Mississippi Mills Wastewater System

Waterworks # 110000873

Annual Report

Prepared For: The Municipality of Mississippi Mills

Reporting Period of January 1st – December 31st 2024

Issued: March 31, 2025

Revision: 0

Operating Authority:

OCWA

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

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

Document	Document #	Issue Date	Issue Number
Facility ECA	1637-AC8NT7	August 8, 2016	N/A

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1 Revision History

Date	Rev#	Revisions	Revised By
03-31-2025	0	Annual Report Issued	Lauren Lacombe, OCWA

2 Operations and Compliance Reliability Indices

Compliance Event	Details
Ministry of Environment Inspections	No MECP Inspection during the reporting period
Ministry of Labour Inspections	No MOL Inspection during the reporting period
Non-Compliance	No non-compliance events during the reporting period
Community Complaints	No community complaints during the reporting period
Spills	No Spill events during the reporting period
Overflows	No overflow events during the reporting period
Bypass	Four (4) bypasses during the reporting period

3 Process Description

The Mississippi Mills wastewater treatment system consists of a gravity fed separated collection system which consists of eight (8) sewage pumping stations and one (1) trailer sewage dump station. Flow from seven (7) sewage pumping stations (SPS) - Christian Street SPS, Hope and Glass SPS, Island Street SPS, Riverfront SPS, Robert Street SPS, Spring Street SPS, White Tail Ridge SPS and the trailer sewage dump station, is directed to the main pumping station: Gemmill's Bay SPS. Gemmill's Bay SPS then pumps sewage via forcemain to the treatment plant headworks. There are no authorized overflow points in the collection system, as it is classified as a separated sewer system. Gemmill's Bay SPS, Riverfront SPS, Spring St. SPS, and Whitetail SPS are equipped with standby generators complete with auto transfer switches. There are two portable generators to power the remaining stations in case of a power loss event.

The Mississippi Mills Wastewater Treatment Plant (WWTP) is a Class III facility, located at 212 Wolf Grove Road in Almonte, ON and includes a septage receiving station that consists of a 45 m^3 storage tank, with a grinder on the inlet piping, and a septage transfer pump. Influent flow enters the treatment plant through influent channels in headworks, which contain fine screens, a screening compactor and a vortex grit removal system. Aluminum sulphate (Alum), a coagulant, is added after grit removal to aid in settling and phosphorus control.

Flow is then directed to two secondary treatment trains in parallel, using extended aeration activated sludge. Each train has an aeration tank equipped with fine bubble aeration system and anoxic zone, which then flow to two rectangular secondary clarifiers. The clarifiers are equipped with rakes that

scrape settled sludge into the sludge hopper at the bottom of the tank for further processing. The rakes also double as a scum removal system. Alum is added to the process for a second time at the secondary clarifier for further phosphorus removal and assistance with settling the suspended solids. Tertiary treatment of clarifier effluent is achieved using five (5) up-flow sand filter trains with three (3) filtration cells in each. Disinfection is then provided to the filter effluent using Ultraviolet (UV) lights.

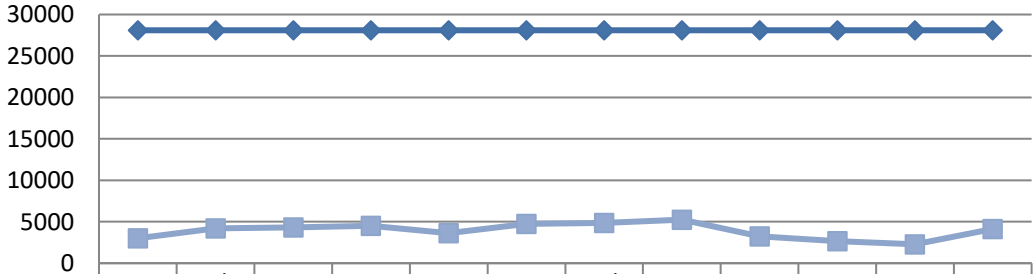
Settled solids from the biological process are pumped as return activated sludge (RAS) from the clarifier hoppers to the anoxic zone, to supplement biological activity and improve nitrification in the extended air process. The sludge is also pumped out of the clarifiers to rotary disk thickeners as waste activated sludge (WAS). Once thickened, the sludge is known as thickened waste activated sludge (TWAS). The TWAS is then sent to Autothermal Thermophilic Aerobic Digesters (ATAD), there is no supernatant produced in this process. After digestion has occurred, the solids are transferred to a Solids Nitrification/Denitrification Reactor (SNDR) for nitrogen removal. There is also no supernatant produced in this process. The digested solids are pulled from the SNDR and pressed to a cake form using a Fournier Press, and the cake is conveyed to a storage barn. The cake will eventually be land applied as a soil conditioner/fertilizer. Process water from the tertiary filters, rotary disk thickener, and Fournier press is collected in the filtrate tank, and is then returned to headworks.

The facility is equipped with a biofilter odour control system. The biofilter consists of wood chip media, which “scrubs” the air collected from the process vents, ATADs and SNDR, to remove any odour. The facility is also equipped with back-up power in the form of a 750 kW standby diesel generator.

4 Treatment Flows

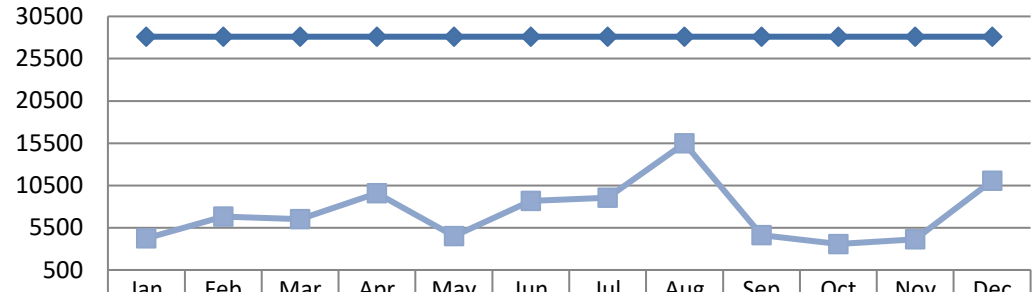
4.1 Raw Flow (m³/d)

For 2024, the annual average flow was 3901.78 m³/d or 83% of the rated capacity. Elevated flows are directly related to snow melt and wet weather events. Use of the attenuation pond may affect raw influent flow. Peak capacity of 28,100 m3/day is the maximum flow equipment in headworks is capable of processing.



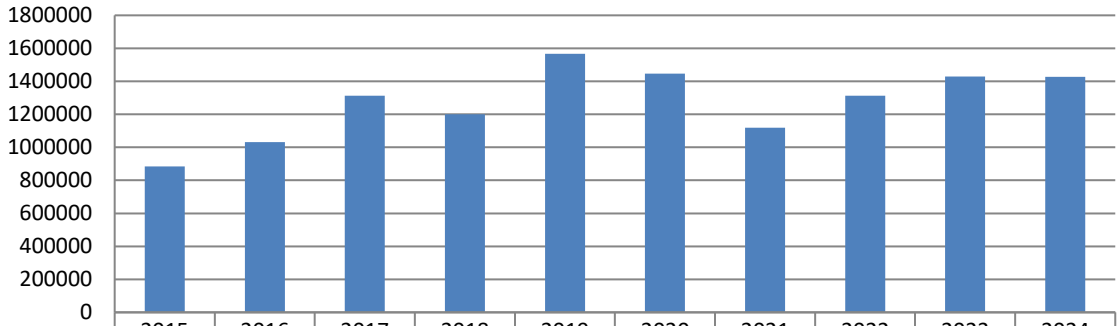
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Peak Capacity	28100	28100	28100	28100	28100	28100	28100	28100	28100	28100	28100	28100
Average Daily Flow	2999	4214	4319	4516	3630	4740	4849	5252	3224	2654	2282	4135

4.1.1 *Raw Influent Peak Flow*



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Peak Capacity	28100	28100	28100	28100	28100	28100	28100	28100	28100	28100	28100	28100
Maximum Daily Flow	4252	6835	6515	9568	4520	8672	9063	15479	4631	3575	4128	11039

4.1.2 *Raw Influent Flow Annual Comparison (m^3)*

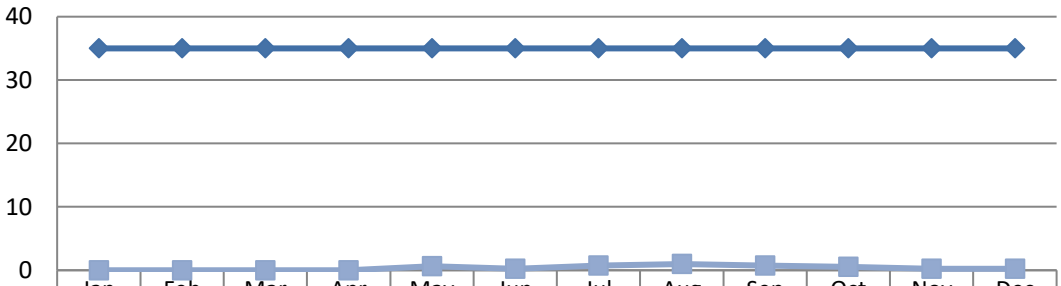


	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Annual Flow	884055	1031585	1312674	1201247	1566983	1446310	1118526	1313442	1429611	1428051

4.2 Imported Sewage

Septage is received in the headworks Septage bay, and then pumped to the raw influent channel before the fine screens. Total Septage received in 2024 was 131.46 m3. Compliance for this parameter was MET.

4.2.1 *Septage Received (m^3/d)*

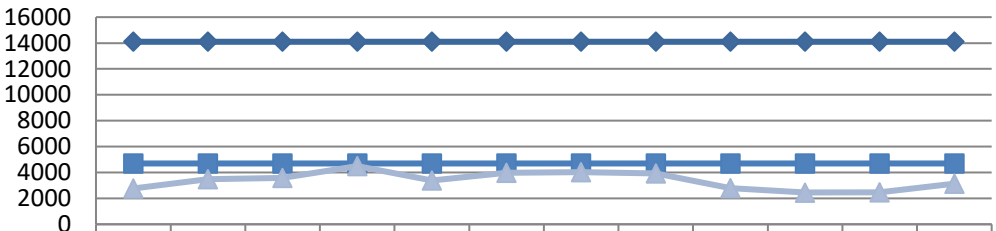


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	35	35	35	35	35	35	35	35	35	35	35	35
Average Flow	0	0	0	0	0.6	0.3	0.7	1.0	0.7	0.5	0.2	0.2

4.3 Effluent Flows

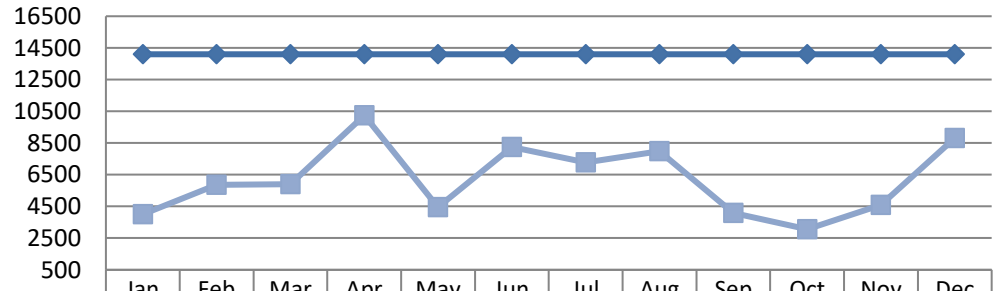
The annual average effluent flow was 3373.26 m³/d or 72% of the rated capacity. Elevated flows are directly related to snow melt and wet weather events.

4.3.1 Average Effluent Flow



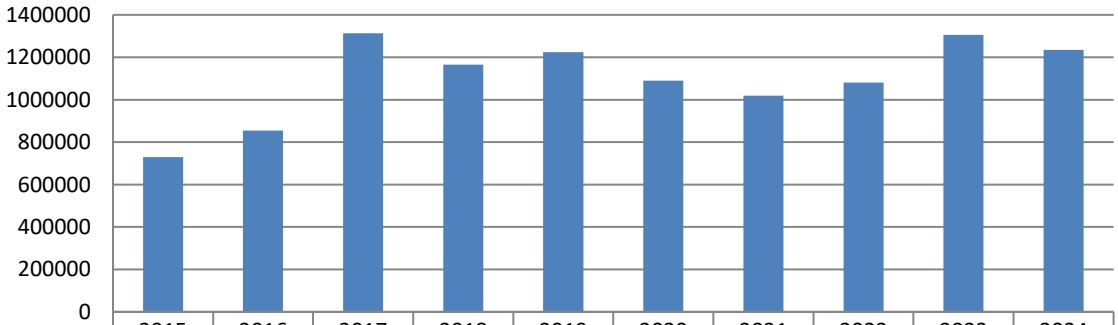
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Peak Capacity	14100	14100	14100	14100	14100	14100	14100	14100	14100	14100	14100	14100
Design Flow	4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	4700
Average Daily Flow	2771	3482	3587	4494	3375	3980	4035	3927	2788	2457	2465	3133

4.3.2 Effluent Peak Flow



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Peak Capacity	14100	14100	14100	14100	14100	14100	14100	14100	14100	14100	14100	14100
Maximum Daily Flow	4007	5857	5901	10245	4458	8235	7279	7989	4092	3061	4585	8800

4.3.3 Effluent Annual Comparison

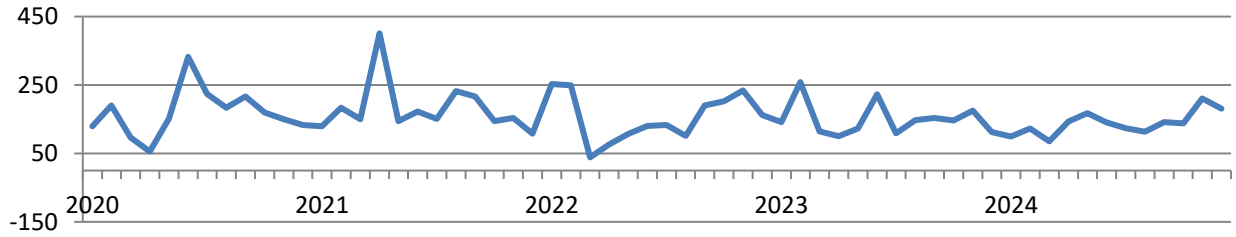


	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Annual Flow	728833	854491	1312674	1165247	1223708	1089472	1018622	1081359	1305517	1234612

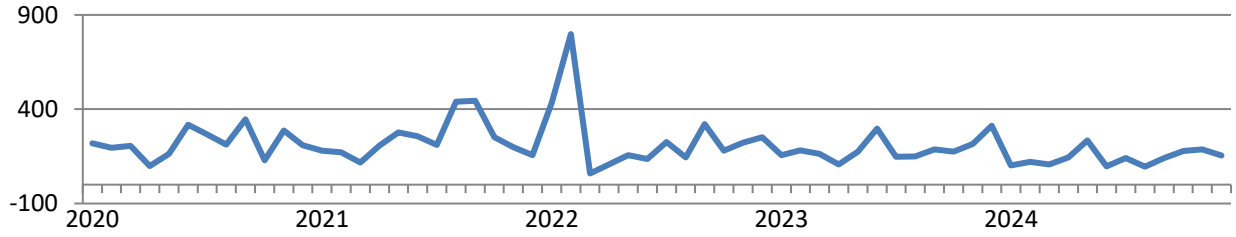
5 Raw Sewage Quality

Five (5) Year Average Trends from 2020-2024 for Raw Sewage Quality are graphed below. Additional details for the 2024 reporting period and specific monthly minimum, maximum and averages are included in the Performance Assessment Report located in Appendix A.

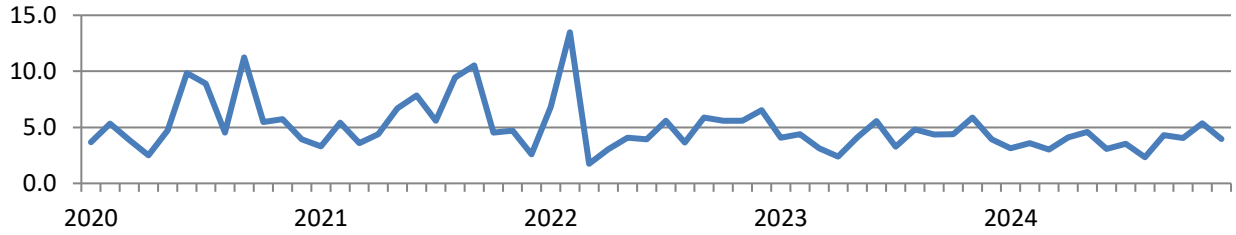
BOD5 mg/L



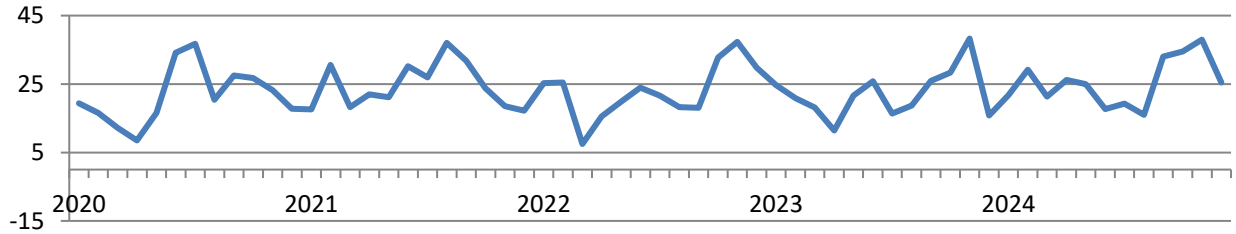
Total Suspended Solids mg/L



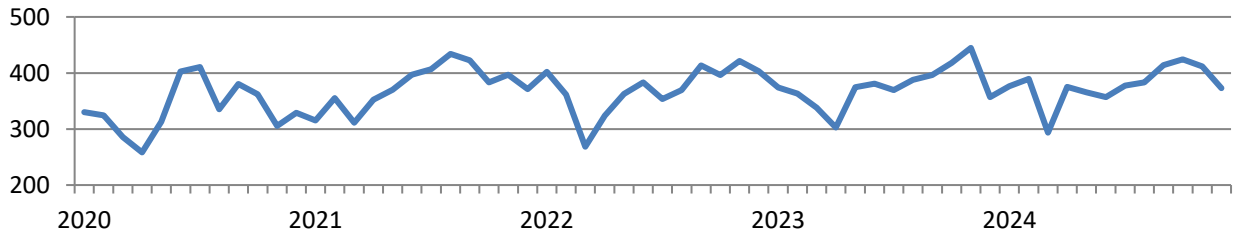
Total Phosphorus mg/L



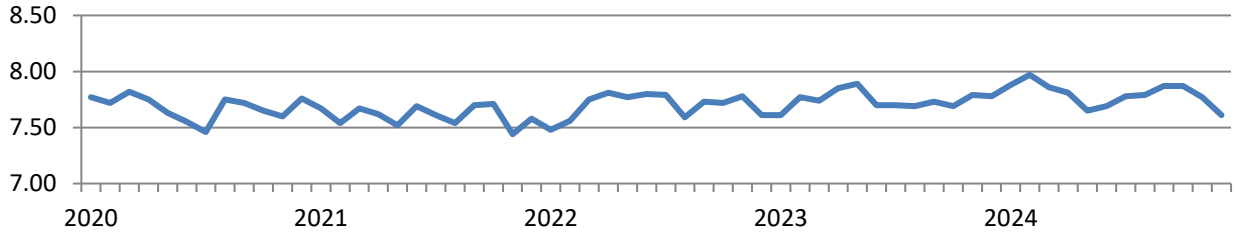
Total Ammonia Nitrogen mg/L



Alkalinity mg/L



pH



6 Effluent Quality

6.1 Effluent Quality Assurance and Control Measures Taken

This system is part of OCWA's Mississippi Cluster, and is supported by the Eastern Regional Hub and corporate resources. The system is operated by certified operators 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.

Operators complete in-house rounds and routine 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 samples collected during the reporting period to meet legislated sampling requirements are submitted to Caduceon for analysis, with the exception of pH and temperature. Caduceon 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. The pH and temperature parameters are analyzed in the field at the time of sample collection by certified operators, to ensure accuracy and precision of the results obtained.

OCWA uses several computer systems which include:

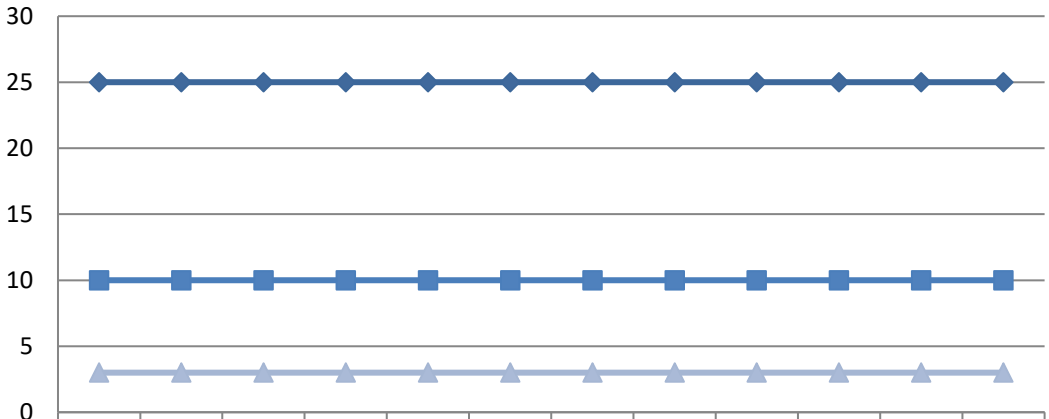
- Process Data Management (PDM)
    - This database program consolidates all operational data from a variety of sources including field data, online instrumentation, and electronic receipt of lab test results for reporting, tracking and analysis.
- Maximo – OCWA's Work Management System (WMS)
    - This 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 found in Appendix A.

6.2 CBOD5

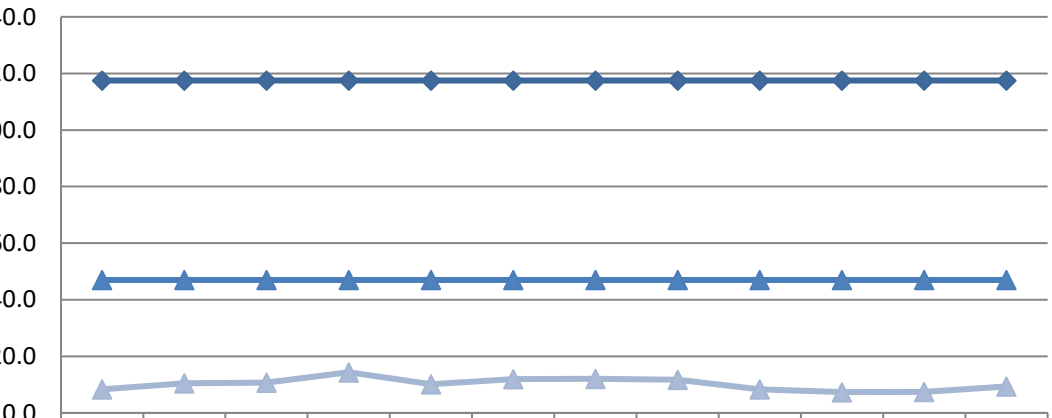
Compliance Limit for this parameter was MET.
Compliance Objective for this parameter was MET.

6.2.1 Concentration (mg/L)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	25	25	25	25	25	25	25	25	25	25	25	25
ECA Objective	10	10	10	10	10	10	10	10	10	10	10	10
Average	3	3	3	3	3	3	3	3	3	3	3	3

6.2.2 Loading (kg/d)

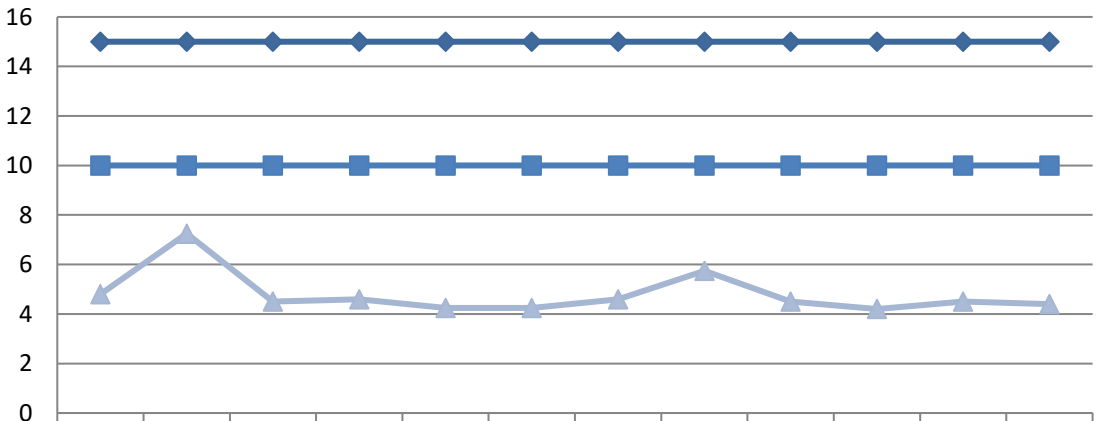


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	117.5	117.5	117.5	117.5	117.5	117.5	117.5	117.5	117.5	117.5	117.5	117.5
ECA Objective	47	47	47	47	47	47	47	47	47	47	47	47
Average	8	10	11	14	10	12	12	12	8	7	7	9

6.3 Total Suspended Solids

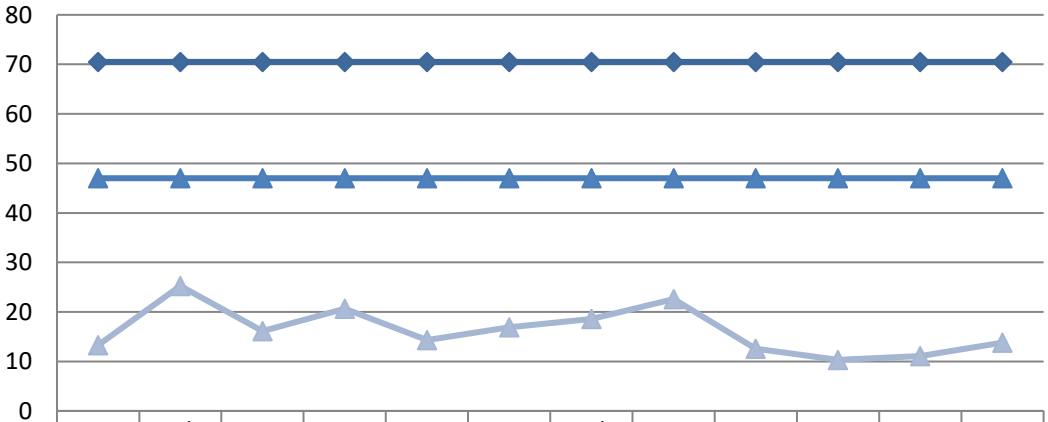
Compliance Limit for this parameter was MET.
Compliance Objective for this parameter was MET.

6.3.1 Concentration (mg/L)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit	15	15	15	15	15	15	15	15	15	15	15	15
Objective	10	10	10	10	10	10	10	10	10	10	10	10
Average	5	7	5	5	4	4	5	6	5	4	5	4

6.3.2 Loading (kg/d)

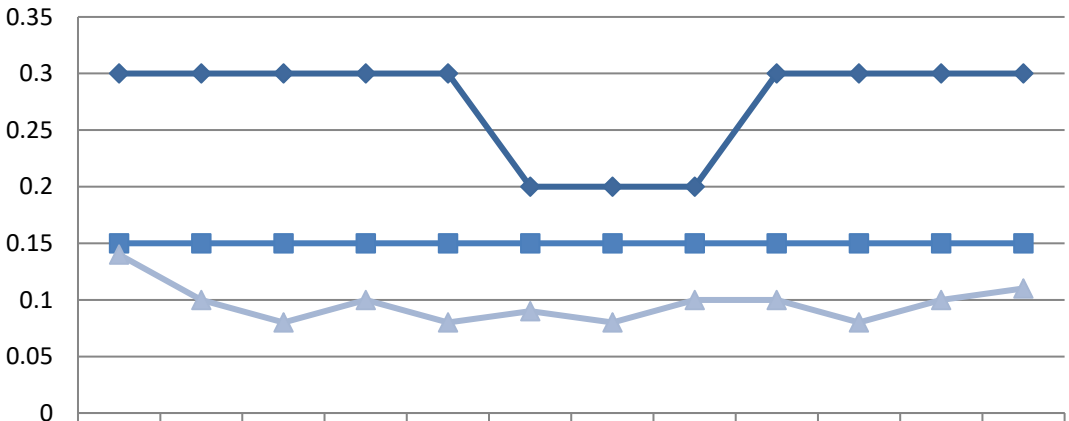


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5
ECA Objective	47	47	47	47	47	47	47	47	47	47	47	47
Average	13	25	16	21	14	17	19	23	13	10	11	14

6.4 Total Phosphorus

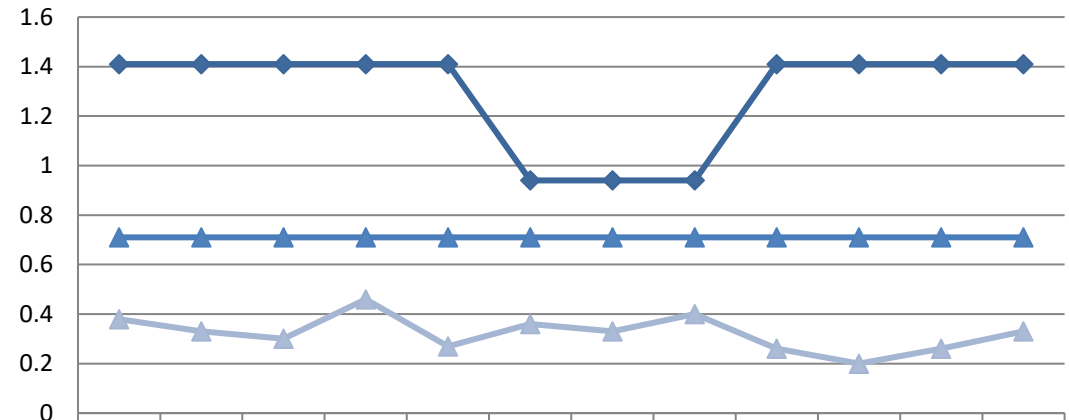
Compliance Limit for this parameter was MET.
Compliance Objective for this parameter was MET.

6.4.1 Concentration (mg/L)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3
ECA Objective	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Average	0.14	0.10	0.08	0.10	0.08	0.09	0.08	0.10	0.10	0.08	0.10	0.11

6.4.2 Loading (kg/d)

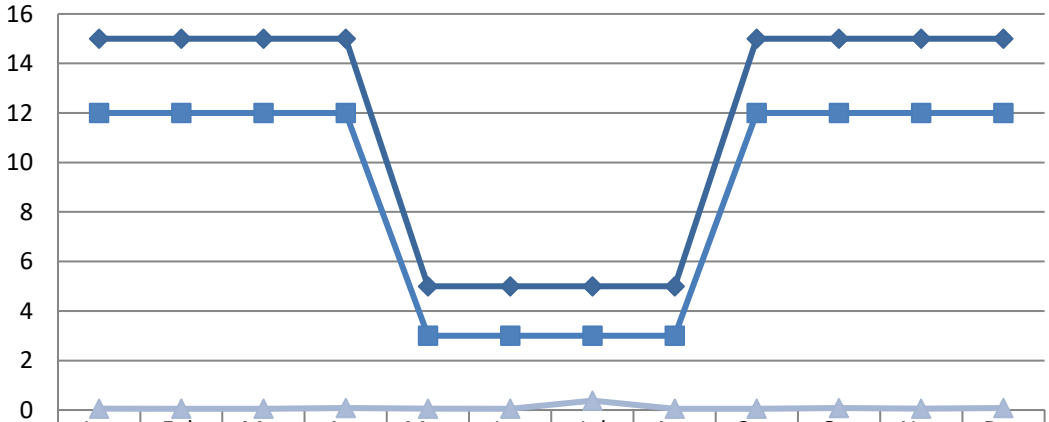


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	1.41	1.41	1.41	1.41	1.41	0.94	0.94	0.94	1.41	1.41	1.41	1.41
ECA Objective	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Average	0.38	0.33	0.30	0.46	0.27	0.36	0.33	0.40	0.26	0.20	0.26	0.33

6.5 Total Ammonia Nitrogen

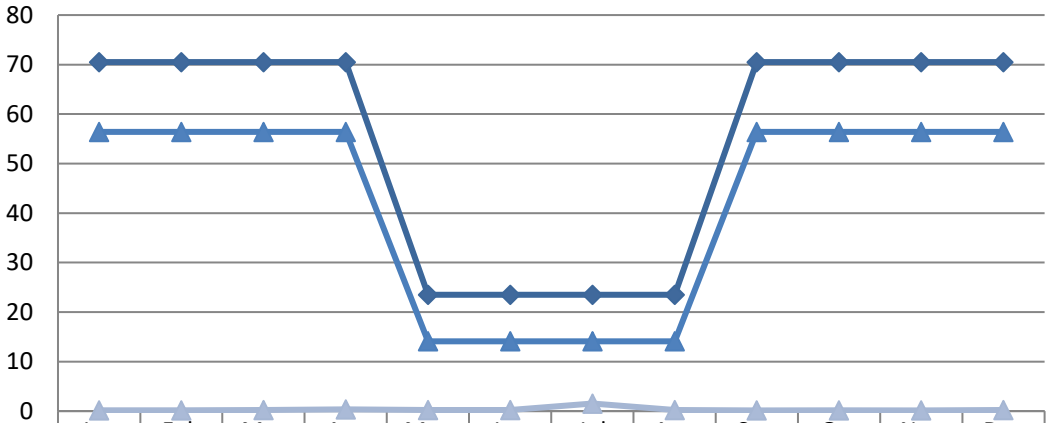
Compliance Limit for this parameter was MET.
Compliance Objective for this parameter was MET.

6.5.1 Concentration (mg/L)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	15	15	15	15	5	5	5	5	15	15	15	15
ECA Objective	12.0	12.0	12.0	12.0	3.0	3.0	3.0	3.0	12.0	12.0	12.0	12.0
Average	0.06	0.05	0.05	0.08	0.06	0.05	0.38	0.05	0.05	0.08	0.06	0.08

6.5.2 Loading (kg/d)

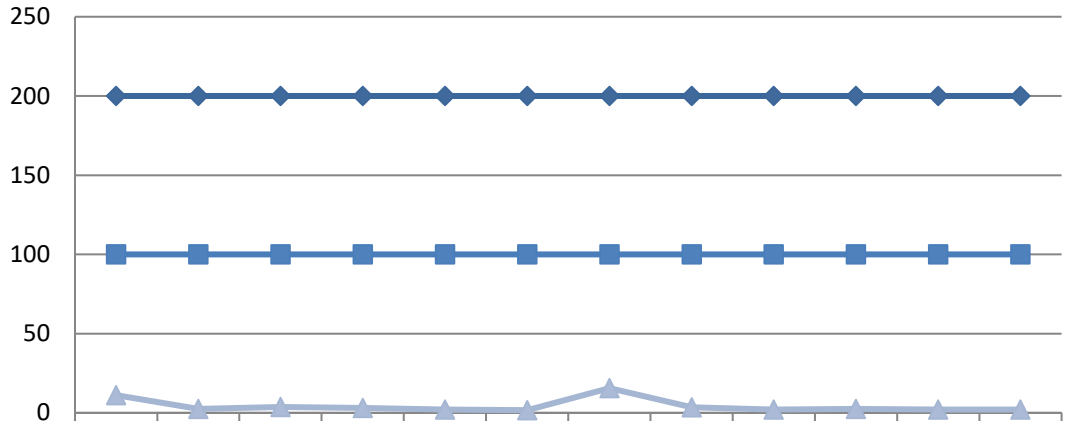


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	70.5	70.5	70.5	70.5	23.5	23.5	23.5	23.5	70.5	70.5	70.5	70.5
ECA Objective	56.4	56.4	56.4	56.4	14.1	14.1	14.1	14.1	56.4	56.4	56.4	56.4
Average	0.16	0.17	0.20	0.38	0.20	0.20	1.54	0.20	0.14	0.19	0.14	0.26

6.6 E-coli

Compliance Limit for this parameter was MET.
Compliance Objective for this parameter was MET.

6.6.1 Geometric Mean (cfu/100mL)

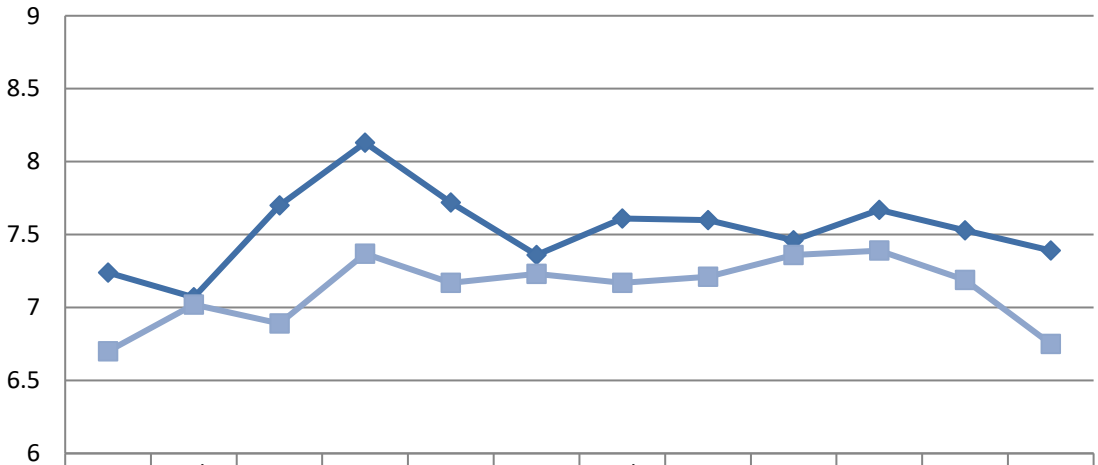


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ECA Limit	200	200	200	200	200	200	200	200	200	200	200	200
ECA Objective	100	100	100	100	100	100	100	100	100	100	100	100
Average	11	2	4	3	2	2	16	4	2	2	2	2

6.7 pH

Compliance Limit range for this parameter is 6.0-9.5, compliance was MET.
Compliance Objective range for this parameter is 6.5-9.0, compliance was MET.

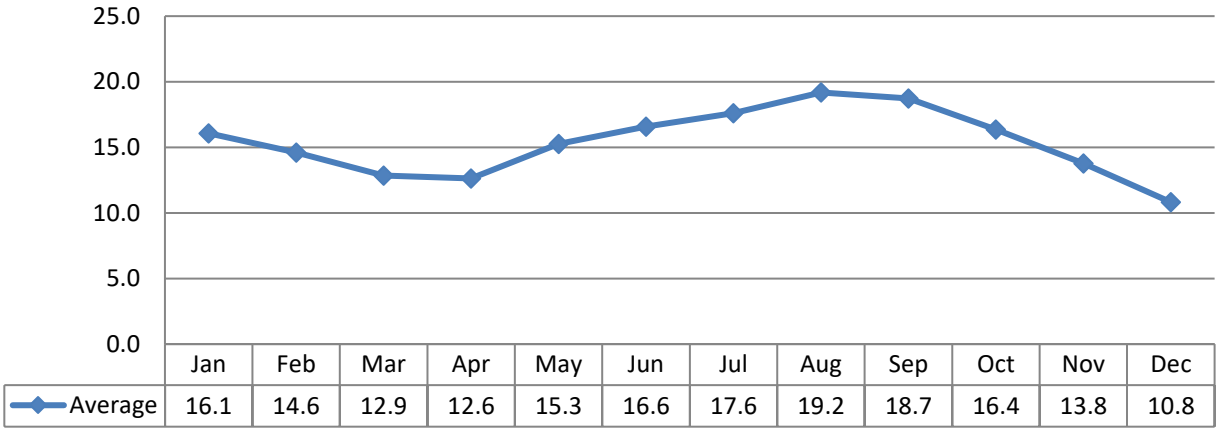
6.7.1 pH Range



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maximum	7.24	7.07	7.7	8.13	7.72	7.36	7.61	7.6	7.46	7.67	7.53	7.39
Minimum	6.70	7.02	6.89	7.37	7.17	7.23	7.17	7.21	7.36	7.39	7.19	6.75

6.8 Temperature

There are no compliance limits in relation to temperature.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average	16.1	14.6	12.9	12.6	15.3	16.6	17.6	19.2	18.7	16.4	13.8	10.8

6.9 Acute Lethality

There were four (4) samples collected in 2024 and tested for acute lethality (Rainbow Trout and Daphnia Magna). This sampling is required both provincially and federally. 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	February 21, 2024	0%	0%
2nd Quarter	May 28, 2024	0%	0%
3rd Quarter	August 21, 2024	0%	0%
4th Quarter	November 19, 2024	0%	0%

7 Operating Issues/Problems

There were no effluent quality objective or limits exceeded in 2024. Operating issues remain limited to increased flows during wet weather.

7.1 Effluent Quality Non-Compliance Summary

Date	Exceedance of	Limit	Value	Corrective Action
There were no effluent Non-Compliances for the reporting period.				

7.2 Summary of Abnormal Sewage Discharge Events

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

7.3 Spills (Other than Sewage)

Date	Location	Details	Volume (m)	Start Date and Time	End Date and Time
There were no Spills (Other than Sewage) for the reporting period					

8 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 issues.

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.

8.1 Normal Maintenance and Repairs

Work Order	Details
3759392	Replacing Center Housing - Fournier Press 2
3762610	Install Chainwheels and Chains for RAS Pump Valving
3762986	Purchase New Pressure Regulators for Fournier Press Arms
3763072	Final Effluent Building UPS Replacement
3765040	Bio-Filter Fan Repair
3804463	Fournier Press Liquid Detection Sensor Replacement
3804770	Boilers Annual Service

Work Order	Details
3805891	Boiler 3 Water pump Replacement
3805958	Boiler Repair Kits Purchase
3807286	Disc Thickener VFD Replacement
3847752	Boilers Pressure Gauge Replacement
3850261	Replacement motor bearings for ATAD 1 Jet Pump
3902232	Trojan UV Site Visit and Service
3902385	SCADA Computer Location / Optimization
3949277	UV Replacement Parts
3951341	Replace pH Probe on SNDR
3951559	Generator Battery Replacement
3952464	SCADA to UV Communication Issue Program Repair
3952569	Online and Handheld Analyzer Annual Servicing/Calibration/Verification
3952577	AC Unit Replacement in Lab
3952723	HVAC/AC Maintenance
4046877	Secondary Clarifier 1 Shear Pin Repair, Clarifier Drain Down and Inspection
4094152	Hot Water Tank Replacement
4094831	UV UPS Battery Replacement
4094883	Water trap (Boiler Room) Repair
4095867	Tertiary Filter Sandlift Replacement Parts
4143673	ATAD 1 VFD Replacement
4146086	Fournier Press 1 Sludge Flow Meter Inspection
4176016	Septage Receiving Website Hosting
4194520	Boilers Annual Maintenance and Repairs
4194659	UVT Sensor Repair – Under Warranty
4196908	Final Effluent pH Probe Replacement
4238059	Fire Alarm Panel Service and Repairs

8.2 Emergency Maintenance and Repairs

Work Order	Details
There were no emergency maintenance or repairs during the report.	

8.3 Flow Meter Calibrations and Maintenance

Location	Date of Calibration	Additional Maintenance
FIT-310 Septage Inlet Grinder	January 15, 2024	NA
FIT-350 Septage Outlet	January 15, 2024	NA
FIT-611 RAS 1	January 15, 2024	NA
FIT-631 RAS 3	January 15, 2024	NA
FIT-621 RAS 2	January 15, 2024	NA
FIT-612 WAS 1	January 15, 2024	NA
FIT-622 WAS 2	January 15, 2024	NA
FIT-632 WAS 3	January 15, 2024	NA
FIT-750 Filtrate Tank	January 15, 2024	NA
FIT-1091 Service Water	January 15, 2024	NA
FIT-405 Attenuation Pumps	January 15, 2024	NA
FIT-946 Fournier Press #1 Polymer	January 15, 2024	NA
FIT-940 Fournier Press #1 Sludge	January 15, 2024	NA
FIT-956 Fournier Press #2 Polymer	January 15, 2024	NA
FIT-950 Fournier Press #2 Sludge	January 15, 2024	NA
FIT-470 Raw Sewage Vortex #1	January 15, 2024	NA
FIT-480 Raw Sewage Vortex #2	January 15, 2024	NA
FIT-01 White Tail Ridge SPS	January 15, 2024	April 10th, 2024 – replaced connector
FIT-700 Sludge Flow	January 15, 2024	NA
FIT-1180 Final Effluent	January 15, 2024	NA

8.4 Notice of Modifications

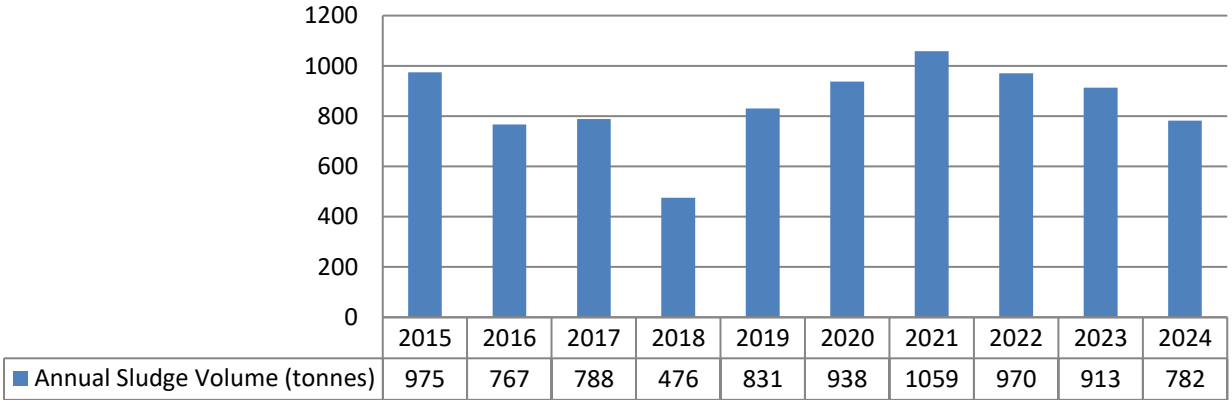
Date	Process	Modification	Status
There were no Modifications during the reporting period.			

9 Sludge Generation

9.1 Sludge Disposal Summary

Date	Disposal Location	Approval Number	Metric Tonnes
May 17-24	Cochran – Clayton Farm	60926	447.42
November 13-14	Cochran – Home Farm	61733	334.56
		Total	781.98

9.2 Annual Comparison (Metric Tonnes/year)



It is anticipated that sludge volumes in 2025 will remain similar to the 2024 volumes.

10 Summary of Complaints

Location	Date	Nature of Complaint	Actions Taken
There were no Complaints during the reporting period.			

11 Collection System Highlights

The CLI-ECA is prepared by the Town of Mississippi Mills. Below are the 2024 highlights in the collection system:

Appendix A

Appendix A – Performance Assessment Report and Raw Data

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Performance Assessment Report

From 1/1/2024 to 12/31/2024 11:59:59 PM

03/24/2025

5678 MISSISSIPPI MILLS WASTEWATER TREATMENT FACILITY 110000873

	1 / 2024	2/ 2024	3/ 2024	4/ 2024	5/ 2024	6/ 2024	7/ 2024	8/ 2024	9/ 2024	10/ 2024	11/ 2024	12/ 2024	<--Total-->	<--Avg-->	<--Max-->	<-Criteria->
Flows																
Raw Flow: Total - Raw Sewage m³/d	92,965.08	122,210.97	133,883.86	135,470.13	112,533.85	142,203.61	150,333.33	162,813.88	96,712.59	82,280.06	68,457.12	128,186.51	1,428,050.99			0.00
Raw Flow: Avg - Raw Sewage m³/d	2,998.87	4,214.17	4,318.83	4,515.67	3,630.12	4,740.12	4,849.46	5,252.06	3,223.75	2,654.20	2,281.90	4,135.05		3,901.78		4,700.00
Raw Flow: Max - Raw Sewage m³/d	4,251.65	6,834.55	6,514.95	9,568.42	4,520.08	8,672.44	9,063.45	15,479.27	4,631.41	3,575.08	4,127.68	11,038.73			15,479.27	0.00
Raw Flow: Count - Raw Sewage m³/d	31.00	29.00	31.00	30.00	31.00	30.00	31.00	31.00	30.00	31.00	30.00	31.00	366.00			0.00
Eff. Flow: Total - Final Effluent m³/d	85,910.92	100,986.18	111,188.52	134,826.64	104,622.73	119,395.39	125,071.89	121,735.08	83,645.84	76,173.46	73,943.04	97,112.72	1,234,612.41			0.00
Eff. Flow: Avg - Final Effluent m³/d	2,771.32	3,482.28	3,586.73	4,494.22	3,374.93	3,979.85	4,034.58	3,926.94	2,788.19	2,457.21	2,464.77	3,132.67		3,373.26		
Eff. Flow: Max - Final Effluent m³/d	4,007.10	5,856.66	5,900.84	10,244.62	4,458.23	8,234.90	7,278.61	7,989.21	4,091.50	3,060.53	4,584.62	8,800.38			10,244.62	0.00
Eff Flow: Count - Final Effluent m³/d	31.00	29.00	31.00	30.00	31.00	30.00	31.00	31.00	30.00	31.00	30.00	31.00	366.00			0.00
Carbonaceous Biochemical Oxygen Demand: CBOD																
Raw: # of samples of cBOD5 - Raw Sewage	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	52.00			0.00
Eff: Avg cBOD5 - Final Effluent mg/L	< 3.00	< 3.00	< 3.00	< 3.20	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00		< 3.02	< 3.20	25.00
Eff: # of samples of cBOD5 - Final Effluent	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	53.00			0.00
Loading: cBOD5 - Final Effluent kg/d	< 8.314	< 10.447	< 10.760	< 14.382	< 10.125	< 11.940	< 12.104	< 11.781	< 8.365	< 7.372	< 7.394	< 9.398		< 10.18	< 14.38	117.500
Percent Removal: cBOD5 - Raw Sewage %	93.56	95.57	95.31	96.69	97.22	95.56	96.46	95.45	97.42	95.54	97.69	97.14		96.13	97.69	0.00
Biochemical Oxygen Demand: BOD5																
Raw: # of samples of BOD5 - Raw Sewage	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	52.00			0.00
Eff: Avg BOD5 - Final Effluent mg/L	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00		< 3.00	<	
Loading: BOD5 - Final Effluent kg/d	< 8.314	< 10.447	< 10.760	< 13.483	< 10.125	< 11.940	< 12.104	< 11.781	< 8.365	< 7.372	< 7.394	< 9.398		< 10.12	< 13.48	
Percent Removal: BOD5 - Raw Sewage %	96.99	97.56	96.49	97.90	98.21	97.86	97.57	97.36	97.88	97.83	98.58	98.34		97.72	98.58	0.00
Total Suspended Solids: TSS																
Raw: Avg TSS - Raw Sewage mg/L	101.40	121.25	107.50	145.00	234.50	96.50	141.40	94.75	140.50	177.75	187.50	154.60		141.89	234.50	0.00
Raw: # of samples of TSS - Raw Sewage	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	52.00			0.00
Eff: Avg TSS - Final Effluent mg/L	< 4.80	< 7.25	4.50	< 4.60	< 4.25	4.25	4.60	5.75	< 4.50	4.20	< 4.50	< 4.40		< 4.77	< 7.25	15.00
Eff: # of samples of TSS - Final Effluent	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	53.00			0.00
Loading: TSS - Final Effluent kg/d	< 13.302	< 25.247	16.140	< 20.673	< 14.343	16.914	18.559	22.580	< 12.547	10.320	< 11.091	< 13.784		< 16.10	< 25.25	70.500
Percent Removal: TSS - Raw Sewage %	95.27	94.02	95.81	96.83	98.19	95.60	96.75	93.93	96.80	97.64	97.60	97.15		96.30	98.19	0.00
Total Phosphorus: TP																
Raw: Avg TP - Raw Sewage mg/L	3.13	3.59	3.03	4.11	4.59	3.07	3.53	2.35	4.30	4.05	5.36	3.96		3.75	5.36	0.00
Raw: # of samples of TP - Raw Sewage	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	52.00			0.00
Eff: Avg TP - Final Effluent mg/L	0.14	0.10	0.09	0.10	0.08	0.09	0.08	0.10	0.10	0.08	0.11	0.11		0.11	0.14	0.30
Eff: # of samples of TP - Final Effluent	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	53.00			0.00
Loading: TP - Final Effluent kg/d	0.377	0.331	0.305	0.458	0.270	0.358	0.331	0.403	0.265	0.201	0.259	0.332		0.38	0.46	1.410
Percent Removal: TP - Raw Sewage %	95.65	97.35	97.20	97.52	98.26	97.07	97.67	95.63	97.79	97.97	98.04	97.33		97.29	98.26	0.00
Nitrogen Series																
Raw: Avg TKN - Raw Sewage mg/L	27.06	34.75	28.38	34.18	33.15	22.48	26.70	22.30	37.38	39.68	41.48	34.94		31.87	41.48	0.00
Raw: # of samples of TKN - Raw Sewage	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	5.00	52.00			0.00
Eff: Avg TAN - Final Effluent mg/L	< 0.06	< 0.05	< 0.06	< 0.08	< 0.06	< 0.05	< 0.38	< 0.05	< 0.05	< 0.08	< 0.06	< 0.08		< 0.09	< 0.38	15.00
Eff: # of samples of TAN - Final Effluent	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	53.00			0.00
Loading: TAN - Final Effluent kg/d	< 0.161	< 0.174	< 0.197	< 0.378	< 0.202	< 0.199	< 1.541	< 0.196	< 0.139	< 0.192	< 0.136	< 0.263		< 0.31	< 1.54	70.500
Disinfection																
Eff: GMD E. Coli - Final Effluent cfu/100mL	11.14	2.38	3.72	3.03	2.00	1.68	15.58	3.56	2.00	2.49	2.00	2.00				200.00
Eff: # of samples of E. Coli - Final Effluent	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	53.00			0.00

Raw Influent Lab Data 2024										
Date	CBOD5 mg/L	Total Phosphorous mg/L	Total Suspended Solids mg/L	Dissolved Ortho phosphorous	Total Keildjal Nitrogen mg/L	Total Ammonia Nitrogen	Nitrite mg/L	Nitrate mg/L	Alkalinity	pH
01/03/2024	124.00	4.44	190.00	1.73	32.60	22.80	0.05	0.40	378.00	7.71
01/09/2024	21.00	2.01	34.00	0.82	18.00	17.90	0.41	0.93	366.00	7.98
01/18/2024	10.00	1.66	29.00	0.89	16.60	14.20	0.05	0.89	365.00	7.86
01/24/2024	19.00	3.31	102.00	1.34	29.80	19.10	0.05	0.05	371.00	7.80
01/31/2024	59.00	4.21	152.00	1.92	38.30	34.50	0.40	0.40	403.00	8.07
02/07/2024	44.00	3.21	86.00	1.14	21.40	19.20	0.40	0.66	351.00	7.83
02/13/2024	14.00	1.61	59.00	1.41	16.00	9.57	0.40	2.29	341.00	7.98
02/21/2024	71.00	4.67	150.00	2.72	50.40	40.60	0.40	0.40	421.00	8.02
02/27/2024	142.00	4.86	190.00	2.88	51.20	47.20	0.40	0.40	444.00	8.03
03/06/2024	48.00	2.04	96.00	1.49	21.40	14.80	0.68	0.40	344.00	7.91
03/13/2024	62.00	2.43	144.00	1.08	24.00	18.70	0.40	0.40	60.00	7.88
03/19/2024	84.00	3.46	104.00	1.21	27.70	17.80	0.05	0.05	366.00	7.75
03/26/2024	62.00	4.20	86.00	2.03	40.40	33.90	0.40	0.40	405.00	7.88
04/03/2024	183.00	6.64	245.00	2.46	52.00	38.20	0.05	0.10	410.00	7.73
04/09/2024	67.00	4.75	216.00	2.51	40.00	29.60	0.86	0.59	387.00	8.07
04/16/2024	42.00	1.87	64.00	0.68	17.60	12.20	0.05	0.05	331.00	7.84
04/24/2024	119.00	4.22	96.00	2.00	34.20	28.20	0.40	0.40	389.00	7.61
04/30/2024	72.00	3.06	104.00	1.84	27.10	22.80	0.05	0.05	359.00	7.82
05/07/2024	75.00	3.01	178.00	0.61	24.90	17.20	0.05	0.05	361.00	7.84
05/14/2024	143.00	5.29	335.00	2.50	31.80	24.40	0.05	0.05	368.00	7.75
05/23/2024	76.00	4.45	80.00	1.68	36.20	29.60	0.05	0.05	371.00	7.51
05/28/2024	137.00	5.59	345.00	3.27	39.70	28.90	0.05	0.05	361.00	7.51
06/04/2024	110.00	5.10	190.00	4.44	32.30	28.50	0.05	0.05	385.00	7.60
06/11/2024	50.00	2.20	76.00	1.52	19.70	13.70	0.40	0.40	353.00	7.69
06/18/2024	63.00	2.92	80.00	1.02	24.70	20.40	0.40	0.40	361.00	7.71
06/25/2024	47.00	2.07	40.00	1.12	13.20	8.28	0.05	0.05	329.00	7.77
07/03/2024	64.00	3.71	135.00	1.81	29.80	21.00	0.05	0.05	372.00	7.66

Raw Influent Lab Data 2024										
Date	CBOD5 mg/L	Total Phosphorous mg/L	Total Suspended Solids mg/L	Dissolved Ortho phosphorous	Total Keildjal Nitrogen mg/L	Total Ammonia Nitrogen	Nitrite mg/L	Nitrate mg/L	Alkalinity	pH
07/09/2024	20.00	1.85	76.00	0.73	17.00	13.60	0.21	0.17	351.00	7.95
07/16/2024	64.00	2.22	66.00	1.14	17.30	13.20	0.05	0.05	356.00	7.85
07/23/2024	132.00	4.80	110.00	2.30	27.90	20.80	0.05	0.05	406.00	7.89
07/30/2024	144.00	5.05	320.00	1.54	41.50	27.80	0.09	0.05	403.00	7.54
08/07/2024	133.00	4.06	120.00	1.48	34.50	27.60	0.05	0.05	423.00	7.70
08/13/2024	48.00	1.78	115.00	0.60	17.20	12.00	0.05	0.05	364.00	7.65
08/20/2024	17.00	0.97	60.00	0.27	15.20	9.67	0.05	0.06	367.00	7.97
08/27/2024	66.00	2.57	84.00	0.66	22.30	14.90	0.40	0.40	378.00	7.82
09/04/2024	84.00	4.47	175.00	2.09	39.00	33.80	0.08	0.05	416.00	7.96
09/10/2024	102.00	3.30	30.00	1.29	30.80	25.40	0.40	0.40	412.00	7.85
09/17/2024	103.00	4.72	155.00	2.29	37.10	28.00	0.40	0.70	415.00	7.88
09/24/2024	176.00	4.70	202.00	2.29	42.60	44.80	0.05	0.05	413.00	7.77
10/08/2024	62.00	2.78	106.00	1.07	32.20	25.60	0.40	0.40	410.00	7.80
10/16/2024	69.00	3.44	160.00	1.26	35.60	28.40	0.40	0.40	419.00	7.93
10/22/2024	65.00	4.37	260.00	2.99	42.00	38.60	0.40	0.40	419.00	7.87
10/29/2024	73.00	5.59	185.00	3.51	48.90	45.40	0.40	0.40	449.00	7.88
11/05/2024	128.00	5.21	190.00	3.09	45.40	45.60	0.40	0.40	432.00	7.82
11/13/2024	135.00	4.86	210.00	2.27	41.80	39.10	0.40	0.40	410.00	7.87
11/19/2024	155.00	8.35	185.00	7.57	49.30	45.30	0.05	0.05	427.00	7.65
11/26/2024	102.00	3.02	165.00	2.08	29.40	21.80	0.05	0.05	378.00	7.72
12/03/2024	101.00	4.07	175.00	3.28	37.80	28.50	0.40	0.58	400.00	7.68
12/10/2024	140.00	5.30	270.00	2.96	46.90	36.00	0.40	0.40	426.00	7.72
12/17/2024	73.00	4.42	82.00	1.96	36.10	24.30	0.05	0.05	353.00	7.73
12/24/2024	162.00	3.74	132.00	2.04	34.30	24.90	0.40	0.40	375.00	7.30
12/31/2024	49.00	2.29	114.00	1.03	19.60	13.60	0.05	0.05	310.00	7.62

Final Effluent Lab Data 2024						
Date	CBOD5 mg/L	Total Suspended Solids mgL	Total Phosphorous mg/L	Unionized Ammonia mg/L	Total Ammonia Nitrogen mg/L	E-Coli CFU
01/03/2024	3.00	3.00	0.19	0.01	0.05	200.00
01/09/2024	3.00	5.00	0.08	0.01	0.05	2.00
01/18/2024	3.00	3.00	0.15	0.01	0.07	2.00
01/25/2024	3.00	3.00	0.06	0.01	0.07	0.00
01/31/2024	3.00	10.00	0.20	0.01	0.05	214.00
02/07/2024	3.00	3.00	0.09	0.01	0.05	2.00
02/13/2024	3.00	5.00	0.09	0.01	0.05	2.00
02/21/2024	3.00	13.00	0.12	0.01	0.05	2.00
02/27/2024	3.00	8.00	0.08	0.01	0.05	4.00
03/06/2024	3.00	4.00	0.09	0.01	0.06	2.00
03/13/2024	3.00	6.00	0.08	0.01	0.05	24.00
03/19/2024	3.00	5.00	0.09	0.01	0.06	2.00
03/26/2024	3.00	3.00	0.08	0.01	0.05	2.00
04/03/2024	3.00	4.00	0.10	0.01	0.06	2.00
04/09/2024	3.00	5.00	0.12	0.01	0.05	4.00
04/16/2024	3.00	4.00	0.12	0.01	0.05	2.00
04/24/2024	4.00	3.00	0.09	0.01	0.05	2.00
04/30/2024	3.00	7.00	0.08	0.01	0.21	8.00
05/07/2024	3.00	7.00	0.10	0.01	0.07	2.00
05/14/2024	3.00	4.00	0.08	0.01	0.05	2.00
05/23/2024	3.00	3.00	0.08	0.01	0.07	2.00
05/28/2024	3.00	3.00	0.06	0.01	0.05	2.00
06/04/2024	3.00	5.00	0.09	0.01	0.05	2.00
06/11/2024	3.00	5.00	0.11	0.01	0.05	0.00
06/18/2024	3.00	4.00	0.09	0.01	0.05	2.00
06/25/2024	3.00	3.00	0.07	0.01	0.05	2.00
07/03/2024	3.00	5.00	0.06	0.01	0.52	2.00

Final Effluent Lab Data 2024						
Date	CBOD5 mg/L	Total Suspended Solids mgL	Total Phosphorous mg/L	Unionized Ammonia mg/L	Total Ammonia Nitrogen mg/L	E-Coli CFU
07/09/2024	3.00	6.00	0.11	0.01	1.24	126.00
07/16/2024	3.00	3.00	0.13	0.01	0.05	38.00
07/23/2024	3.00	5.00	0.06	0.01	0.05	48.00
07/30/2024	3.00	4.00	0.05	0.01	0.05	2.00
08/07/2024	3.00	4.00	0.07	0.01	0.05	2.00
08/13/2024	3.00	7.00	0.14	0.01	0.05	4.00
08/20/2024	3.00	6.00	0.13	0.01	0.05	2.00
08/27/2024	3.00	6.00	0.07	0.01	0.05	10.00
09/04/2024	3.00	5.00	0.09	0.01	0.05	2.00
09/10/2024	3.00	3.00	0.11	0.01	0.05	2.00
09/17/2024	3.00	3.00	0.07	0.01	0.05	2.00
09/24/2024	3.00	7.00	0.11	0.01	0.05	2.00
10/02/2024	3.00	3.00	0.07	0.01	0.05	2.00
10/08/2024	3.00	5.00	0.07	0.01	0.05	2.00
10/16/2024	3.00	6.00	0.09	0.01	0.05	2.00
10/22/2024	3.00	4.00	0.07	0.01	0.19	6.00
10/29/2024	3.00	3.00	0.11	0.01	0.05	2.00
11/05/2024	3.00	4.00	0.06	0.01	0.05	2.00
11/13/2024	3.00	6.00	0.12	0.01	0.05	2.00
11/19/2024	3.00	3.00	0.10	0.01	0.05	2.00
11/26/2024	3.00	5.00	0.14	0.01	0.07	2.00
12/03/2024	3.00	4.00	0.11	0.01	0.13	2.00
12/10/2024	3.00	8.00	0.07	0.01	0.05	2.00
12/17/2024	3.00	4.00	0.10	0.01	0.11	2.00

Final Effluent Lab Data 2024		
Date	Temperature	pH
01/03/2024	17.50	7.24
01/09/2024	18.10	7.23
01/18/2024	11.70	7.07
01/25/2024	13.10	6.70
01/31/2024	19.90	7.08
02/07/2024	19.00	7.07
02/13/2024	14.00	7.04
02/21/2024	12.00	7.02
02/27/2024	13.40	7.02
03/06/2024	12.40	6.89
03/13/2024	11.70	7.10
03/19/2024	13.40	7.27
03/26/2024	13.90	7.70
04/03/2024	14.30	7.61
04/09/2024	12.70	7.89
04/16/2024	13.00	8.13
04/24/2024	11.00	7.37
04/30/2024	12.10	7.37
05/07/2024	15.70	7.72
05/14/2024	13.80	7.17
05/23/2024	15.70	7.19
05/28/2024	15.90	7.30
06/04/2024	17.20	7.28
06/11/2024	15.30	7.36
06/18/2024	17.20	7.31
06/25/2024	16.60	7.23
07/03/2024	17.60	7.46
07/09/2024	17.50	7.36
07/16/2024	18.30	7.42
07/23/2024	14.30	7.61

Final Effluent Lab Data 2024		
Date	**Temperature**	**pH**
07/30/2024	20.30	7.17
08/07/2024	19.60	7.60
08/13/2024	19.80	7.21
08/20/2024	17.90	7.29
08/27/2024	19.40	7.40
09/04/2024	18.60	7.36
09/10/2024	17.60	7.46
09/17/2024	19.50	7.42
09/24/2024	19.20	7.39
10/02/2024	18.80	7.67
10/08/2024	15.60	7.59
10/16/2024	15.61	7.52
10/22/2024	16.20	7.39
10/29/2024	15.60	7.53
11/05/2024	14.90	7.19
11/13/2024	13.80	7.20
11/19/2024	13.60	7.28
11/26/2024	12.80	7.39
12/03/2024	11.90	7.34
12/10/2024	10.90	7.26
12/17/2024	11.10	6.75
12/31/2024	10.00	7.32

Appendix B

Appendix B - Biosolids Quality Report

Biosolids Quality Report

Facility: MISSISSIPPI MILLS WASTEWATER TREATMENT FACILITY

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Solids & Nutrients

Period: 01/01/2024 to 12/31/2024 **Works: 5678 / Digestor Type: Aerobic**

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

Facility Works Number:	110000873	Receiver:	Mississippi River
Facility Owner:	Municipality: Municipality of	Service Population:	
Facility Classification:	Class 3 Wastewater Treatment	Total Design Capacity:	14100 m3/day

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)
Parameter Short Name	TS	VS	TP	NH3p_NH4p_N	NO3-N	NO2-N	TKN	Calculation in Report
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
Jan	51,433.33	30,000.00	1,355.33	18.89	135.04	0.41	2,158.11	76.97
Feb	49,633.33	29,450.00	1,476.67	195.67	140.95	3.65	2,966.67	168.31
Mar	42,683.33	26,183.33	1,316.17	78.67	134.95	1.30	2,627.17	106.81
Apr	48,933.33	28,683.33	1,878.33	210.17	6.68	0.25	3,831.67	108.43
May	54,083.33	30,750.00	2,211.67	117.67	12.10	0.40	3,521.67	64.88
Jun	55,716.67	32,116.67	2,616.67	814.17	18.65	0.43	4,623.33	416.41
Jul	61,066.67	32,283.33	2,666.67	958.83	66.97	0.45	4,213.33	512.90
Aug	63,483.33	32,600.00	2,551.67	642.00	55.03	0.43	3,545.00	348.52
Sep	64,283.33	34,516.67	2,393.33	240.67	54.02	24.37	3,215.00	147.34
Oct	69,061.11	37,244.44	2,391.11	70.67	30.59	0.33	3,220.00	50.63
Nov	66,633.33	35,833.33	1,958.33	145.33	0.43	0.72	2,655.33	72.88
Dec	60,916.67	34,466.67	2,025.00	75.33	0.42	32.83	3,195.00	37.88
Average	57,327.31	32,010.65	2,070.08	297.34	54.65	5.46	3,314.36	176.00
Total	687,927.78	384,127.78	24,840.94	3,568.06	655.83	65.58	39,772.28	2,111.94

Appendix C

Appendix C - Details of Abnormal Sewage Discharge Events

Event Details Summary

Facility Bypass

Date	Location	Details	Volume (m^3)	Start Time	End Time	Duration (h)	Discharge Receiver	Disinfection Provided
March 13	Mississippi Mills WWTP Effluent – UV Channel 2	UV Lights interlocked on false low channel level, which turned the lights off in UV Channel 2, causing a disinfection bypass. Attempts were made to turn the lights on in manual, however this alarm condition had inhibited the lights from turning on. The level sensor rods had corrosion, which interrupted the level signal. The rods were replaced.	36.66	13:26	13:34	0.13	Mississippi River	No
April 5	Mississippi Mills WWTP Effluent – UV Channel 1	Alarm condition where lights in Channel 1 interlocked while flow was present, causing a disinfection bypass. It was determined the level sensor had corroded and required replacement. The Low Level Interlock Alarm was bypassed, preventing this from happening again.	70	15:34	15:51	0.28	Mississippi River	No
April 22	Mississippi Mills WWTP Effluent	A power outage occurred where the lights in the active channel turned off causing disinfection bypass. Restored after plant completed transfer to Generator Power.	58.5	11:15 14:12	11:28 14:18	0.32	Mississippi River	No
July 24	Mississippi Mills WWTP Effluent	Power outage and communication failure caused lights to turn off and UV Disinfection Bypass in Channel 1 and 2. UV Lights were reset before turning on again.	70	15:26 16:08	15:42 16:09	0.28	Mississippi River	No

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.								

Appendix D

Appendix D - ECA Annual Report Requirements

Facility ECA # 1637-AC8NT7 - Section 9 (4)	Section in Report
(a) a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 6, including an overview of the success and adequacy of the Works;	See Raw Sewage Quality, Imported Waste Quality and Effluent Quality
(b) a description of any operating problems encountered and corrective actions taken;	See Operating Issues/Problems
(c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;	See Maintenance
(d) a summary of any effluent quality assurance or control measures undertaken in the reporting period;	See Effluent Quality
(e) a summary of the calibration and maintenance carried out on all effluent monitoring equipment;	See Maintenance
(f) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 5;	See Effluent Quality
(g) a tabulation of the volume of sludge removed from the Works during the reporting period and a summary of the locations to where the sludge was disposed;	See Sludge Generation
(h) a summary of any complaints received during the reporting period and any steps taken to address the complaints;	See Summary of Complaints
(i) a summary of all by-pass, spill or abnormal discharge events; and	See Appendix D
(j) a copy of all Notice of Modifications submitted to the Water Supervisor as a result of Schedule A, subsection 1, with a status report on the implementation of each modification;	See Maintenance
(k) a report summarizing all modifications completed as a result of Schedule A, subsection 3; and	See Maintenance
(l) any other information the Water Supervisor requires from time to time.	N/A