Cobden Wastewater System

Waterworks #120000596

Annual Report

Prepared For: The Township of Whitewater Region

Reporting Period of January 1st – December 31st 2025

Issued: February 25, 2026

Revision: 1

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	4306-B2YKK4	2018-09-05	N/A
ECA for Municipal Sewage Collection System	203-W601	2023-07-23	1

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1 Revision History

Date	Rev#	Revisions	Revised By
2026-02-20	0	Annual Report Issued	Megan Lockwood, OCWA
2026-02-25	1	Added details of overflow events to Appendix C	Megan Lockwood, OCWA

2 Operations and Compliance Reliability Indices

Compliance Event	Details
Ministry of Environment Inspections	0
Ministry of Labour Inspections	0
Non-Compliance	4 - See Raw Sewage Quality and Effluent Quality for details
Community Complaints	2 - See Summary of Complaints for details
Spills	1 - See Appendix D for details of Abnormal Sewage Discharge Events
Overflows	3
Bypass	0
Sewer main blockages	0 - Sewer main blockages, See Summary of Complaints for details 2 - Lateral blockages, See Summary of Complaints for details

3 Process Description

Cobden's wastewater treatment system consists of a gravity fed collection system of separated sewers and the Morton Street lift station that discharges to the wastewater treatment facility located at 1 Astrolabe Road in Cobden, Ontario. Cobden's wastewater treatment plant is a Class III treatment facility. Raw sewage is gravity fed through the existing inlet parallel grit channels and four (4) manual bar screens for preliminary treatment before entering one equalization (EQ) tank, with two (2) interconnected cells. The inlet channel is also equipped with overflow capabilities via a weir to the overflow channel. A level sensor measures the overflow volume.

From the EQ tank, the raw sewage is pumped into the treatment headworks where solids and rags are further removed using a two (2) rotary drum screens and a compacting screw auger. Wastewater then enters two bioreactor tanks that operate in parallel, each made up of an aeration cell and a membrane filtration cell. The aeration cell is where secondary treatment begins. Each tank is equipped with a fine bubble aeration system. PAS-8 is injected for phosphorus removal via the sludge recirculation line in the aeration cell. The membrane filtration cells is where post-secondary treatment continues. Each cell contains one Membrane BioReactor (MBR) filter consisting of two parallel ultrafiltration membrane trains, effluent pumps, and air scouring blowers. Permeate pulled from the MBR filters flows through

individual UV reactors to achieve disinfection before combining at a common header to fill the 6000 L permeate holding tank. The permeate holding tank is used to during the chemically enhanced backwash of the ultrafiltration fibers. Chemically assisted backwashes occur daily, with the chemicals sodium hypochlorite and citric acid rotated for use each day. Sodium hypochlorite is applied on to combat organics that can foul the fibers, and citric acid is applied to combat inorganics that can clog the fibers. When the permeate tank is not in use for chemically assisted backwashes, it acts as a holding tank before the effluent is directed to the outfall pipe. The outfall pipe directs the effluent to an earth bermed enclosure (lagoon) located southeast of the plant, then is discharged into Muskrat River and subsequently to Muskrat Lake.

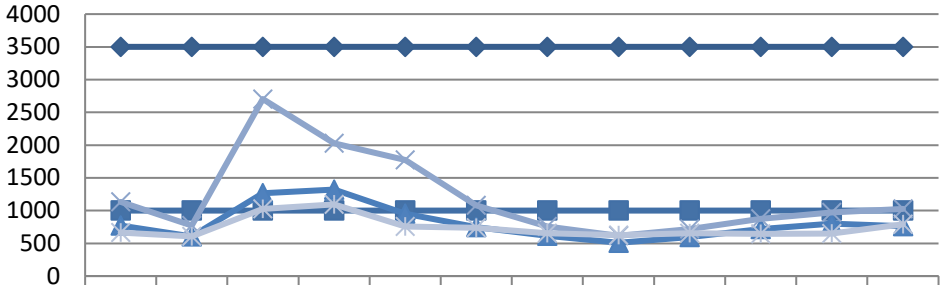
Activated sludge which has been removed from the MBR's is pumped into a two-celled aerobic sludge digestion/storage tank. The storage tank is equipped with a coarse bubble aeration system and two (2) manual decant arms, one in each cell. When aeration is stopped in one cell, the activated sludge is allowed settle and separate. The clear supernatant is collected by lowering the manual decant arm and is directed to a supernatant storage tank. A pump returns the supernatant to the headworks of the plant. The activated sludge that has settled and has "thickened' is then pumped to the centrifuge for further dewatering. The centrate produced is also piped to return to the supernatant storage tank to be pumped to the headworks of the plant. Dewatered biosolids are collected in a dump trailer and hauled offsite for landfill application under EASR #R-004-3114519011. Additionally, there is a provision for de-sludging the tanks by directly loading a hauling truck as a backup to the dewatering system during maintenance of the centrifuge system.

4 Treatment Flows

The annual average daily flow for 2025 was 808 m^3/d, which represents 80.8% of the facility's 1000 m^3/d rated capacity.

4.1 Raw Flow (m^3/d)

4.1.1 2025 Raw Flow

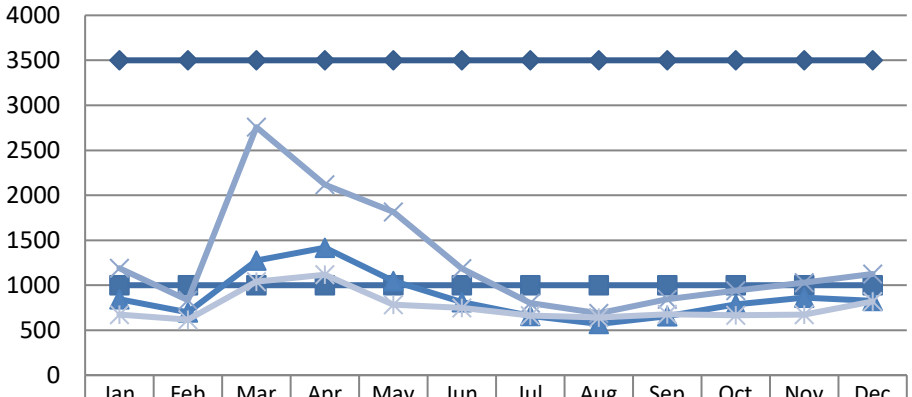


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Plant Max Design Flow (m3/d)	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500
ECA Rated Capacity (m3/d)	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Average Daily Flow (m3/d)	772	604	1266	1321	952	746	616	509	598	716	800	760
Maximum Daily Flow (m3/d)	1134	771	2704	2025	1773	1077	756	615	720	876	973	1025
5 Year Average Flow (m3/d)	665	605	1026	1094	755	738	655	624	652	644	648	791

Note: the spikes in the maximum daily flow in March and April were due to the spring melt, spikes in May and June are a result of running the plant at a slower pace to reduce the demand on the membranes.

4.2 Effluent Flow (m^3/d)

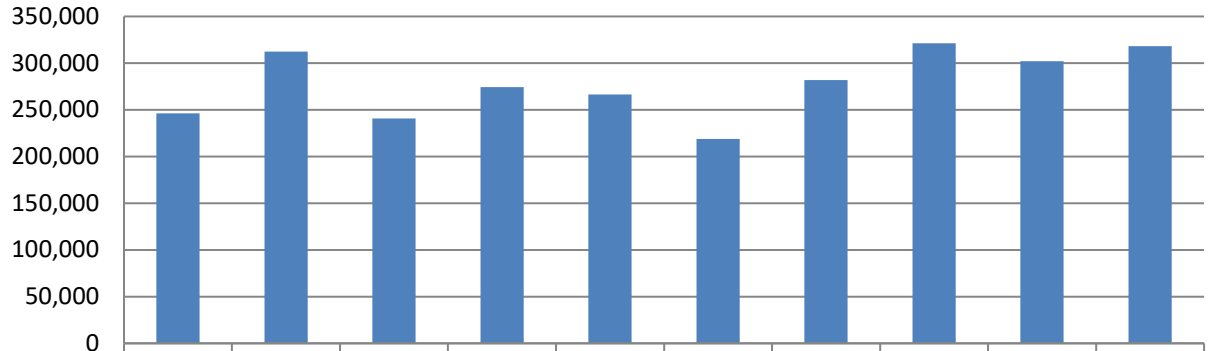
4.2.1 2025 Effluent Flow



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Plant Max Design Flow (m3/d)	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500
ECA Rated Capacity (m3/d)	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Average Daily Flow (m3/d)	843	698	1276	1417	1048	812	659	570	656	786	862	827
Maximum Daily Flow (m3/d)	1189	834	2757	2116	1815	1187	800	688	845	942	1030	1126
5 Year Average Flow (m3/d)	673	617	1040	1117	782	749	664	642	678	666	673	819

Note: the spikes in the maximum daily flow in March and April were due the spring melt and the spikes May and June are a result of running the plant at a slower pace to reduce the demand on the membranes.

4.2.2 Annual Effluent Flow Comparison (m^3)



	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Total Annual Flow	246,123	312,466	240,620	274,432	266,303	218,875	281,830	321,285	301935	318249.6

Imported Sewage

4.2.3 Leachate Flow (m^3/d)

There was no leachate accepted at this facility in 2025.

4.2.4 Septage Flow (m^3/d)

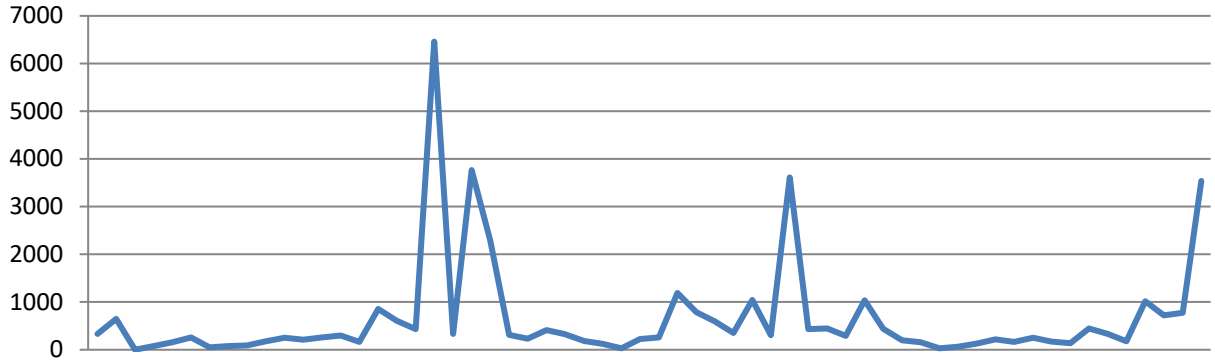
There was no septage accepted at this facility in 2025.

5 Raw Sewage Quality

5 Year Average Trends for Raw Sewage Quality are graphed below:

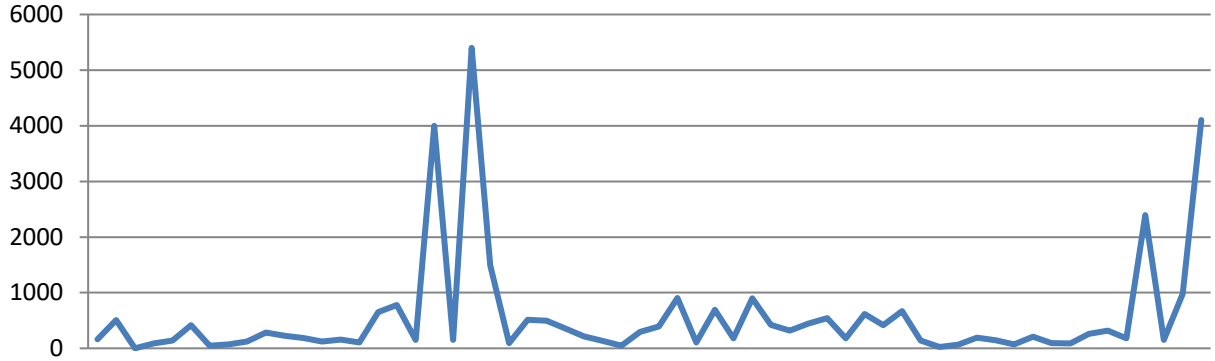
5.1 Biochemical Oxygen Demand (5 Day)

The graph below represents the monthly average of BOD_5 measured in mg/L from 2021-2025.



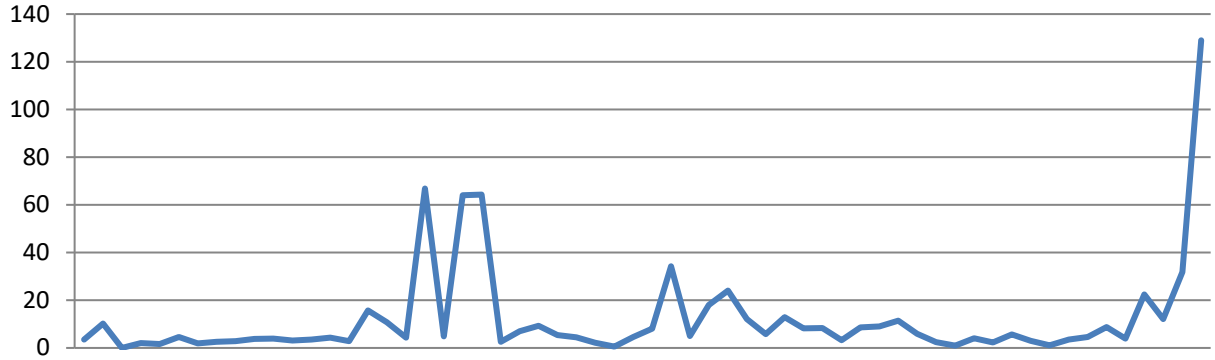
5.2 Total Suspended Solids

The graph below represents the monthly average of TSS measured in mg/L from 2021-2025.



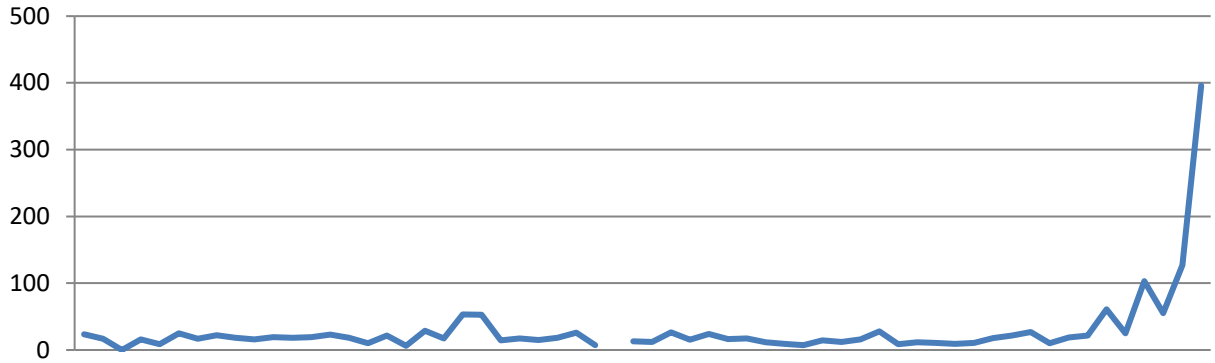
5.3 Total Phosphorus

The graph below represents the monthly average of TP measured in mg/L from 2021-2025.



5.4 Total Ammonia Nitrogen

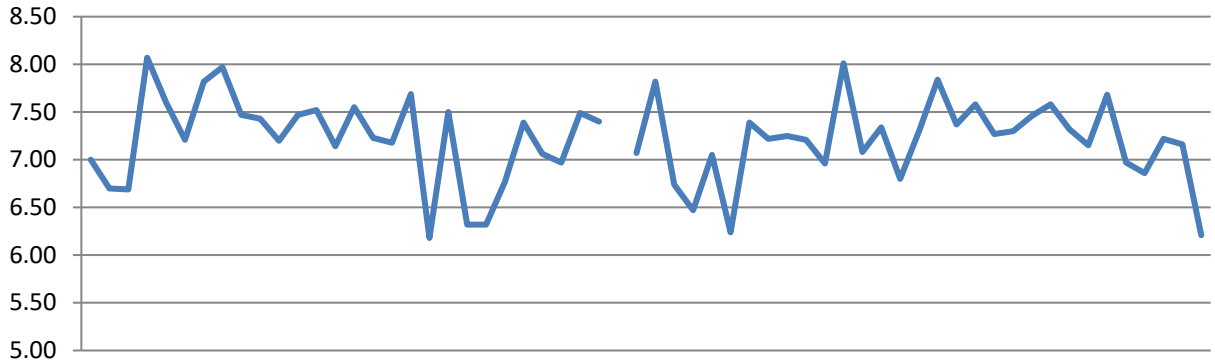
The graph below represents the monthly average of TAN measured in mg/L from 2021-2054.



Note: An incorrect COC was used during sampling in May of 2023 resulting in missing TAN data, this parameter is required to be sampled by the facility's ECA and a non-compliance was reported to the MECP.

5.5 pH

The graph below represents the monthly average of pH from 2021-2025, there is no measured unit for pH.



Note: An incorrect COC was used during sampling in May of 2023 resulting in missing pH data, this parameter is not required to be sampled by the facility's ECA, a non-compliance did not need to be issued.

6 Effluent Quality

The monthly average concentrations of the carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), total ammonia nitrogen (TAN) and the monthly geometric mean density (GMD) of E. coli remained below the effluent objectives and limits outlined in the facility's ECA during 2025. In addition, the effluent pH remained within the limits and objectives throughout the year. The monthly average concentration of total phosphorus exceeded the facility's ECA objective on one occasion but remained below the ECA limit. See the Operating Issues/Problems section of this report for further details.

The Federal Government also regulates the effluent flow, and the monthly averages of $CBOD_5$ and TSS 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.

Effluent results from the Cobden wastewater treatment facility for 2025 are graphed below in this report.

6.1 Effluent Quality Assurance and Control Measures Taken

This system is part of OCWA's Madawaska Cluster. The cluster is 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 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 either SGS Lakefield Research Ltd. laboratory in Lakefield, Ontario or Caduceon Environmental Laboratories in Ottawa, Ontario for analysis, with the exception of disinfection residuals and temperature. Both laboratories have 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 these laboratories, the Ontario Clean Water Agency is ensuring appropriate control measures are undertaken during sample analysis. The disinfection residuals 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.
- SCADA
    - SCADA system allows for process optimization and data logging, process trending, remote alarming.

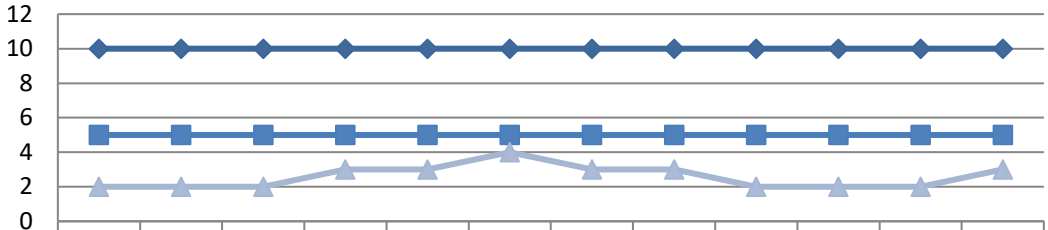
The operations team also has access to a network of operational compliance and process specialists to assist for emerging process issues. This aids in establishing additional control measures to ensure a quality effluent product.

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

6.2 CBOD5

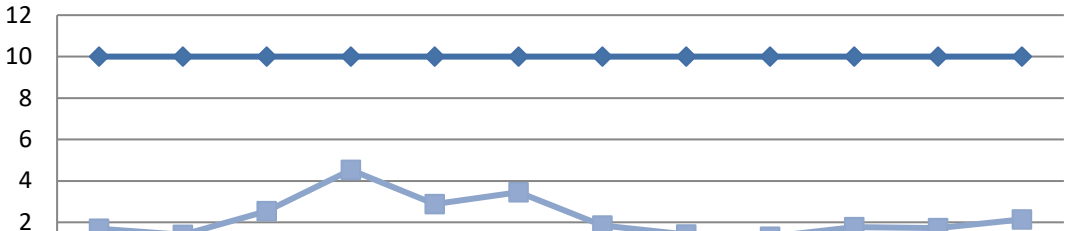
There was no Compliance Objective or Compliance Limit exceedance for this parameter.

6.2.1 Concentration (mg/L)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit (mg/L)	10	10	10	10	10	10	10	10	10	10	10	10
Objective (mg/L)	5	5	5	5	5	5	5	5	5	5	5	5
Average (mg/L)	2	2	2	3	3	4	3	3	2	2	2	3

6.2.2 Loading (kg/d)

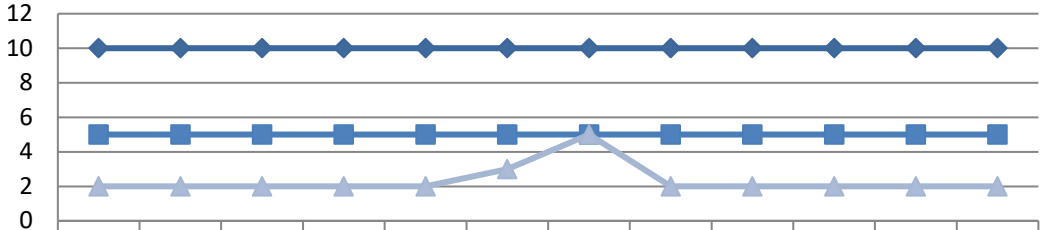


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit (kg/d)	10	10	10	10	10	10	10	10	10	10	10	10
Average (kg/d)	1.7	1.4	2.6	4.5	2.9	3.5	1.9	1.4	1.3	1.8	1.7	2.2

6.3 Total Suspended Solids

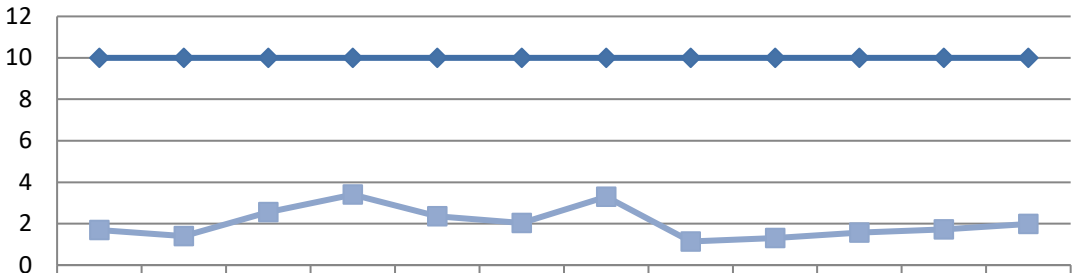
There was no Compliance Objective or Compliance Limit exceedance for this parameter.

6.3.1 Concentration (mg/L)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit (mg/L)	10	10	10	10	10	10	10	10	10	10	10	10
Objective (mg/L)	5	5	5	5	5	5	5	5	5	5	5	5
Average (mg/L)	2	2	2	2	2	3	5	2	2	2	2	2

6.3.2 Loading (kg/d)

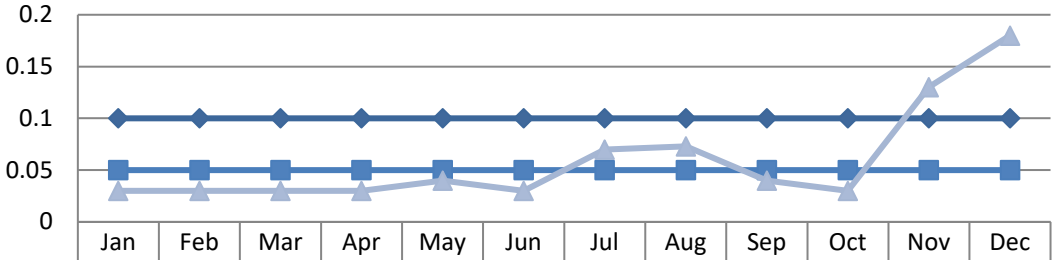


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit (kg/d)	10	10	10	10	10	10	10	10	10	10	10	10
Average (kg/d)	1.7	1.4	2.6	3.4	2.4	2.0	3.3	1.1	1.3	1.6	1.7	2.0

6.4 Total Phosphorus

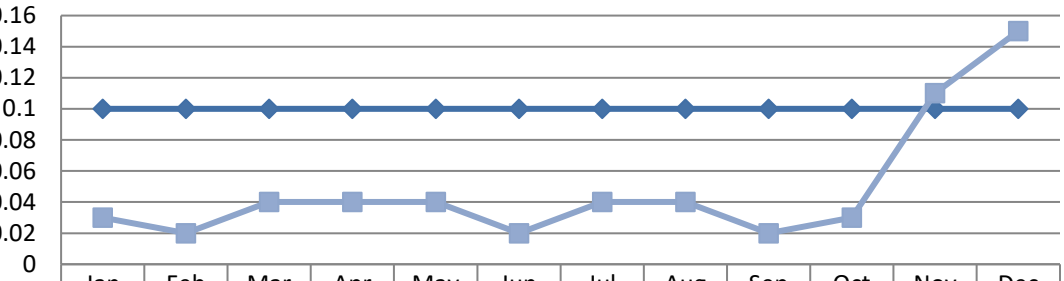
There were four Compliance Objective exceedances and two Compliance Limit exceedances for this parameter. See Operational Issues/Problems section of this report for details.

6.4.1 Concentration (mg/L)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit (mg/L)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Objective (mg/L)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Average (mg/L)	0.03	0.03	0.03	0.03	0.04	0.03	0.07	0.07	0.04	0.03	0.13	0.18

6.4.2 Loading (kg/d)

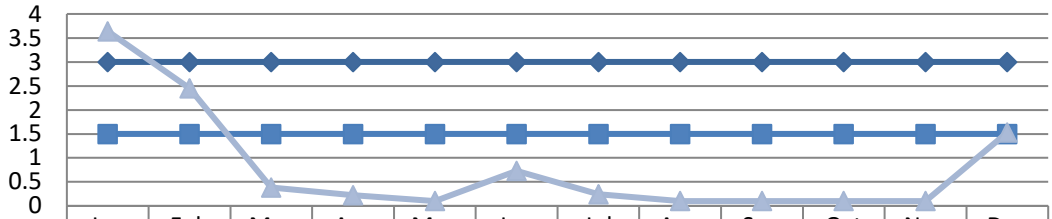


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit (kg/d)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Average (kg/d)	0.03	0.02	0.04	0.04	0.04	0.02	0.04	0.04	0.02	0.03	0.11	0.15

6.5 Total Ammonia Nitrogen

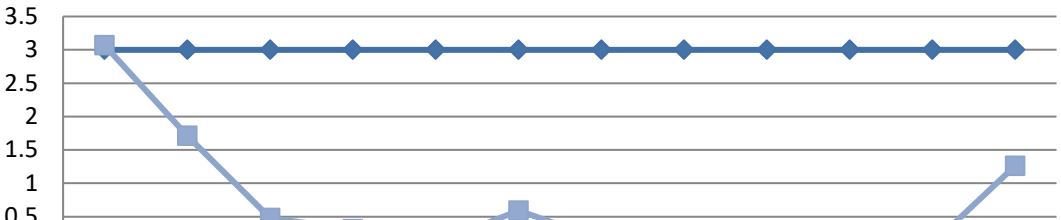
There were three Compliance Objective exceedances and one Compliance Limit exceedance for this parameter.

6.5.1 Concentration (mg/L)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit (mg/)	3	3	3	3	3	3	3	3	3	3	3	3
Objective (mg/L)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Average (mg/L)	3.6	2.5	0.4	0.2	0.1	0.7	0.2	0.1	0.1	0.1	0.1	1.5

6.5.2 Loading (kg/d)

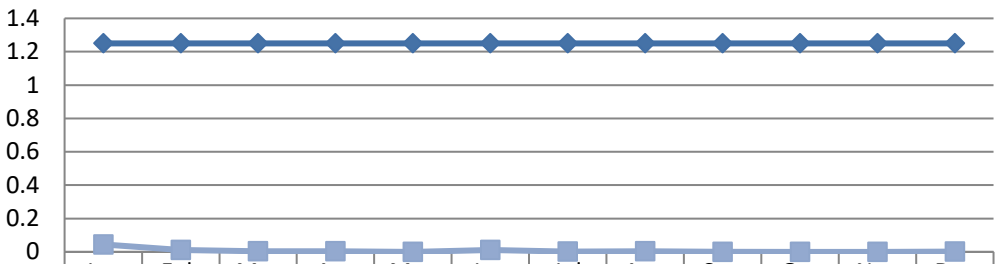


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit (kg/d)	3	3	3	3	3	3	3	3	3	3	3	3
Average (kg/d)	3.1	1.7	0.5	0.3	0.1	0.6	0.2	0.1	0.1	0.1	0.1	1.3

6.6 Un-Ionized Ammonia/Nitrogen/TKN

There was no Compliance Limit exceedance for this parameter, there is no Compliance Objective for this parameter.

6.6.1 Concentration (mg/L)

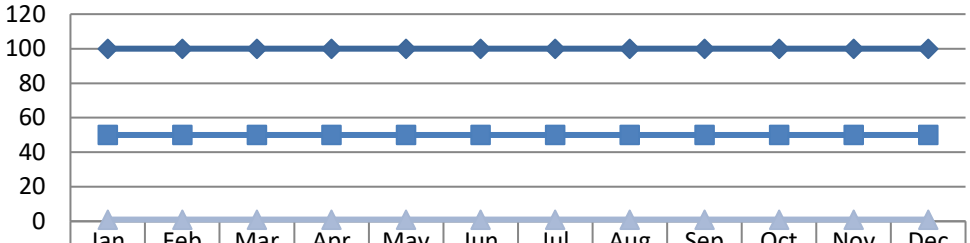


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Federal Limit (mg/L)	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Average (mg/L)	0.04	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00

6.7 E-coli

There was no Compliance Objective or Compliance Limit exceedance for this parameter.

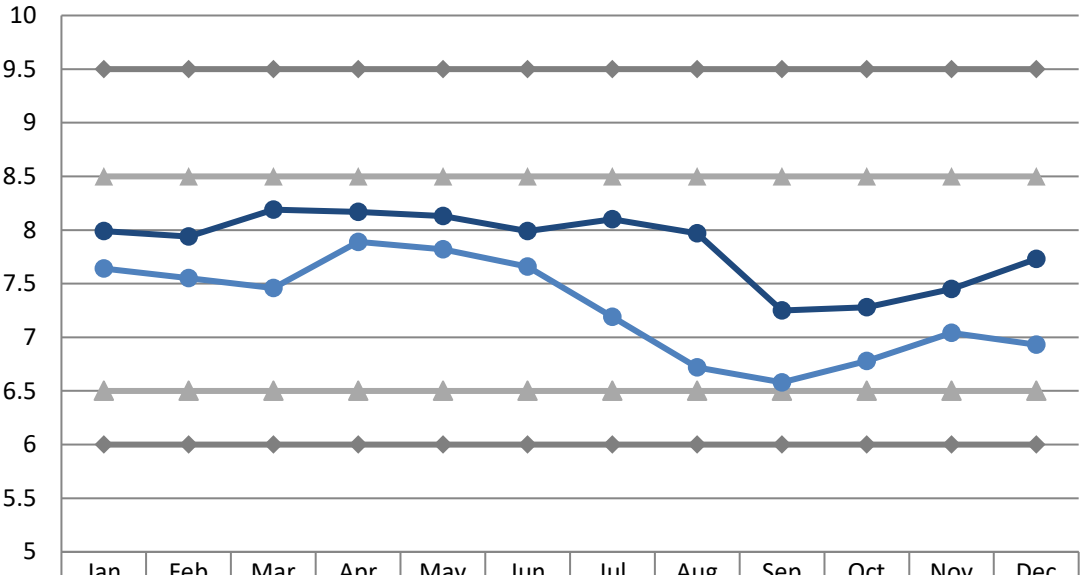
6.7.1 Geometric Mean (CFU/100mL)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit (CFU/100 mL)	100	100	100	100	100	100	100	100	100	100	100	100
Objective (CFU/100 mL)	50	50	50	50	50	50	50	50	50	50	50	50
Average (CFU/100 mL)	1	1	1	1	1	1	1	1	1	1	1	1

6.8 pH

pH is to remain in the range of 6-9.5, each instance the pH is outside of that range is reported as a non-compliance.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Limit	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Min Limit	6	6	6	6	6	6	6	6	6	6	6	6
Max Objective	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Min Objective	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Monthly Max	7.99	7.94	8.19	8.17	8.13	7.99	8.1	7.97	7.25	7.28	7.45	7.73
Monthly Min	7.64	7.55	7.46	7.89	7.82	7.66	7.19	6.72	6.58	6.78	7.04	6.93

7 Monitoring Schedule

The 2025 Sample Calendar can be viewed in Appendix A.

7.1 Deviations

Date	Details	Cause of Deviation
January 23, 2025	Weekly effluent sample was collected on Thursday, which is a deviation from the standard day of Tuesday.	Some of the weekly samples collected on January 21, 2025 partially froze on the way to the lab. Effluent was re-sampled on 23rd to ensure reliable results.
February 19, 2025	Weekly effluent sample was collected on Wednesday, which is a deviation from the standard day of Tuesday.	Due to the Family Day statutory holiday on Monday, Feb 20th, the composite sampler was started on Tuesday and samples collected 24hrs later on Wednesday.
July 2, 2025	Weekly effluent and monthly raw samples were collected on Wednesday which is a deviation from the standard day of Tuesday.	Due to the Canada Day statutory holiday on Tuesday, July 1st, samples were collected the following day.
October 1, 2025	Weekly effluent and monthly raw samples were collected on the Wednesday which is a deviation from the standard day of Tuesday.	Due to OCWA observing the National Day of Truth and Reconciliation on Tuesday, September 30th, all samples were collected Wednesday, October 1st which added one week to October's monthly samples and removed one from September.
November 12, 2025	Weekly effluent samples were collected on the Wednesday which is a deviation from the standard sample day of Tuesday.	Due to OCWA observing Remembrance Day as a holiday, samples were collected on November 12th.
December 22, 2025	Weekly samples were collected on Monday, which is a deviation from the standard day of Tuesday.	Due to reduced laboratory receiving hours on December 24th and holiday closure on December 25th, samples were collected on the 22nd to ensure they arrived at the laboratory in time to be processed within the holding times. These samples also went to Caduceon Laboratories in Ottawa due to logistics.
December 29, 2025	Weekly samples were collected on Monday, which is a deviation from the standard day of Tuesday.	Due to reduced laboratory receiving hours on December 31st and holiday closure on January 1st, samples were collected on the 29th to ensure they arrived at the laboratory in time to be processed within the holding times. These samples also went to Caduceon Laboratories in Ottawa due to logistics.

Weekly effluent sampling is scheduled to occur on Wednesday in 2026.

8 Operating Issues/Problems

Overall, the Cobden WWTP experienced some operational challenges in 2025 and had three overflow events and three ECA effluent limit exceedances reported. Below is a summary of operational challenges experienced in 2025.

- Numerous clean in place (CIP) soaks and chemically enhanced backwashes (CEB) were performed which initially showed improvement to the permeability and trans-membrane pressure (TMP). However, the more cleanings that were completed, the effectiveness significantly declined.
- Frozen sludge lines and valves in the sludge holding tanks. Operations staff were strategic in which tank was primarily wasted to, to ensure the centrifuge feed line would be submerged in sludge to prevent it from freezing. Valves had to be torched to be thawed.
- Foaming in the MBR's was a common issue. A chemical was used when foam is an issue, however it is not a long-term solution and dissipates in the tanks rather quickly and is costly. Blower speeds have been adjusted in an attempt to mitigate the foam and entire tanks have been wasted. Utilizing a thicker sludge seems to better control foaming issues in the MBR's.
- The centrifuge is struggling to handle the amount of sludge needed to waste each day to maintain a lower MLSS in the MBR's. Various in-house and third party troubleshoot attempts have been made on the centrifuge in an effort to achieve a dry cake with low solids in the centrate. A trial of a new polymer has also started.
- Condensation buildup on the EQ level sensors have caused frequent reading errors making it unreliable to use for pump run setpoints. The level transducer in the EQ pump chamber is now used for alarms and run set points.

In continuation from abnormal influent events experienced in 2024, the Township has worked to implement the sewer use by-law and raise awareness of the impacts of discharging to the sewers. Additional influent sampling was done when a discharge was suspected but the events have significantly reduced. There is a plan in place to monitor influent on a weekly basis throughout 2026 as well as continue to closely monitor known dischargers.

8.1 Effluent Quality Non-Compliance Summary

The effluent objectives are based on current requirements in the facility's Environmental Compliance Approval (ECA). ECA objective exceedances are non-reportable, and are used as an operational target. As the operating authority we shall use our best efforts to operate the facility in a manner that ensures the objectives are not exceeded in the treated effluent.

The Final Effluent did not see objective exceedances more than 50% of the time during the year or experience an increased deterioration in the final effluent. At this time no proactive actions are suggested.

The following table is a summary of objective and limit exceedances and the efforts made to meet the objectives and corrective actions taken when the limit was exceeded.

Date	Exceedance of	ECA Objective	ECA Limit	Value	Corrective Action
January 2025	Monthly average concentration Total Ammonia Nitrogen	1.00 mg/L	3.00 mg/L	3.64 mg/L	Exceedance was a result of membrane maintenance activities, impacting blower performance. Results returned to normal once maintenance activities were complete.
November 2025	Monthly average concentration of Total Phosphorus	0.05 mg/L	0.10 mg/L	0.13 mg/L	Exceedance was a result of membrane maintenance activities involving moving sludge from an old part of the facility to the headworks. Results returned to normal once maintenance activities were complete.
December 2025	Monthly average concentration of Total Phosphorus	0.05 mg/L	0.10 mg/L	0.18 mg/L	Increased phosphorus was detected in the raw sewage the same time the effluent sample was collected. Higher than normal polymer was used in the centrifuging process at that time as well, which discharged centrate directly to the raw chamber of the plant.

8.2 Summary of Abnormal Sewage Discharge Events

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

8.3 Spills (Other than Sewage)

Date	Location	Details	Volume (kg)	Start Date and Time	End Date and Time
None to report.					

9 Maintenance

Routine planned maintenance activities are scheduled in WMS and include:

- Inspect, adjust and calibrate process control equipment to ensure proper operation of 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.

9.1 Normal Maintenance and Repairs

Work Order	Details
4339160	Replacement influent flow meter
4337749	PLC work
4488028	New flow meter for fine screenings
4605876	Routine sewer flushing
4608781	UV sensor
4653845	UV bulbs and sleeves
4762471	Boiler maintenance and repair

9.2 Emergency Maintenance and Repairs

Work Order	Details
4664874	SCADA/PLC work
4907827	RAS/WAS pump train 2 interlock trip
4908856	High EQ tank/plant lockout
4908857	Plant overflow due to lockout

9.3 Flow Meter Calibrations and Maintenance

Location	Date of Calibration	Additional Maintenance
EQ Pump Discharge (Raw) Flow Meter	November 4, 2025	N/A
Sludge Feed to Centrifuge Flow Meter	November 4, 2025	N/A
Screen Outlet Train 1 Flow Meter	November 4, 2025	N/A
Screen Outlet Train 2 Flow Meter	November 4, 2025	N/A
Permeate Train 1 Flow Meter	November 4, 2025	N/A

Location	Date of Calibration	Additional Maintenance
RAS Train 1 Flow Meter	November 4, 2025	N/A
Permeate Train 2 Flow Meter	November 4, 2025	N/A
RAS Train 2 Flow Meter	November 4, 2025	N/A
Supernatant Flow Meter	November 4, 2025	N/A
Collection System Flow Meter	No collection system flow meter	N/A

9.4 Authorized Alterations in Collection System

Work Order	Details	Significant Drinking Water Threat (Y/N)
There were no authorized alterations made to the collection system during the reporting period.		

9.5 Notice of Modifications

Date	Process	Modification	Status
There were no modifications made to the treatment facility or the collection system during the reporting period.			

10 Sludge Generation

In the event that the centrifuge isn't operational, a provision in the ECA allows liquid biosolids to be hauled off site. In 2025 no liquid biosolids were removed from site.

10.1 Processed Volumes

Cobden's Wastewater Treatment Facility's centrifuge processed approximately 5182 m^3 of liquid sludge in 2025. The dewatered biosolids were disposed of at the Ross Landfill site located at 990 Kohlsmith Road in Whitewater Region, Ontario under certificate of approval #A413209. It is anticipated that approximately the same volume of sludge will be processed in 2026.

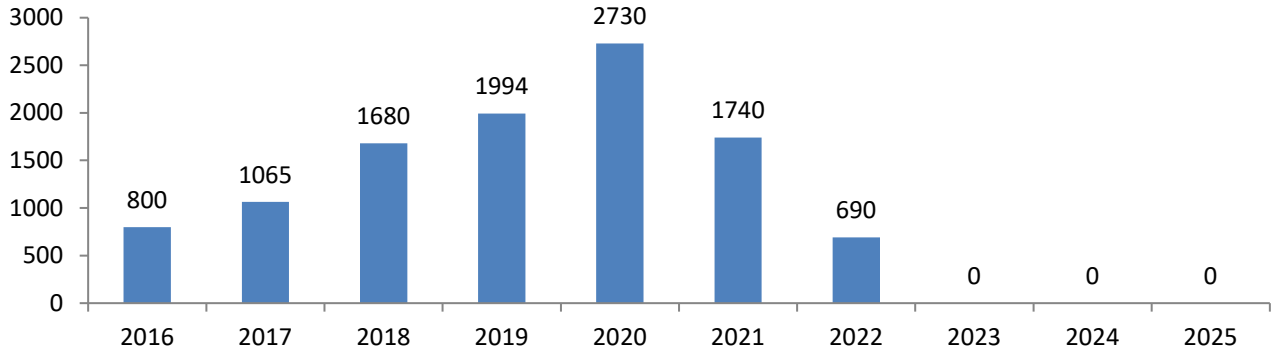
10.2 Sludge Disposal Summary

Month	Disposal Location	Approval Number	Number of Loads	Total (kg)
January	Ross Landfill	A413209	13	31930
February	Ross Landfill	A413209	9	20430
March	Ross Landfill	A413209	16	41550
April	Ross Landfill	A413209	9	14170
May	Ross Landfill	A413209	2	5260
June	Ross Landfill	A413209	2	4550
July	Ross Landfill	A413209	5	9720
August	Ross Landfill	A413209	9	18950

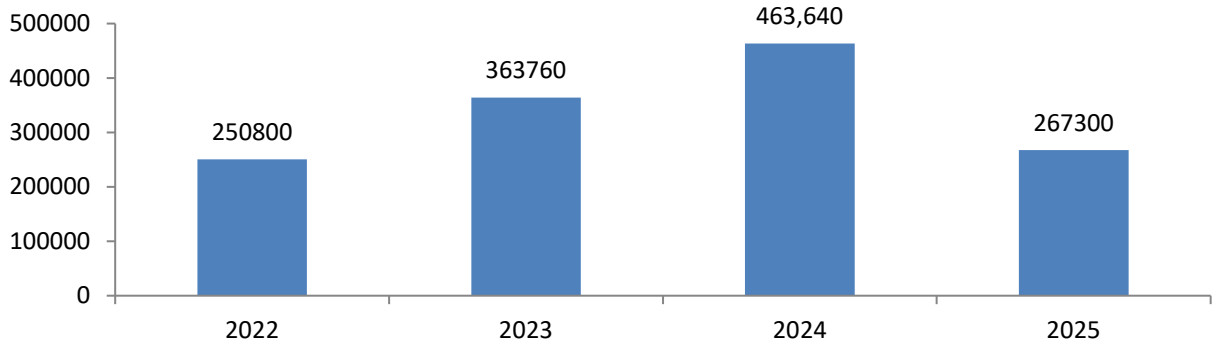
Month	Disposal Location	Approval Number	Number of Loads	Total (kg)
September	Ross Landfill	A413209	10	17660
October	Ross Landfill	A413209	18	36580
November	Ross Landfill	A413209	18	48410
December	Ross Landfill	A413209	11	18090
		Total Annual Loads	122	
		Total Annual Weight (kg)		267,300

Annual Comparison

10.2.1 Volume Hauled (m^3/year)



10.2.2 Weight Hauled (kg/year)



10.3 Quality

The biosolids sampling results are summarized in Appendix C. All results met the established guidelines.

11 Summary of Complaints

Location	Date	Nature of Complaint	Actions Taken
11 Truelove St	04/10/2025	Blocked sewer	Blockage was determined to be in residence
22 Astrolabe Rd	08/6/2025	Blocked sewer	Blockage was determined to be in residence

Appendix A

Appendix A - Sample Calendar

Ontario Clean Water Agency	External Laboratory Sample Schedule **Cobden Wastewater Treatment Plant** **January 2025**	Issued: Dec-6-2024 Rev: 0 Page 1 of 12
Reviewed by: Process and Compliance Technician		Approved by: Senior Operations Manager

	Week 1		Week 2		Week 3		Week 4		Week 5	
	5-11		12-18		19-25		26-1			
	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received
Raw Analysis										
Effluent Plant Analysis										
RAS Train 1 & 2										
Aerated Sludge										

Additional Samples/Monthly Notes

Sludge sampling needs to occur annually as per ECA, though sampling monthly will occur

Samples are taken on Tuesday in 2025

RAS Train 1 & 2 samping not required by ECA, operational monitoring only

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 **Cobden Wastewater Treatment Plant** **February 2025**	Issued: Dec-6-2024 Rev: 0 Page 2 of 12
Reviewed by: Process and Compliance Technician	Approved by: Senior Operations Manager	

	Week 1		Week 2		Week 3		Week 4		Week 5	
					Monday Stat					
	2-8		**9-15**		**16-22**		**23-1**			
	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received
Raw Analysis										
Effluent Plant Analysis					Sample Wednesday					
RAS Train 1 & 2										
Aerated Sludge										

Additional Samples/Monthly Notes

Sludge sampling needs to occur annually as per ECA, though sampling monthly will occur

Samples are taken on Tuesday in 2025

RAS Train 1 & 2 samping not required by ECA, operational monitoring only

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

Ontario Clean Water Agency	External Laboratory Sample Schedule **Cobden Wastewater Treatment Plant** **March 2025**	Issued: Dec-6-2024 Rev: 0 Page 3 of 12
Reviewed by: Process and Compliance Technician		Approved by: Senior Operations Manager

	Week 1		Week 2		Week 3		Week 4		Week 5	
	2-8		9-15		16-22		23-29			
	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received
Raw Analysis										
Effluent Plant Analysis										
RAS Train 1 & 2										
Aerated Sludge										

Additional Samples/Monthly Notes

Sludge sampling needs to occur annually as per ECA, though sampling monthly will occur

Samples are taken on Tuesday in 2025

RAS Train 1 & 2 samping not required by ECA, operational monitoring only

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 **Cobden Wastewater Treatment Plant** **April 2025**	Issued: Dec-6-2024 Rev: 0 Page 4 of 12
Reviewed by: Process and Compliance Technician	Approved by: Senior Operations Manager	

	Week 1		Week 2		Week 3		Week 4		Week 5	
					Friday Stat		***Monday Stat***			
	30-5		**6-12**		**13-19**		**20-26**		**27-3**	
	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received
Raw Analysis										
Effluent Plant Analysis							Sample Wednesday			
RAS Train 1 & 2										
Aerated Sludge										

Additional Samples/Monthly Notes

Sludge sampling needs to occur annually as per ECA, though sampling monthly will occur

Samples are taken on Tuesday in 2025

RAS Train 1 & 2 samping not required by ECA, operational monitoring only

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 **Cobden Wastewater Treatment Plant** **May 2025**	Issued: Dec-6-2024 Rev: 0 Page 5 of 12
Reviewed by: Process and Compliance Technician	Approved by: Senior Operations Manager	

	Week 1		Week 2		Week 3		Week 4		Week 5	
					Monday Stat					
	4-10		**11-17**		**18-24**		**25-31**			
	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received
Raw Analysis										
Effluent Plant Analysis					Sample Wednesday					
RAS Train 1 & 2										
Aerated Sludge										

Additional Samples/Monthly Notes

Sludge sampling needs to occur annually as per ECA, though sampling monthly will occur

Samples are taken on Tuesday in 2025

RAS Train 1 & 2 samping not required by ECA, operational monitoring only

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

Ontario Clean Water Agency	External Laboratory Sample Schedule **Cobden Wastewater Treatment Plant** **June 2025**	Issued: Dec-6-2024 Rev: 0 Page 6 of 12
Reviewed by: Process and Compliance Technician		Approved by: Senior Operations Manager

	Week 1		Week 2		Week 3		Week 4		Week 5	
	1-7		8-14		15-21		22-28			
	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received
Raw Analysis										
Effluent Plant Analysis										
RAS Train 1 & 2										
Aerated Sludge										

Additional Samples/Monthly Notes

Sludge sampling needs to occur annually as per ECA, though sampling monthly will occur

Samples are taken on Tuesday in 2025

RAS Train 1 & 2 samping not required by ECA, operational monitoring only

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 **Cobden Wastewater Treatment Plant** **July 2025**	Issued: Dec-6-2024 Rev: 0 Page 7 of 12
Reviewed by: Process and Compliance Technician	Approved by: Senior Operations Manager	

	Week 1		**Week 2**		**Week 3**		**Week 4**		**Week 5**	
	Tuesday Stat									
	29-5		**6-12**		**13-19**		**20-26**		**27-2**	
	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received
Raw Analysis	Sample Wednesday									
Effluent Plant Analysis	Sample Wednesday									
RAS Train 1 & 2	Sample Wednesday									
Aerated Sludge	Sample Wednesday									

Additional Samples/Monthly Notes

Sludge sampling needs to occur annually as per ECA, though sampling monthly will occur

Samples are taken on Tuesday in 2025

RAS Train 1 & 2 samping not required by ECA, operational monitoring only

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

Ontario Clean Water Agency	External Laboratory Sample Schedule **Cobden Wastewater Treatment Plant** **August 2025**	Issued: Dec-6-2024 Rev: 0 Page 8 of 12
Reviewed by: Process and Compliance Technician		Approved by: Senior Operations Manager

	Week 1		Week 2		Week 3		Week 4		Week 5	
	Monday Stat									
	3-9		**10-16**		**17-23**		**24-30**			
	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received
Raw Analysis	Sample Wednesday									
Effluent Plant Analysis	Sample Wednesday									
RAS Train 1 & 2	Sample Wednesday									
Aerated Sludge	Sample Wednesday									

Additional Samples/Monthly Notes

Sludge sampling needs to occur annually as per ECA, though sampling monthly will occur

Samples are taken on Tuesday in 2025

RAS Train 1 & 2 samping not required by ECA, operational monitoring only

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

Ontario Clean Water Agency	External Laboratory Sample Schedule **Cobden Wastewater Treatment Plant** **September 2025**	Issued: Dec-6-2024 Rev: 0 Page 9 of 12
Reviewed by: Process and Compliance Technician		Approved by: Senior Operations Manager

	Week 1		Week 2		Week 3		Week 4		Week 5	
	Monday Stat									
	31-6		**7-13**		**14-20**		**21-27**			
	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received
Raw Analysis	Sample Wednesday									
Effluent Plant Analysis	Sample Wednesday									
RAS Train 1 & 2	Sample Wednesday									
Aerated Sludge	Sample Wednesday									

Additional Samples/Monthly Notes

Sludge sampling needs to occur annually as per ECA, though sampling monthly will occur

Samples are taken on Tuesday in 2025

RAS Train 1 & 2 samping not required by ECA, operational monitoring only

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 **Cobden Wastewater Treatment Plant** **October 2025**	Issued: Dec-6-2024 Rev: 0 Page 10 of 12
Reviewed by: Process and Compliance Technician		Approved by: Senior Operations Manager

	Week 1		**Week 2**		**Week 3**		**Week 4**		**Week 5**	
	Tuesday Stat				***Monday Stat***					
	28-4		**5-11**		**12-18**		**19-25**		**26-1**	
	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received
Raw Analysis	Sample Wednesday									
Effluent Plant Analysis	Sample Wednesday				Sample Wednesday					
RAS Train 1 & 2	Sample Wednesday									
Aerated Sludge	Sample Wednesday									

Additional Samples/Monthly Notes

Sludge sampling needs to occur annually as per ECA, though sampling monthly will occur

Samples are taken on Tuesday in 2025

RAS Train 1 & 2 samping not required by ECA, operational monitoring only

QEMS Ontario Clean Water Agency	External Laboratory Sample Schedule **Cobden Wastewater Treatment Plant** **November 2025**	Issued: Dec-6-2024 Rev: 0 Page 11 of 12
Reviewed by: Process and Compliance Technician	Approved by: Senior Operations Manager	

	Week 1		Week 2		Week 3		Week 4		Week 5	
			Tuesday Stat							
	2-8		**9-15**		**16-22**		**23-29**			
	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received
Raw Analysis										
Effluent Plant Analysis			Sample Wednesday							
RAS Train 1 & 2										
Aerated Sludge										

Additional Samples/Monthly Notes

Sludge sampling needs to occur annually as per ECA, though sampling monthly will occur

Samples are taken on Tuesday in 2025

RAS Train 1 & 2 samping not required by ECA, operational monitoring only

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 **Cobden Wastewater Treatment Plant** **December 2025**	Issued: Dec-6-2024 Rev: 0 Page 12 of 12
Reviewed by: Process and Compliance Technician	Approved by: Senior Operations Manager	

	Week 1		Week 2		Week 3		Week 4		Week 5	
							Thur/Fri Stat		***Thursday Stat***	
	30-6		**7-13**		**14-20**		**21-27**		**28-3**	
	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received	Sampled	Received
Raw Analysis										
Effluent Plant Analysis										
RAS Train 1 & 2										
Aerated Sludge										

Additional Samples/Monthly Notes

Sludge sampling needs to occur annually as per ECA, though sampling monthly will occur

Samples are taken on Tuesday in 2025

RAS Train 1 & 2 samping not required by ECA, operational monitoring only

This schedule is for guidance purposes only

Please refer to all regulatory requirements that affect the sampling schedule

Appendix B

Appendix B - Biosolids Quality Report

Biosolids Quality Report **Facility: COBDEN WASTEWATER TREATMENT FACILITY**

Solids & Nutrients **Period: 01/01/2024 to 12/31/2024** **Works: 1275 / Digestor Type: Aerobic**

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

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

Facility Works Number:	120000596	Receiver:	MUSKRAT LAKE
Facility Owner:	Municipality: WHITEWATER REGION	Service Population:	1845
Facility Classification:	Class 3 Wastewater Treatment	Total Design Capacity:	696 m3/day

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

Month	Hauled Volume to Landfill (m^3)	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	**HauledVol**	**TS**	**VS**	**TP**	**NH3p_NH4p_N**	**NO3-N**	**NO2-N**	**TKN**	**Calculation in Report**	**K**
T/S	**IH Month.Total**	**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		23,300.00	16,100.00	750.00	15.20	3.00	3.00	1,180.00	9.10	130.00
Feb		16,250.00	12,100.00	350.00	11.50	3.00	3.00	942.00	7.25	71.00
Mar	60.60	15,400.00	11,600.00	330.00	10.60	3.00	3.00	956.00	6.80	75.00
Apr		15,650.00	11,600.00	360.00	16.80	73.00	15.00	1,060.00	44.90	100.00
May		15,800.00	11,200.00	240.00	26.70	4.00	3.00	857.00	15.35	79.00
Jun		18,000.00	13,000.00	50.00	23.40	32.00	7.00	712.00	27.70	58.00
Jul		14,500.00	9,720.00	250.00	8.90	3.00	3.00	666.00	5.95	48.00
Aug		10,500.00	8,490.00	270.00	23.40	15.00	3.00	511.00	19.20	51.00
Sep		17,900.00	12,500.00	410.00	22.60	10.00	3.00	972.00	16.30	57.00
Oct		17,700.00	12,100.00	380.00	15.00	3.00	3.00	823.00	9.00	49.00
Nov		20,100.00	15,000.00	369.00	18.80	3.00	3.00	1,160.00	10.90	47.00
Dec		28,800.00	22,200.00	646.00	13.90	3.00	3.00	1,740.00	8.45	98.00
Average	60.60	17,825.00	12,967.50	367.08	17.23	12.92	4.33	964.92	15.08	71.92
Total	60.60	213,900.00	155,610.00	4,405.00	206.80	155.00	52.00	11,579.00	180.90	863.00

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	0.01	0.03	0.15	5.90	0.00	0.11	0.20	0.60	0.10	7.00
Feb	0.10	0.01	0.01	0.08	2.70	0.00	0.05	0.09	0.20	0.10	3.00
Mar	0.10	0.01	0.01	0.08	2.90	0.00	0.05	0.10	0.10	0.10	2.00
Apr	0.10	0.01	0.02	0.10	3.10	0.00	0.05	0.12	0.10	0.10	3.00
May	0.10	0.01	0.01	0.07	1.90	0.00	0.05	0.08	0.10	0.10	2.00
Jun	0.10	0.01	0.01	0.01	0.40	0.00	0.05	0.04	0.10	0.10	1.00
Jul	0.10	0.01	0.01	0.07	1.90	0.00	0.05	0.07	0.10	0.10	2.00
Aug	0.10	0.01	0.01	0.07	2.10	0.00	0.05	0.09	0.10	0.10	3.00
Sep	0.10	0.01	0.02	0.11	3.00	0.00	0.05	0.14	0.10	0.10	5.00
Oct	0.10	0.01	0.01	0.10	3.00	0.00	0.07	0.11	0.10	0.10	5.00
Nov	0.10	0.01	0.02	0.09	3.00	0.00	0.07	0.20	0.10	0.10	4.00
Dec	0.10	0.01	0.02	0.14	4.60	0.01	0.11	0.17	0.20	0.10	6.00
Average	0.10	0.01	0.02	0.09	2.88	0.00	0.06	0.12	0.16	0.10	3.58
Max. Permissible Metal Concentrations (mg/kg of Solids)	170.00	34.00	340.00	2,800.00	1,700.00	11.00	94.00	420.00	1,100.00	34.00	4,200.00
Metal Concentrations in Sludge (mg/kg)	5.61	0.29	0.84	5.00	161.29	0.16	3.55	6.59	8.88	5.61	201.03

Biosolids Quality Report

Facility: COBDEN WASTEWATER TREATMENT FACILITY

Last 4 Samples

Period: 01/01/2024 to 12/31/2024

Works: 1275 / Digestor Type: Aerobic

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	09/05/2024	10/10/2024	11/07/2024	12/05/2024	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	4.73	170
Cd (mg/L)	Lab Published	0.01	0.01	0.01	0.01	0.01	0.24	34
Co (mg/L)	Lab Published	0.02	0.01	0.02	0.02	0.02	0.83	340
Cr (mg/L)	Lab Published	0.11	0.10	0.09	0.14	0.11	5.21	2800
Cu (mg/L)	Lab Published	3.00	3.00	3.00	4.60	3.40	160.95	1700
Hg (mg/L)	Lab Published	0.00	0.00	0.00	0.01	0.00	0.19	11
Mo (mg/L)	Lab Published	0.05	0.07	0.07	0.11	0.08	3.55	94
Ni (mg/L)	Lab Published	0.14	0.11	0.20	0.17	0.16	7.34	420
Pb (mg/L)	Lab Published	0.10	0.10	0.10	0.20	0.13	5.92	1100
Se (mg/L)	Lab Published	0.10	0.10	0.10	0.10	0.10	4.73	34
Zn (mg/L)	Lab Published	5.00	5.00	4.00	6.00	5.00	236.69	4200
E.Coli Dry Wt (cfu/g)	Lab Published	162,011.00	209,040.00	190,217.00	155,709.00	177,964.85	E. Coli average is the GMD	
TS (mg/L)	Lab Published	17,900.00	17,700.00	20,100.00	28,800.00	21,125.00		
VS (mg/L)	Lab Published	12,500.00	12,100.00	15,000.00	22,200.00	15,450.00		
TP (mg/L)	Lab Published	410.00	380.00	369.00	646.00	451.25		
NO2-N (mg/L)	Lab Published	3.00	3.00	3.00	3.00	3.00		
TKN (mg/L)	Lab Published	972.00	823.00	1,160.00	1,740.00	1,173.75		
K (mg/L)	Lab Published	57.00	49.00	47.00	98.00	62.75		
NH3p_NH4p_N (mg/L)	Lab Published	22.60	15.00	18.80	13.90	17.58		
NO3-N (mg/L)	Lab Published	10.00	3.00	3.00	3.00	4.75		

Appendix C

Appendix C - Details of Abnormal Sewage Discharge Events

Event Details Summary

Facility Bypass

Date	Location	Details	Volume (m3)	Start Time	End Time	Duration (h)	Discharge Receiver	Disinfection Provided
There were no Bypass events reported during the reporting period.								

Facility Overflow

Date	Location	Details	Volume (m3)	Start Time	End Time	Duration (h)	Discharge Receiver	Disinfection Provided
16-Mar-25	Overflow pipe – post preliminary treatment	Significant rainfall during spring freshet causing influent flows greater than the plant can handle	5380.5	16-Mar-25 17:55	17-Mar-25 07:08	13h:13m	Muskrat River	No
03-Apr-25	Overflow pipe – post preliminary treatment	Spring freshet and increased precipitation causing influent flows greater than the plant can handle	10672.4	03-Apr-25 15:11	04-Apr-25 19:00	27h:49m	Muskrat River	No
14-Dec-25	Overflow pipe – post preliminary treatment	The low-level float in the EQ tank got stuck in the activated position, causing the plant to shut down and also prohibiting any further alarms to call out. The EQ tank went into high level alarm but it was not called out as it should have been, causing the plant to overflow.	75	18:04	20:12	2	Muskrat River	No

Collection Overflow

There are no authorized overflow locations in this system.

Spills of Sewage

Date	Location	Details	Volume (kg)	Start Time	End Time	Duration (min)	Discharge Receiver	Disinfection Provided
There were no Spill of Sewage events reported during the reporting period.								

Collection System Monitoring Data

Event Date	Event Location	Volume (m3)	Parameter	mg/L	Source Loading	Any Adverse Impacts & Corrective Actions
There were no 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 D

Appendix D - ECA Annual Report Requirements

Facility ECA #4306-B2YKK4 Section 11	Section in Report
4.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 Raw Sewage Quality
4.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	Treatment Flows Effluent Quality
4.c. 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 Appendix A
4.d. a summary of all operating issues encountered and corrective actions taken	Operating Issues and Problems
4.e. 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
4.f. a summary of any effluent quality assurance or control measures undertaken	Effluent Quality
4.g. a summary of the calibration and maintenance carried out on all Influent 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
4.h. 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: i. 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; ii. when the Annual Average Daily Influent Flow reaches 80% of the Rated Capacity;	Operating Issues and Problems
4.i. 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
4.j. a summary of any complaints received and any steps taken to address the complaints;	Summary of Complaints
4.k. 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 and Problems Appendix C
4.l. 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

Facility ECA #4306-B2YKK4 Section 11	Section in Report
4.m. 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 for which the report is submitted.	Maintenance Operating Issues and Problems
4.n 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

Collection ECA # 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.	Maintenance Operating Issues and Problems

Collection ECA # Schedule E	
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.	