Carleton Place Wastewater System

Waterworks # 11000971

Annual Report

Prepared For: The Town of Carleton Place

Reporting Period of January 1st – December 31st 2025

Issued: March 16, 2026

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	5001-7FZT4A	October 3, 2008	N/A
Facility ECA	A-500-1302301999	April 3, 2025	1.0
Facility ECA	A-500-1302301999	September 9, 2025	2.0
ECA for Municipal Sewage Collection System	172-W601	June 2, 2022	1.0

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1 Revision History

Date	Rev#	Revisions	Revised By
March 16, 2026	0	Annual Report Issued	Lauren Lacombe

2 Operations and Compliance Reliability Indices

Compliance Event	Details
Ministry of Environment Inspections	There were no Ministry Inspections
Ministry of Labour Inspections	There were no Ministry of Labour Inspections
Non-Compliance	There were 10 non-compliance events
Community Complaints	There was 1 Community Complaint
Spills	There was 1 Spill in the Collection System
Overflows	There were no Overflows
Bypass	There was 1 Primary Bypass
Diversion (if applicable)	There were 2 Diversions

3 Process Description

Carleton Place's wastewater treatment systems consists of gravity fed separated sewers and twelve (12) sewage pumping stations (SPS): Southeast (Highway 7) SPS, Bridge Street SPS, Carlgate SPS, Westview Heights SPS, Joseph Street SPS, Industrial Avenue SPS, Princess Street SPS, Findlay Ave SPS, Mississippi Quays SPS, Highgate SPS, Charles Street SPS, and Bodnar SPS. Only the Westview SPS is equipped to overflow from its wet well. Of the twelve pumping stations, ten have backup power, and all pumping stations convey flow to the Water Pollution Control Plant located at 122 Patterson Crescent in Carleton Place, ON. In 2025, Joseph St. SPS underwent a full upgrade, including new station housing, wet well, pumps and controls. Westview Heights SPS, Carlgate SPS, and Mississipi Quays SPS had partial upgrades completed for pump controls, floats, control panels and new level monitoring.

Carleton Place's Water Pollution Control Plant (WPCP) is a Class III conventional activated sludge plant with anaerobic digestion. The process begins with preliminary treatment consisting of a mechanical bar screen with a backup manual screen and a vortex grit removal system. Primary treatment occurs in two rectangular primary clarifiers equipped with scum and sludge removal. Three additional tanks are in use for the purpose of providing additional primary treatment during regular operations, and to buffer high flow situations.

Secondary treatment begins in the activated sludge process. There are three (3) aeration tanks, supplied with air by two (2) PD blowers and a turbo blower, and three (3) secondary clarifiers equipped with circular sludge rakes. Returned Activated Sludge (RAS) is pulled from the secondary clarifiers and returned to aeration. Waste Activated Sludge (WAS) is pumped from the secondary clarifiers to the primary clarifiers and is then wasted to the primary digester. WAS transfers and wasting pumps cycle automatically by a volume setpoint controlled on SCADA. When the primary digester is full, the sludge then overflows into the storage tank. Supernatant is decanted off the storage tank and returned before the raw influent channel. Effluent from the secondary clarifiers is then directed through the UV channel to be disinfected by Ultra Violet Reactors (UV) prior to discharging to the Mississippi River.

Several chemicals are added to the process to support the biological activity of activated sludge. Sodium hydroxide is added pre-aeration for alkalinity adjustment, and to promote nitrification throughout the aerated phase of sewage treatment. Polyaluminum Sulphate (PAS-8) is added for phosphorus removal post aeration.

Sludge from the treatment process is co-thickened and stabilized in a two-stage digestion process consisting of a primary digester and sludge storage tank. There is a centrifuge on-site for solids handling, but due to the concentration of hydrogen sulphide produced when running the equipment, the centrifuge is not operational.

The Carleton Place WPCP is equipped with back-up power in the form of a 200 kW diesel generator.

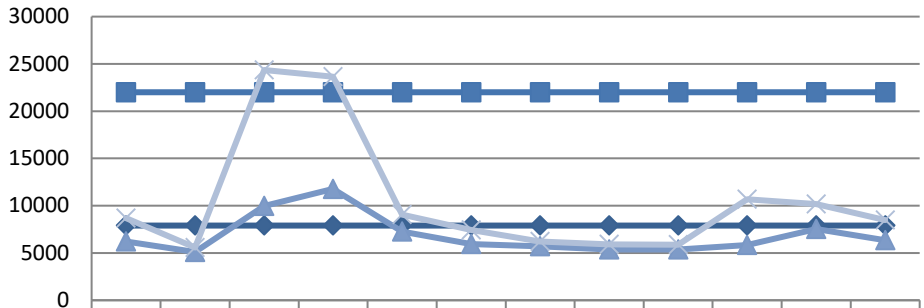
This facility is currently in process of major upgrades, with construction starting mid-2025.

4 Treatment Flows

The annual average daily flow for 2025 was 6,874.62 m³/d, which represents 87% of the facility's 7,900 m³/d rated capacity.

4.1 Raw Flow (m³/d)

4.1.1 Daily Flow 2025

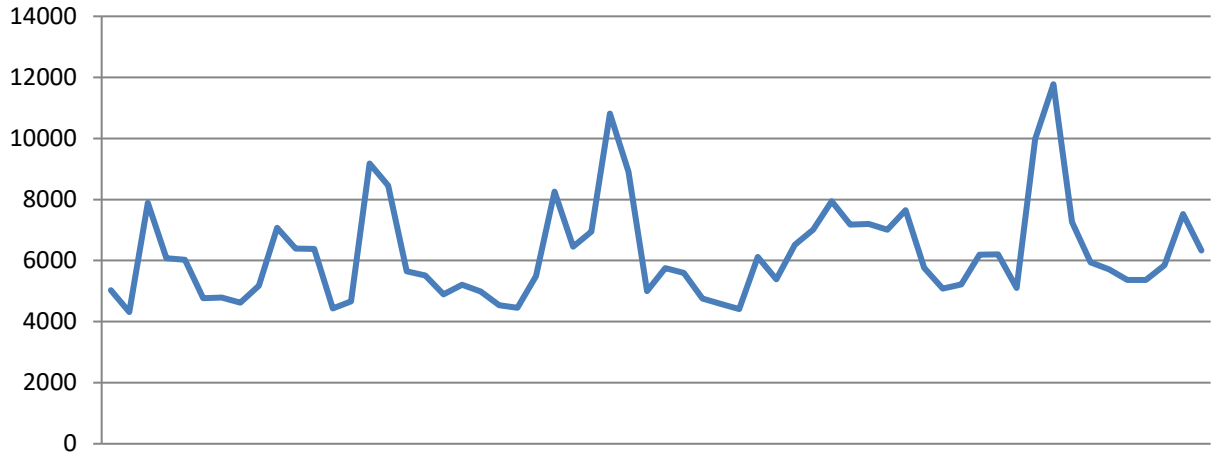


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rated Capacity	7900	7900	7900	7900	7900	7900	7900	7900	7900	7900	7900	7900
Wet Weather	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000
Average Daily Flow (m³/d)	6199	5107	9984	11776	7261	5944	5712	5365	5367	5851	7528	6332
Maximum Daily Flow (m³/d)	8699	5576	24352	23644	9070	7443	6203	5921	5883	10675	10158	8491

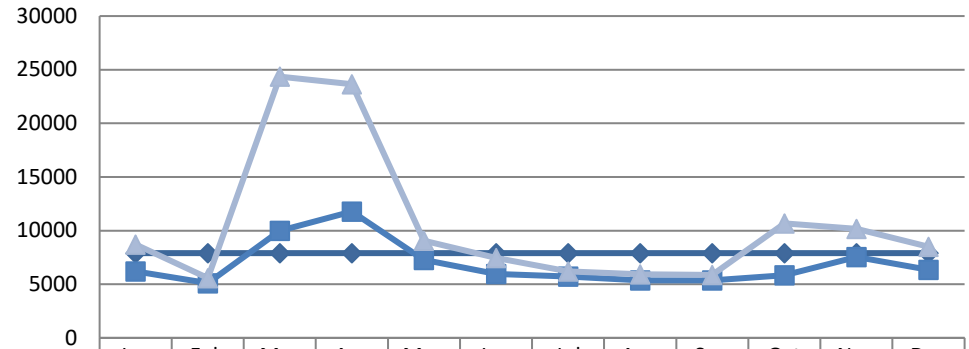
Note: Elevated flows above the rated capacity are directly related to snow melt and wet weather events.

4.1.2 5 Year Historical Raw Flow Trend

Average Daily Flow trend from 2021-2025

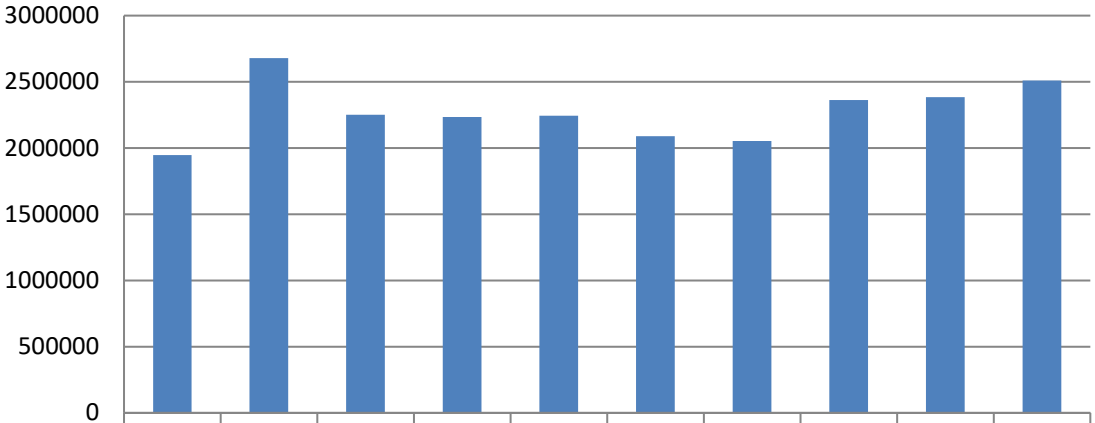


4.2 Effluent Flow (m³/d)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit	7900	7900	7900	7900	7900	7900	7900	7900	7900	7900	7900	7900
Average Daily Flow (m³/d)	6199	5107	9984	11776	7261	5944	5712	5365	5367	5851	7528	6332
Maximum Daily Flow (m³/d)	8699	5576	24352	23644	9070	7443	6203	5921	5883	10675	10158	8491

4.2.1 *Annual Comparison (m³)*



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Total Annual Flow	1946630	2679166	2251721	2233572	2244260	2089051	2053923	2361255	2383061	2509236

4.3 Imported Sewage

Environmental Compliance Approval (ECA) #A-500-1302301999 only allows for Sanitary Sewage. Therefore there was no imported sewage accepted to the facility in 2025.

4.4 Returned Centrate

The centrifuge did not operate in 2025 at the Carleton Place WPCP.

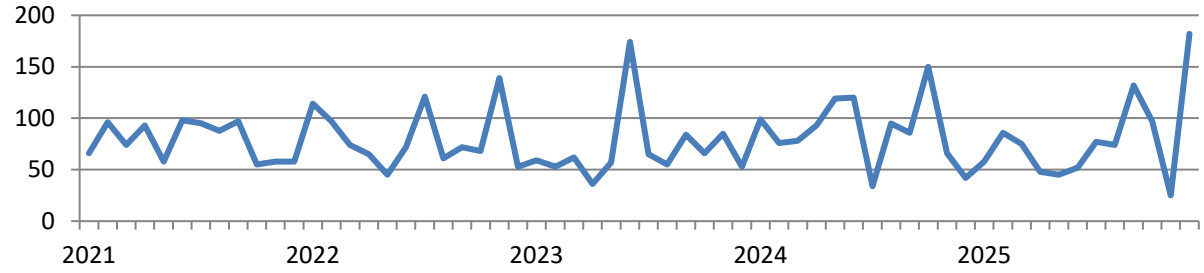
5 Influent Quality

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

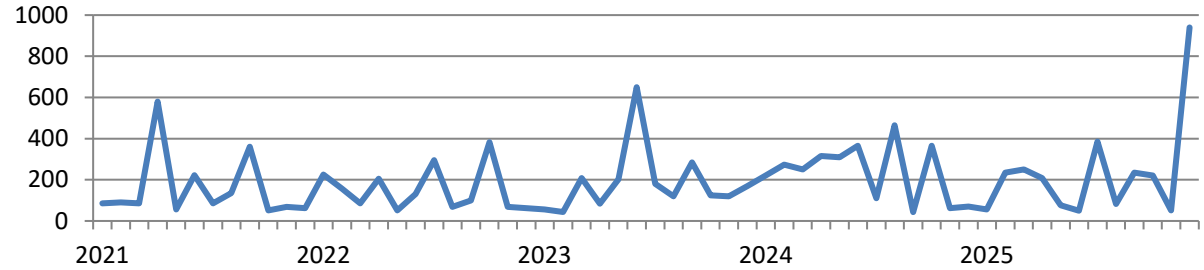
5.1 5 Year Influent Trending

Five (5) year average trends from 2021-2025 for raw sewage quality are graphed below.

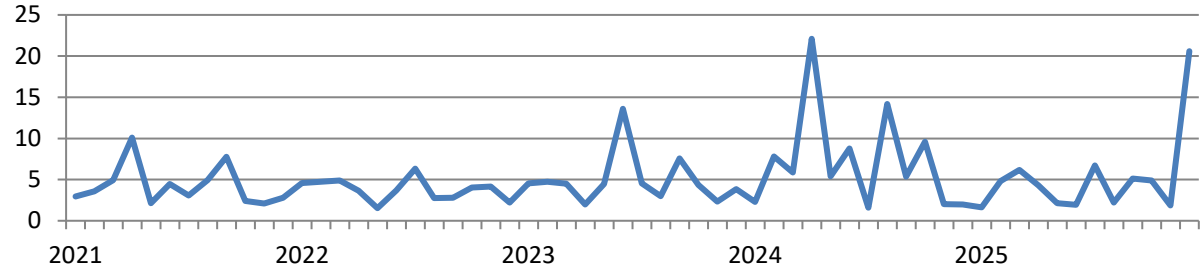
CBOD5



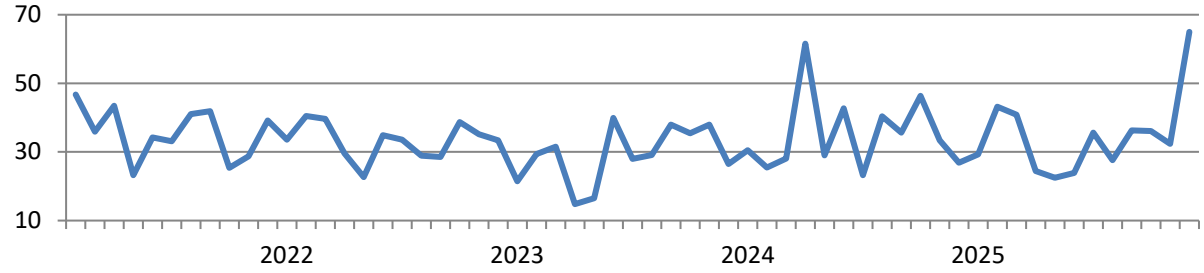
Total Suspended Solids



Total Phosphorus

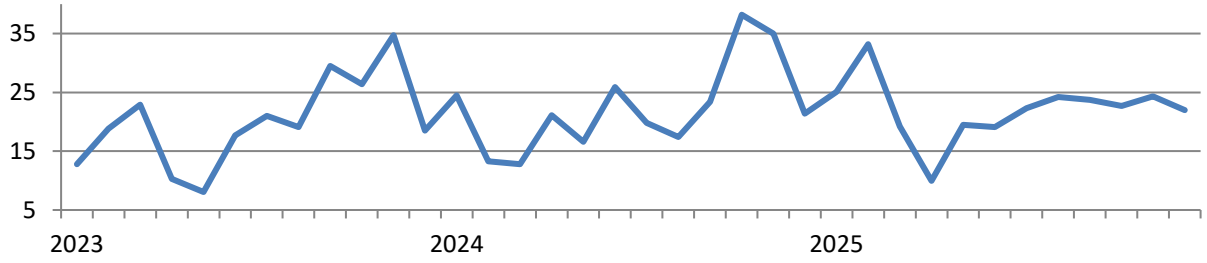


TKN

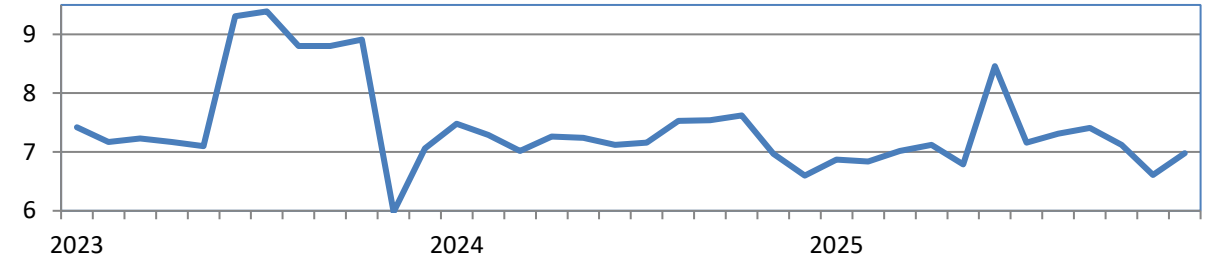


5.2 3 Year Influent Trending

Total Ammonia Nitrogen (TAN)



pH



6 Physical/Chemical Clarification Effluent Monitoring

There were two high flow events in 2025, requiring a diversion of the secondary treatment process: March 16th to March 21st, and March 31st to April 10th. The total flow diverted for 2025 was 139,595 m3, with an annual average flow of 8211.47 m3/day. Samples were collected each day the diversion was active. These samples were collected from the Phys/chem Tank outlet.

Parameter	Annual Average Concentration (mg/L)	Annual Average Concentration Objective (mg/L)	Annual Average Loading (kg/day)	Annual Average Loading Objective (kg/day)
CBOD5	27.12	28.0	223	325
Total Suspended Solids	87.24	28.0	716	325
Total Phosphorus	2.02	1.1	17	12.8

7 Effluent Quality

In 2025, the annual average concentrations of the carbonaceous biochemical oxygen demand ($CBOD_5$) and Total Suspended Solids (TSS) remained below the effluent objectives and limits outlined in the facility's ECA. In addition, the effluent pH and monthly average Total Phosphorous (TP) concentration and loadings remained within the limits and objectives. The monthly average concentrations of total ammonia nitrogen (TAN) exceeded the concentration limit and objective, and the loading objective and limit May to September. The geometric mean density of *E. Coli* in the effluent exceeded the ECA objective and limit June to September. An updated ECA was issued April 3rd, 2025 for this facility for pre,

during and post construction compliance limits, which includes a newly implemented *E.Coli* limit.

The Federal Government regulates the effluent flow, acute lethality, and the quarterly average $CBOD_5$ and total suspended solids in the effluent under the Federal Fisheries Act. The results are submitted to Environment and Climate Change Canada's effluent regulatory reporting information system, under wastewater systems effluent regulations (WSER) on a quarterly basis.

Parameter graphs below outline objectives and limits during normal operating conditions prior to construction. Concentrations and loadings are assessed individually for periods of peak flows and wet weather events as objectives and limits are different.

Effluent results from the Carleton Place wastewater treatment facility for 2025 are tabulated in Appendix A of this report.

7.1 Effluent Quality Assurance and Control Measures Taken

This system is part of Ontario Clean Water Agency's Mississippi Cluster, supported by the Eastern Regional Hub and corporate resources. 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 facility 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 Labs for analysis, with the exception of pH and temperature. Caduceon Labs 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, the Ontario Clean Water Agency is ensuring appropriate control measures are undertaken during sample analysis. Temperature and pH 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 several computer systems which include:

- 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.
- Maximo – OCWA's Work Management System (WMS)
    - This program is used to track and schedule maintenance activities for all equipment in the system. It is also used to assign tasks for specific operational tasks.

- Wonderware (OUTPOST5)/SCADA
    - Wide-area SCADA system allows for process optimization and data logging, process trending, remote alarming.

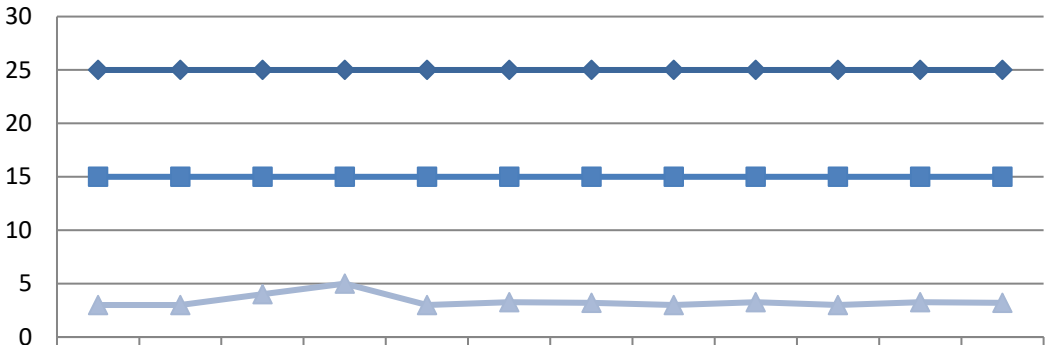
The operations team also has access to a network of operational compliance and process specialists to assist for emerging process issues. This aids in establishing additional control measures to ensure a quality effluent product.

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

7.2 CBOD5

The concentration compliance Limit for this parameter is based on the annual average concentration being below 25.0 mg/L. The annual average for 2025 was 3.37 mg/L, indicating compliance with the concentration limit was MET. Concentration compliance Objective for this parameter of 15 mg/L was also MET.

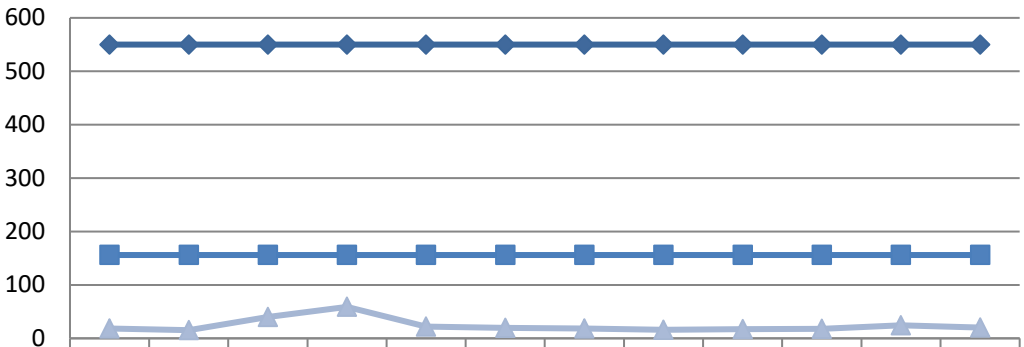
7.2.1 Concentration (mg/L)



	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	3.0	3.0	4.0	5.0	3.0	3.3	3.2	3.0	3.3	3.0	3.3	3.2

7.2.2 Loading (kg/d)

The loadings compliance Limit for this parameter is based on the annual average daily loading of 550 kg/day, and Objective of 156 kg/day. As the calculated annual average loading was 23.14 kg/day, both the loading Objective and Limit were MET.

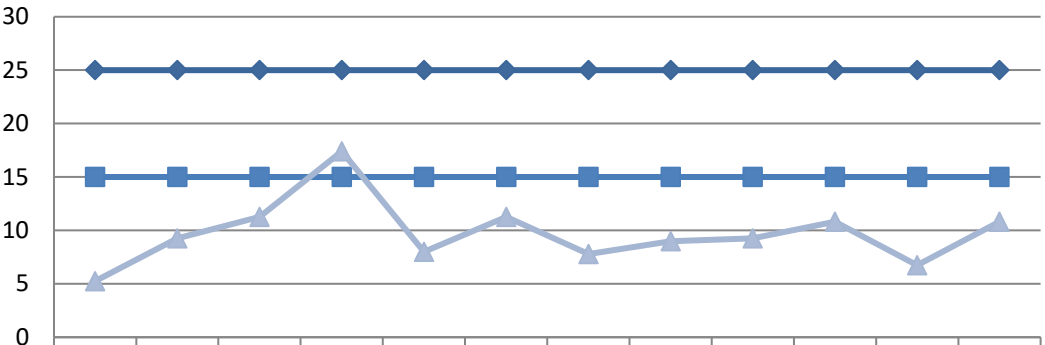


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	550	550	550	550	550	550	550	550	550	550	550	550
ECA Objective	156	156	156	156	156	156	156	156	156	156	156	156
Average	18.6	15.3	39.9	58.9	21.8	19.3	18.3	16.1	17.4	17.6	24.5	20.3

7.3 Total Suspended Solids

Compliance Limit for this parameter is based on the annual average being below 25.0 mg/L. The annual average for 2025 was 9.88 mg/L, indicating compliance with the limit was MET. The compliance Objective for this parameter was also MET.

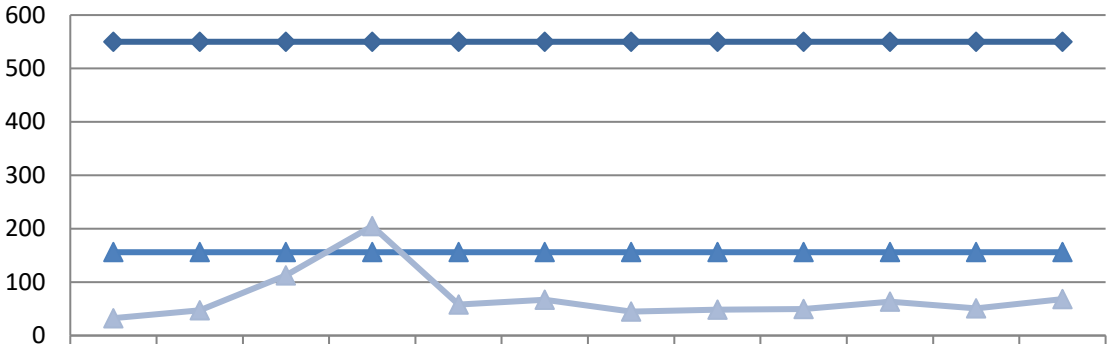
7.3.1 Concentration (mg/L)



	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	5.3	9.3	11.3	17.4	8.0	11.3	7.8	9.0	9.3	10.8	6.8	10.8

7.3.2 Loading (kg/d)

The loadings compliance Limit for this parameter is based on the annual average daily loading of 550 kg/day, and Objective of 156 kg/day. As the annual average loading was 67.95 kg/day, both the loading Objective and Limit were MET.

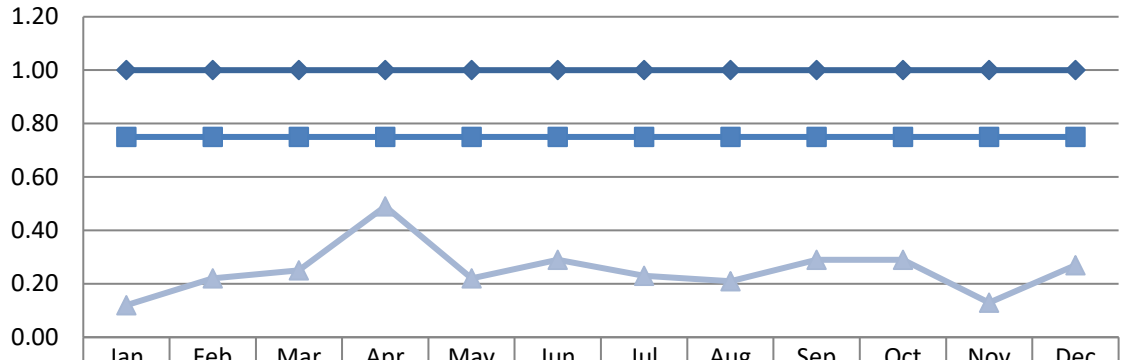


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	550	550	550	550	550	550	550	550	550	550	550	550
Objective	156	156	156	156	156	156	156	156	156	156	156	156
Eff Avg	32.5	47.2	112.3	204.9	58.1	66.9	44.6	48.3	49.7	63.2	50.8	68.4

7.4 Total Phosphorus

Compliance Limit for this parameter is based on monthly average concentration below 1.00 mg/L, and the Objective of 0.75 mg/L. Concentration compliance Limit and Objective for this parameter were MET for all months.

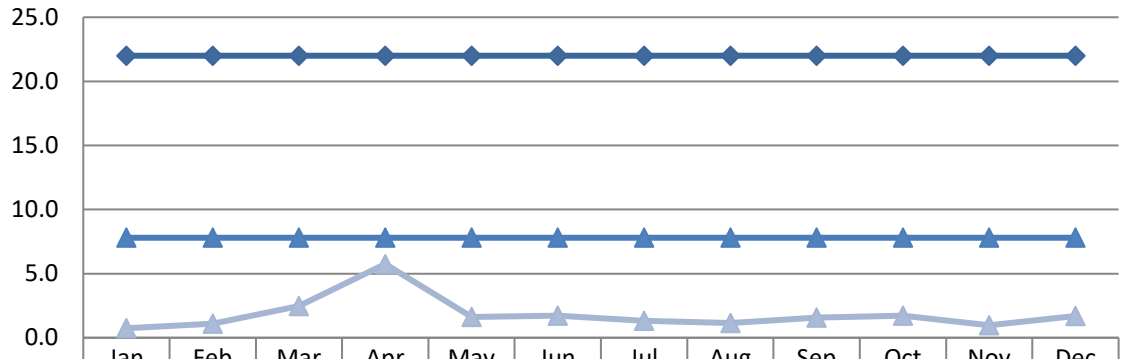
7.4.1 Concentration (mg/L)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Objective	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Average	0.12	0.22	0.25	0.49	0.22	0.29	0.23	0.21	0.29	0.29	0.13	0.27

7.4.2 Loading (kg/d)

The loadings compliance Limit for this parameter is based on the monthly average loading of 22 kg/day, and Objective of 7.8 kg/day. The loadings compliance Objective and Limit were MET for all months.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Objective	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Eff Avg	0.74	1.10	2.47	5.75	1.63	1.71	1.32	1.14	1.56	1.72	0.98	1.70

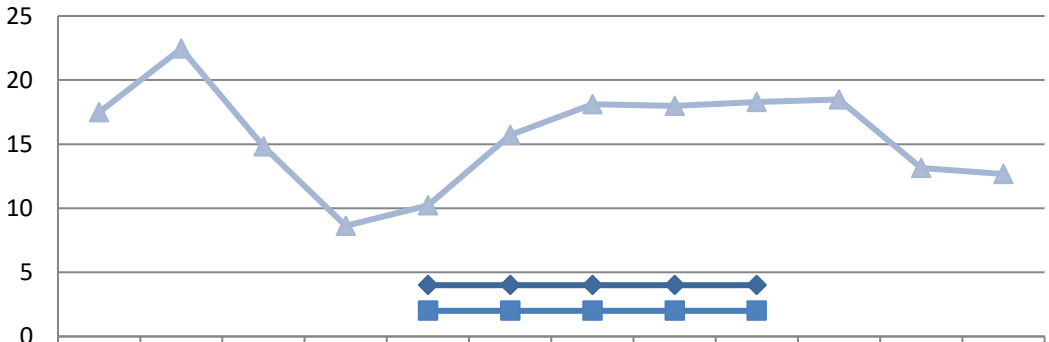
7.5 Total Ammonia Nitrogen

Compliance is assessed as a monthly average from May 15th to September 30th.

Compliance Limit for this parameter was NOT MET May, June, July, August or September. Compliance Objective for this parameter was NOT MET. See Operational Issues/Problems section of this report for details.

7.5.1 Concentration (mg/L)

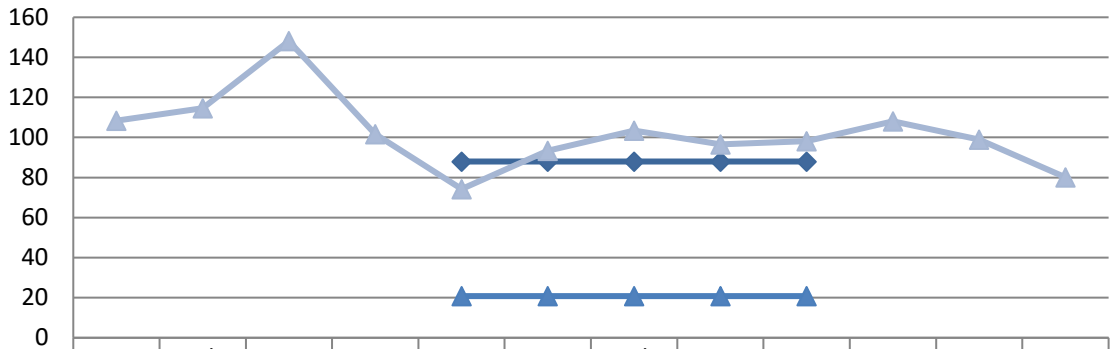
Compliance Limit in effect from May 15 to September 30th



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit					4.0	4.0	4.0	4.0	4.0			
ECA Objective					2.0	2.0	2.0	2.0	2.0			
Average	17.5	22.5	14.8	8.6	10.2	15.7	18.1	18.0	18.3	18.5	13.2	12.7

7.5.2 Loading (kg/d)

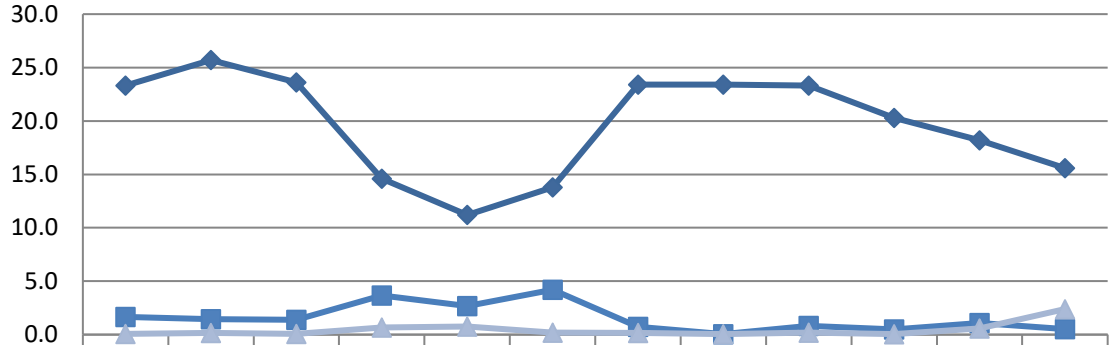
Compliance Limit in effect from May 15 to September 30. Compliance loadings limit was NOT MET June, July, August and September. See Operational Issues/Problems section of this report for details.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit					88.0	88.0	88.0	88.0	88.0			
Objective					20.8	20.8	20.8	20.8	20.8			
Eff Avg	108.3	114.6	148.1	101.6	74.3	93.4	103.5	96.6	98.2	108.1	99.0	80.2

7.1 Total Kjeldahl Nitrogen, Nitrate, Nitrite

There are no compliance limits or objectives related to these parameters.

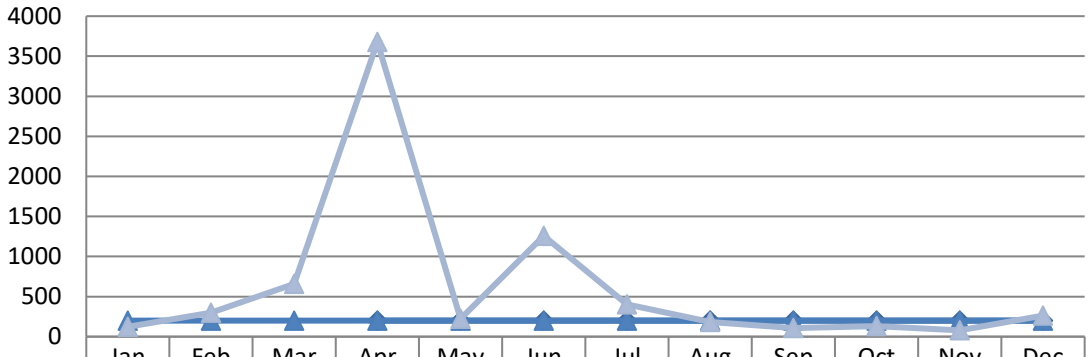


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TKN	23.3	25.7	23.6	14.6	11.2	13.8	23.4	23.4	23.3	20.3	18.2	15.6
Nitrate	1.66	1.45	1.40	3.67	2.68	4.20	0.74	0.05	0.82	0.50	1.09	0.52
Nitrite	0.08	0.15	0.07	0.67	0.75	0.20	0.15	0.05	0.20	0.05	0.57	2.39

7.2 E-Coli

The compliance limit was implemented with the new Environmental Compliance Approval in April. Compliance Limit for this parameter was NOT MET in April, May, June, July and December. Compliance Objective was NOT MET February to July, and December. See Operational Issues/Problems section of this report for details.

7.2.1 Geometric Mean (cfu/100mL)

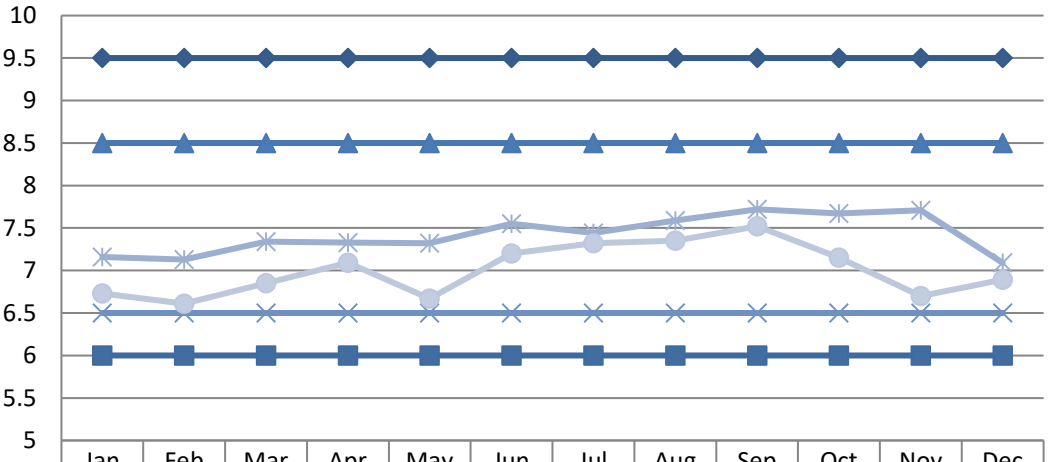


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit				200	200	200	200	200	200	200	200	200
Objective	200	200	200	200	200	200	200	200	200	200	200	200
Eff Avg	122	299	658	3677	223	1256	403	184	106	131	79	265

7.3 pH

Compliance Limit range for this parameter is 6.0 – 9.5. Compliance Limit for this parameter was MET.

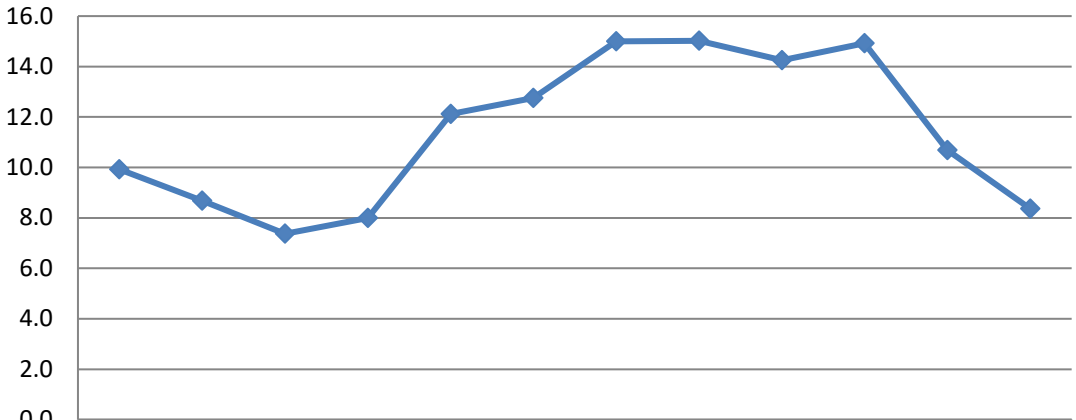
Compliance Objective range for this parameter is 6.5-8.5. Compliance Objective for this parameter was MET.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit Max	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Limit Min	6	6	6	6	6	6	6	6	6	6	6	6
Objective Max	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Objective Min	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max pH	7.2	7.1	7.3	7.3	7.3	7.6	7.4	7.6	7.7	7.7	7.7	7.1
Min pH	6.7	6.6	6.9	7.1	6.7	7.2	7.3	7.4	7.5	7.2	6.7	6.9

7.1 Temperature

There are no compliance limits or objectives related to this parameter.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg Temp	9.9	8.7	7.4	8.0	12.1	12.8	15.0	15.0	14.3	14.9	10.7	8.4

7.1 Acute Lethality

There were five (5) samples collected in 2025 tested for acute lethality of Rainbow Trout and one sample tested for Daphnia Magna. The sampling is required annually for Rainbow Trout and *Daphnia Magna* under ECA # A-500-1302301999, and for Rainbow Trout quarterly under federal regulation. Results are displayed as % mortality. An adverse result is a > 50% mortality rate. Compliance Limit for this parameter was MET

Quarter	Date	Rainbow Trout	Daphnia magna
1st Quarter	02/25/2025	0	-
2nd Quarter	05/28/2025	0	-
3rd Quarter	08/22/2025	0	-
4th Quarter	11/18/2025 12/10/2025	0 0	- 0

8 Monitoring Schedule

The 2026 Sampling Calendar can be viewed in Appendix B.

8.1 Deviations

Date	Details	Cause of Deviation
Feb 19, 2025	Final Effluent	Monday Stat Holiday – Family Day. Final Effluent sampler did not collect enough sample for sampling Feb 18th. Sampler re-calibrated and set for sampling the following day.
Feb 25, 2025	Acute Lethality Rainbow Trout – Quarterly.	Sampled within the Quarterly time frame.
May 28, 2025	Final Effluent	Final Effluent composite sampler liquid sensor failed, not enough composite sample collected. Sensor bypassed and sampler set again for collection the next day.
May 28, 2025	Acute Lethality Rainbow Trout – Quarterly	Courier did not pick up the original sample, resampled the following week with regular weekly sampling.
Aug 22, 2025	Acute Lethality Rainbow Trout – Quarterly	Sampled within the Quarterly time frame.
Dec 10, 2025	Acute Lethality analysis for Daphnia Magna	Annual requirement to have Daphnia Magna tested for Acute lethality in new ECA. Daphnia Magna analysis was not included in the previous sample.

9 Operating Issues/Problems

An excessive rain and snowmelt in March to April caused two high flow events at Carleton Place WWTP. As flows entering the plant exceeded 14,100 m_3/day, a diversion was required as the plant was unable

to accommodate the extra flow. The diversion flow enters the effluent channel prior to the final effluent sampling point, so the final effluent weekly grab samples taken included Phys/Chem (storm) tank diversion flow. The diversions lasted from March 16th to 21st and March 31st to April 10th. Peak flows reached over 24,000 m3/day on March 17th, resulting in a Primary Bypass. Flows entering the plant maintained over 8,000 m_3/day throughout the rest of April.

For the Primary Bypass, Sodium Hypochlorine pucks were utilized for additional disinfection. UV disinfection equipment was monitored throughout the diversions to ensure proper operation. After the diversion ended, E-Coli results recovered significantly but samples collected throughout the diversion affected the monthly Geometric Mean Density. UV channel maintenance was reviewed with operators to further lower E-coli levels.

Throughout the spring and summer months, mechanical failures contributed to altered facility operations, and non-compliance events. Activated sludge population/nitrification processes can take months to recover from upsets, and mechanical failures paired with previous significant high flow activated sludge washout events created an environment which was difficult to recover within the compliance timeframe.

On May 9th, RAS pump #3 faulted and required a replacement VFD. RAS pump #2 speed was increased to compensate for RAS #3 being out of service to manage sludge blankets. Despite the operational adjustments to address the decreased RAS functionality, the monthly average and May 15-31st compliance time frame both exceeded the limit of 4 mg/L. The increased ammonia levels potentially elevated the E.Coli concentration as well. RAS Pump #3 VFD was replaced on June 4th and put into service immediately.

Jet pump #1 in Aeration Tank #1 faulted on June 11th. The pump was immediately removed for further investigation, and ultimately sent away for repair. The loss of Jet Pump #1 impacted the dissolved oxygen levels in aeration tank #1, and resulted in increased total ammonia nitrogen in the effluent due to the insufficient growth, mixing and return of the nitrifying bacteria. Nitrifying bacteria require dissolved oxygen (DO) to convert ammonia and nitrite into nitrate, which is the first step of the nitrification/denitrification process. When DO is lacking, this chemical process is unable to occur. This halts the reaction which removes Total Ammonia Nitrogen from the wastewater. The remaining Aeration equipment was not able to maintain dissolved oxygen levels above 2 mg/L, which severely impacts the ability of the process to remove ammonia. It was found that increasing the Turbo blower output for additional DO did not result in increasing the dissolved oxygen, but only increased the turbulence in the aeration tanks due to the coarse air diffusers that are used to distribute the air at the bottom of the aeration tanks.

Jet Pump #1 was repaired and returned to service on November 18th. This pump is over 30 years old and required manual machining to ensure parts fit appropriately, which contributed to the extended repair time. A spare jet pump has also been procured, which can be used to replace any of the three aeration jet pumps in case of failure.

In addition to the mechanical failures, the biosolids storage tank was frequently at capacity, and caused supernatant to spill over to the raw influent channel through a supernatant pipe. The supernatant has a high ammonia content, which is added to the existing raw loading of the plant when this occurs. Continuous hauling throughout the year was conducted to manage the amount of supernatant added to

the process, and full hauls of the entire storage tank were completed every other month during the summer and fall to allow for better solids management.

A seasonal debrief meeting with Operations staff was held October 20th, to make an action plan for changes to be made over the winter months for reducing Total Ammonia Nitrogen and E.Coli in the final effluent. Operational changes to optimize the secondary treatment process is ongoing. It was found the current manual operation of the RAS pumps is not keeping a consistent balance for sludge blankets, so automation of the RAS pumps is being investigated, and programming implementation and controls are underway by a third party contractor. Ideally RAS pumps are automated to return a percentage of the incoming raw flow. The sodium hydroxide line has been heat-traced to allow for use in colder months, which should also provide buffering capacity for alkalinity, as well as adjust the pH to an optimal level that fosters nitrifying bacteria growth year-round. Activated sludge management will continue to be adjusted as required based on operational indicators.

9.1 Effluent Quality Non-Compliance Summary

Date	Exceedance of	Limit	Value	Corrective Action
April-2025	E. Coli ECA Limit ECA Objective	Limit and Objective: Monthly GMD 200 CFU/100mL	3677 CFU/100 mL	Diversion occurred until April 10th, which significantly increased the E.Coli in final effluent. Level significantly decreased after diverson was completed. UV maintenance was reviewed with Operators, and Sludge hauling initiated to reduce Total Ammonia Nitrogen which may have been a contributing factor.
May-2025	Total Ammonia Nitrogen Concentration ECA Limit ECA Objective	Limit: 4 mg/L Objective: 2 mg/L	10.23 mg/L	RAS Pump #3 VFD was replaced on June 4th, as it had faulted on May 9th. Pump set into service immediately to increase aeration of activated sludge.
May-2025	E.Coli ECA Limit ECA Objective	Limit and Objective: Monthly GMD 200 CFU/100mL	223.3 CFU/100 mL	UV Channel maintenance ongoing
June-2025	Total Ammonia Nitrogen Concentration and Loading ECA Limit And Objective	Limit: 4 mg/L 88 kg/day Objective: 2 mg/L 20.8 kg/day	15.71 mg/L 93.39 kg/day	Jet Pump #1 had faulted and was sent out for repair on June 16th. Operational changes were made in communication with the ORO to reduce solids in the Aeration tanks to increase dissolved oxygen levels.

Date	Exceedance of	Limit	Value	Corrective Action
June-2025	E.Coli ECA Limit ECA Objective	Limit and Objective: Monthly GMD 200 CFU/100mL	1255.63 CFU/100 mL	Faulted UV bulbs, ballasts and associated equipment were replaced, investigation into the motherboard ongoing.
July-2025	Total Ammonia Nitrogen Concentration and Loading ECA Limit ECA Objective	Limit: 4 mg/L 88 kg/day Objective: 2 mg/L 20.8 kg/day	18.12 mg/L 103.5 kg/day	Jet Pump #1 still out for repair. Operational changes were made in communication with the ORO to reduce solids in the Aeration tanks to increase dissolved oxygen levels. Hauling occurred 1-2 loads per week until a full haul was completed August 1st-8th.
July-2025	E.Coli ECA Limit ECA Objective	Limit and Objective: Monthly GMD 200 CFU/100mL	403.23 CFU/100 mL	UV Channel maintenance ongoing
August-2025	Total Ammonia Nitrogen Concentration and Loading ECA Limit ECA Objective	Limit: 4 mg/L 88 kg/day Objective: 2 mg/L 20.8 kg/day	18.00 mg/L 96.57 kg/day	Jet Pump #1 still out for repair. Operational changes were made to reduce solids in aeration to increase dissolved oxygen levels. A full haul of digester sludge was completed August 1st-8th, and another full haul scheduled for Sept 29th.
September-2025	Total Ammonia Nitrogen Concentration and Loading ECA Limit And Objective	Limit and Objective: Limit: 4 mg/L 88 kg/day Objective: 2 mg/L 20.8 kg/day	18.30 mg/L 98.22 kg/day	Jet Pump #1 still out for repair. Operational changes were made to reduce solids in aeration to increase dissolved oxygen levels. A full haul of sludge occurred September 29th-Oct 3rd.
December-2025	E.Coli ECA Limit ECA Objective	Limit and Objective: Monthly GMD 200 CFU/100mL	264.5 CFU/100mL	Large order of UV bulbs, sleeves, springs and O-rings was made. UV bulbs found burnt out were replaced. A calendar invite for a full inspection of the UV system to be pulled was sent out to Operations and Maintenance staff.

9.2 Summary of Abnormal Sewage Discharge Events

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

9.3 Spills (Other than Sewage)

Date	Location	Details	Volume (m3)	Start Date and Time	End Date and Time
There were no Spills (other than sewage) in 2025					

10 Maintenance

Routine planned maintenance activities are scheduled in WMS and include:

- Inspect, adjust and calibrate process control equipment to ensure proper operation of water distribution systems, pumps, chemical feeders, and all other equipment installed at the facilities.
- Carry out a routine maintenance program including greasing and oiling as specified in the lubrication schedule.
- Perform day-to-day maintenance duties to equipment including checking machinery and electrical equipment when required.
- Maintain an equipment inventory
- Maintain accurate records of work conducted, activities, and achievements.

Planned maintenance activities are communicated to the person responsible for completing the task through the issuance of WMS work orders. Work orders are automatically generated on a schedule as determined based on manufacturer's recommendations and site specific operational and maintenance needs and are assigned directly to the appropriate operations personnel. This schedule is set up by the designated WMS Primary. Work orders are completed and electronically entered into WMS by the person responsible for completing the task. Unplanned maintenance is conducted as required.

10.1 Normal Maintenance and Repairs

Work Order	Details
4427086	Mississippi Quays Pump 1 Leak Repair
4486773	Unplug Primary Clarifiers Sludge Pump 2
4333027	Change Joseph St. SPS Lock to CP Sewage Key
4381359	Storm Tank 3 Drive Chain Repair
4606321	Jet pump #1 Inspection, Troubleshooting and Removal
4607844	Unplug Drain Line Digester Building Sample Sink
4333820	Secure Outpost Antenna Cable Carlgate SPS
4550619	Repair Coolant Leak Joseph SPS
4553265	Replace Bearings in PD blower 3
4553524	Mechanical Seal Adjustment RAS Pump #3
4555808	Replace Inlet Water Pipe and Solenoid Valves Teacups 1 & 2
4711952	Bar Screen Repair
4759607	Install Chain on Bodnar SPS Pumps
4336935	Replace Bearings on Primary Clarifier 4 Motor

Work Order	Details
4380332	Princess Power Cable/Pole Replacement
4335037	Replace Blown Fuse at Hydro Pole
4335651	Replace Motor on AC/MUA Lab Roof
4556375	Carlgate Pump 1 Motor and Leak Sensor Replacement
4606936	Mississippi Quays Spare Pump Repair
4425914	Charles SPS Pump 2 Deragged
4427087	Replace Chem Building Compressor Motor
4819284	Raw Sewage Pump 1 Troubleshooting and VFD Replacement
4333696	Repair Bar Screen Drive Chain
4425960	Derag RAS pump 1
4426958	Joseph St SPS Bypass Pipe Temporary Repair Cap
4609335	Industrial SPS Pump 1 Derag
4550627	Carlgate Pump 2 Pulled and Inspected
4760441	Change Belts on Exhaust Fans Digester Roof
4664310	South East SPS Generator Fault Repair
4709044	Charles St. Pump 2 Motor Troubleshooting
4711951	Primary Transfer Valve 1 Air Leak Repair
4817199	Mississippi Quays Pump 1 Check Valve Cleaning and Inspection
4556514	SPS Panel Upgrades (Carlgate, Westview and Mississippi Quays)
4710592	Highgate SPS Generator Block Heater Replacement
4486666	RAS Pump 3 Derag
4556374	Mississippi Quays Pump 1 Derag
4664291	PAS8 Tank Leak Repair
4815377	South East SPS Pump 1 Leak Repair
4862355	Bar Screen Jam Repair
4863705	Boiler Blower Breaker Replacement
4864830	Highgate Pump 2 Derag and Chain Replacement
4382198	Cellular Upgrades for Pumping Stations 3G to 4G
4554917	Backflow Preventer Annual Service
4607329	Calibration Gas Cylinder Replacement
4377984	PAS8 Tank Clean Outs
4661061	Boiler 1&3 Door Replacement
4334958	High Torque Impact Wrench
4489806	Floor Stripping and Waxing
4490215	Laboratory Faucet Replacement
4332396	SPS Control & Electrical Upgrades (Carlgate, Quays, Westview)

Work Order	Details
4333001	Changing Locks to Sewage Key and Spare Locks
4607748	Clarifier 1 Rake Assembly Rebuild
4487851	Bodnar SPS Float Control and Logic investigation
4552059	Storm Piping Removal and Replacement
4485881	Industrial SPS Outage (Upgrades) - Pumper Truck
4552012	Pumping Station Clean Outs
4606304	Replacement Batteries for UPS
4606323	New Floats for Bodnar SPS
4665075	New Engine Filters for Generators
4604441	Industrial SPS Pump Truck (Hydro Disc. for Upgrades)
4607608	Annual Handheld Analyzer Calibration Service
4817343	Raw Sewage Pump Overload/Reset Buttons Install
4427402	Dissolved Oxygen Probe Sensor Cap Replacement
4816419	Exit Sign Replacements ESA Defect
4335560	RAS Pump 3 Bearing and Seal Replacement
4378139	LEL Gas Sensor Module for Headworks
4425959	New Motor for Primary Actuators Compressor
4653888	Repair Spare Mississippi Quays Pump
4786346	Primary Scum Pump Control Repair
4710102	New Pump Charles St. SPS
4711697	Relocate OCWA Outpost Panel Industrial SPS
4760981	Bodnar SPS PLC Pump Speed Programming

10.2 Emergency Maintenance and Repairs

Work Order	Details
4380129	Boiler 2 Differential Air Flow Switch Replacement
4556057	Tea Cup Valving Repairs
4335557	New Motor AC/ air Make Up Unit
4426135	Replacement Solenoid Valves for Teacups
4555150	RAS Pump 3 VFD Replacement
4763380	Mississippi Quays Pump 1 Repair
4707488	Jet Pump 1 Repairs
4606385	Compactor Starter Relay Replacement
4759287	South East Generator Manual Start Repair
4818193	TeaCup 1 Actuator Replacement
4554923	RAS Pump 3 Disconnect and Reconnect

Work Order	Details
4711479	Industrial SPS Pump Contactor/UPS Replacement
4335039	Plant Main Breaker Repair
4863738	Raw Sewage Pump 1 VFD Replacement

10.3 Flow Meter Calibrations and Maintenance

Location	Date of Calibration	Additional Maintenance
Effluent Flow Meter	N/A	Not in service historically, no reference for accurate flow.
Bypass Flowmeter	November 26, 2025	N/A
BIO Plant Flowmeter	November 26, 2025	N/A
Physical/Chemical Flowmeter	N/A	Not in service historically.
Meter Flow RAS	November 26, 2025	N/A
Meter Flow Raw Sewage	November 26, 2025	N/A
Meter Flow WAS	November 26, 2025	N/A
Secondary Sludge TXFR	November 26, 2025	N/A
Raw Sludge to Primary's	November 26, 2025	N/A
SouthEast SPS Flow	November 26, 2025	N/A
Bodnar SPS	November 26, 2025	N/A

10.4 ECA Proposed Works Update

There were no changes or updates to the schedule for the completion of construction and commissioning for equipment outlined in "Proposed Works" section of facility ECA.

10.1 Notice of Modifications (LOF)

Date	Process	Modification	Status
There were no Modifications made under LOF Authorization in 2025			

10.2 Authorized Alterations in Collection System

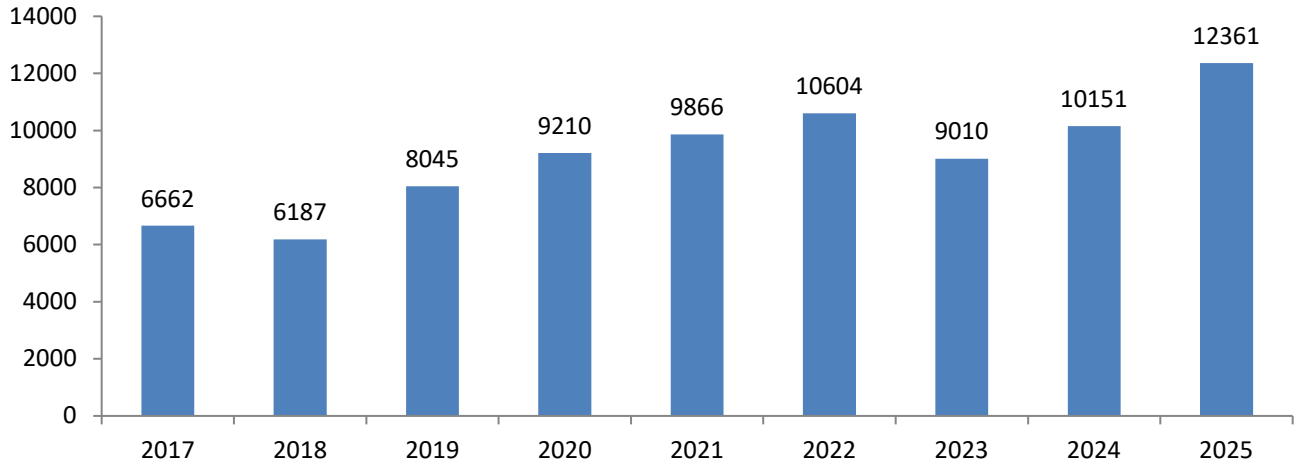
Work Order	Details	Significant Drinking Water Threat (Y/N)
4332396	Carlgate SPS, Westview SPS, Mississippi Quays SPS PLC, electrical, and float upgrades.	No
Town Procured	Joseph St. SPS full station upgrade. In service May 2025.	No
Town Procured	Princess St. pumping station full upgrade started.	No

11 Sludge Generation

11.1 Sludge Disposal Summary

Date	Disposal Location	Approval Number	Total Volume (m³)
January 14th – 17th	DES Storage #4	N/A	240
January 20th	DES Storage #4	N/A	40
January 27th – 28th	Nine Mile	N/A	120
January 30th – 31st	Nine Mile	N/A	160
February 3rd	Nine Mile	N/A	40
March 5th – 7th	Nine Mile	N/A	440
March 11th	Nine Mile	N/A	160
March 13th – 14th	Nine Mile	N/A	240
March 31st	Lystek	N/A	40
April 4th	DES Storage #4	N/A	40
April 7th	DES Storage #4	N/A	40
May 6th – 9th	Storage	N/A	1120
May 12th – 14th	Storage	N/A	1280
June 23rd – 25th	Storage	N/A	1000
July 15th	Storage	N/A	40
July 17th – 18th	Storage	N/A	120
July 25th	Jockbrae Farm	#62460	480
August 1st	Jockbrae Farm	#62460	320
August 5th – 8th	Jockbrae Farm	#62460	1880
September 29th	Jockbrae Farm	#62460	320
October 1st – 3rd	Jockbrae Farm	#62460	1400
October 7th	Jockbrae Farm	#62460	520
November 24th – 25th	Jockbrae Farm	#62460	920
November 28th - 29th	Jockbrae Farm	#62460	920
December 15th – 17th	DES Storage #4, West Tank	N/A	280
December 19th	DES Storage #4, West Tank	N/A	80
December 22nd – 23rd	DES Storage #4, West Tank	N/A	120
		Total	12,361

11.2 Annual Comparison (m³/year)



It is anticipated that sludge volumes in 2026 will increase slightly due to town expansion.

12 Summary of Complaints

Date	Address	Details	Notes
January 25, 2025	111 Dowdall Circle	Sewer back up	Private issue
January 27, 2025	85 Frank Street	Slow drains	Internal plumbing issue
February 24, 2025	172 Antrim Street	Slow drains	Private issue
March 11, 2025	105 McNeely Ave	Odour from WWTP	Investigated, no action required. Reported to the Ministry as required in the ECA.
April 3, 2025	242 High Street	Sewer back up	Private issue
June 12, 2025	18 Neelin Street	Sewer back up	Private issue - mains ok
July 18, 2025	182 Lake Avenue West	Sewer back Up	Private issue
August 5, 2025	246 High Street	Sewer back up	Private issue
August 29, 2025	398 Dufferin Street	Sanitary Odour	Partial blockage at main due to construction
September 3, 2025	5 Costello Street	Sanitary issue	Issue a result of sewer main flushing
October 22, 2025	37 Franklin Street	Sewer Back Up	Private issue
October 23, 2025	189 Morris Street	Sanitary Issue	Mains are good - toilets are functioning

Date	Address	Details	Notes
October 23, 2025	279 High Street	Service issue	Private issue

13 Collection System Highlights

- Complete annual flushing of 1/5 of system
- Complete other regular flushing and cleaning of low flow trouble areas
- Installed two new risers on top of existing siphon manhole structures and installed bolt down lids on sanitary manhole covers on McArthur Island to assist with system surcharging
- Complete sanitary sewer main repair on Lanark St.
- Address mainline blockage and overflow on Coleman St.

Appendix A – PARS Report and Monitoring Data

The PARS Report does not include Diversion sample results for the months of March and April.

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Performance Assessment Report

From 1/1/2025 to 12/31/2025 11:59:59 PM

03/03/2026

5672 CARLETON PLACE WASTEWATER TREATMENT FACILITY 110000971

	1 / 2025	2/ 2025	3/ 2025	4/ 2025	5/ 2025	6/ 2025	7/ 2025	8/ 2025	9/ 2025	10/ 2025	11/ 2025	12/ 2025	<--Total-->	<--Avg-->	<--Max-->	<-Criteria->
Flows																
Raw Flow: Total - Raw Sewage Influent m³/d	192,175.73	142,983.50	309,494.66	353,272.63	225,076.20	178,330.68	177,072.82	166,312.30	161,015.05	181,390.16	225,831.38	196,281.01	2,509,236.12			0.00
Raw Flow: Avg - Raw Sewage Influent m³/d	6,199.22	5,106.55	9,983.70	11,775.75	7,260.52	5,944.36	5,712.03	5,364.91	5,367.17	5,851.30	7,527.71	6,331.65		6,874.62		
Raw Flow: Max - Raw Sewage Influent m³/d	8,698.56	5,575.69	24,352.35	23,644.15	9,070.38	7,442.67	6,202.99	5,921.09	5,883.11	10,674.58	10,158.39	8,491.12			24,352.35	0.00
Raw Flow: Count - Raw Sewage Influent m³/d	31.00	28.00	31.00	30.00	31.00	30.00	31.00	31.00	30.00	31.00	30.00	31.00	365.00			0.00
Eff. Flow: Total - Final Effluent m³/d	192,175.73	142,983.50	309,494.73	353,272.63	225,076.20	178,330.68	177,072.82	166,312.30	161,015.05	181,390.16	225,831.38	196,281.01	2,509,236.19			0.00
Eff. Flow: Avg - Final Effluent m³/d	6,199.22	5,106.55	9,983.70	11,775.75	7,260.52	5,944.36	5,712.03	5,364.91	5,367.17	5,851.30	7,527.71	6,331.65		6,874.62		7,600.00
Eff. Flow: Max - Final Effluent m³/d	8,698.56	5,575.69	24,352.35	23,644.15	9,070.38	7,442.67	6,202.99	5,921.09	5,883.11	10,674.58	10,158.39	8,491.12			24,352.35	0.00
Eff Flow: Count - Final Effluent m³/d	31.00	28.00	31.00	30.00	31.00	30.00	31.00	31.00	30.00	31.00	30.00	31.00	365.00			0.00
Carbonaceous Biochemical Oxygen Demand: CBOD																
Raw: Avg cBOD5 - Raw Sewage Influent mg/L	58.00	86.00	75.00	48.00	45.00	52.00	77.00	74.00	132.00	97.00	25.00	182.00		79.25	182.00	0.00
Raw: # of samples of cBOD5 - Raw Sewage Influent	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00			0.00
Eff: Avg cBOD5 - Final Effluent mg/L	< 3.00	< 3.00	< 4.00	< 5.00	< 3.00	< 3.25	< 3.20	< 3.00	< 3.25	< 3.00	< 3.25	< 3.20		< 3.37	< 5.00	25.00
Eff: # of samples of cBOD5 - Final Effluent	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	52.00			0.00
Loading: cBOD5 - Final Effluent kg/d	< 18.598	< 15.320	< 39.935	< 58.879	< 21.782	< 19.319	< 18.278	< 16.095	< 17.443	< 17.554	< 24.465	< 20.261		< 23.14	< 58.88	550.000
Percent Removal: cBOD5 - Raw Sewage Influent %	94.83	96.51	94.67	89.58	93.33	93.75	95.84	95.95	97.54	96.91	87.00	98.24		94.51	98.24	0.00
Biochemical Oxygen Demand: BOD5																
Raw: Avg BOD5 - Raw Sewage Influent mg/L	160.00	185.00	191.00	78.00	58.00	72.00	215.00	112.00	182.00	135.00	60.00	298.00		145.50	298.00	0.00
Raw: # of samples of BOD5 - Raw Sewage Influent	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00			0.00
Eff: Avg BOD5 - Final Effluent mg/L	3.00	6.00	4.00	15.00	5.00	6.00	6.00	5.00	10.00	7.00	5.00	10.00		6.83	15.00	
Loading: BOD5 - Final Effluent kg/d	18.598	30.639	39.935	176.636	36.303	35.666	34.272	26.825	53.672	40.959	37.639	63.316		46.98	176.64	
Percent Removal: BOD5 - Raw Sewage Influent %	98.13	98.38	97.91	93.59	94.83	95.49	98.51	97.32	98.21	97.78	94.58	98.93		96.97	98.93	0.00
Total Suspended Solids: TSS																
Raw: Avg TSS - Raw Sewage Influent mg/L	56.00	234.00	250.00	208.00	76.00	50.00	385.00	82.00	235.00	220.00	52.00	940.00		232.33	940.00	0.00
Raw: # of samples of TSS - Raw Sewage Influent	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00			0.00
Eff: Avg TSS - Final Effluent mg/L	5.25	9.25	11.25	17.40	8.00	11.25	7.80	9.00	9.25	10.80	6.75	10.80		9.88	17.40	25.00
Eff: # of samples of TSS - Final Effluent	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	52.00			0.00
Loading: TSS - Final Effluent kg/d	32.546	47.236	112.317	204.898	58.084	66.874	44.554	48.284	49.646	63.194	50.812	68.382		67.95	204.90	550.000
Percent Removal: TSS - Raw Sewage Influent %	90.63	96.05	95.50	91.63	89.47	77.50	97.97	89.02	96.06	95.09	87.02	98.85		92.07	98.85	0.00
Total Phosphorus: TP																
Raw: Avg TP - Raw Sewage Influent mg/L	1.63	4.80	6.19	4.32	2.14	1.95	6.72	2.23	5.14	4.88	1.85	20.60		5.20	20.60	0.00
Raw: # of samples of TP - Raw Sewage Influent	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00			0.00
Eff: Avg TP - Final Effluent mg/L	0.12	0.22	0.25	0.49	0.23	0.29	0.23	0.21	0.29	0.29	0.13	0.27		0.26	0.49	1.00
Eff: # of samples of TP - Final Effluent	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	52.00			0.00
Loading: TP - Final Effluent kg/d	0.744	1.098	2.471	5.747	1.634	1.709	1.325	1.140	1.556	1.720	0.979	1.697		1.76	5.75	22.000
Percent Removal: TP - Raw Sewage Influent %	92.64	95.52	96.00	88.70	89.49	85.26	96.55	90.47	94.36	93.98	92.97	98.70		92.89	98.70	0.00
Nitrogen Series																
Raw: Avg TKN - Raw Sewage Influent mg/L	29.30	43.20	40.90	24.40	22.50	23.90	35.60	27.60	36.30	36.10	32.40	65.00		34.77	65.00	0.00
Raw: # of samples of TKN - Raw Sewage Influent	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00			0.00
Eff: Avg TAN - Final Effluent mg/L	17.48	22.45	14.84	8.63	10.23	15.71	18.12	18.00	18.30	18.48	13.15	12.66		15.58	22.45	4.00
Eff: # of samples of TAN - Final Effluent	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	52.00			0.00
Loading: TAN - Final Effluent kg/d	108.331	114.642	148.108	101.601	74.257	93.386	103.502	96.568	98.219	108.132	98.989	80.159		107.09	148.11	88.000
Eff: Avg NO3-N - Final Effluent mg/L	1.66	1.45	1.40	3.67	2.68	4.20	0.74	< 0.05	0.82	0.50	1.09	0.52		1.57	4.20	0.00
Eff: # of samples of NO3-N - Final Effluent	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00			0.00
Eff: Avg NO2-N - Final Effluent mg/L	0.08	0.15	0.07	0.67	0.75	0.20	0.15	< 0.05	0.20	< 0.05	0.57	2.39		0.44	2.39	0.00
Eff: # of samples of NO2-N - Final Effluent	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00			0.00
Disinfection																
Eff: GMD E. Coli - Final Effluent cfu/100mL	122.43	299.43	658.12	3,676.94	223.30	1,255.63	403.23	184.23	105.95	130.81	78.72	264.50				200.00
Eff: # of samples of E. Coli - Final Effluent	4.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	52.00			0.00

Appendix B – Sample Calendar 2026

Ontario Clean Water Agency
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Carleton Place Wastewater Treatment
Sample Schedule 2026

January	Week 1		5-9
	Week 2		12-16
	Week 3		19-23
	Week 4		26-30
	Week 5		
February	Week 1		2-6
	Week 2		9-13
	Week 3	Monday Stat	16-20
	Week 4		23-27
	Week 5		
March	Week 1		2-6
	Week 2		9-13
	Week 3		16-20
	Week 4		23-27
	Week 5	Friday Stat	30-3

April	Week 1	Monday Stat	6-10
	Week 2		13-17
	Week 3		20-24
	Week 4		27-1
	Week 5		
May	Week 1		4-8
	Week 2		11-15
	Week 3	Monday Stat	18-22
	Week 4		25-29
	Week 5		
June	Week 1		1-5
	Week 2		8-12
	Week 3		15-19
	Week 4		22-26
	Week 5	Wed Stat	29-3

July	Week 1		6-10
	Week 2		13-17
	Week 3		20-24
	Week 4		27-31
	Week 5		
August	Week 1	Monday Stat	3-7
	Week 2		10-14
	Week 3		17-21
	Week 4		24-28
	Week 5		
September	Week 1		31-4
	Week 2	Monday Stat	7-11
	Week 3		14-18
	Week 4		21-25
	Week 5	Wed Stat	28-2

October	Week 1		5-9
	Week 2	Monday Stat	12-16
	Week 3		19-23
	Week 4		26-30
	Week 5		
November	Week 1		2-6
	Week 2	Wed Stat	9-13
	Week 3		16-20
	Week 4		23-27
	Week 5		
December	Week 1		30-4
	Week 2		7-11
	Week 3		14-18
	Week 4	Fri Stat	21-25
	Week 5	Mon,Fri Stat	28-1

Revisions

Date	Revision#	Author	Revision
16-Dec-2025	Rev 0	LL	Issued Schedule

WESR - Flows, Quarterly Acute Lethality, CBOD, TSS

Quarterly Lethality for Rainbow Trout (WSER), Annual for Daphnia Magna (New ECA 2025)
Average Day Effluent Flow of Previous Year - **6511.095**m3/day
Federal (Fisheries Act): Flows >2500 & <17500 - Bi-Weekly Sampling TSS CBOD - already sampled weekly
Centrifuge Not in Service
Primary Overflows require grab samples every 8 hours. Secondary Bypasses require composite samples each day the bypass occurs.
New ECA: Rotates sampling day yearly. 2025 - Tuesday, 2026 - Wednesday. Rotate back to Mon 2027
Monthly Final Effluent Grab - Fecal Strep
Monthly Raw Composite - BOD5, TSS, TP, TKN
Monthly Holding Tank Sludge

Weekly Effluent Composite - TP, TAN,
Monthly Final Effluent - CBOD5, TSS, TP, TAN, TKN, Nitrate, Nitrite
Phys/Chem (when in use) - BOD5, TSS, TP, TKN
Weekly Final Effluent Grab - E.Coli, pH, Temp
Annual - Acute Lethality (Daphnia Magna and Rainbow Trout)

Upon Completion of Construction:
Raw Influent Composite Weekly - BOD5, TSS, TP, TKN
Final Effluent Composite Weekly - CBOD5, TSS, TP, TAN, TKN, Nitrate, Nitrite,
Final Efffluent Grab Weekly - E.Coli, pH, Temp
Final Effluent Grab Monthly - Fecal Strep
Acute Lethality - Annual Daphnia and Rainbow Trout

QEMS Ontario Clean Water Agency	External Laboratory Sample Schedule **Carleton Place Wastewater Treatment** **January 2026**	Issued: 16-Dec-2025 Rev.# 0 Page 1 of 12
Reviewed by: Lauren Lacombe (PCT)		Approved by: Austin Mitchell (SOM)

Sample day = Wednesday *In the event of STAT sample day moved to the previous working day*	Week 1			Week 2			Week 3			Week 4			Week 5		
	5-9			**12-16**			**19-23**			**26-30**					
	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded
Monthly PA															
Weekly PA															
Primary Effluent															
Aeration Activated Sludge															
Storage Tank Sludge															
Primary Digester Sludge															
Secondary Digester Supernatant															
Secondary Bypass*															
Primary Overflow**															

NOTES:

***Secondary Bypass (bypassing aeration): phys/chem and composite combined effluent samples are required each day bypass occurs**

****Primary (Raw) Overflows require grab samples every 8 hours the overflow occurs**

Schedule Deviations:

Additional Samples:

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

QEMS Ontario Clean Water Agency	External Laboratory Sample Schedule **Carleton Place Wastewater Treatment** **February 2026**	Issued: 16-Dec-2025 Rev.# 0 Page 2 of 12
Reviewed by: Lauren Lacombe (PCT)	Approved by: Austin Mitchell (SOM)	

Sample day = Wednesday

In the event of STAT sample day moved to the previous working day

	Week 1			Week 2			Week 3			Week 4			Week 5		
							Monday Stat								
	2-6			**9-13**			**16-20**			**23-27**					
	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded
Monthly PA															
Weekly PA															
Primary Effluent															
Aeration Activated Sludge															
Storage Tank Sludge															
Primary Digester Sludge															
Secondary Digester Supernatant															
Lethality - Rainbow Trout & Daphnia Magna															
Secondary Bypass*															
Primary Overflow**															

NOTES:

***Secondary Bypass (bypassing aeration): phys/chem and composite combined effluent samples are required each day bypass occurs**

****Primary (Raw) Overflows require grab samples every 8 hours the overflow occurs**

Schedule Deviations:

Additional Samples:

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

QEMS Ontario Clean Water Agency	External Laboratory Sample Schedule **Carleton Place Wastewater Treatment** **March 2026**	Issued: 16-Dec-2025 Rev.# 0 Page 3 of 12
Reviewed by: Lauren Lacombe (PCT)	Approved by: Austin Mitchell (SOM)	

Sample day = Wednesday *In the event of STAT sample day moved to the previous working day*	Week 1			Week 2			Week 3			Week 4			Week 5		
													Friday Stat		
	2-6			**9-13**			**16-20**			**23-27**			**30-3**		
	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded
Monthly PA															
Weekly PA															
Primary Effluent															
Aeration Activated Sludge															
Storage Tank Sludge															
Primary Digester Sludge															
Secondary Digester Supernatant															
Secondary Bypass*															
Primary Overflow**															

NOTES:

***Secondary Bypass (bypassing aeration): phys/chem and composite combined effluent samples are required each day bypass occurs**

****Primary (Raw) Overflows require grab samples every 8 hours the overflow occurs**

Schedule Deviations:

Additional Samples:

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

QEMS Ontario Clean Water Agency	External Laboratory Sample Schedule **Carleton Place Wastewater Treatment** **April 2026**	Issued: 16-Dec-2025 Rev.# 0 Page 4 of 12
Reviewed by: Lauren Lacombe (PCT)	Approved by: Austin Mitchell (SOM)	

Sample day = Wednesday

In the event of STAT sample day moved to the previous working day

	Week 1			Week 2			Week 3			Week 4			Week 5		
	Monday Stat														
	6-10			13-17			20-24			27-1					
	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded
Monthly PA															
Weekly PA															
Primary Effluent															
Aeration Activated Sludge															
Storage Tank Sludge															
Primary Digester Sludge															
Secondary Digester Supernatant															
Secondary Bypass*															
Primary Overflow**															

NOTES:

***Secondary Bypass (bypassing aeration): phys/chem and composite combined effluent samples are required each day bypass occurs**

****Primary (Raw) Overflows require grab samples every 8 hours the overflow occurs**

Schedule Deviations:

Additional Samples:

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

QEMS Ontario Clean Water Agency	External Laboratory Sample Schedule **Carleton Place Wastewater Treatment** **May 2026**	Issued: 16-Dec-2025 Rev.# 0 Page 5 of 12
Reviewed by: Lauren Lacombe (PCT)	Approved by: Austin Mitchell (SOM)	

Sample day = Wednesday

In the event of STAT sample day moved to the previous working day

	Week 1			Week 2			Week 3			Week 4			Week 5		
							Monday Stat								
	4-8			**11-15**			**18-22**			**25-29**					
	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded
Monthly PA															
Weekly PA															
Primary Effluent															
Aeration Activated Sludge															
Storage Tank Sludge															
Primary Digester Sludge															
Secondary Digester Supernatant															
Lethality - Rainbow Trout & Daphnia Magna															
Secondary Bypass*															
Primary Overflow**															

NOTES:

***Secondary Bypass (bypassing aeration): phys/chem and composite combined effluent samples are required each day bypass occurs**

****Primary (Raw) Overflows require grab samples every 8 hours the overflow occurs**

Schedule Deviations:

Additional Samples:

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

QEMS Ontario Clean Water Agency	External Laboratory Sample Schedule **Carleton Place Wastewater Treatment** **June 2026**	Issued: 16-Dec-2025 Rev.# 0 Page 6 of 12
Reviewed by: Lauren Lacombe (PCT)	Approved by: Austin Mitchell (SOM)	

Sample day = Wednesday *In the event of STAT sample day moved to the previous working day*	Week 1			Week 2			Week 3			Week 4			Week 5		
													Wed Stat		
	1-5			**8-12**			**15-19**			**22-26**			**29-3**		
	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded
Monthly PA															
Weekly PA															
Primary Effluent															
Aeration Activated Sludge															
Storage Tank Sludge															
Primary Digester Sludge															
Secondary Digester Supernatant															
Secondary Bypass*															
Primary Overflow**															

NOTES:

***Secondary Bypass (bypassing aeration): phys/chem and composite combined effluent samples are required each day bypass occurs**

****Primary (Raw) Overflows require grab samples every 8 hours the overflow occurs**

Schedule Deviations:

Additional Samples:

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

QEMS Ontario Clean Water Agency	External Laboratory Sample Schedule **Carleton Place Wastewater Treatment** **July 2026**	Issued: 16-Dec-2025 Rev.# 0 Page 7 of 12
Reviewed by: Lauren Lacombe (PCT)	Approved by: Austin Mitchell (SOM)	

Sample day = Wednesday

In the event of STAT sample day moved to the previous working day

	Week 1			Week 2			Week 3			Week 4			Week 5		
	6-10			**13-17**			**20-24**			**27-31**					
	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded
Monthly PA															
Weekly PA															
Primary Effluent															
Aeration Activated Sludge															
Storage Tank Sludge															
Primary Digester Sludge															
Secondary Digester Supernatant															
Secondary Bypass*															
Primary Overflow**															

NOTES:

***Secondary Bypass (bypassing aeration): phys/chem and composite combined effluent samples are required each day bypass occurs**

****Primary (Raw) Overflows require grab samples every 8 hours the overflow occurs**

Schedule Deviations:

Additional Samples:

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

QEMS Ontario Clean Water Agency	External Laboratory Sample Schedule **Carleton Place Wastewater Treatment** **August 2026**	Issued: 16-Dec-2025 Rev.# 0 Page 8 of 12
Reviewed by: Lauren Lacombe (PCT)	Approved by: Austin Mitchell (SOM)	

Sample day = Wednesday

In the event of STAT sample day moved to the previous working day

	Week 1			Week 2			Week 3			Week 4			Week 5		
	Monday Stat														
	3-7			**10-14**			**17-21**			**24-28**					
	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded
Monthly PA															
Weekly PA															
Primary Effluent															
Aeration Activated Sludge															
Storage Tank Sludge															
Primary Digester Sludge															
Secondary Digester Supernatant															
Lethality - Rainbow Trout & Daphnia Magna															
Secondary Bypass*															
Primary Overflow**															

NOTES:

***Secondary Bypass (bypassing aeration): phys/chem and composite combined effluent samples are required each day bypass occurs**

****Primary (Raw) Overflows require grab samples every 8 hours the overflow occurs**

Schedule Deviations:

Additional Samples:

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

QEMS Ontario Clean Water Agency	External Laboratory Sample Schedule **Carleton Place Wastewater Treatment** **September 2026**	Issued: 16-Dec-2025 Rev.# 0 Page 9 of 12
Reviewed by: Lauren Lacombe (PCT)	Approved by: Austin Mitchell (SOM)	

Sample day = Wednesday *In the event of STAT sample day moved to the previous working day*	Week 1			Week 2			Week 3			Week 4			Week 5		
				Monday Stat									***Wed Stat***		
	31-4			**7-11**			**14-18**			**21-25**			**28-2**		
	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded
Monthly PA															
Weekly PA															
Primary Effluent															
Aeration Activated Sludge															
Storage Tank Sludge															
Primary Digester Sludge															
Secondary Digester Supernatant															
Secondary Bypass*															
Primary Overflow**															

NOTES:

***Secondary Bypass (bypassing aeration): phys/chem and composite combined effluent samples are required each day bypass occurs**

****Primary (Raw) Overflows require grab samples every 8 hours the overflow occurs**

Schedule Deviations:

Additional Samples:

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

QEMS Ontario Clean Water Agency	External Laboratory Sample Schedule **Carleton Place Wastewater Treatment** **October 2026**	Issued: 16-Dec-2025 Rev.# 0 Page 10 of 12
Reviewed by: Lauren Lacombe (PCT)	Approved by: Austin Mitchell (SOM)	

Sample day = Wednesday *In the event of STAT sample day moved to the previous working day*	Week 1			Week 2			Week 3			Week 4			Week 5		
				Monday Stat											
	5-9			**12-16**			**19-23**			**26-30**					
	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded
Monthly PA															
Weekly PA															
Primary Effluent															
Aeration Activated Sludge															
Storage Tank Sludge															
Primary Digester Sludge															
Secondary Digester Supernatant															
Secondary Bypass*															
Primary Overflow**															

NOTES:

***Secondary Bypass (bypassing aeration): phys/chem and composite combined effluent samples are required each day bypass occurs**

****Primary (Raw) Overflows require grab samples every 8 hours the overflow occurs**

Schedule Deviations:

Additional Samples:

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

QEMS Ontario Clean Water Agency	External Laboratory Sample Schedule **Carleton Place Wastewater Treatment** **November 2026**	Issued: 16-Dec-2025 Rev.# 0 Page 11 of 12
Reviewed by: Lauren Lacombe (PCT)	Approved by: Austin Mitchell (SOM)	

Sample day = Wednesday

In the event of STAT sample day moved to the previous working day

	Week 1			Week 2			Week 3			Week 4			Week 5		
				Wed Stat											
	2-6			**9-13**			**16-20**			**23-27**					
	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded
Monthly PA															
Weekly PA															
Primary Effluent															
Aeration Activated Sludge															
Storage Tank Sludge															
Primary Digester Sludge															
Secondary Digester Supernatant															
Lethality - Rainbow Trout & Daphnia Magna															
Secondary Bypass*															
Primary Overflow**															

NOTES:

***Secondary Bypass (bypassing aeration): phys/chem and composite combined effluent samples are required each day bypass occurs**

****Primary (Raw) Overflows require grab samples every 8 hours the overflow occurs**

Schedule Deviations:

Additional Samples:

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

QEMS Ontario Clean Water Agency	External Laboratory Sample Schedule **Carleton Place Wastewater Treatment** **December 2026**	Issued: 16-Dec-2025 Rev.# 0 Page 12 of 12
Reviewed by: Lauren Lacombe (PCT)	Approved by: Austin Mitchell (SOM)	

Sample day = Wednesday *In the event of STAT sample day moved to the previous working day*	Week 1			Week 2			Week 3			Week 4			Week 5		
										Fri Stat			***Mon,Fri Stat***		
	30-4			**7-11**			**14-18**			**21-25**			**28-1**		
	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded	Sampled	Received	Uploaded
Monthly PA															
Weekly PA															
Primary Effluent															
Aeration Activated Sludge															
Storage Tank Sludge															
Primary Digester Sludge															
Secondary Digester Supernatant															
Secondary Bypass*															
Primary Overflow**															

NOTES:

***Secondary Bypass (bypassing aeration): phys/chem and composite combined effluent samples are required each day bypass occurs**

****Primary (Raw) Overflows require grab samples every 8 hours the overflow occurs**

Schedule Deviations:

Additional Samples:

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

Appendix C - Biosolids Quality Report

Biosolids Quality Report Facility: CARLETON PLACE WASTEWATER TREATMENT FACILITY

Solids & Nutrients Period: 01/01/2025 to 12/31/2025 Works: 5672 / Digestor Type: Anaerobic

Ontario Clean Water Agency
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Solids & Nutrients | Metals & Criteria | Last 4 Samples

Facility Works Number:	110000971	Receiver:	Mississippi River
Facility Owner:	Municipality: Town of Carleton Place	Service Population:	
Facility Classification:	Class 3 Wastewater Treatment	Total Design Capacity:	

Note: all parameters in this report are derived from the Bslq Station

Month	Total Solids (mg/L)	Volatile Solids (mg/L)	Total Phosphorus (mg/L)	Total Ammonia Nitrogen (mg/L)	Nitrate as N (mg/L)	Nitrite as N (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Ammonia + Nitrate (mg/L)	Potassium (mg/L)
Parameter Short Name	TS	VS	TP	NH3p_NH4p_N	NO3-N	NO2-N	TKN	Calculation in Report	K
T/S	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean	- no T/S	Lab Published Month Mean
Jan	18,300.00	10,425.00	646.50	803.50	0.55	0.40	1,765.00	402.03	45.50
Feb	18,950.00	10,370.00	721.50	909.50	0.60	0.45	1,745.00	455.05	56.45
Mar	21,000.00	11,150.00	828.00	675.00	0.10	0.10	1,840.00	337.55	56.55
Apr	10,860.00	5,535.00	776.50	727.00	0.60	0.40	1,715.00	363.80	63.00
May	26,700.00	13,650.00	1,006.50	639.00	0.40	0.60	1,805.00	319.70	57.00
Jun	24,450.00	12,800.00	824.00	569.50	0.25	0.25	1,495.00	284.88	47.80
Jul	36,150.00	16,850.00	1,483.00	590.50	0.40	0.40	2,206.50	295.45	53.40
Aug	23,150.00	12,400.00	749.50	529.50	0.40	0.40	1,490.00	264.95	40.70
Sep	16,233.33	8,683.33	632.33	310.67	0.40	0.40	1,306.67	155.53	27.30
Oct	20,450.00	9,670.00	749.00	224.50	1.00	0.60	1,235.00	112.75	33.80
Nov	12,980.00	6,380.00	471.50	261.50	0.55	0.40	1,065.00	131.03	30.75
Dec	16,900.00	8,745.00	534.00	380.00	0.25	1.10	1,230.00	190.13	33.90
Average	20,510.28	10,554.86	785.19	551.68	0.46	0.46	1,574.85	276.07	45.51
Total	246,123.33	126,658.33	9,422.33	6,620.17	5.50	5.50	18,898.17	3,312.83	546.15

Biosolids Quality Report

Facility: CARLETON PLACE WASTEWATER TREATMENT FACILITY

Metals & Criteria

Period: 01/01/2025 to 12/31/2025

Works: 5672 / Digestor Type: Anaerobic

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Solids & Nutrients | **Metals & Criteria** | Last 4 Samples

Note: all parameters in this report are derived from the Bslq Station

Month	Arsenic (mg/L)	Cadmium (mg/L)	Cobalt (mg/L)	Chromium (mg/L)	Copper (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Lead (mg/L)	Selenium (mg/L)	Zinc (mg/L)
Parameter Short Name	As	Cd	Co	Cr	Cu	Hg	Mo	Ni	Pb	Se	Zn
T/S	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean	Lab Published Month Mean
Jan	0.10	0.03	0.03	0.28	6.84	0.00	0.18	0.31	0.50	0.10	5.69
Feb	0.10	0.03	0.03	0.21	6.93	0.00	0.18	0.16	0.15	0.10	6.29
Mar	0.10	0.03	0.03	0.35	8.79	0.01	0.18	0.23	0.10	0.10	8.63
Apr	0.10	0.03	0.05	0.28	7.68	0.00	0.18	0.18	0.10	0.10	7.65
May	0.10	0.03	0.04	0.36	9.40	0.01	0.18	0.24	0.65	0.10	9.18
Jun	0.10	0.03	0.04	0.28	15.24	0.00	0.18	0.19	1.15	0.10	6.66
Jul	0.10	0.03	0.05	0.58	14.20	0.01	0.18	0.37	0.50	0.10	13.40
Aug	0.10	0.03	0.04	0.34	8.53	0.00	0.18	0.22	0.35	0.10	10.35
Sep	0.10	0.03	0.03	0.27	4.72	0.00	0.18	0.18	0.13	0.10	6.65
Oct	0.10	0.03	0.04	0.27	7.00	0.00	0.18	0.27	0.20	0.10	9.18
Nov	0.10	0.03	0.03	0.15	4.20	0.00	0.18	0.13	0.15	0.10	4.23
Dec	0.10	0.03	0.03	0.28	3.80	0.00	0.18	0.21	0.15	0.10	4.52
Average	0.10	0.03	0.04	0.30	8.11	0.00	0.18	0.22	0.34	0.10	7.70
Min. Acceptable Ammonia + Nitrate Nitrogen to Metal Ratio	100.00	500.00	50.00	6.00	10.00	1,500.00	180.00	40.00	15.00	500.00	4.00
Ammonia + Nitrate Nitrogen to Metal Ratio in Sludge	2,760.69	9,202.31	7,794.90	915.99	34.05	69,743.86	1,533.72	1,239.99	801.49	2,760.69	35.85

Biosolids Quality Report

Facility: CARLETON PLACE WASTEWATER TREATMENT FACILITY

Last 4 Samples

Period: 01/01/2025 to 12/31/2025

Works: 5672 / Digestor Type: Anaerobic

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Solids & Nutrients | Metals & Criteria | **Last 4 Samples**

Note: all parameters in this report are derived from the Bslq Station

Parameter Short Name	Time Series	11/04/2025	11/18/2025	12/02/2025	12/16/2025	Average	Metal Concentrations in Sludge (mg/kg)	Max. Permissible Metal Concentrations (mg/kg of Solids)
As (mg/L)	Lab Published	0.10	0.10	0.10	0.10	0.10	6.69	170
Cd (mg/L)	Lab Published	0.03	0.03	0.03	0.03	0.03	2.01	34
Co (mg/L)	Lab Published	0.03	0.03	0.03	0.03	0.03	2.01	340
Cr (mg/L)	Lab Published	0.14	0.16	0.39	0.17	0.22	14.39	2800
Cu (mg/L)	Lab Published	3.98	4.42	3.90	3.69	4.00	267.57	1700
Hg (mg/L)	Lab Published	0.00	0.00	0.00	0.00	0.00	0.20	11
Mo (mg/L)	Lab Published	0.18	0.18	0.18	0.18	0.18	12.05	94
Ni (mg/L)	Lab Published	0.12	0.13	0.24	0.18	0.17	11.21	420
Pb (mg/L)	Lab Published	0.20	0.10	0.10	0.20	0.15	10.04	1100
Se (mg/L)	Lab Published	0.10	0.10	0.10	0.10	0.10	6.69	34
Zn (mg/L)	Lab Published	4.30	4.16	4.36	4.68	4.38	292.84	4200
E.Coli Dry Wt (cfu/g)	Lab Published						E. Coli average is the GMD	
TS (mg/L)	Lab Published	9,360.00	16,600.00	17,000.00	16,800.00	14,940.00		
VS (mg/L)	Lab Published	4,150.00	8,610.00	8,910.00	8,580.00	7,562.50		
TP (mg/L)	Lab Published	453.00	490.00	545.00	523.00	502.75		
NO2-N (mg/L)	Lab Published	0.40	0.40	0.10	2.10	0.75		
TKN (mg/L)	Lab Published	1,090.00	1,040.00	1,280.00	1,180.00	1,147.50		
K (mg/L)	Lab Published	27.60	33.90	36.40	31.40	32.33		
NH3p_NH4p_N (mg/L)	Lab Published	261.00	262.00	338.00	422.00	320.75		
NO3-N (mg/L)	Lab Published	0.40	0.70	0.10	0.40	0.40		

Appendix D - Details of Abnormal Sewage Discharge Events

Event Details Summary

Facility Phys/Chem Diversion

Date	Details	Volume (m^3)	Start Time	End Time	Duration (h)	Discharge Receiver	Disinfection Provided
March 16th to 21st	Heavy Rainfall Event	56,960.4	March 16th 12:21	March 21st 14:10	121.8	Mississippi River	Yes - UV
March 31st to April 10th	Heavy Rainfall Event	82,634.6	March 31st 20:18	April 10th 11:30	231.2	Mississippi River	Yes - UV

Facility Bypass

Date	Location	Details	Volume (m^3)	Start Time	End Time	Duration (h)	Discharge Receiver	Disinfection Provided
March 16th to 17th	Raw Channel Primary Bypass	Heavy Rainfall Event	1737.53	March 16 14:28	March 17 07:12	16.5	Mississippi River	Yes – Chlorine Pucks in Channel

Facility Overflow

Date	Location	Details	Volume (m^3)	Start Time	End Time	Duration (h)	Discharge Receiver	Disinfection Provided
There were no facility overflow events reported during the reporting period.								

Collection Overflow

There are no authorized overflow locations in this system.

Spills of Sewage

Date	Location	Details	Volume (m^3)	Start Time	End Time	Duration (h)	Discharge Receiver	Disinfection Provided
March 17th	Joseph St. SPS	Cam lock on construction bypass line for pumps removed by vandalism caused raw sewage to spill intermittently on the sidewalk. Cam lock was replaced immediately with a permanent cap installed in April. Absorb-All spread to clean up the Spill	0.02	15:15	15:28	0.22	Asphalt	No

Collection System Monitoring Data

Event Date	Event Location	Volume (m3)	Parameter	mg/L	Source Loading	Any Adverse Impacts & Corrective Actions
There were no samples collected from overflow or spill of sewage events in the Collection System reported during the reporting period.			BOD			
			Total Suspended Solids			
			Total Phosphorus			
			Total Kjeldahl Nitrogen (TKN)			
			E.Coli			

Appendix E - ECA Annual Report Requirements

Facility ECA # A-500-1302301999 (2.0) Section 11 (d)	Section in Report
(a) a summary and interpretation of all Influent, Imported Sewage monitoring data, and a review of the historical trend of the sewage characteristics and flow rates;	Treatment Flows Influent Quality
(b) a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, loading and a comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;	Effluent Quality
(c) a summary of all operating issues encountered and corrective actions taken;	Operating Issues/Problems
(d) a summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus or mechanism forming part of the Works;	Maintenance
(e) a summary of any effluent quality assurance or control measures undertaken	Effluent Quality
(f) a summary of the calibration and maintenance carried out on all Influent, Imported Sewage and Final Effluent monitoring equipment to ensure that the accuracy is within the tolerance of that equipment as required in this Approval or recommended by the manufacturer;	Maintenance
(g) a summary of efforts made to achieve the design objectives in this Approval, including an assessment of the issues and recommendations for pro-active actions if any are required under the following situations: • when any of the design objectives is not achieved more than 50% of the time in a year, or there is an increasing trend in deterioration of Final Effluent quality; • when the Annual Average Daily Influent Flow reaches 80% of the Rated Capacity;	Treatment Flows Effluent Quality Operating Issues/Problems
(h) a tabulation of the volume of sludge generated, 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
(i) a summary of any complaints received and any steps taken to address the complaints;	Summary of Complaints
(j) a summary of all Bypasses, Overflows, other situations outside Normal Operating Conditions and spills within the meaning of Part X of EPA and abnormal discharge events;	Operating Issues/Problems
(k) a summary of all Notice of Modifications to Sewage Works completed under Paragraph 1.d. of Condition 10, including a report on status of implementation of all modification;	Maintenance
(I) a summary of efforts made to achieve conformance with Procedure F-5-1 including but not limited to projects undertaken and completed in the sanitary sewer system that result in overall Bypass/Overflow elimination including expenditures and proposed projects to eliminate Bypass/Overflows with estimated budget forecast for the year following that	Operating Issues/Problems

Facility ECA # A-500-1302301999 (2.0) Section 11 (d)	Section in Report
for which the report is submitted;	
(m) any changes or updates to the schedule for the completion of construction and commissioning operation of major process(es) / equipment groups in the Proposed Works;	Maintenance
(n) a summary of any deviation from the monitoring schedule and reasons for the current reporting year and a schedule for the next reporting year;	Monitoring Schedule

Collection ECA #172-W601 - Schedule E	
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
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
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