part of the Certificate of Approval 5001-7FZT4A. Notice

1 was issued to replace 4 existing digester boilers and 1 existing four-burner natural gas boiler in order to meet the requirements of the Technical Standards and Safety Authority (TSSA); and to divert the digester gas to an enclosed flare for safe disposal when it is not required for heat production. Notice 2 was issued to replace 1 existing positive displacement blower with more efficient turbo blower. All works authorized in the Notices are operational.

2.0 INSPECTION OBSERVATIONS

Sewage Treatment Plant

Sewage Works Number: 110000971
Certificate of Approval Number(s) ● Yes ○ No
C of A Number(s): 5001-7FZT4A
Plant Ownership: ● Munc. ○ OCWA ○ Other
Operating Authority: ○ Munc. ● OCWA ○ Other
Service Population: Approximately 9700

Wastewater Collection System
Certificate of Approval Number(s): ● Yes ○ No
C of A Number(s): Class II
Collection System Ownership: ● Munc. ○ OCWA ○ Other
Operating Authority: ☒ Munc. ☒ OCWA ☐ Other

2.1 SYSTEM DESCRIPTION

Type Of Plant

Primary: ● Yes ○ No
Secondary: ● Yes ○ No
Advanced: ○ Yes ● No
Biological Treatment: ● Yes ○ No
● Conventional AS
○ Contact Stablization
○ Extended Air Rotating Biological Contactor
Lagoon(s): ○ Yes ● No

Other: ○ Yes ● No
Describe:

○ Communal Septic ○ Snowfluent
○ Constructed Wetland ○ Other

Effluent Discharge Frequency: ☐ Seasonal: ☐ Annual:
☒ Continuous: ☐ No Direct Discharge:

Does the Plant Practice Phosphorous Removal? ● Yes ○ No
Effluent Disposal Method: ☒ Surface Water ☐ Subsurface
☐ Surface Land Disposal

If disposal is to surface water, name of immediate receiving stream: Mississippi River

OCWA has developed a series of Standard Operating Procedures (SOPs) for routine operation of the wastewater treatment plant. OCWA also tracks inspection programs including frequency of inspection, and the methods or tests employed to detect when maintenance is necessary, maintenance and repair programs and inspection and calibration of monitoring equipment through their Workplace Management System (WMS).

2.2 EFFLUENT QUALITY ASSESSMENT

Parameter	Year 1 2009	Year 2 2010	Year 3 2011	Limits
BOD5 (mg/l)	3.4	3.85	2.5	25

Suspended Solids (mg/l)	4.6	6.929	12	25
Total Phosphorus (mg/l)	0.15	0.165	0.186	1

Limits are based on: ☒ Certificate of Approval ☐ Director's Order ☐ PO Order ☐ Guidelines

Does the facility comply with its limits: Yes

The table above does not reflect the Certificate of Approval effluent and loading limits which are based on annual and monthly averages.

2011 Effluent Limits and Objectives:

	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ave.	Limits	Objts
CBOD 5	mg/l	1.00	1.00	2.00	3.00	2.00	9.00	5.00	1.00	1.00	2.00	1.00	2.00	2.50	**25**	**15**
CBOD 5	kg/d	6.962	4.325	17.34	29.35	14.83	55.13	23.60	4.387	4.254	8.762	4.072	10.38	16.90	**550**	**156**
SS	mg/l	57.00	5.00	9.3	6.00	7.00	12.3	7.00	10.00	4.00	6.00	7.00	13	12.0	**25**	**15**
SS	kg/d	396.8	21.62	80.65	58.71	51.91	75.35	33.04	43.87	17.02	26.29	28.50	67.52	75.80	**550**	**156**
TP	mg/l	0.078	0.145	0.187	0.183	0.160	0.178	0.108	0.182	0.150	0.300	0.302	0.260	0.186	**1**	**0.75**
TP	kg/d	0.543	0.627	1.622	1.791	1.186	1.090	0.510	0.798	0.638	1.314	1.230	1.350	1.032	**22**	**7.8**
NH3	mg/l	7.845	7.980	2.046	0.810	0.298	0.285	0.460	0.142	0.290	2.588	0.556	0.295	1.966	**4**	**2.0**
NH3	kg/d	54.62	34.51	17.74	7.926	2.210	1.746	2.171	0.623	1.234	11.34	2.264	1.532	12.40	**88**	**20.8**
E Coli	geo	10	53	166	23	55	20	48	35.2	19	30	112.2	49			**200**

EFFLUENT LIMITS

The Owner is required to operate and maintain the Works such that the concentrations and waste loadings of
the materials named below as effluent parameters are not exceeded in the effluent from the Works.

Effluent Parameter	**Average Concentration** (mg/L)	**Average Waste Loading** (kg/d)
CBOD5	25	550
Total Suspended Solids	25	550
Total Phosphorus	1.0	22
Total Ammonia	4.0 (May 15 to Sept. 30)	88.0 (May 15 to Sept. 30)

pH of the effluent maintained between 6.0 to 9.5, inclusive, at all times

For the purposes of determining compliance CBOD5 and Total Suspended Solids concentrations and loadings are based on an annual average and Total Phosphorus and Total Ammonia concentrations and loadings are based on a monthly average.

EFFLUENT OBJECTIVES (during dry weather conditions*)

Effluent Parameter	**Concentration Objective** (mg/L)	**Waste Loading Objective** (kg/d)
CBOD5	15	156
Total Suspended Solids	15	156
Total Phosphorus	0.75	7.8
Total Ammonia	2.0 (May 15 to Sept. 30)	20.8 (May 15 to Sept. 30)
E. Coli	200 organisms per 100 mL**	

***Secondary treated effluent quality**

**** Geometric Mean Density**

EFFLUENT OBJECTIVES for Physical /Chemical Treatment Process (during wet weather conditions*)

Effluent Parameter	**Concentration Objective** (mg/L)	**Waste Loading Objective** (kg/d)
CBOD5	28	325
Total Suspended Solids	28	325
Total Phosphorus	1.1	12.8

*Relates to the quality of effluent from the physical/chemical clarifiers that are brought on line during wet weather conditions corresponding to raw sewage flow rates greater than 10,400 m3/d.

Physical/Chemical Treatment Process during wet weather conditions

Effluent Parameter	**June 25**	**June 26**	**Objectives**
CBOD5	19	30	28 mg/L
CBOD5	289.23	321.40	325 kg/d
Total Suspended Solids	19	20	28 mg/L
Total Suspended Solids	289.23	214.26	325 kg/d
Total Phosphorus	0.32	0.27	1.1 mg/L
Total Phosphorus	4.87	2.89	12.8 kg/d

EFFLUENT OBJECTIVES at Peak Flows Rate Conditions*

Effluent Parameter	**Concentration Objective** (mg/L)	**Waste Loading Objective** (kg/d)
CBOD5	21.9	481
Total Suspended Solids	21.9	481
Total Phosphorus	0.94	20.6

*Relates to the quantity of blended effluent from the secondary treatment and physical/chemical treatment processes during periods of wet weather condition up to the Peak Flow Rate (22,000 m3/d), monitored immediately upstream of the outfall sewer.

EFFLUENT at Peak Flows Rate Conditions

Effluent Parameter	**June 25**	**June 26**	**Objectives**
CBOD5	10	16	21.9 mg/L
CBOD5	152.23	171.41	481 kg/d
Total Suspended Solids	13	21	21.9 mg/L
Total Suspended Solids	197.90	224.98	481 kg/d
Total Phosphorus	0.26	0.29	0.94 mg/L
Total Phosphorus	3.96	3.11	20.6 kg/d

For the purposes of determining conformance CBOD5 and Total Suspended Solids concentrations and loadings are based on an annual average, Total Phosphorus and Total Ammonia concentrations and loadings are based on a monthly average and E.coli is based on a monthly geometric mean density.

Based on the review of effluent data compliance with the effluent limits and objectives have been met.

2.3 CAPACITY ASSESSMENT

Flows shown below are for the last three calendar years. Identify the year, eg., 1999

Item	**Year 1 2009**	**Year 2 2010**	**Year 3 2011**
Average daily flow (m^3/day)	5330.00	5908.51	5868.00
Maximum daily flow (m^3/day)	13439.00	15708.00	17460.00

Capacity Design (m^3/day)	7900.00	7900.00	7900.00
% of capacity, based on average daily flow	67.47	74.79	74.28

As specified in the Certificate of Approval the Owner shall use best efforts to operate the Works within the Rated Capacity of the Works (7,900 cubic metres per day during dry weather conditions) and within the Peak Flow Rate of the Works (22,000 cubic metres per day during wet weather conditions) and to operate the Works such that the physical/chemical clarifiers are brought on line and operated only when raw sewage flow rates to the Works exceed 10,400 cubic metres per day (i.e., during wet weather conditions).

Based on a review of flows for 2011 there has not been an introduction of sewage flows in excess of the rated capacity for any consecutive period of time greater than one year.

2.4 EFFLUENT SAMPLING REQUIREMENTS

Sampling requirements are based on : Certificate of Approval
Does the plant meet the sampling requirements? No

Raw Sewage Monitoring - (at treatment plant inlet)

Frequency	Monthly
Sample Type	Composite
Parameters	BOD5, COD, Total Suspended Solids, Total Phosphorus, Total Kjeldahl Nitrogen

Physical/Chemical Clarification Effluent Monitoring -
(physical/chemical clarification stage combined effluent)

Frequency	Daily*
Sample Type	Grab
Parameters	*CBOD5* , Total Suspended Solids, Total Phosphorus

* Daily sampling whenever the physical/chemical clarifiers are in use.

Final Effluent Monitoring - (just prior to outfall sewer)

Parameters	Sample Type	Frequency
CBOD5	Composite	Monthly
Total Suspended Solids	Composite	Monthly
Total Phosphorus	Composite	Weekly
Total Ammonia (Ammonia + Ammonium) Nitrogen	Composite	Weekly
Total Kjeldahl Nitrogen	Composite	Monthly
Nitrite	Composite	Monthly
Nitrate	Composite	Monthly
Faecal Streptococcus	Grab	Monthly
E. Coli	Grab	Weekly
pH	Grab	Weekly

Septage Monitoring (samples to be collected from the septage receiving tank)

Frequency	Monthly
Sample Type	Grab
Parameters	*BOD5* , Total Solids, Total Suspended Solids, Total Phosphorus, Total Kjeldahl Nitrogen

The operating authority failed to collect the December monthly sample for septage. A procedure is now in place which requires operators to collect a sample of septage from the first septage delivery each month at

time of delivery. The operating authority is currently not having the septage analysed for Total Solids. Once the operating authority was made aware of this issue the laboratory requisition form was changed immediately. The laboratory noted a sample matrix issued with the Total Suspended Solids analysis parameter in April and May. It is requested that the operators review the certificates of analysis when they are received and if sample parameter results are missing or there is a problem with the sample the operators should collect another and have it submitted to the laboratory as soon as possible. Refer to Section 6.0 for actions required.

Due to the issues with the sludge management facilities the centrate equalization tank has not been in operation. At the time of inspection the operators were advised that once the sludge management facilities are operational centrate monitoring will be required in accordance with the Certificate of Approval.

In addition to the monitoring requirements in the Certificate of Approval the operating authority completes a series of weekly in house analysis for process controls.

Based on a review of compliance with the monitoring requirement actions have been taken to address non-compliance issues.

2.5 EFFLUENT REPORTING REQUIREMENTS

Reporting Requirements are based on : Certificate of Approval
Does the plant meet the effluent reporting requirement? Yes

The Owner and Operating authority prepares and submits to the District Manager a performance report, on an annual basis, within ninety (90) days following the end of the period being reported upon.

The Owner and operating authority reports to the District Manager or designate, any exceedence of any parameter specified in Condition 6 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedence.

Please note that in addition to the obligations under Part X of the Environmental Protection Act, the Owner shall, within ten (10) working days of the occurrence of any reportable spill as defined in Ontario Regulation 675/98, bypass or loss of any product, by-product, intermediate product, oil, solvent, waste material or any other polluting substance into the environment, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation.

The owner and operating authority has conformed with the minimum monitoring, recording and reporting expectations during a bypass and overflow event. The owner and operating authority have achieved compliance with the Certificate of Approval reporting requirements.

2.6 MINISTRY SAMPLING AT TIME OF INSPECTION

Were Ministry samples collected at the time of inspection Yes

Sample Locations and Analyses: Grab sample- Effluent - Phys/Chem, Grab sample - Effluent - Metals, Grab sample - Effluent - Bacteriological

Ministry audit samples were taken on July 27, 2011. The results indicate BOD 1.5 mg/L, SS 6.6 mg/L, Total Ammonia Nitrogen 0.39 mg/L, TP 0.18 mg/L and E.Coli 500c/100mL . OCWA was unable to explain the cause of the high Ecoli in the effluent. The monthly geometric mean for July was 48 organisms per 100 mL which is less than the effluent objective for Ecoli - 200 organisms per 100 mL.

2.7 DISINFECTION

a) Method of disinfection: Ultraviolet
b) Disinfection Period: Continuous
c) Comment on the seasonal disinfection period for

	each year:	
d)	**Disinfection Required By:**	Certificate of Approval
e)	**Residual monitoring technique:**	N/A
f)	**Was there a measurable chlorine residual in the final effluent after contact:**	No

The owner/operating authority has met the final effluent objective for E.coli of less than 200 organisms per 100 mL as specified in the Certificate of Approval.

2.8 PLANT CLASSIFICATION & OPERATOR CERTIFICATION

a)	**Plant classification:**	
	i) Facility Level:	Level III
	ii) Certificate Number:	703
	iii) Date of Issue:	2003/01/01
b)	**Plant operators have the appropriate level of certification for this plant:**	● Yes ○ No

The Owner provides the overall operation of the Works with an operator who holds a licence that is applicable to that type of facility and that is of the same class as or higher than the class of the facility in accordance with Ontario Regulation 129/04. If the designated overall responsible operator is absent or unable to act, an operator who holds a licence that is applicable to that type of facility and that is not more than one class lower than the class of the facility may be designated as overall responsible operator. Please note that a person who holds an operator-in-training licence cannot act as an operator-in-charge or to be designated as overall responsible operator.

In the case of OCWA operators Deborah Turner and Kevin Sargent are the only operators that have the applicable class (Class III) or higher to be designated as overall responsible operators for the Carleton Place wastewater treatment plant. In their absence operators that hold a Class II WWT licence such as Thomas Flynn, Andrew Trader, Patrick Baker, and Robert Leblanc can be designated overall responsible operators.

As previously indicated OCWA is the operating authority for the wastewater treatment plant and sewage pump stations in the collection system for the Town of Carleton Place. The main operators that are assigned to the Carleton Place WWTP on a regular basis are Robert Andrunyk (maintenance), Thomas Flynn and Mandi Larose. Deborah Turner is the designated overall responsible operator and Thomas Flynn in her absence. Thomas Flynn and Mandi Larose are designated operators-in-charge. Note that OCWA has a number of licensed operators at various different levels and classifications that are assigned to specific facilities but can be brought in to help or cover off other operators as required.

Here is a list OCWA Ottawa Valley Hub licensed operators:

Robert Andrunyk, WWT Level I, expiry January 31, 2013, training hours = 69.20
Patrick Baker, WWT Level II, expiry October 30, 2013, training hours = 92.75
David Boyd, WWT Level I, expiry May 14, 2013, training hours = 57.25
Thomas Flynn, WWT Level II, expiry March 30, 2012, training hours = 78.00
Mandi Larose, WWT Level I, expiry August 31, 2012, training hours = 60.75
Kevin Sargent, WWT Level III, expiry August 31, 2014, training hours = 47.50
Andrew Trader, WWT Level II, expiry May 31, 2014, training hours = 102.90
Deborah Turner, WWT Level IV, expiry December 31, 2014, training hours = 64.20
Nicholas Wilson, WWT OIT, expiry March 30, 2012, training hours = 82.95
Robert Leblanc. WWT Level II, expiry June 30, 2012, training hours = 60.45
Daniel Vincent, WWT Level III, expiry August 1, 2011, training hours = 17.65 (no longer employed with OCWA)

The Town of Carleton Place Wastewater Collection System is certified as a Class II system. Operator Brian Pountney is the designated overall responsible operator for the collection system. The designated

operators-in-charge are Ed Gibson and Jason Jackson and they can also be designated as overall responsible operator in Brian's absence. Please note that a person who holds an operator-in-training licence cannot act as an operator-in-charge or to be designated as overall responsible operator.

Town Certified Wastewater Collection System Operators:
Ed. J. Gibson - Class I WWC, expiry November 30, 2012, training hours = 71
H. Jason Jackson, Class I WWC, expiry October 31, 2011, training hours = 55
Brain G. Pountney, Class II WWC, expiry November 30, 2012, training hours = 41
Daniel McCamon, OIT WWC, expiry March 31, 2012, training hours = 23.75.

Daniel McCamon did not achieve his 40 hours of training because he was recently hired by the Town of Carleton Place in October 31, 2011. He was not working as an OIT in his previous employment. The Town is committed to education and training and ensuring Daniel McCamon as well as the other sewage collection system operators achieve as a minimum the required 40 hours of training on an annual basis.

2.9 FLOW MEASUREMENT

a) Flows are being metered at: Raw Sewage, Final effluent, Bypass
b) Date of last calibration of effluent flow meter: 2011/08/25

Flow meters are calibrated annually.

2.10 BYPASSES, AND/OR OVERFLOWS

	Plant	Collection System
Are bypasses and overflows routinely reported?	● Yes ○ No	● Yes ○ No
Are bypasses and overflows routinely monitored?	● Yes ○ No	● Yes ○ No
Are bypasses and overflows routinely sampled?	● Yes ○ No	● Yes ○ No

PLANT INFORMATION:

Item	Plant Bypass			Plant Overflow		
	Year 1 2009	Year 2 2010	Year 3 2011	Year 1 2009	Year 2 2010	Year 3 2011
Total number of events?	0	3	1	0	0	0
Total duration of event(s)? (Hour(s))		39	36			
Of the total number of events, how many are dry-weather events?		0	0			
Total quantity with no treatment? (1000 m^3)		0.000	0.000			
Total quantity with only disinfection? (1000 m^3)		0.000	0.000			
Total quantity with primary treatment? (1000 m^3)		0.000	0.000			
Total quantity with primary treatment and disinfection? (1000 m^3)		8.623	13.063			
Total quantity with other treatment? (1000 m^3)		0.000	0.000			
Total quantity with other treatment and disinfection? (1000 m^3)		0.000	0.000			
What is the most common reason for event(s)?		weather	weather			
What is the name of the receiving water?	Mississippi River			Mississippi River	Mississippi River	Mississippi River
Name the most important type of sensitive receptor?	receiving water			receiving water	receiving water	receiving water
What is the approximate distance to the sensitive receptor? (km)	1			1	1	1

COLLECTION SYSTEM INFORMATION: (Satellite(s), Lift Station(s) and Regulator(s))

Lift Station Overflow	Other Location Overflow

Item	Year 1 2009	Year 2 2010	Year 3 2011	Year 1 2009	Year 2 2010	Year 3 2011
Total number of events?	0	0	0	0	0	0
Total duration of event(s)? (Hour(s))						
Of the total number of events, how many are dry-weather events?						
Total quantity with no treatment? (1000 m^3)						
Total quantity with only disinfection? (1000 m^3)						
Total quantity with other treatment? (1000 m^3)						
Are any overflow(s) at combined sewer locations? (Yes/No)						
What is the most common reason for event(s)?						
What is the name of the receiving water?	Mississippi River	Mississippi River	Mississippi River	Mississippi River	Mississippi River	Mississippi River
Name the most important type of sensitive receptor?	receiving water	receiving water	receiving water	receiving water	receiving water	receiving water
What is the approximate distance to the sensitive receptor? (km)	1	1	1	1	1	1

Comments:
There were no reported raw sewage overflow events in the sewage collection system during the 2011 review period. Due to heavy rainfall on June 24, 2011 the operating authority placed the 3 physical/chemical treatment tanks into service in the early morning of June 25. Primary coagulant and a coagulant aid are added at the head of these tanks where primary settling occurs. This primary treated sewage bypassed the aeration and secondary treatment processes. This primary treated sewage was then blended/combined with secondary treated sewage, disinfected and discharged. Once sewage flow decreased to less than 10,400m3/d the 3 physical/chemical treatment tanks were taken out of service on June 26 at 11:45am. The treatment bypass was reported and samples were collected in accordance with CofA requirements.

2.11 SLUDGE (BIOSOLIDS) MANAGEMENT

Sludge Stabilization:	Anaerobic
Sludge Storage:	Holding Tank
Total available storage:	
Volume	1900m3
Retention Time	6 months
Certified waste hauler	Yes
Certificate numbers of haulers are:	Vanson Construction Limited, A860462 H-8700-15
Method of Disposal/Utilization:	Agricultural
Certified waste disposal facility	Yes
Certificate number(s) of facilities are:	Biosolid Site Approvals - NASM

The Carleton Place WPCP processed and hauled a total of 5519.6 m3 of biosolids in 2011.

2.12 WASTEWATER COLLECTION SYSTEMS

1. **Does this plant receive sewage from a Combined Sewer Collection System** (sanitary sewage, roof leaders, foundation drains, catch basins and/or storm water conveyed within a single pipe)? ○ Yes ● No

2. **How are bypasses, overflows and/or combined**

sewers being minimized or eliminated?

a) Pollution Prevention and Control Plan (As described in Procedure F-5-5)	○ Yes	● No	○ Developing
i. Other Plan	● Yes	○ No	○ Developing
b) Characterization Study?	○ Yes	● No	○ Developing
c) Implementation Plan?	○ Yes	● No	○ Developing

Comments:
The Town of Carleton Place has separate sanitary and storm collection systems as well as bylaws restricting connections of sump pumps and drainage tiles to the sanitary sewer system. The Town has an ongoing rehabilitation program and makes significant investments towards upgrading and maintaining sewer and water infrastructure in an effort to minimize infiltration and extraneous flows in the sanitary collection system. The rehabilitation plan for 2012 includes the replacement of 300 m of sanitary sewer.

In 2012 the Town plans to initiate an inflow/infiltration reduction program that will include flow monitoring in problem areas with follow-up camera inspections or fog testing if necessary. The Town also plans to complete a Master Plan for the collection and distribution systems and update the Official Plan.

3.0 REVIEW OF PREVIOUS NON-COMPLIANCE ISSUES

As discussed at the time of inspection a copy of the applicable Certificates of Approval associated with the wastewater treatment plant and associated wastewater collection system will be kept in the operations and maintenance manual at the Carleton Place Water Pollution Control Plant. This will ensure that each operator assigned to the facilities can readily access the information.

At the time of inspection there were numerous boxes that had recently been delivered which contained an updated operations and maintenance manual. The manual will be updated as required.

All operators assigned to the collection system received a minimum of 40 hours of training in 2011.

4.0 SUMMARY OF INSPECTION FINDINGS (HEALTH/ENVIRONMENTAL IMPACT)

Was there any indication of a known or anticipated human health impact during the inspection and/or review of relevant material, related to this Ministry's mandate ?
No

Specifics:

Was there any indication of a known or anticipated environmental impact during the inspection and/or review of relevant material ?
No

Specifics:

Was there any indication of a known or suspected violation of a legal requirement during the inspection and/or review of relevant material which could cause a human health impact or environmental impairment ?
No

Specifics:

Was there any indication of a potential for environmental impairment during the inspection and/or the review of relevant material ?

No

Specifics:

Was there any indication of non-conformance or minor administrative non-compliance?

Yes
Legal Requirement (Administrative)

Specifics:

The operating authority failed to collect the December monthly sample for septage. The analysis performed on septage failed to include Total Solids. The laboratory noted septage sample matrix issues with the Total Suspended Solids analysis parameter in April and May and no resample was taken.

5.0 ACTION(S) REQUIRED

1. It is requested that the operating authority review the laboratory certificates of analysis when they are received and if sample parameter results are missing or there is a problem with the sample a resample should be submitted to the laboratory as soon as possible in order to ensure the monitoring requirements are achieved in accordance with the Certificate of Approval.

6.0 OTHER INSPECTION FINDINGS

7.0 INCIDENT REPORT

Applicable
2864-8RQPKL

8.0 ATTACHMENTS

PREPARED BY:
Environmental Officer:
Name: **Jena Leavoy**
District Office: **Ottawa District Office**
Date: **2012/02/23**
Signature

REVIEWED BY:
District Supervisor:
Name: **Tara MacDonald**
District Office: **Ottawa District Office**
Date: **2012/02/28**

Signature:

File Storage Number: SI LA CA PA 410

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