Long Sault Wastewater System

Waterworks # 120000131

Annual Report

Prepared For: Township of South Stormont

Reporting Period of January 1st – December 31st 2024

Issued: March 20th, 2025

Revision: 0

Operating Authority:

OCWA

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

This report has been prepared to meet the requirements set out in:

Document	Document #	Issue Date	Issue Number
Facility ECA	3-0918-93-979	June 1997	N/A
ECA for Municipal Sewage Collection System	186-W601	February 2, 2023	1.0

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1 Revision History

Date	Rev#	Revisions	Revised By
March 20, 2025	0	Annual Report Issued	Selena Shane, PCT

2 Operations and Compliance Reliability Indices

Compliance Event	# of Events
Ministry of Environment Inspections	No MECP inspections in 2024.
Ministry of Labour Inspections	No MOL inspections in 2024.
Non-Compliance	There was 4 non-compliances reported in 2024.
Community Complaints	There was 4 community complaints in 2024.
Spills	No spills reported in 2024.
Overflows	No overflow events in 2024.
Bypass	No bypass events in 2024.

3 Process Description

The Long Sault wastewater treatment system operates as a gravity-fed sanitary sewage collection network. Wastewater is conveyed through this system to the Mille Roches or Post Road pumping station, which then transfers the flow to the wastewater treatment facility.

Long Saults wastewater treatment plant (WWTP) is a Class II wastewater treatment system owned and operated by the Township of South Stormont. From the pumping station, wastewater passes through the inlet works, including fine screens with a screw compactor and a grit removal and disposal system. Aluminum Sulphate is added to assist in phosphorous removal. The wastewater then moves through either of two parallel Sequencing Batch Reactors (SBRs) equipped with individual aeration systems, mixers, decanters and sludge removal pumps. Effluent decanted from the SBRs is treated by UV disinfection and subsequently passes through an outfall pipe to the St. Lawrence River.

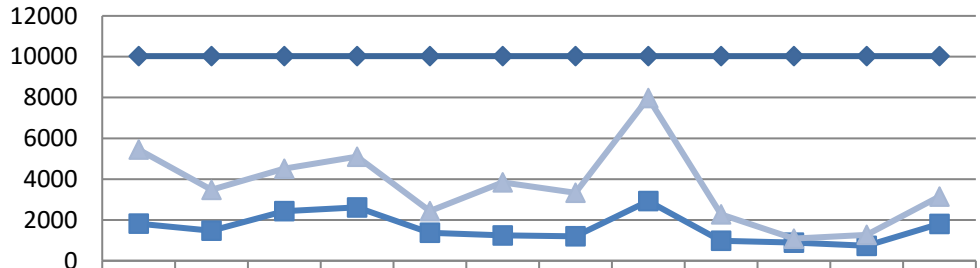
Sludge removed from the SBRs is transferred to a storage tank. From the tank, the sludge enters a gravity belt thickener. The thickened sludge is then pumped to an Autothermal Thermophilic Aerobic Digestion (ATAD) system for stabilization. The digested sludge is subsequently pumped to a biosolids storage tank. From the storage tank, biosolids are hauled off site to be utilized as soil conditioner.

This system ensures effective wastewater management and environmental protection for the Township.

4 Treatment Flows

The hydraulic flows reaching the treatment facility in 2024 averaged 1,752 m3/day, which represents 65% of the 2,700 m3/day design.

4.1 Raw Flow (m3/d)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rated Flow	10027	10027	10027	10027	10027	10027	10027	10027	10027	10027	10027	10027
Average Daily Flow	1,820	1,473	2,432	2,613	1,372	1,242	1,200	2,923	981	889	735	1,806
Maximum Daily Flow	5,450	3,478	4,514	5,101	2,435	3,843	3,332	7,978	2,273	1,087	1,272	3,149

4.2 Effluent Flow

A total of 641,053 m^3 of effluent was discharged from Long Sault's WWTP in 2024.

4.3 Imported Waste/Sewage

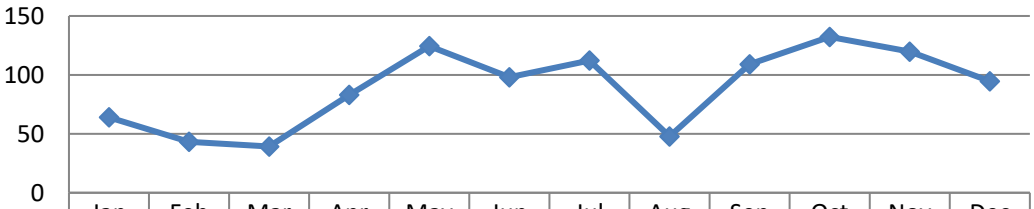
There was no Septage accepted in 2024.

5 Raw Sewage Quality

Current year minimum, maximum and averages are available in Appendix A – Performance Assessment Report.

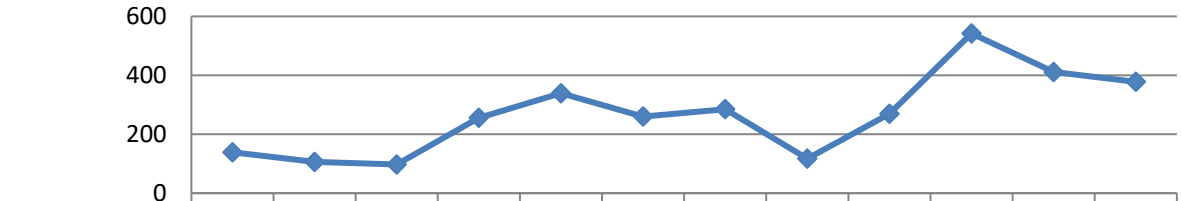
5.1 Influent Trending

5.1.1 BOD5 (mg/L)



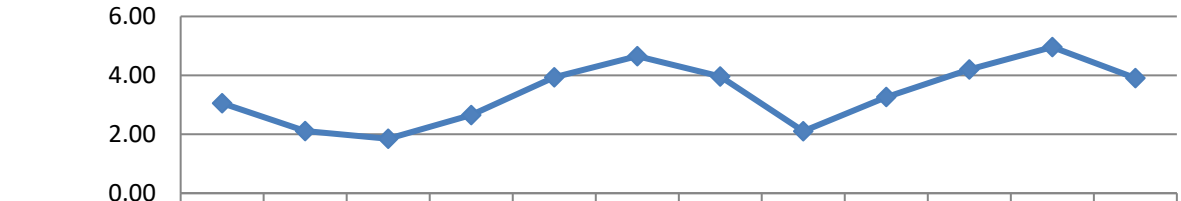
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
BOD5 (mg/L)	64	43.25	39.25	83	124.4	98	112.2	47.75	109	132.25	119.75	94.6

5.1.2 *Total Suspended Solids (mg/L)*



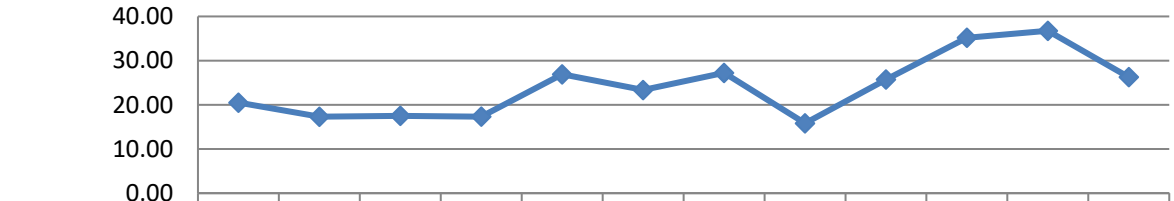
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TSS (mg/L)	139	106	98	256	339	260	285	117	269	542	411	378

5.1.3 *Total Phosphorus (mg/L)*



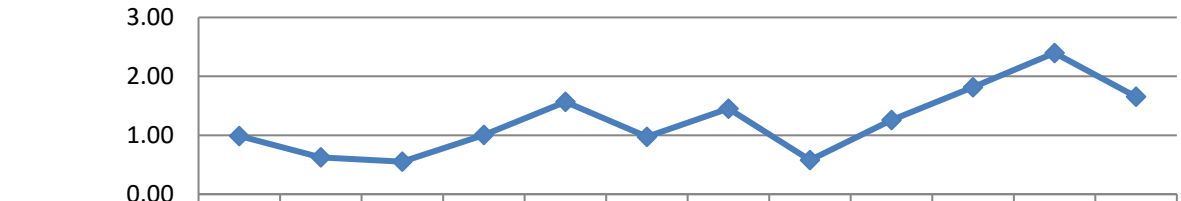
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TP (mg/L)	3.05	2.11	1.85	2.65	3.93	4.65	3.96	2.10	3.26	4.20	4.96	3.91

5.1.4 *Total Kjeldahl Nitrogen (TKN) (mg/L)*



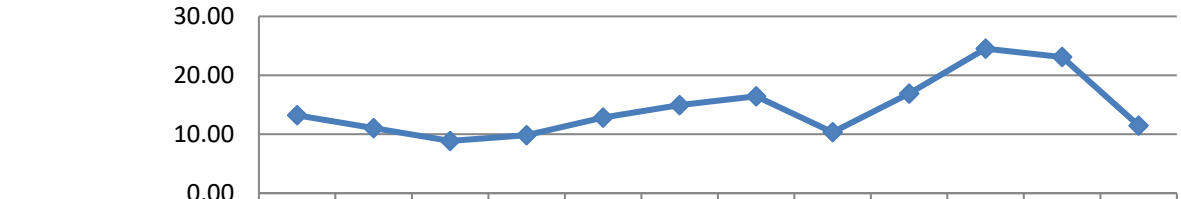
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TKN (mg/L)	20.50	17.30	17.50	17.33	26.90	23.35	27.22	15.83	25.73	35.18	36.75	26.26

5.1.5 *Dissolved Reactive Phosphorus (DRP) (mg/L)*



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DRP (mg/L)	0.99	0.63	0.55	1.01	1.57	0.97	1.45	0.58	1.26	1.82	2.40	1.65

5.1.6 Ammonia (mg/L)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Ammonia (mg/L)	13.22	11.04	8.87	9.84	12.83	14.95	16.44	10.34	16.90	24.53	23.10	11.47

6 Effluent Quality

Effluent results from the WWTP for 2024 are tabulated below. Additional data can be found in the Performance Assessment Reports attached in Appendix A.

6.1 Effluent Quality Assurance and Control Measures Taken

This system is part of the Township of South Stormont. Operational Services are delivered by OCWA staff that live and work in the community. The systems are operated to meet compliance with applicable regulations. The system has comprehensive manuals detailing operations, maintenance, instrumentation, and emergency procedures. All procedures are treated as active documents and are updated as required. These documents are also part of OCWA's Quality & Environmental Management System.

The process is reviewed and maintained by certified operators. These operator's complete in-house rounds and testing to monitor the process. All Sampling and analysis follow approved methods and protocols for sampling, analysis and recording as specified in the Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works", the Ministry's publication, "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" and the publication, "Standard Methods for the Examination of Water and Wastewater".

All final effluent samples collected during the reporting period to meet legislated sampling requirements are submitted to Caduceon Ottawa for analysis, with the exception of pH and temperature. Caduceon Ottawa has been deemed accredited by the Canadian Association for Laboratory Accreditation (CALA), meeting strict provincial guidelines including an extensive quality assurance/quality control program. By choosing this laboratory, OCWA is ensuring appropriate control measures are undertaken during sample analysis. The pH and temperature parameters are analyzed in the field at the time of sample collection by certified operators, to ensure accuracy and precision of the results obtained.

OCWA uses a data management system Process Data Management (PDM). This database program consolidates all operational data from a variety of sources including field data, online instrumentation, and electronic receipt of lab test results for reporting, tracking and analysis.

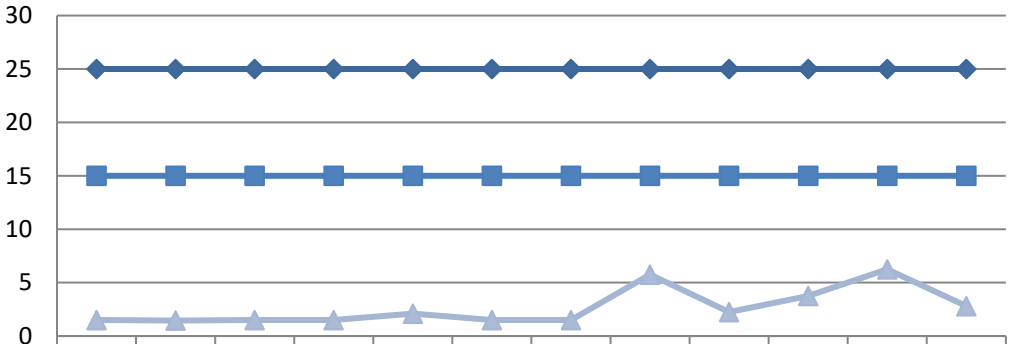
The operations team also has access to a network of operational compliance and process specialists to assist for emerging process issues. This aids in establishing additional control measures to ensure a quality effluent product.

Detailed individual sample results for both raw sewage and final effluent can be requested from the operating authority.

6.2 CBOD5 (mg/L)

Compliance Limit and Objective for this parameter was met in 2024.

6.2.1 Concentration (mg/L)

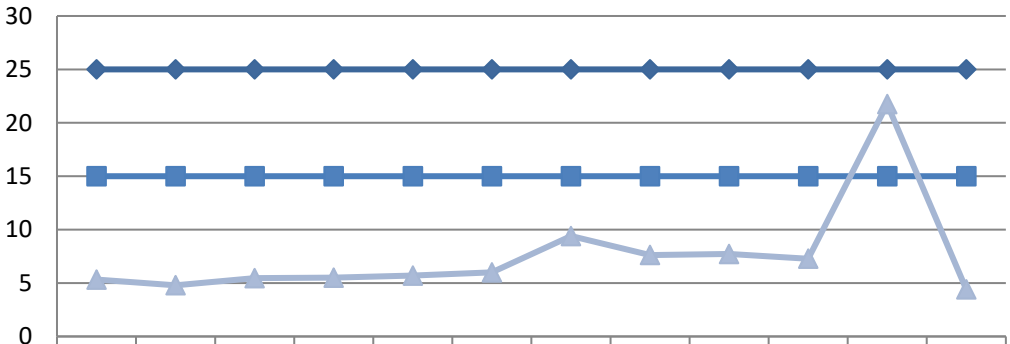


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	25	25	25	25	25	25	25	25	25	25	25	25
ECA Objective	15	15	15	15	15	15	15	15	15	15	15	15
Average	1.50	1.45	1.50	1.50	2.10	1.50	1.50	5.75	2.25	3.75	6.25	2.80

6.3 Total Suspended Solids (mg/L)

Compliance Limit for this parameter was met in 2024.

6.3.1 Concentration (mg/L)

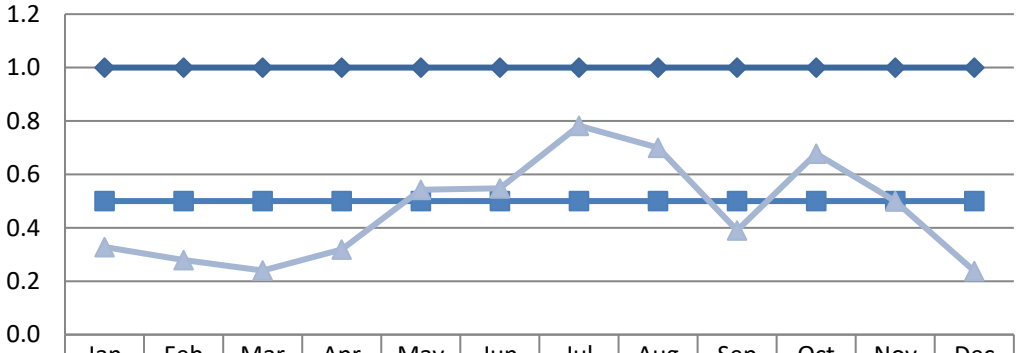


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	25	25	25	25	25	25	25	25	25	25	25	25
ECA Objective	15	15	15	15	15	15	15	15	15	15	15	15
Average	5.32	4.79	5.46	5.50	5.69	6.00	9.40	7.63	7.72	7.28	21.75	4.40

6.4 Total Phosphorus (mg/L)

Compliance Limit for this parameter was met in 2024.

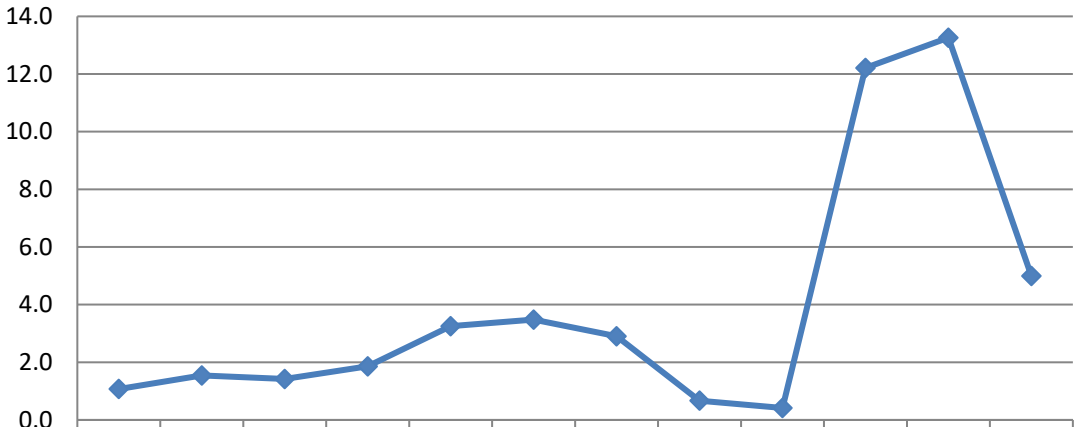
6.4.1 Concentration (mg/L)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
ECA Objective	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Average	0.33	0.28	0.24	0.32	0.54	0.55	0.78	0.70	0.39	0.68	0.50	0.24

6.5 Ammonia (mg/L)

There is no Compliance Limit or Objective for this parameter.

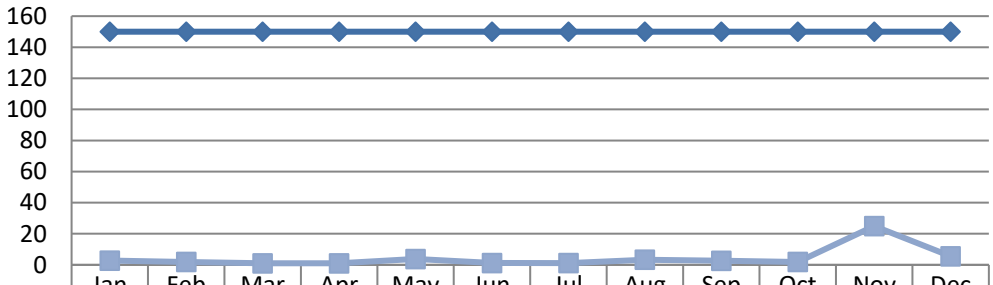


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Ammonia	1.1	1.5	1.4	1.9	3.3	3.5	2.9	0.7	0.4	12.2	13.3	5.0

6.6 E-coli

There is no Compliance Limit for this parameter and the Objective for this parameter was met in 2024.

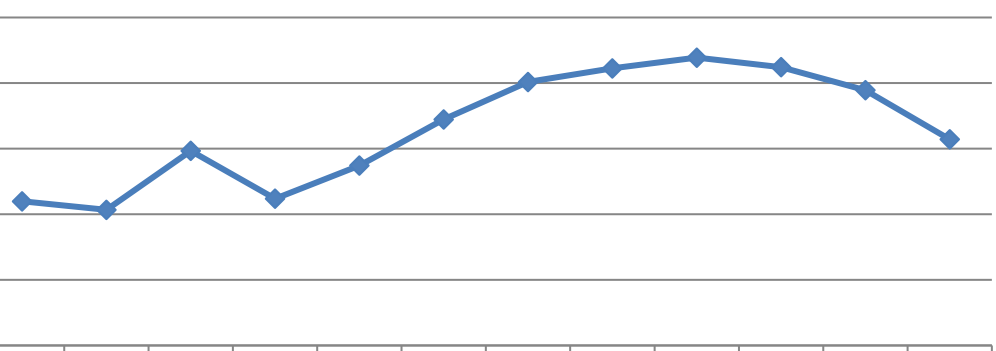
6.6.1 Geometric Mean (cfu/100mL)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA objective	150	150	150	150	150	150	150	150	150	150	150	150
Geometric Mean	3	2	1	1	4	1	1	3	3	2	25	6

6.7 Temperature

There are no compliance limits or objectives defined for Effluent.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average	11.0	10.3	14.8	11.2	13.7	17.2	20.1	21.1	21.9	21.2	19.5	15.7

7 Operating Issues

Upon review of the process, it was determined that elevated sample results were attributed to equipment failure caused by a lightning storm. During the period of repairs and replacement, the facility operated with only one Sequencing Batch Reactor (SBR). Operational adjustments were implemented during this time to ensure continued treatment.

7.1 Effluent Quality Non-Compliance Summary

Date	Exceedance of	Limit	Value	Corrective Action
October 09, 2024	Ammonia	15	18.8	Aeration adjustments and repairs.
October 16, 2024	Ammonia	15	24	Aeration adjustments and repairs.
October 30, 2024	Ammonia	15	19.4	Aeration adjustments and repairs.
November 6, 2024	Ammonia	15	19.2	Aeration adjustments and repairs.

7.2 Summary of Abnormal Sewage Discharge Events

Abnormal Discharge Events include Bypass', Overflows, Diversions and Spills of Sewage. Summary Details are included in Appendix B.

7.3 Spills (Other than Sewage)

Date	Location	Details	Volume (m3)	Start Date and Time	End Date and Time
No spills to report in 2024.					

8 Maintenance

Unplanned maintenance is conducted as required.

8.1 Normal Maintenance and Repairs

Maintenance/Repair
January 19, 2024 – Replace emergency lighting and exit signs. February 08, 2024 – Installed new solenoids for water scouring system. February 21, 2024 – Installed new hot water tank and do annual backflow preventer testing. March 15, 2024 – Installed LED lights throughout plant. April 25, 2024 – Changed blower oil and belts. June 05, 2024- Reprogram gas monitor system and replaced a faulty sensor. July 02, 2024 – Installed new batteries for generator. July 11, 2024 –Troubleshooting issue with foam cutter #2, burnt terminal found. August 06, 2024 – Hach on site for pH, chlorine, spectrophotometer and DO calibrations August 07, 2024 - Changed out blower filters. August 19, 2024 – Maintenance working on polymer pump system plumbing. August 20, 2024 – Replaced polymer pump head, suction and discharge valves. September 09, 2024 – Replaced alum pump head. September 16, 2024 – Received 12 new UV racks with lamps and sleeves. September 20, 2024 – Enbridge gas on site at post road pumping station to replace gas meter. November 12, 2024 – Flow meter/level sensor calibrations. November 14, 2024 –Installed a new bracket with rails for EAST SBR waste pump. December 16, 2024 –All air diffusers in EAST SBR were been replaced.

8.2 Emergency Maintenance and Repairs

Maintenance/Repair	Details
	May 14, 2024 – Pump 1 at Mille Roches Pumping Station Troubleshooting and pump repairs. October 06, 2024 – EAST SBR Variable Frequency Drive (VFD) for decanter failed from power outage and needs replacement. October 11, 2024 – Installed new VFD for EAST SBR decanter. October 18, 2024 – Installed new VFD and motor for EAST SBR decanter. October 23, 2024 – EAST SBR waste pump failed. New pump ordered. SBR drained for repairs/maintenance. November 14, 2024 - Faulty effluent pump #1 Pulled and spare pump installed. Effluent pump #1 sent for repairs. December 12, 2024 – Installed rental Generator transfer switch. December 20, 2024 - Repaired generator transfer switch and disconnect rental unit.

8.3 Flow Meter Calibrations and Maintenance

Location	Date of Calibration	Additional Maintenance
FIT-01 Sewage Influent	November 12, 2024	None.
FIT-02 Sewage Influent	November 12, 2024	None.
LIT Thickened WAS Tank	November 12, 2024	None.
LIT WAS Tank	November 12, 2024	None.

8.4 Authorized Alterations in Collection System

Alteration	Details	Significant Drinking Water Threat (Y/N)
No alterations to the collection system in 2024.		

8.5 Notice of Modifications

Date	Process	Modification	Status
No modifications to the collection system in 2024.			

9 Sludge Generation

9.1 Sludge Disposal Summary

Date	Disposal Location	NASM Number	Total Volume (m3)
May 02, 2024	Nine Mile Tank (ECA #710174)	NASM 24127	360
May 03, 2024	Nine Mile Tank (ECA #710174)	NASM 24127	280
May 06, 2024	Nine Mile Tank (ECA #710174)	NASM 24127	80
May 08, 2024	Nine Mile Tank (ECA #710174)	NASM 24127	25
May 09, 2024	Nine Mile Tank (ECA #710174)	NASM 24127	40
October 03, 2024	Nine Mile Tank (ECA #710174)	NASM 24908	160
October 04, 2024	Nine Mile Tank (ECA #710174)	NASM 24908	160
October 07, 2024	Nine Mile Tank (ECA #710174)	NASM 24908	200

In 2024, a total of 1305 m^3 of liquid sludge was removed from Long Sault's WWTP and was utilized as soil conditioner. The sludge was removed from the WWTP by GFL in May and October. It is anticipated that approximately the same volume of sludge will be generated in 2025.

10 Summary of Complaints

Location	Date	Nature of Complaint	Actions Taken
Bethune Ave	11/20/24	Drain in basement gurgling	Investigated by Township.
Adam Dixon Ave	11/12/24	Sewer backup	Investigated by Township.
Cornwall Center Rd	09/04/24	Odour	Investigated by Township.
Adam Dixon Ave	06/24/24	Sewer backup	Investigated by Township.

Appendix A

Appendix A – Performance Assessment Report

TOWNSHIP OF SOUTH STORMONT
Long Sault Wastewater Treatment Plant

Municipality: Long Sault
Year: 2024
Receiving Water: Lake St. Lawrence, St.Lawrence River
Design Capacity: 2,700 m^3/day (average) - 11,500 m^3/day (peak)
Description: Sequential Batch Reactor with Autoheated Thermophilic Aerobic Digestion

MONTH	FLOWS			CBOD				SUSPENDED SOLIDS				PHOSPHORUS				NH3+NH4			
	TOTAL FLOWS	AVG DAY FLOWS	MAX DAY FLOWS	AVG RAW	AVG EFF	AVG LOADING	PERCENT REMOVAL	AVG RAW	AVG EFF	AVG LOADING	PERCENT REMOVAL	AVG RAW	AVG EFF	AVG LOADING	PERCENT REMOVAL	AVG RAW	AVG EFF	AVG LOADING	PERCENT REMOVAL
	m^3	m^3	m^3	(mg/L)	(mg/L)	(kg/d)	%	(mg/L)	(mg/L)	(kg/d)	%	(mg/L)	(mg/L)	(kg/d)	%	(mg/L)	(mg/L)	(kg/d)	%
JAN	68,007	2,194	5,450	64	1.50	3.29	97.7%	139	5.32	11.67	96.2%	3.05	0.33	0.72	89.3%	13.22	1.07	2.35	91.9%
FEB	57,248	1,974	3,478	43	1.45	2.86	96.6%	106	4.79	9.46	95.5%	2.11	0.28	0.55	86.8%	11.04	1.54	3.05	86.0%
MAR	69,378	2,238	4,514	39	1.50	3.36	96.2%	98	5.46	12.22	94.4%	1.85	0.24	0.54	87.0%	8.87	1.42	3.18	84.0%
APR	84,471	2,816	5,101	83	1.50	4.22	98.2%	256	5.50	15.49	97.8%	2.65	0.32	0.90	88.0%	9.84	1.86	5.23	81.1%
MAY	47,842	1,543	2,435	124	2.10	3.24	98.3%	339	5.69	8.79	98.3%	3.93	0.54	0.84	86.2%	12.83	3.25	5.02	74.6%
JUN	49,016	1,634	3,843	98	1.50	2.45	98.5%	260	6.00	9.80	97.7%	4.65	0.55	0.89	88.2%	14.95	3.48	5.69	76.7%
JUL	45,609	1,471	3,332	112	1.50	2.21	98.7%	285	9.40	13.83	96.7%	3.96	0.78	1.15	80.3%	16.44	2.90	4.27	82.3%
AUG	75,819	2,446	7,978	48	5.75	14.06	88.0%	117	7.63	18.65	93.5%	2.10	0.70	1.71	66.7%	10.34	0.67	1.63	93.5%
SEP	38,132	1,271	2,273	109	2.25	2.86	97.9%	269	7.72	9.81	97.1%	3.26	0.39	0.50	88.0%	16.90	0.42	0.53	97.5%
OCT	28,738	927	1,087	132	3.75	3.48	97.2%	542	7.28	6.75	98.7%	4.20	0.68	0.63	83.9%	24.53	12.21	11.32	50.2%
NOV	27,505	917	1,272	120	6.25	5.73	94.8%	411	21.75	19.94	94.7%	4.96	0.50	0.46	89.9%	23.10	13.26	12.16	42.6%
DEC	49,288	1,590	3,149	95	2.80	4.45	97.0%	378	4.40	7.00	98.8%	3.91	0.24	0.38	93.9%	11.47	4.99	7.94	56.5%
TOTAL	641,053																		
AVERAGE		1,752		89	2.65	4.35	96.6%	267	7.58	11.95	96.6%	3.39	0.46	0.77	85.7%	14.46	3.92	5.20	76.4%
MAXIMUM			7,978																
CRITERIA					*25				*25				1.00				**15		

Note: Half the value is shown for values reported by the Laboratory as Less than (<)
* criteria for any 12 consecutive calender month rolling average
** daily criteria on sample days

TOWNSHIP OF SOUTH STORMONT
Long Sault Wastewater Treatment Plant

Long Sault
Year: 2024
Receiving Water: Lake St. Lawrence, St.Lawrence River
Design Capacity: 2,700 m^3/day (average) - 11,500 m^3/day (peak)
Sequential Batch Reactor with Autoheated Thermophilic Aerobic Digestion

DRP		TKN		NO_2		NO_3		ALKALINITY		TC	FC/E.COLI	FS	pH		Temp.
AVG RAW	AVG EFF	AVG RAW	AVG EFF	AVG RAW	AVG EFF	AVG RAW	AVG EFF	AVG RAW	AVG EFF	Geometric Mean	Geometric Mean	Geometric Mean	AVG RAW	AVG EFF	AVG EFF
(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Cnts/100 ml	Cnts/100 ml	Cnts/100 ml			°C
0.99	0.14	20.50	2.22	0.18	0.19	0.50	1.67	290	228	14	3	3	7.71	7.04	11.0
0.63	0.13	17.30	2.50	0.13	0.05	0.47	1.36	292	248	10	2	2	7.83	6.95	10.3
0.55	0.09	17.50	2.23	0.10	0.06	0.27	1.51	284	247	5	1	1	7.70	6.96	14.8
1.01	0.14	17.33	3.13	0.07	0.10	0.09	1.50	285	250	6	1	1	7.71	7.08	11.2
1.57	0.23	26.90	4.46	0.03	0.09	0.03	1.09	287	238	40	4	1	7.50	7.29	13.7
0.97	0.37	23.35	4.93	0.03	0.09	0.03	0.96	286	240	18	1	2	7.54	7.02	17.2
1.45	0.49	27.22	4.46	0.03	0.26	0.03	1.06	286	233	8	1	1	7.34	6.99	20.1
0.58	0.53	15.83	2.70	0.03	0.10	0.04	1.02	309	264	40	3	3	7.70	6.95	21.1
1.26	0.29	25.73	1.48	0.03	1.70	0.03	1.56	283	242	45	3	1	6.94	#DIV/0!	21.9
1.82	0.55	35.18	13.28	0.04	1.05	0.03	0.18	276	218	31	2	2	7.61	6.72	21.2
2.40	3.15	36.75	13.63	0.03	0.12	0.09	0.08	269	226	648	25	2	7.47	6.88	19.5
1.65	0.07	26.26	6.38	0.04	0.51	0.15	0.69	250	218	81	6	5	7.42	6.96	15.7
1.24	**0.51**	**24.15**	**5.11**	**0.06**	**0.36**	**0.15**	**1.06**	**283**	**238**	**79**	**4**	**2**	**7.54**	**#DIV/0!**	**16.5**
											200				

Note: Half the value is shown for values reported by the Laboratory as Less than (<)

Appendix B

Appendix B - Details of Abnormal Sewage Discharge Events

Event Details Summary

Facility Bypass

Date	Location	Details	Volume (m3)	Start Time	End Time	Duration (h)	Discharge Receiver	Disinfection Provided
No facility bypass' to report in 2024.								

Facility Overflow

Date	Location	Details	Volume (m3)	Start Time	End Time	Duration (h)	Discharge Receiver	Disinfection Provided
No facility overflows to report in 2024.								

Collection Overflow

There are no authorized overflow locations in this system.

Spills of Sewage

Date	Location	Details	Volume (m3)	Start Time	End Time	Duration (h)	Discharge Receiver	Disinfection Provided
No spills of sewage to report in 2024.								

Appendix C

Appendix D - ECA Annual Report Requirements

Facility ECA # 2147-734L2K **Section 12(6)**	**Section in Report**
a) a summary and interpretation of all monitoring data and comparison to the effluent limits outlined in Condition 7, including an overview of success and adequacy	Treatment Flows, Raw Sewage and Effluent Quality
b) a description of any operating problems encountered and corrective actions taken	Operating Issues and Problems
c) summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works	Maintenance
d) summary of any effluent quality assurance or control measures undertaken in the reporting period	Effluent Quality
e) summary of the calibration and maintenance carried out on all effluent monitoring equipment	Maintenance
f) description of efforts made and results achieved in meeting the Effluent Objectives of Condition 6	Effluent Quality
g) tabulation of the quantity of septage added to the Works for co-treatment during the reporting period	Treatment Flows
h) summary of chemical characterization data for samples of septage collected in accordance with Table 4 in Condition 11 during the reporting period	Raw Sewage Quality
i) tabulation of the volume of sludge generated in the reporting period, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed	Sludge Generation
j) tabulation of the quantity of groundwater pumped from the WWTP Building foundation drainage system to the storm sewer system	Groundwater Pumping Volumes
k) summary of any complaints received during the reporting period and any steps taken to address the complaints	Summary of Complaints
l) summary of all By-pass, overflow, spill or abnormal discharge events	Operating Issues and Problems
m) any other information the District Manager requires from time to time	N/A

Collection ECA # 165-W601 **Schedule E**	**Section in Report**
4.6.3 If applicable, includes a summary of all required monitoring data along with an interpretation of the data and any conclusion drawn from the data evaluation about the need for future modifications to the Authorized System or system operations.	Operating Issues and Problems
4.6.4 Includes a summary of any operating problems encountered and corrective actions taken.	Operating Issues and Problems
4.6.5 Includes a summary of all calibration, maintenance, and repairs carried out on any major structure, Equipment, apparatus, mechanism, or thing forming part of the Municipal Sewage Collection System.	Maintenance
4.6.6 Includes a summary of any complaints related to the Sewage Works received during the reporting period and any steps taken to address the complaints.	Summary of Complaints
4.6.7 Includes a summary of all Alterations to the Authorized System within the reporting period that are authorized by this Approval including a list of Alterations that pose a Significant Drinking Water Threat.	Maintenance

Collection ECA # 165-W601 **Schedule E**	**Section in Report**
4.6.8 Includes a summary of all Collection System Overflow(s) and Spill(s) of Sewage, including: a) Dates; b) Volumes and durations; c) If applicable, loadings for total suspended solids, BOD, total phosphorus, and total Kjeldahl nitrogen, and sampling results for E.coli; d) Disinfection, if any; and e) Any adverse impact(s) and any corrective actions, if applicable.	Operating Issues and Problems Appendix D
4.6.9 Includes a summary of efforts made to reduce Collection System Overflows, Spills, STP Overflows, and/or STP Bypasses, including the following items, as applicable: a) A description of projects undertaken and completed in the Authorized System that result in overall overflow reduction or elimination including expenditures and proposed projects to eliminate overflows with estimated budget forecast for the year following that for which the report is submitted. b) Details of the establishment and maintenance of a PPCP, including a summary of project progresses compared to the PPCP's timelines. c) An assessment of the effectiveness of each action taken. d) An assessment of the ability to meet Procedure F-5-1 or Procedure F-5-5 objectives (as applicable) and if able to meet the objectives, an overview of next steps and estimated timelines to meet the objectives. e) Public reporting approach including proactive efforts.	Maintenance Operating Issues and Problems