Smooth Rock Falls

Sewage Treatment Plant

Sewage Collection System

Annual Performance Report

Prepared by Ontario Clean Water Agency, Northeastern Ontario Hub
January 1 to December 31, 2025

Table of Contents

ANNUAL SEWAGE PERFORMANCE REPORT 3
Facility Description 3
1.0 Monitoring Data 4
2.0 Interpretation of Monitoring and Analytical Data 11
3.0 Operating Problems and Corrective Actions 13
4.0 Maintenance Procedures Performed on the Works 16
5.0 Effluent Quality Assurance and Control Measures Undertaken 16
6.0 Calibration and Maintenance of all Monitoring Equipment 17
7.0 Efforts Made to Meet Effluent Objectives 17
8.0 Volume of Sludge Generated 18
9.0 Complaints 18
10.0 Bypass, Overflow, and Upset Events 18
11.0 CLI-ECA Additional Data 23
APPENDIX A: MONTHLY PROCESS DATA – INFLUENT 24
APPENDIX B: MONTHLY PROCESS DATA – EFFLUENT 24
APPENDIX C: LOADING CALCULATIONS 27
APPENDIX D: SLUDGE DATA 27
APPENDIX E: PLANT BYPASS DATA 30
APPENDIX F: CLI-ECA REPORTING SECTIONS 32

ANNUAL SEWAGE PERFORMANCE REPORT

Sewage System Name	Smooth Rock Falls Sewage Treatment Plant
Sewage System Address	294 Fifth Street, Smooth Rock Falls, Ontario
Sewage System Owner	Corporation of the Town of Smooth Rock Falls
Sewage System Number	110002130
Environmental Compliance Approval No	8745-68TKCW, issued December 18, 2009
Sewage Collection System (CLI-ECA)	217-W601, issued November 10, 2022
Reporting Period	January 1 to December 31, 2025

FACILITY DESCRIPTION

Capacity of Works	3,274 m^3/day
Service Area	Town of Smooth Rock Falls
Service Population	1,200
Effluent Receiver	Un-named creek that flows to the Mattagami River
Major Process	Dual Celled Extended Aeration System

The Smooth Rock Falls sewage treatment plant, located in the Township of Kendrey, has a rated capacity of 3,274 m^3 per day, and a peak flow of 6,000 m^3 per day.

The Smooth Rock Falls sewage treatment system consists of a gravity fed collection system (no lift stations) and a twin-cell extended aeration mechanical sewage, which discharges to an unnamed creek, which leads to the Mattagami River.

The plant has a bypass valve mechanism, inlet primary bar screen, three (3) dry well pumps, an open channel secondary bar screen, and a flow splitter box that equally divides the sewage flow to the two parallel treatment trains. Both treatment trains consist of aeration, clarification, disinfection, return activated-sludge air lift systems, waste activated-sludge air lift transfer systems and cell 1 – single stage and cell 2 has a two stage aerobic sludge digester.

Two dechlorination systems are located at the effluent outfall, each equipped with sodium bisulphate feed metering pumps and a separate chemical feed line. These systems are equipped with Oxygen Reduction Potential (ORP) sensors.

A loading system is in place to allow the removal of sludge, which is disposed of at approved waste disposal sites and is transported to that site by means of a certified haulage truck.

The system is equipped with a 150 kilowatt diesel engine generator and a 570 liter fuel storage tank which provides emergency power during power failures.

Flow meters are in place to measure effluent and bypass flows. Bypasses that occur are chlorinated, tested, monitored and reported to the Spills Action Center (SAC) and Environment Canada as well as a courtesy call to the Ministry of Health.

1.0 MONITORING DATA

1.1 Monitoring Program as Outlined in the Certificate of Approval

$cBOD_5$ = Five-day carbonaceous biochemical oxygen demand measured in an unfiltered sample
DOP = Dissolved Ortho-Phosphorus
$(NH_3^- + NH_4)$ N = Nitrogen as Ammonium and Ammonia
TKN = Total Kjeldahl Nitrogen
TP = Total Phosphorus
TRC = Total Residual Chlorine
TSS = Total Suspended Solids
< = Value contains results that were less than detectable

Raw Sewage (Influent)

Parameter	**Type of Sample**	**Minimum Frequency**
Alkalinity	composite	monthly
$cBOD_5$	composite	monthly
TKN	composite	monthly
Total Phosphorous	composite	monthly
Total Suspended Solids	composite	monthly

Note: here a composite sample is defined as 3 grab samples taken at least 2 hours apart over an 8 hour period.

Final Effluent

Parameter	**Type of Sample**	**Minimum Frequency**
Alkalinity	24 hour composite	weekly
$cBOD_5$	24 hour composite	weekly
Dissolved Ortho-Phosphorous	24 hour composite	weekly
Total Ammonia Nitrogen	24 hour composite	weekly
Total Phosphorous	24 hour composite	weekly
Total Suspended Solids	24 hour composite	weekly
E. coli	grab	weekly
pH	grab	weekly
Temperature	grab	weekly
Un-ionized (free) Ammonia	calculation	weekly
Total Residual Chlorine	grab	daily

1.2 Data

The following tables summarize the monitoring and sampling analyses conducted at the facility in 2025.

1.2.1 Flow

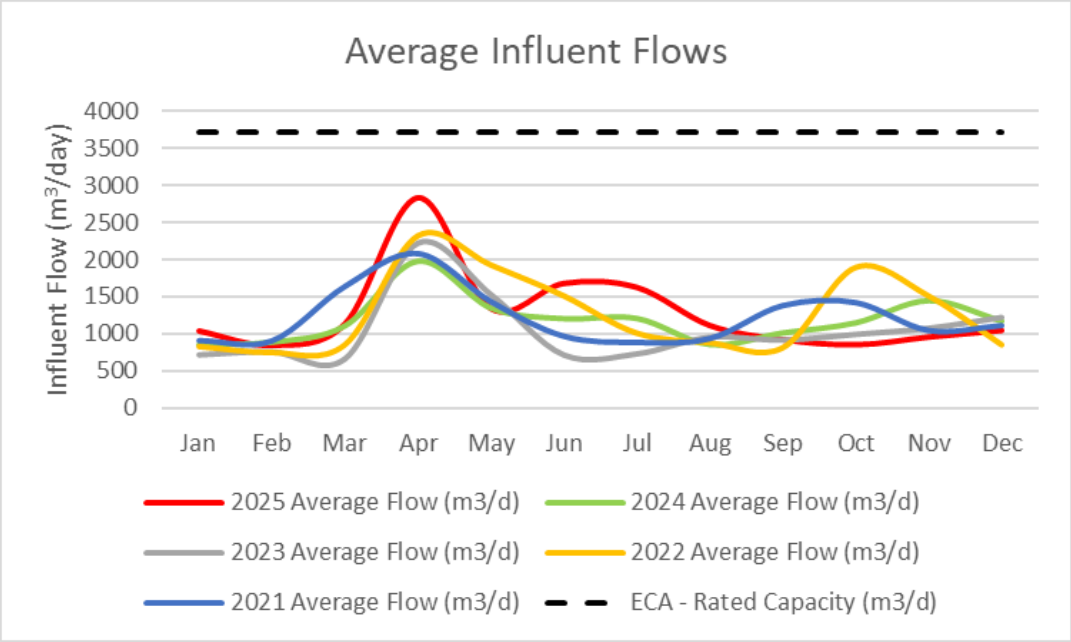
Month	Maximum Flow (m^3/day)	Average Flow (m^3/day)	Total Volume (m^3)
January	1,455	1,033	32,031
February	947	839	23,499
March	3,693	1,131	35,066
April	5,393	2,840	85,194
May	2,837	1,338	41,479
June	3,277	1,679	50,364
July	2,782	1,625	50,365
August	1,536	1,108	34,344
September	1,197	915	27,463
October	1,220	846	26,237
November	1,343	951	28,520
December	1,257	1,041	32,256
Annual Statistics	5,393	1,279	466,819

1.2.2 Summary of Influent Flow

Annual	Flow (m^3/day)	Rated Capacity (m^3/day)	% Capacity	Exceedance
Average	1,279	3,274	39.1	No
Peak	5,393	6,000	89.9	No

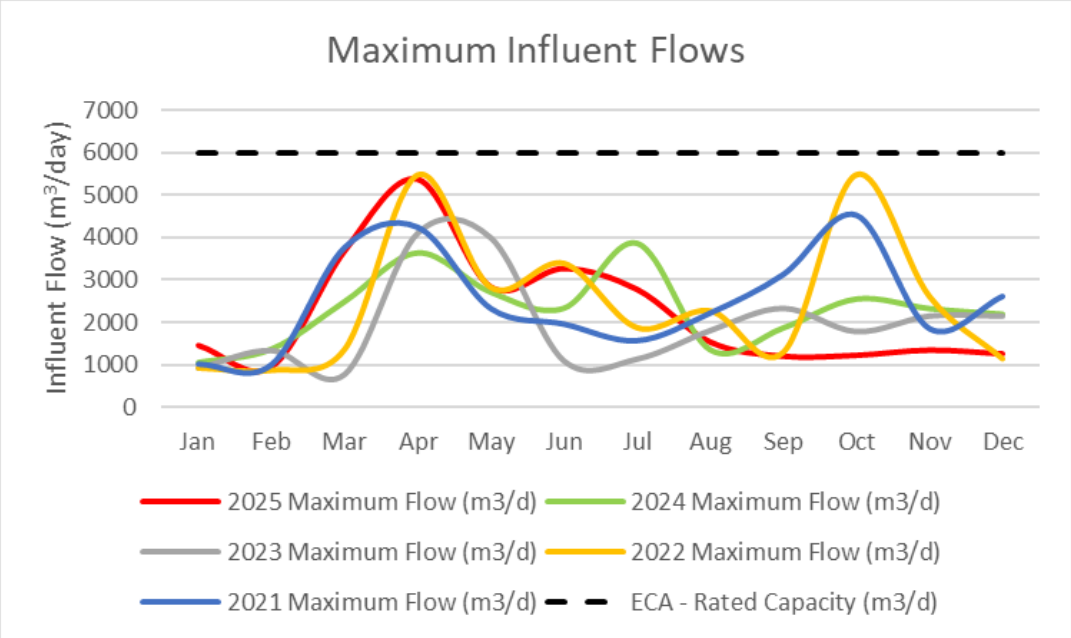
1.2.3 Historical Average Influent Flow

	Jan	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*
2025	1033	839	1131	2840	1338	1679	1625	1108	915	846	951	1041
2024	857	892	1111	1982	1351	1208	1211	860	1016	1152	1451	1176
2023	717	758	663	2226	1532	715	731	955	917	994	1077	1224
2022	836	755	861	2322	1928	1515	1014	887	820	1897	1512	858
2021	909	906	1645	2091	1438	967	884	937	1384	1424	1045	1113



1.2.4 Historical Maximum Influent Flow

	Jan	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*
2025	1455	947	3693	5393	2837	3277	2782	1536	1197	1220	1343	1257
2024	1061	1373	2490	3632	2708	2334	3859	1357	1871	2550	2324	2195
2023	904	1321	756	4090	3980	1076	1119	1791	2317	1769	2136	2134
2022	915	863	1360	5495	2827	3397	1873	2270	1287	5499	2611	1134
2021	1001	988	3761	4240	2314	1948	1554	2208	3122	4526	1838	2603



1.2.5 Raw Sewage (Influent)

Parameter (mg//L)	Annual Average	Annual Maximum
Alkalinity	184	274
$cBOD_5$	60.9	200
TKN	15.8	33.9
Total Phosphorous	1.71	4.44
Total Suspended Solids	240	810

Refer to Appendix A: Monthly Process Data – Influent for a summary of monthly results

1.2.6 Effluent

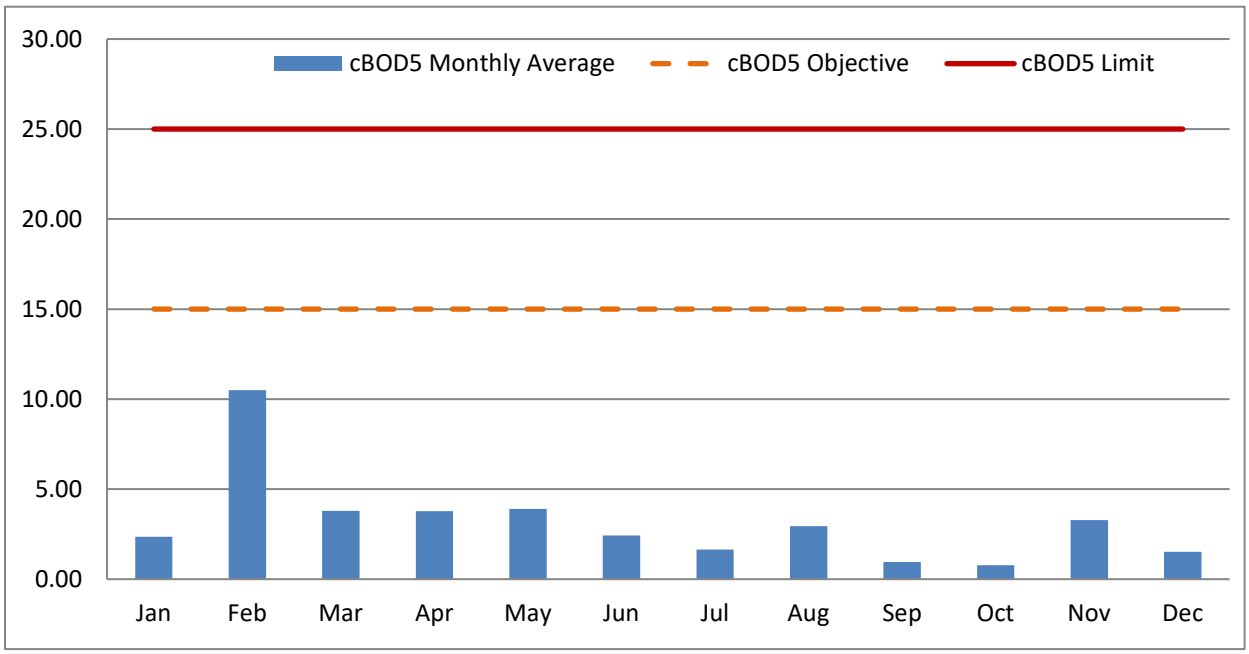


Figure 1: The 2025 monthly averages for $cBOD_5$ plotted with the objective and reportable limits specified in the ECA

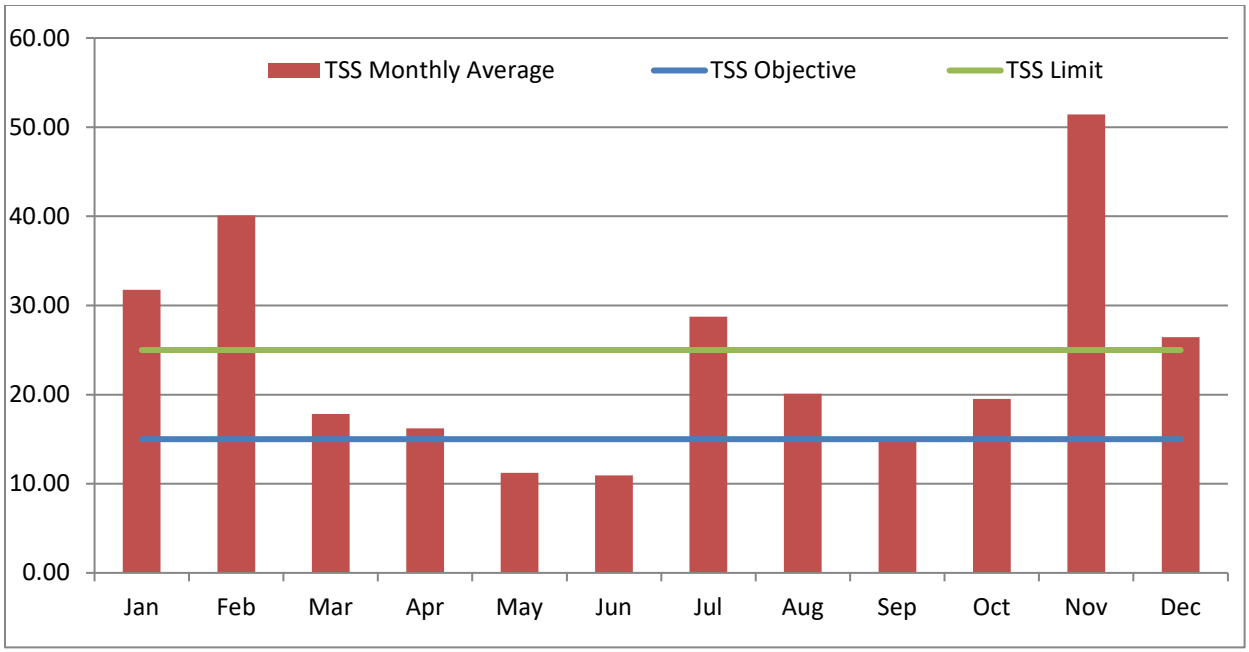


Figure 2: The 2025 monthly averages for TSS plotted with the objective and reportable limits specified in the ECA

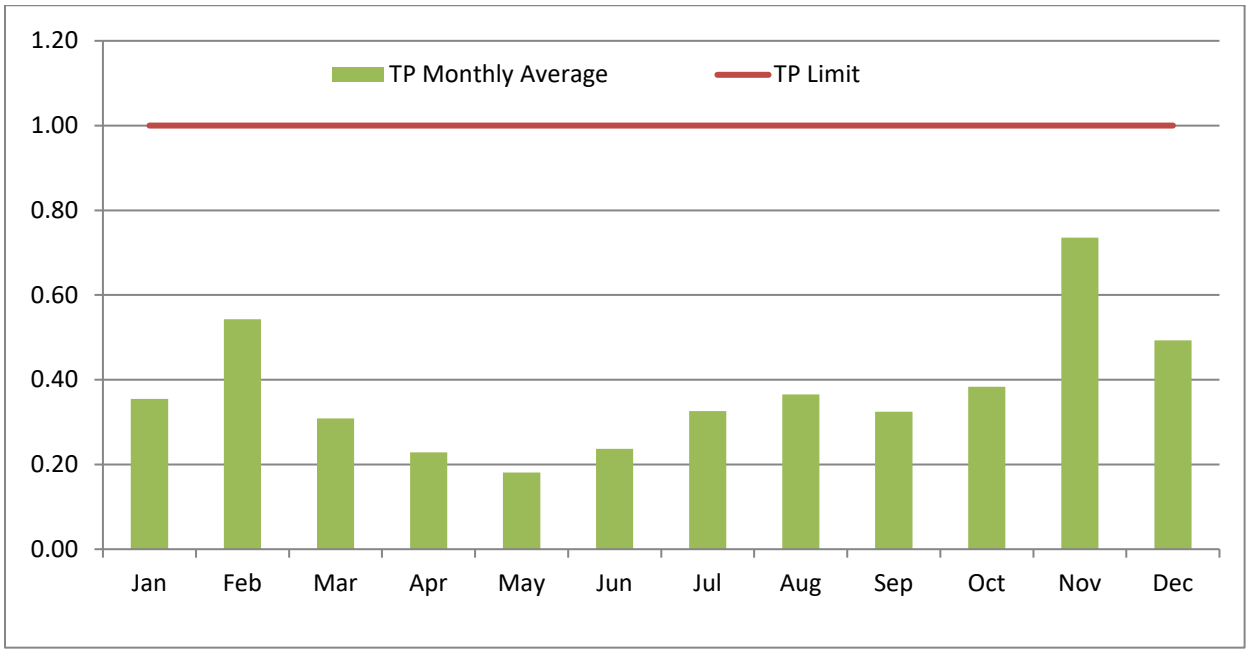


Figure 3: The 2025 monthly averages for Total Phosphorous (TP) plotted with the reportable limit specified in the ECA

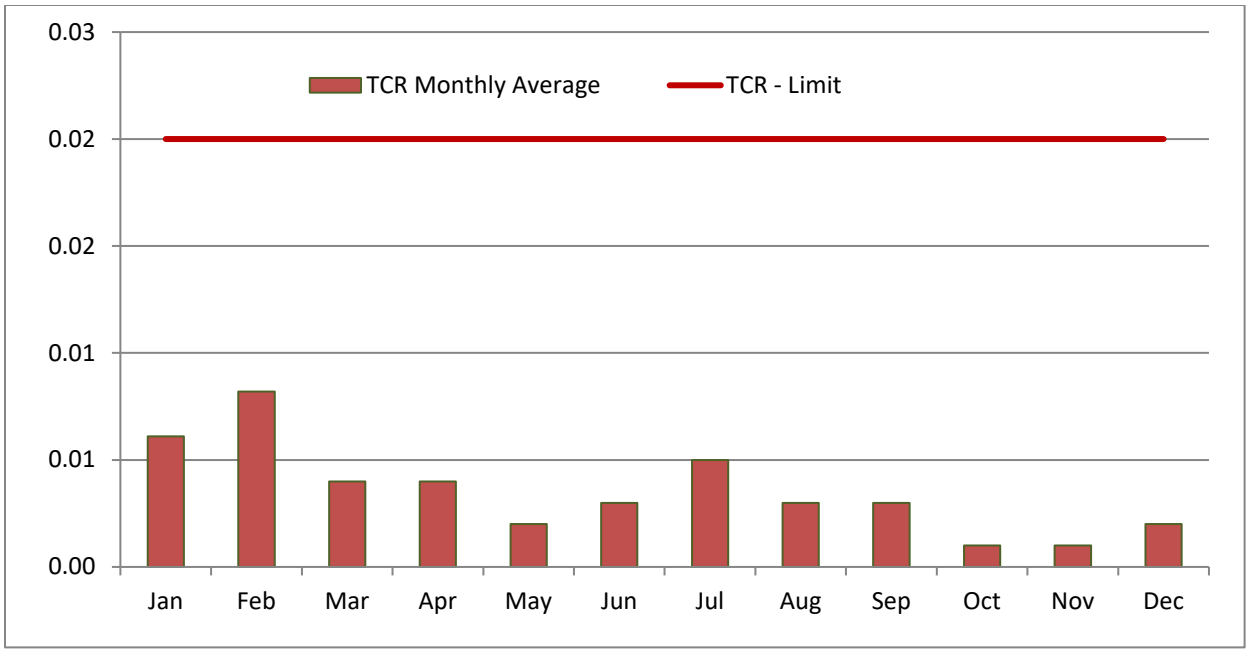


Figure 4: The 2025 monthly averages for Total Chlorine Residual (TCR) plotted with the reportable limit specified in the ECA

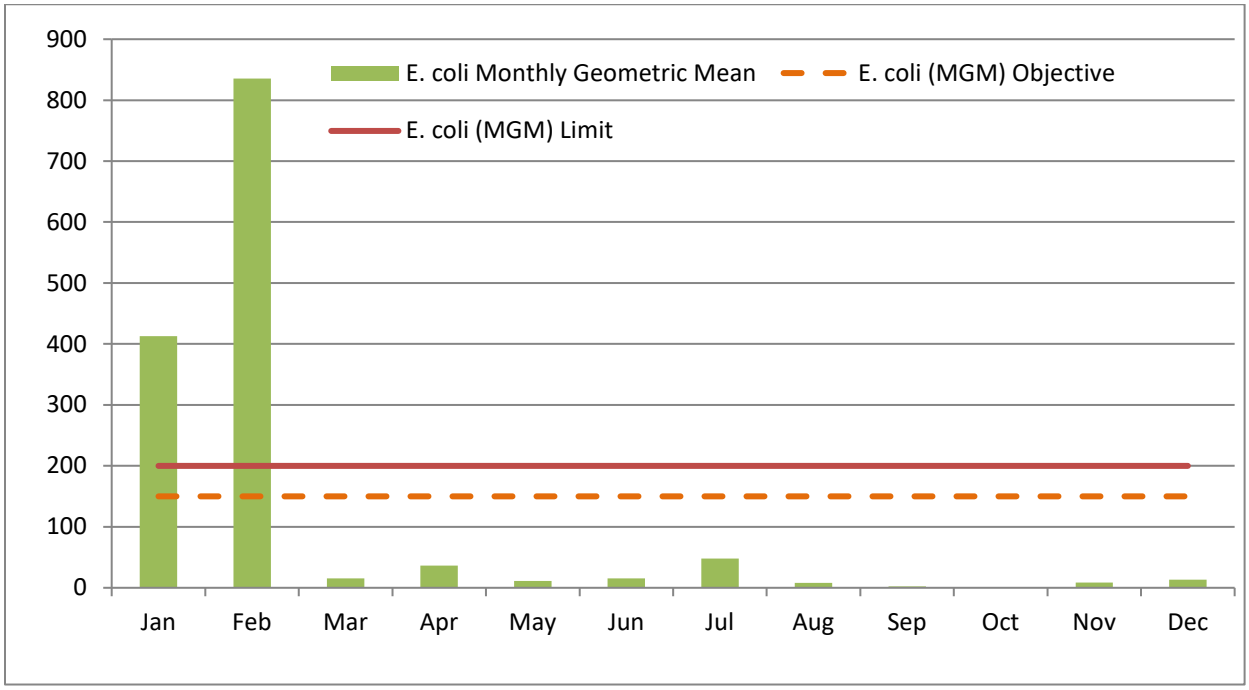


Figure 5: The 2025 monthly geometric mean for *E. coli* plotted with the objective and reportable limits specified in the ECA

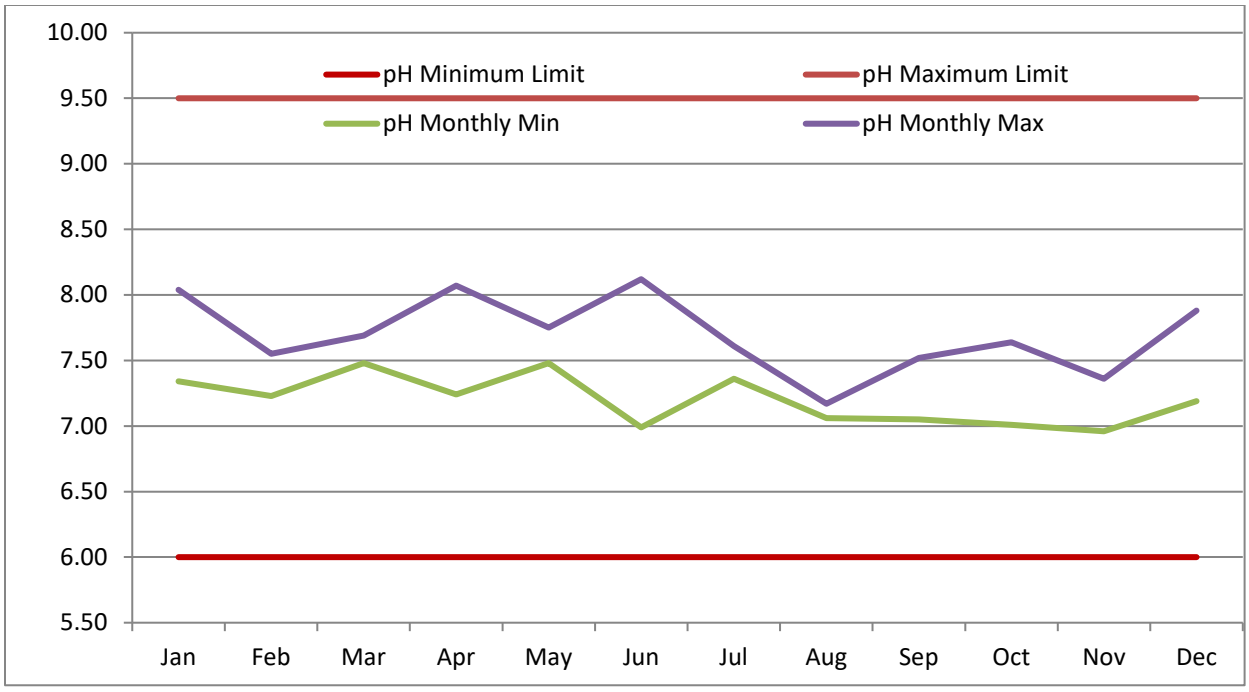


Figure 6: The 2025 monthly minimum and maximum pH values plotted with the reportable limits specified in the ECA

Parameter (mg/L)	**Range of Result**
Alkalinity	42 – 286
Temperature (°C)	2.6 – 21.4
Total Ammonia Nitrogen	<0.01 – 12.0
Un-ionized Ammonia	0.00 – 0.05
Dissolved Ortho-Phosphorous	<0.005 – 0.183

Refer to Appendix B: Monthly Process Data – Effluent for a summary of monthly results

1.2.7 Effluent – Monthly Average Loadings

Parameter (kg/day)	**Highest Monthly Average**	**Compliance Limit**
$cBOD_5$	10.7	82 (monthly average)
Total Suspended Solids	48.9	82 (monthly average)
Total Phosphorous	0.70	3.3 (monthly average)

Refer to Appendix C: Loading Calculations for a monthly summary

1.3 Sewage Treatment Program Success and Adequacy

The Performance Summary details results and efficiency of the wastewater treatment plant performance demonstrating pollutant removal rates from raw sewage concentrations through to final effluent for $cBOD_5$, suspended solids and total phosphorus.

1.3.1 Performance Summary

Parameter	Influent	Effluent	% Removal
Total Phosphorous	1.71	0.373	78.2
$cBOD_5$	60.9	3.16	94.8
Total Suspended Solids	240	24.1	90.0

Note: calculations are based on annual average values

2.0 Interpretation of Monitoring and Analytical Data

The Smooth Rock Falls Sewage Treatment Plant operated well within its required capacity and produced quality treated wastewater that met most of the limits specified in Condition 7 of the facility's Environmental Compliance Approval (ECA), with the exceptions of total suspended solids and occasionally *E.coli.*

Table *1.2.1 Influent Flow Data* summarizes the flow data for 2025. The average and maximum daily flows are presented for each month. Compliance is achieved when the average for the year does not exceed 3,274 m^3/day. The average daily flow for 2025 was 1,279 m^3/day, which represents 39.1% of the design capacity. The maximum annual daily flow occurred in April with a peak flow of 5,393 m^3/day, which represents 89.9% of the peak capacity.

The effluent quality is based on the carbonaceous biochemical oxygen demand, total suspended solids, total phosphorus and pH levels. The highest monthly averages or ranges for all parameters are listed in table *1.2.6 Effluent.*

The carbonaceous biochemical oxygen demand ($cBOD_5$) is a five-day test which represents the oxygen demand from organic compounds and the oxidation of inorganic compounds such as ferrous iron and sulphide. High $cBOD_5$ in effluent indicates that a large quantity of oxygen was needed to break down the organic and inorganic matter in the effluent indicating inadequate treatment. In 2025, the average $cBOD_5$ complied with the allowable limit of 25 mg/L and 82 kg/day. The objective of 15 mg/L was exceeded once on February 3 (30 mg/L).

Total suspended solids (TSS) in effluent are composed of settleable solids and nonsettleable solids depending on the size, shape and weight of the solid particles. Settable solids are large sized particles that tend to settle more rapidly in a given period of time. In 2025, the average TSS exceeded the monthly limit of 25 mg/L in January (31.8 mg/L), February (40.1 mg/L), July (28.8 mg/L), November (51.4 mg/L), and December (26.4 mg/L). However, the loading limit was below of 82 kg/day at all times. The objective of 15 mg/L was exceeded on the following dates:

- January 7 (42.0 mg/L); January 13 (27.5 mg/L); January 20 (38.0 mg/L) ; January 28 (19.5 mg/L)
- February 3 (72.0 mg/L); February 10 (53.0 mg/L); February 24 (21.3 mg/L)
- March 3 (21.0 mg/L); March 10 (28.0 mg/L)
- April 1 (19.0 mg/L); April 14 (24.3 mg/L); April 28 (16.0 mg/L)
- May 26 (16.3 mg/L)
- June 30 (17.7 mg/L)
- July 7 (47.0 mg/L); July 21 (47.0 mg/L)
- August 5 (16.0 mg/L); August 18 (31.0 mg/L); August 25 (22.7 mg/L);
- September 1 (26.7 mg/L); September 22 (15.7 mg/L)
- October 13 (37.0 mg/L); October 27 (21.3 mg/L)
- November 3 (36.0 mg/L); November 10 (39.0 mg/L); November 17 (86.0 mg/L); November 24 (44.7 mg/L)
- December 2 (34.7 mg/L); December 8 (38.7 mg/L); December 15 (27.0 mg/L); and December 22 (19.3 mg/L)

Total phosphorus (TP) refers to the amount of phosphorus in a sample. Excess TP stimulates algae and weed growth that may cause fluctuations in dissolved oxygen in the receiving waters. In 2025, the average TP complied with the monthly limit of 1 mg/L and 3.3 kg/day. The objective of 1 mg/L was exceeded once on November 17 (1.1mg/L).

The pH of a solution is an indication of its acidic and basic properties and measured on a scale ranging between 0 and 14. Very high or very low pH levels can be corrosive to pipes, screening equipment and pumps, can damage biological processes and form undesirable toxic gases or heavy metals. In 2025 the effluent pH level stayed within the compliance range of 6.0 - 9.5 inclusive.

Total residual chlorine (TRC) is the remaining chlorine content after the chlorine has been in contact with the sewage for given amount of time, if the disinfectant used is chlorine. Wastewater disinfection is widely used to reduce pathogenic bacteria in effluents. In 2025 the monthly average effluent TRC concentrations complied with the monthly limit of 0.02 mg/L. The objective of $\leq$0.02 mg/L was exceeded in the following months:

- January (max 0.03 mg/L)
- February (max 0.03 mg/L)
- March (max 0.03 mg/L)
- July (max 0.08 mg/L)

Escherichia coli (*E. coli*) are common bacteria that live in human and animal intestines, where it is present in large numbers. There are hundreds of *E. coli* strains, and most are relatively harmless, however a notorious exception is *E. coli* strain 0157:H7, an emerging pathogen that produces a powerful toxin and can cause severe illness. *E. coli* is used as the most widely adopted indicator of faecal pollution in water and wastewater. The monthly geometric mean density of *E. coli* exceeded the limit of 200 colony forming units per one-hundred milliliters (cfu/100 mL) in January (413 cfu/100mL) and February (836 cfu/100mL). The objective of 150 cfu/100 mL was exceeded in the following months:

- January (max 24,000 cfu/100 mL)
- February (max 1,290,000 cfu/100 mL)
- June (max 308 cfu/100 mL)
- July (max 27,000 cfu/100 mL)
- December (max 14,000 cfu/100 mL)

3.0 Operating Problems and Corrective Actions

In order to minimize operating problems, preventative maintenance is performed to help in identifying issues before they occur.

The following non-compliances were reported:

January 2025	January monthly average for total suspended solids (TSS) results was 31.8 mg/L, which exceeded the ECA's monthly average limit of 25.0 mg/L. (SAC Ref #: 1- H2IE5R) The cold weather has made the water more dense which affects how the sludge settles in the clarifiers. During January there were some extreme cold events that caused freezing issues at the plant. Additionally, there was a blower failure for a few days that caused the aeration system to become ineffective. During this time, it was much harder for operations to manage the sludge levels throughout the plant. The blower was repaired and the aeration system was restored back to normal. Operations are chipping ice daily at the plant to mitigate the freezing issues.
January 2025	January monthly geometric mean for E.coli was 413 cfu/100mL, which exceeded the ECA's monthly geometric mean limit of 200 cfu/100mL. (SAC Ref #: 1- H2IE5R) There were some extreme cold events that occurred in January. These events caused freezing issues at the plant. Operations found the sodium hypochlorite lines frozen, and it was required to be thawed out multiple times. Operators thawed out the frozen line twice and installed a new heat trace to replace the older one that was tripping during the extreme cold.

February 2025	February monthly average for total suspended solids (TSS) results was 40.1 mg/L, which exceeded the ECA's monthly average limit of 25.0 mg/L. (SAC Ref #: 1- IB5U5O) The cold weather has made the water more dense which affects how the sludge settles in the clarifiers. During January there were some extreme cold events that caused freezing issues at the plant, and there was a blower failure for a few days that caused the aeration system to become ineffective. The result of these issues have lingered into February. It has become much harder for operations to manage the sludge levels throughout the plant. In addition, there was a flooding event at the plant that added to the issues. Currently the sludge return for Unit #2 is blocked/frozen and operations are working around this issue while trying to resolve it. Operations are chipping ice daily at the plant to mitigate the freezing issues. They have also found an alternate way to return the sludge for unit #2 until the pipe blockage can be removed.
February 2025	February monthly geometric mean for E.coli was 703 cfu/100mL, which exceeded the ECA's monthly geometric mean limit of 200 cfu/100mL. (SAC Ref #: 1- IB5U5O) The cold weather has made the water more dense which affects how the sludge settles in the clarifiers. During January there were some extreme cold events that caused freezing issues at the plant, and there was a blower failure for a few days that caused the aeration system to become ineffective. The result of these issues have lingered into February. It has become much harder for operations to manage the sludge levels throughout the plant. In addition, there was a flooding event at the plant that added to the issues. Currently the sludge return for Unit #2 is blocked/frozen and operations are working around this issue while trying to resolve it. Operations are chipping ice daily at the plant to mitigate the freezing issues. They have also found an alternate way to return the sludge for unit #2 until the pipe blockage can be removed. Operations monitor the hypo residuals daily and adjust pump dosage settings regularly to try and maintain adequate disinfection.
Q1 2025	The first quarter (Q1) average for total suspended solids (TSS) results was 29.9 mg/L, which exceeded the Federal Fisheries Act – Wastewater Systems Effluent Regulation (WSER) average limit of 25.0 mg/L. (SAC Ref #: 1- N6R4UA) The cold weather has made the water more dense which affects how the sludge settles in the clarifiers. During January there were some extreme cold events that caused freezing issues at the plant, and there was a blower failure for a few days that caused the aeration system to become ineffective. The result of these issues lingered into February. It has become much harder for operations to manage the sludge levels throughout the plant. In addition, there was a flooding event at the plant that added to the issues. Currently the sludge return for Unit #2 is still blocked/frozen and operations are working around this issue while trying to resolve it. Operations have chipped ice daily at the plant to mitigate the freezing issues. They also found an alternate way to return the sludge for Unit #2 until the pipe blockage can be removed. Results began to improve mid-February and have been maintained through March.

July 2025	July monthly average for total suspended solids (TSS) results was 28.8 mg/L, which exceeded the ECA's monthly average limit of 25.0 mg/L. (SAC Ref #: 1- PADTV3) On June 18 all flow was diverted into Clarifier #2 due to a breakdown of the rake drive system on Clarifier #1. Clarifier #1 supernatant and healthy sludge was being reseeded to the start of the process to help reduce the overall cost of draining Clarifier #1. The clarifier draining, in conjunction with rain events in July made it more difficult for operations to keep the process stable and resulted in two high concentrations which caused the monthly exceedance. Operations have stopped reseeding the supernatant and sludge from Clarifier #1 to reduce the demand and flow on Clarifier #2. Plans are being made on how to finish the draining process and complete the repairs to bring Clarifier #1 back online.
November 2025	November monthly average for total suspended solids (TSS) results was 51.4 mg/L, which exceeded the ECA's monthly average limit of 25.0 mg/L. (SAC Ref #: 1- PV5YMY) Operations were having issues thickening their sludge in the digester. After lowering the level in the digester, they found that the pipe connecting the digester to the clarifier had broken. The break caused sludge to flow into the clarifier when the digester was full, and the flow reversed when the level was lower in the digester. This issue prevented proper sludge management and increased the TSS in the clarifier effluent. A contractor was found to perform repairs using a boom truck and scaffolding. A confined space entry was completed and the pipe was repaired. Operations are now recovering the process and getting sludge levels and parameters back into the normal operating ranges.
December 2025	December monthly average for total suspended solids (TSS) results was 26.4 mg/L, which exceeded the ECA's monthly average limit of 25.0 mg/L. (SAC Ref #: 1- Q07MWC) There was a broken pipe connecting the digester to the clarifier that was causing sludge to flow into the clarifier when the digester was full, and the flow reversed when the level was lower in the digester. This issue prevented proper sludge management and increased the TSS in the clarifier effluent. A confined space entry was completed, and the pipe was repaired on November 25. Operations were then able to control the sludge levels properly and began recovering the process, however, it took a few weeks to get back to normal operating ranges.

Q4 2025	The fourth quarter (Q4) average for total suspended solids (TSS) results was 32.5 mg/L, which exceeded the Federal Fisheries Act – Wastewater Systems Effluent Regulation (WSER) average limit of 25.0 mg/L. (SAC Ref #: 1- Q092RJ) Operations were having issues thickening their sludge in the digester. After lowering the level in the digester, they found that the pipe connecting the digester to the clarifier had broken. The break caused sludge to flow into the clarifier when the digester was full, and the flow reversed when the level was lower in the digester. This issue prevented proper sludge management and increased the TSS in the clarifier effluent causing high TSS in November & the start of December. A contractor was found to perform repairs using a boom truck and scaffolding. A confined space entry was completed, and the pipe was repaired on November 25. Afterwards, operations began recovering the process and getting sludge levels and parameters back into the normal operating ranges.

4.0 Maintenance Procedures Performed on the Works

Routine maintenance is done as per OCWA's Work Management System program.

Capital expenses/maintenance include:

- Additional sludge hauling
- Chemical pumps and analyzer parts
- Lifting device inspection
- Annual generator maintenance
- Confined space equipment certification
- Blower #1 removal and troubleshooting
- Blower #2 repairs
- Blower filters and belts
- Emergency basement flooding repairs
- Variable frequency drives for all blowers
- Clarifier #2 air lift maintenance platform
- Clarifier #2 air lift pipe blockage repairs
- Clarifier #2 surface cleaning
- Clarifier #2 digester piping repairs
- Facility gate repairs
- New sludge transfer pump
- Sump pump and piping replacements
- Sump pump hatch replacement
- CLI-ECA – Annual document review
- ClariPhos coagulant trial

5.0 Effluent Quality Assurance and Control Measures Undertaken

Each operator has current and appropriate level of certification for the operation of the facility and possesses a high level of process knowledge and regulatory competence.

Samples are collected as required and analyzed by Testmark Laboratories located in Timmins, Ontario. Licensed operators conduct in-house tests for monitoring purposes using procedures as per Standard Methods of Water and Wastewater.

Any bypass or upset events that occur at the pumping stations or plant site are tested, monitored and reported to the Spills Action Center (SAC).

6.0 Calibration and Maintenance of all Monitoring Equipment

Plant maintenance, including non-scheduled maintenance, is monitored using the Hansen Preventative Maintenance software program. Monitoring equipment is calibrated based on the manufacturer's recommendations. All routine and preventative maintenance measures were conducted as scheduled in 2025.

All in-house monitoring equipment is calibrated based on the manufacture's recommendations. Refer to Table 6.1 for a summary of calibrations conducted in 2025.

6.1 Calibration Summary

Instrument	Date	% Accuracy
Effluent Flow Meter – Clarifier #1	Out of Service	N/A
Effluent Flow Meter – Clarifier #2	September 23, 2025	98.3
Portable chlorine analyzer	June 16, 2025	100
Portable pH Meter (Oakton)	June 16, 2025	98.6
Portable chlorine analyzer	December 11, 2025	100
Portable pH Meter (Oakton)	December 11, 2025	99.4

7.0 Efforts Made to Meet Effluent Objectives

The operational staff possess a high level of process knowledge and regulatory competence; however, the mechanical elements of the sewage treatment plant have begun to fail.

Clarifier #1 was taken out of service this year due to a complete failure of the rake drive system. The wastewater treatment facility is now operating on Clarifier #2 only. Clarifier #1 was drained prior to the winter, and repairs are being planned for 2026.

Clarifier #2 began to have issues with the airlift system and digester. An access platform was installed near the airlift which allowed the operations team to perform maintenance and clear blockages that had occurred within the piping system. Clarifier #2 also houses the sludge digester for the plant. Operations noted that they began to have issues with sludge management. After some troubleshooting, they found a pipe had broken inside the digester which allowed digester sludge and clarifier water to flow back and forth between these normally separated areas. A confined space entry took place, and repairs were completed on the digester piping.

Sodium hypochlorite addition is not paced to flow, which makes it difficult to account for intermittent high flows from rain and melting snow. Operators monitor the V-notch chlorine residuals on a daily basis and constantly adjust the sodium hypochlorite and sodium bisulfite dosages to prevent occurrences of high E. coli results and ensure low total chlorine residuals.

Total suspended solids (TSS) exceedances are usually a result due to the cold weather making the water more dense, which affects how the sludge settles in the clarifiers. Additionally, in the winter freezing of the components of the plant continue to occur. Once identified operations makes every effort to thaw the frozen components as fast as possible. Operations continue to work towards improving the decanting and thickening process for the sludge. In order to reduce TSS concentration issues in the winter, operations met with Bishop Water to look at a rare-earth coagulant called ClariPhos. A trial has begun to see if the product will help reduce TSS concentrations through coagulation and increased settling.

8.0 Volume of Sludge Generated

The total volume of sludge hauled during the 2025 reporting year was 374.5 m^3. All sludge was hauled by Environmental 360 Solutions and taken to their lagoon in Moonbeam.

8.1 Sludge Disposal Sites Used in 2025

Location	Mass Hauled (kg)	Volume Hauled (m^3)
Digester #2	10,931	374.5

Refer to Appendix D for sludge sampling data.

9.0 Complaints

There were no complaints received during the reporting period.

10.0 Bypass, Overflow, and Upset Events

Each event was verbally reported to the Ministry of the Environment's Spills Action Center and a written report containing the above information was submitted to SAC and Environment Canada. In addition, a courtesy call was made to the Northeastern Health Unit. A record of the time, location, duration, quantity and reason for each occurrence was prepared.

Bypass and spill events during the 2025 reporting period include the following:

Sample Date	Details (Date, Duration, Actions Taken, etc.)
FEBRUARY 18	Raw Sewage Bunker Overflow **Type of incident:** Spill **SAC Ref No.:** 1-HKM0CS **Start Date & Time:** February 18, 2025 @ 13:30 **Termination:** February 19, 2025 @ 10:55 **Duration:** 21.5 hours **Approximate volume:** 752.5 m^3 (estimated) **Details:** A sump pump failure caused the drywell/basement to become flooded and the raw sewage pumps needed to be turned off to prevent motor failures. This caused the wetwell to fill up and no longer accept the raw sewage, resulting in a spill at the plants influent bunker. The operator contacted Vac Truck services immediately and they worked on draining the basement so the pumps could be restarted. **Receiver:** Mattagami River **Actions:** Vac truck services were contacted immediately after discovery of the flooded basement. Operations had to turn off all electrical equipment in the drywell, including the pumps to prevent the motors and other equipment from being damaged. This caused the wetwell to fill up and no longer accept the raw sewage. The raw sewage spilled at the overflow point at the plants influent bunker. The Vac Truck services were onsite until about 17:00 on Feb 18, at which point they had drained enough that the electrical boxes were no longer submerged. The following day the Vac Truck services resumed at 07:30 and reached the basements floor about two hours later. Following this, operations tested and verified that the previously submerged equipment was safe to access and restart. Once the pumps restarted, the spill ended shortly after. The spill volume of 752.5 m3 was based on the average daily flows from the previous days, and applied to the 21.5 hour duration. Spill was sampled and reported. **Reporting:** Verbal reports to SAC and MOH, written report to EC, MOH, Owner and SAC.

Sample Date	Details (Date, Duration, Actions Taken, etc.)
MARCH 15	Raw Sewage Bunker Overflow **Type of incident:** Overflow **SAC Ref No.:** 1-J10PNX **Start Date & Time:** March 15, 2025 @ 14:35 **Termination:** March 16, 2025 @ 11:18 **Duration:** ~ 21 hours **Approximate volume:** 1,399 m^3 **Details:** Warm weather and rain caused rapid snow melt **Receiver:** Mattagami River **Actions:** Overflow was chlorinated, sampled, and reported. **Reporting:** Verbal reports to SAC and MOH, written report to EC, MOH, Owner and SAC.
APRIL 14	Raw Sewage Bunker Overflow **Type of incident:** Overflow **SAC Ref No.:** 1-NQA6EK **Start Date & Time:** April 14, 2025 @ 15:33 **Termination:** April 14th, 2025 @ 22:30 **Duration:** ~ 7 hours **Approximate volume:** 169 m^3 **Details:** Warm weather and rain caused rapid snow melt **Receiver:** Mattagami River **Actions:** Overflow was chlorinated, sampled, and reported. **Reporting:** Verbal reports to SAC and MOH, written report to EC, MOH, Owner and SAC.
APRIL 18	Raw Sewage Bunker Overflow **Type of incident:** Overflow **SAC Ref No.:** 1-NV240X **Start Date & Time:** April 18, 2025 @ 07:16 **Termination:** April 23rd, 2025 @ 02:00 **Duration:** 114.75 hours **Approximate volume:** 1,432 m^3 **Details:** Warm weather and rain caused rapid snow melt **Receiver:** Mattagami River **Actions:** Overflow was chlorinated, sampled, and reported. **Reporting:** Verbal reports to SAC and MOH, written report to EC, MOH, Owner and SAC.

Sample Date	Details (Date, Duration, Actions Taken, etc.)
APRIL 29	Raw Sewage Bunker Overflow **Type of incident:** Overflow **SAC Ref No.:** 1-O63N1T **Start Date & Time:** April 29, 2025 @ 00:03 **Termination:** April 30, 2025 @ 07:45 **Duration:** ~ 31.75 hours **Approximate volume:** 2,129 m^3 **Details:** Warm weather and rain caused rapid snow melt **Receiver:** Mattagami River **Actions:** Overflow was chlorinated, sampled, and reported. **Reporting:** Verbal reports to SAC and MOH, written report to EC, MOH, Owner and SAC.
JUNE 4	Raw Sewage Bunker Overflow **Type of incident:** Overflow **SAC Ref No.:** 1-OITNX0 **Start Date & Time:** June 4, 2025 @ 03:05 **Termination:** June 4, 2025 @ 11:22 **Duration:** 8.25 hours **Approximate volume:** 508 m^3 **Details:** Heavy rain fall **Receiver:** Mattagami River **Actions:** Overflow was chlorinated, sampled, and reported. **Reporting:** Verbal reports to SAC and MOH, written report to EC, MOH, Owner and SAC.
JUNE 23	Raw Sewage Bunker Overflow **Type of incident:** Overflow **SAC Ref No.:** 1-OMGEOU **Start Date & Time:** June 23, 2025 @ 00:23 **Termination:** June 24, 2025 @ 15:10 **Duration:** ~40 hours **Approximate volume:** 6,237 m^3 **Details:** Heavy rain fall **Receiver:** Mattagami River **Actions:** Overflow was chlorinated, sampled, and reported. **Reporting:** Verbal reports to SAC and MOH, written report to EC, MOH, Owner and SAC.

Sample Date	Details (Date, Duration, Actions Taken, etc.)
JULY 23	Raw Sewage Bunker Overflow **Type of incident:** Overflow **SAC Ref No.:** 1-P7HK8V **Start Date & Time:** July 23, 2025 @ 23:26 **Termination:** July 24, 2025 @ 14:00 **Duration:** ~14.5 hours **Approximate volume:** 281 m^3 **Details:** Heavy rain fall **Receiver:** Mattagami River **Actions:** Overflow was chlorinated, sampled, and reported. **Reporting:** Verbal reports to SAC and MOH, written report to EC, MOH, Owner and SAC.
JULY 25	Raw Sewage Bunker Overflow **Type of incident:** Spill **SAC Ref No.:** 1-P8EEYW **Start Date & Time:** July 25, 2025 @ 08:36 **Termination:** July 25, 2025 @ 09:06 **Duration:** ~30 minutes **Approximate volume:** 13 m^3 **Details:** The spill was a result of distribution hydrant flushing and suspected infiltration, an extended desludging at the water treatment plant, and the wastewater plant currently running on one clarifier due to maintenance. **Receiver:** Mattagami River **Actions:** Chlorinated, and reported. **Reporting:** Verbal reports to SAC and MOH, written report to EC, MOH, Owner and SAC.
AUGUST 7	Raw Sewage Bunker Overflow **Type of incident:** Overflow **SAC Ref No.:** 1-PAMMLX **Start Date & Time:** August 7, 2025 @ 21:37 **Termination:** August 7, 2025 @ 22:34 **Duration:** ~1 hour **Approximate volume:** 24 m^3 **Details:** Heavy rain fall and only one clarifier online **Receiver:** Mattagami River **Actions:** Overflow was chlorinated, sampled, and reported. **Reporting:** Verbal reports to SAC and MOH, written report to EC, MOH, Owner and SAC.

Sample Date	Details (Date, Duration, Actions Taken, etc.)
OCTOBER 13	Raw Sewage Bunker Overflow **Type of incident:** Spill **SAC Ref No.:** 1-PMKKLZ **Start Date & Time:** October 13, 2025 @ 13:31 **Termination:** October 13, 2025 @ 22:32 **Duration:** ~ 9 hours (intermittent) **Approximate volume:** 34 m^3 **Details:** Clarifier #1 is currently offline for repairs. Due to the repairs, the raw influent valve needs to be throttled to prevent bar screen spills, flow exceedances, and to ensure that the process will not be washed out during heavy rain events. As a result of the throttling, the influent valve began to build up with "debris" and became partially clogged. The water plant had just finished a desludge and backwash, which overloaded the partially clogged influent valve and caused the spill. **Receiver:** Mattagami River **Actions:** Chlorinated, sampled, and reported. **Reporting:** Verbal reports to SAC and MOH, written report to EC, MOH, Owner and SAC.

Please note, the Ministry of Environment, Conservation and Parks (MECP) has changed the definitions of bypasses and overflows. The ECA's definition of "bypass" is now what the MECP considers an "overflow". The listed events above are considered bypasses by the ECA's definition; however, they were reported to the MECP as an overflow due to this change.

A total of 11 events were observed during the 2025 reporting period, with an approximate total volume of 12,978.5 m^3.

When possible, overflowing sewage was sampled and analyzed for $cBOD_5$, TSS, pH and *E. coli*. Refer to Appendix E for a record of overflow events and sample results.

11.0 CLI-ECA ADDITIONAL DATA

The Municipal Sewage Collection System within the Town of Smooth Rock Falls consists of works for the collection and transmission of sewage, consisting of separate gravity sewers with discharge into the Smooth Rock Falls Sewage Treatment Plant. There are no pumping stations or collection system overflow locations. The town performs partial collection system flushing and inspections on an annual basis. The sewage treatment plant consistently operates within its rated capacity; however, there are occasional plant overflows during heavy rain or rapid snow melting events. This may indicate possible inflow or infiltration into the collection system and may warrant a future I&I study. There is currently no immediate needs for modifications.

APPENDIX A: MONTHLY PROCESS DATA – INFLUENT

	01/2025	02/2025	03/2025	04/2025	05/2025	06/2025	07/2025	08/2025	09/2025	10/2025	11/2025	12/2025
Alkalinity (as CaCO3) - mg/L												
Count Lab	1	1	1	1	1	1	1	1	1	1	1	1
Mean Lab	180	122	139	146	225	227	274	215	198	139	163	183
Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L												
Count Lab	1	1	1	1	1	1	1	1	1	1	1	1
Mean Lab	52	66.9	60	46	25	56	31	40	57	48	49	200
Total Kjeldahl Nitrogen: TKN - mg/L												
Count Lab	1	1	1	1	1	1	1	1	1	1	1	1
Mean Lab	3.4	12.5	15.6	8.2	8.3	20.1	9.3	15.9	16.1	25.4	20.8	33.9
Total Phosphorus: TP - mg/L												
Count Lab	1	1	1	1	1	1	1	1	1	1	1	1
Mean Lab	0.585	1.66	2.22	1.25	0.467	1.82	0.76	1.16	1.78	2.36	2.08	4.44
Total Suspended Solids: TSS - mg/L												
Count Lab	1	1	1	1	1	1	1	1	1	1	1	1
Mean Lab	34	245	185	57	36	128	260	245	72	550	262	810

APPENDIX B: MONTHLY PROCESS DATA – EFFLUENT

	01/2025	02/2025	03/2025	04/2025	05/2025	06/2025	07/2025	08/2025	09/2025	10/2025	11/2025	12/2025
Alkalinity (as CaCO3) - mg/L												
Count Lab	4	4	4	5	4	5	4	4	5	4	4	5
Max Lab	179	95	160	237	241	243	231	242	138	101	170	286
Mean Lab	131	85	121	188	221	221	215	188	122	76	102	132
Min Lab	92	77	86	127	209	199	192	146	94	43	42	76

	01/2025	02/2025	03/2025	04/2025	05/2025	06/2025	07/2025	08/2025	09/2025	10/2025	11/2025	12/2025
Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L												
Count Lab	4	4	4	5	4	5	4	4	5	4	4	5
Max Lab	3.0	30.0	4.4	5.0	5.5	3.5	2.5	8.0	2.0	1.3	8.0	2.6
Mean Lab	2.4	10.5	3.8	3.8	3.9	2.4	1.7	3.0	< 1.0	< 0.8	3.3	1.5
Min Lab	1.5	3.0	3.1	2.4	2.5	1.0	0.9	0.8	< 0.5	< 0.5	1.2	0.8
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L												
Count Lab	4	4	4	5	4	5	4	4	5	4	4	5
Max Lab	0.007	0.006	0.008	0.007	0.183	0.068	0.008	0.074	0.086	0.123	0.066	0.014
Mean Lab	< 0.006	< 0.005	< 0.007	< 0.005	< 0.050	0.048	< 0.006	< 0.024	< 0.029	< 0.035	< 0.021	< 0.009
Min Lab	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
E. coli: EC - cfu/100mL												
GMD	413	836	15	36	11	15	48	8	2	1	8	13
Count Lab	4	4	4	5	4	5	4	4	5	4	4	5
Max Lab	24,000	1,290,000	22	88	42	308	27,000	72	15	5	38	14,000
Mean Lab	9,259	354,001	16	45	16	90	6,755	21	4	2	17	2,803
Min Lab	3	0	9	12	6	1	5	3	0	0	1	0
Temperature - °C												
Count IH	4	4	4	5	4	5	4	4	5	4	4	5
Max IH	6.2	7.1	6.9	7.7	11.2	19.4	20.7	21.4	20.3	17.1	8.6	6.1
Mean IH	6.0	6.3	6.5	7.0	8.5	15.3	17.8	16.7	14.8	12.3	4.8	4.8
Min IH	5.5	5.7	6.1	6.3	6.6	11.1	15.1	14.2	12.0	6.7	2.6	3.1
Total Ammonia Nitrogen: NH3 + NH4+ as N - mg/L												
Count Lab	4	4	4	5	4	5	4	4	5	4	4	5
Max Lab	0.93	4.56	4.75	3.67	6.79	8.17	2.14	8.80	0.10	0.08	12.00	0.25
Mean Lab	0.35	2.32	3.70	2.16	4.11	3.14	0.97	2.24	0.06	< 0.04	4.22	< 0.07
Min Lab	0.04	0.15	2.42	0.85	1.27	0.02	0.04	0.02	0.05	< 0.01	0.03	< 0.01

	01/2025	02/2025	03/2025	04/2025	05/2025	06/2025	07/2025	08/2025	09/2025	10/2025	11/2025	12/2025
Total Phosphorus: TP - mg/L												
Count Lab	4	4	4	5	4	5	4	4	5	4	4	5
Max Lab	0.566	0.867	0.589	0.376	0.393	0.320	0.610	0.602	0.457	0.614	1.100	0.699
Mean Lab	0.355	0.543	0.309	0.229	0.181	0.237	0.326	0.365	0.325	0.384	0.736	0.493
Min Lab	0.203	0.284	0.109	0.103	0.086	0.181	0.101	0.152	0.227	0.161	0.485	0.235
Total Suspended Solids: TSS - mg/L												
Count Lab	4	4	4	5	4	5	4	4	5	4	4	5
Max Lab	42.0	72.0	28.0	24.3	11.3	17.7	47.0	31.0	26.7	37.0	86.0	38.7
Mean Lab	31.8	40.1	17.8	16.2	9.8	10.9	28.8	20.1	15.0	19.5	51.4	26.4
Min Lab	19.5	14.0	9.3	7.0	6.3	5.0	9.3	10.7	7.3	5.7	36.0	12.5
Un-ionized Ammonia: NH3 - mg/L												
Count IH	4	4	4	5	4	5	4	4	5	4	4	5
Max IH	0.004	0.023	0.032	0.017	0.050	0.051	0.026	0.037	0.000	0.001	0.023	0.001
Mean IH	0.002	0.011	0.022	0.013	0.026	0.017	0.013	0.009	0.000	0.000	0.007	0.000
Min IH	0.001	0.000	0.016	0.009	0.010	0.001	0.000	0.000	0.000	0.000	0.000	0.000
pH												
Count IH	4	4	4	5	4	5	4	4	5	4	4	5
Max IH	8.04	7.55	7.69	8.07	7.75	8.12	7.61	7.17	7.52	7.64	7.36	7.88
Mean IH	7.72	7.39	7.62	7.33	7.59	7.49	7.50	7.13	7.22	7.19	7.15	7.38
Min IH	7.34	7.23	7.48	6.48	7.48	6.99	7.36	7.06	7.05	7.01	6.96	7.19
Cl Residual: Total - mg/L												
Count IH	31	28	31	30	31	30	31	31	30	31	30	31
Max IH	0.03	0.03	0.03	0.02	0.02	0.01	0.08	0.02	0.02	0.01	0.01	0.01
Mean IH	0.006	0.008	0.004	0.004	0.002	0.003	0.005	0.003	0.003	0.001	0.001	0.002
Min IH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX C: LOADING CALCULATIONS

SMOOTH ROCK FALLS WASTEWATER TREATMENT FACILITY

	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	Average
Flow: Average (m^3/d)	1033	839	1131	2840	1338	1679	1625	1108	915	846	951	1041	1279
Total Phosphorus Average (mg/L)	0.355	0.543	0.309	0.229	0.181	0.237	0.326	0.365	0.325	0.384	0.736	0.493	0.373
Total Phosphorus Loadings (kg/d)	0.37	0.46	0.35	0.65	0.24	0.40	0.53	0.40	0.30	0.32	0.70	0.51	0.48
TSS Average (mg/L)	31.8	40.1	17.8	16.2	11.2	10.9	28.8	20.1	15.0	19.5	51.4	26.4	24.1
TSS Loadings (kg/d)	32.8	33.6	20.2	46.0	15.0	18.4	46.7	22.3	13.7	16.5	48.9	27.5	30.8
CBOD5 Average (mg/L)	2.4	10.5	3.8	3.8	3.9	2.4	1.7	3.0	1.0	0.8	3.3	1.5	3.2
cBOD5 Loadings (kg/d)	2.4	8.8	4.3	10.7	5.2	4.1	2.7	3.3	0.9	0.7	3.1	1.6	4.0

APPENDIX D: SLUDGE DATA

	01/2025	02/2025	03/2025	04/2025	05/2025	06/2025	07/2025	08/2025	09/2025	10/2025	11/2025	12/2025
Arsenic: As - mg/L												
Count Lab	1	0	0	0	0	0	0	0	0	3	2	0
Max Lab	0.002									0.005	0.002	
Mean Lab	0.002									0.002	0.002	
Min Lab	0.002									0.001	0.002	
Cadmium: Cd - mg/L												
Count Lab	1	0	0	0	0	0	0	0	0	3	2	0
Max Lab	0.0002									0.0016	0.0048	
Mean Lab	0.0002									< 0.0006	0.0034	
Min Lab	0.0002									< 0.0001	0.0019	
Chromium: Cr - mg/L												
Count Lab	1	0	0	0	0	0	0	0	0	3	2	0
Max Lab	0.003									0.016	0.004	
Mean Lab	0.003									0.008	0.003	
Min Lab	0.003									0.001	0.002	

		01/2025		02/2025		03/2025		04/2025		05/2025		06/2025		07/2025		08/2025		09/2025		10/2025		11/2025		12/2025
Cobalt: Co - mg/L																								
Count Lab		1		0		0		0		0		0		0		0		0		3		2		0
Max Lab		0.0009																		0.0063		0.0184		
Mean Lab		0.0009																		0.0041		0.0134		
Min Lab		0.0009																		0.0030		0.0083		
Copper: Cu - mg/L																								
Count Lab		1		0		0		0		0		0		0		0		0		3		2		0
Max Lab		0.054																		0.076		0.167		
Mean Lab		0.054																		0.033		0.098		
Min Lab		0.054																		0.007		0.029		
Lead: Pb - mg/L																								
Count Lab		1		0		0		0		0		0		0		0		0		3		2		0
Max Lab		0.0030																		0.0033		0.0015		
Mean Lab		0.0030																	<	0.0013		0.0009		
Min Lab		0.0030																	<	0.0001		0.0002		
Mercury: Hg - mg/L																								
Count Lab		1		0		0		0		0		0		0		0		0		3		2		0
Max Lab	<	0.0001																	<	0.0001	<	0.0001		
Mean Lab	<	0.0001																	<	0.0001	<	0.0001		
Min Lab	<	0.0001																	<	0.0001	<	0.0001		
Molybdenum: Mo - mg/L																								
Count Lab		1		0		0		0		0		0		0		0		0		3		2		0
Max Lab		0.001																		0.002	<	0.001		
Mean Lab		0.001																	<	0.002	<	0.001		
Min Lab		0.001																	<	0.001	<	0.001		

	01/2025	02/2025	03/2025	04/2025	05/2025	06/2025	07/2025	08/2025	09/2025	10/2025	11/2025	12/2025
Nickel: Ni - mg/L												
Count Lab	1	0	0	0	0	0	0	0	0	3	2	0
Max Lab	0.004									0.031	0.092	
Mean Lab	0.004									0.015	0.065	
Min Lab	0.004									0.006	0.038	
Nitrate as N: NO3-N - mg/L												
Count Lab	1	0	0	0	0	0	0	0	0	3	2	0
Max Lab	12.4									34.0	< 0.05	
Mean Lab	12.4									< 16.35	< 0.05	
Min Lab	12.4									< 0.05	< 0.05	
Nitrite as N: NO2-N - mg/L												
Count Lab	1	0	0	0	0	0	0	0	0	3	2	0
Max Lab	< 0.05									< 0.05	< 0.05	
Mean Lab	< 0.05									< 0.05	< 0.05	
Min Lab	< 0.05									< 0.05	< 0.05	
Selenium: Se - mg/L												
Count Lab	1	0	0	0	0	0	0	0	0	3	2	0
Max Lab	0.0006									0.0034	0.0008	
Mean Lab	0.0006									< 0.0014	< 0.0005	
Min Lab	0.0006									< 0.0002	< 0.0002	
Total Ammonia Nitrogen: NH3 + NH4+ as N - mg/L												
Count Lab	1	0	0	0	0	0	0	0	0	3	2	0
Max Lab	1.03									12.9	8.13	
Mean Lab	1.03									7.52	5.94	
Min Lab	1.03									2.12	3.75	

	01/2025	02/2025	03/2025	04/2025	05/2025	06/2025	07/2025	08/2025	09/2025	10/2025	11/2025	12/2025
Total Phosphorus: TP - mg/L												
Count Lab	1	0	0	0	0	0	0	0	0	3	2	0
Max Lab	199									1.14	11.8	
Mean Lab	199									0.782	9.315	
Min Lab	199									0.440	6.830	
Total Solids: TS - mg/L												
Count IH	1	0	0	0	0	0	0	0	0	3	2	0
Max IH	19752									29800	38074	
Mean IH	19752									28026	36851	
Min IH	19752									26358	35628	
Count Lab	1	0	0	0	0	0	0	0	0	3	2	0
Max Lab	18100									30300	36700	
Mean Lab	18100									11087	34800	
Min Lab	18100									1480	32900	
Zinc: Zn - mg/L												
Count Lab	1	0	0	0	0	0	0	0	0	3	2	0
Max Lab	0.099									2.18	5.66	
Mean Lab	0.099									0.843	3.95	
Min Lab	0.099									0.137	2.24	

APPENDIX E: PLANT BYPASS DATA

	01/2025	02/2025	03/2025	04/2025	05/2025	06/2025	07/2025	08/2025	09/2025	10/2025	11/2025	12/2025
Volume - m^3												
Count IH	0	2	2	9	0	3	3	1	0	1	0	0
Total IH		752.5	1,399	3,730		6,745	294	24		34		

	01/2025	02/2025	03/2025	04/2025	05/2025	06/2025	07/2025	08/2025	09/2025	10/2025	11/2025	12/2025
Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L												
Count Lab	0	1	1	3	0	2	1	1	0	1	0	0
Max Lab		32.0	51.0	11.0		120.0	80.3	170.0		71.0		
Mean Lab		32.0	51.0	7.7		73.5	80.3	170.0		71.0		
Min Lab		32.0	51.0	5.5		27.0	80.3	170.0		71.0		
E. coli: EC - cfu/100mL												
Count Lab	0	1	1	3	0	2	1	1	0	1	0	0
Max Lab		17,600	630,000	113,000		18,300	650,000	1,680,000		1,410,000		
Mean Lab		17,600	630,000	43,727		15,150	650,000	1,680,000		1,410,000		
Min Lab		17,600	630,000	82		12,000	650,000	1,680,000		1,410,000		
Total Phosphorus: TP - mg/L												
Count Lab	0	1	1	3	0	2	1	1	0	1	0	0
Max Lab		0.661	1.09	0.930		3.00	2.00	3.72		1.24		
Mean Lab		0.661	1.09	0.555		1.94	2.00	3.72		1.24		
Min Lab		0.661	1.09	0.346		0.877	2.00	3.72		1.24		
Total Suspended Solids: TSS - mg/L												
Count Lab	0	1	1	3	0	2	1	1	0	1	0	0
Max Lab		70	240	144		585	297	610		101		
Mean Lab		70	240	83		361	297	610		101		
Min Lab		70	240	37		136	297	610		101		
pH												
Count IH	0	1	1	3	0	2	1	1	0	1	0	0
Max IH		7.39	7.07	7.44		7.30	7.63	6.87		7.25		
Mean IH		7.39	7.07	7.41		7.29	7.63	6.87		7.25		
Min IH		7.39	7.07	7.39		7.27	7.63	6.87		7.25		

APPENDIX F: CLI-ECA REPORTING SECTIONS

Collection ECA # 217-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.	1.2.3 HISTORICAL AVERAGE INFLUENT FLOW 1.2.4 HISTORICAL MAXIMUM INFLUENT FLOW 10.0 BYPASS, OVERFLOW, AND UPSET EVENTS 11.0 CLI-ECA ADDITIONAL DATA
4.6.4 Includes a summary of any operating problems encountered and corrective actions taken.	3.0 OPERATING PROBLEMS AND CORRECTIVE ACTIONS 10.0 BYPASS, OVERFLOW, AND UPSET EVENTS
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.	4.0 MAINTENANCE PROCEDURES PERFORMED ON THE WORKS 6.0 CALIBRATION AND MAINTENANCE OF ALL MONITORING EQUIPMENT
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.	9.0 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.	4.0 MAINTENANCE PROCEDURES PERFORMED ON THE WORKS
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.	10.0 BYPASS, OVERFLOW, AND UPSET EVENTS
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.	11.0 CLI-ECA ADDITIONAL DATA