

January 24<sup>th</sup>, 2020

**M. Patrick Lalonde**

*Water Inspector*

Ministry of the Environment, Conservation and Parks Drinking Water and Environmental Compliance  
Division Ottawa District Office

**Subject:**

**2019 - Performance Report for the St- Isidore Wastewater Facility**

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The following document includes the 2019 Performance Report for the St-Isidore Wastewater Facility.

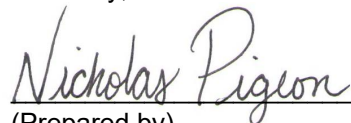
There is no specific Certificate of Approval for this facility. The operations follow the MECP guidelines for specific effluent limits. The guidelines are as follow;

- ❖ *Guideline F-5-1 Table I for Lagoon effluent compliance limits*
- ❖ *Guideline F-10 for sampling requirements*
- ❖ *Guideline F-10-1 Procedures for sampling and Analysis*

In this Performance Report a summary of the St-Isidore Wastewater Facility will be discussed.

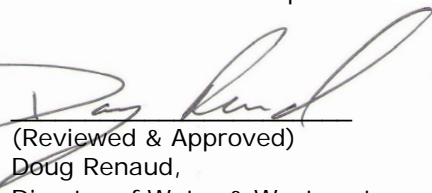
- Volumes and daily flow rates of wastewater
- Results of raw sewage and final effluent parameters
- Summary of operation and environmental challenges.
- Maintenance and calibration of monitoring equipment.

Sincerely,



(Prepared by)

Nicholas Pigeon,  
Water & Wastewater Operator in charge



(Reviewed & Approved)

Doug Renaud,  
Director of Water & Wastewater

## 2019 Annual Performance Report for the St-Isidore Wastewater Facility

### a) Summary and interpretation of raw sewage and final effluent monitoring data and comparison to effluent objectives

The average daily flow of wastewater entering the St-Isidore facility was 331 m<sup>3</sup>/day in 2019.

The treated Effluent daily flow was 8394 m<sup>3</sup>/day during the 33 days period of discharge from May 23<sup>th</sup> to June 24<sup>th</sup>, 2019. Totalizing 277 008 m<sup>3</sup>.

The Wastewater Treatment Facility did not encounter any major challenges during 2019. Respected the effluent limits for Carbonaceous BOD<sub>5</sub>, Total Suspended Solids and Total phosphorus.

### B) Analytical parameters- Raw sewage & Effluent

#### 1) Total Nitrogen (kjeldahl)

The concentration of raw sewage varied from 16.7 mg/L in April to 51.1 mg/L in August. The monthly average concentration was 33.37 mg/L.

The Ammonia average concentration for treated effluent was 1.81 mg/L for 2019.

#### 2) Total Phosphorus

The concentration of raw sewage varied from 1.73 mg/L in April to 5.88 mg/L in May. The monthly average concentration was 3.75 mg/L.

The Total phosphorus average concentration for treated effluent was 0.28 mg/L.

#### 3) Carbonaceous Biological Oxygen Demand (CBOD5)

The concentration of raw sewage varied from 56 mg/L in November to 164 mg/L in June. The monthly average concentration was 92 mg/L.

The CBOD5 average concentration for treated effluent was 2.20 mg/L.

#### 4) Suspended Solids

The concentration of raw sewage varied from 60 mg/L in September to 280 mg/L in June. The monthly average concentration was 108 mg/L.

The TSS average concentration for treated effluent was 22.5 mg/L.

#### 5) E Coli

The E Coli average concentration for treated effluent was 7191.1 mg/L.

#### **c) Summary of raw and effluent quality assurance control measures**

Monitoring and recording of raw sewage was taken during each month in 2019. Effluent samples were taken during period of discharge. Results are in the St-Isidore Wastewater –Analytical survey table at the end of this report in Appendix I.

#### **d) Summary of maintenance carried out on major structure, equipment, apparatus and mechanism**

In addition to regular preventative maintenance, the following operational duties were performed.

- **May,**
  - Batch treatment of 25 000 Kg of PAS 8 into the St-Isidore Lagoon.
  - Flushed and cleaned gravity sanitary sewer lines by Nation personnel.
  - Clean pumping station with LSC Sanitation.
- **October,**
  - Calibration of Flow Meter by Capital Control.
  - Replaced and install new Miltronic (Head & Computer box) after failure causing overflow.
  - Removed all Floats and install new pressure transducer for backup.
- **November,**
  - Replaced and installed new gate valve in between Cell #1 & #2 at Lagoon.

#### **d) A description of any operating challenges encountered and corrective actions taken**

We encountered a challenge on October 23<sup>rd</sup>, 2019. The Miltronic level sensor failed causing the pumps to stop. The backup system which were the floats also did not work properly causing the wet well to rise and overflow in the nearest ditch. A total of around 47m<sup>3</sup> was discharged in the ditch. The MECP and S.A.C. were notified.

### **Appendix I: St-Isidore WASTEWATER FACILITY - ANALYTICAL SURVEY - 2019**

# APPENDIX I

2.1.3

Waste Water - Analytical survey



St-Isidore

2019		Limit	Limit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
<b>RAW SEWAGE</b>		<b>C of A</b>	<b>Federal</b>													
Total Flow	m <sup>3</sup>			9315	7921	13363	19815	14866	11195	9022	7987	7879	10252	11665	10693	133973
Daily Ave. Flow	m <sup>3</sup> /d			300	273	431	660	480	373	291	258	263	331	389	345	366
Max. Flow	m <sup>3</sup> /d			354	314	588	777	587	421	320	275	275	480	480	436	777
Min. Flow	m <sup>3</sup> /d			247	247	275	587	400	309	263	240	244	262	333	304	240
CBOD <sub>5</sub>	mg/l			105	117	59	59	66	164	111	127	90	73	56	77	92
TSS	mg/l			140	90	70	65	65	280	90	140	60	115	110	70	108
pH	pH units			8.02	7.65	7.92	7.71	7.54	7.48	7.51	7.75	7.74	7.81	7.83	7.76	7.73
TKN	mg/l			41.3	31.2	31.8	16.7	22.6	26.7	30.4	51.1	45.7	39.2	36.7	27.0	33.37
Ptot	mg/l			4.47	3.42	3.21	1.73	5.88	3.12	3.46	4.89	4.68	4.32	3.3	2.54	3.75
<b>EFFLUENT</b>																
Total Flow	m <sup>3</sup>							37584	239424							277008
Daily Ave. Flow	m <sup>3</sup> /d							4176	9976							7076
CBOD <sub>5</sub>	mg/l	25.0	25.0					3	1.7							2.35
TSS	mg/l	25.0	25.0					11.8	28.6							20.20
Ptot	mg/l	1.0						0.26	0.3							0.28
Unionized ammonia	mg/l		1.25					0.13	0.08							0.11
Ammonia	mg/l							2	1.7							1.85
E. Coli	cfu/100mL							22	11288							5655.00

