2024 PERFORMANCE REPORT

Owen Sound Wastewater Treatment Plant

Reporting Period: January 1 – December 31, 2024

2024 Annual Performance Report

Owen Sound Wastewater Treatment Plant

Table of Contents

Appendices (Not included in the Operations Committee Report for brevity)

A. Lab Results
B. Calibration Records
C. Bio-solids Post Application Reports
D. MECP Correspondence
E. Bypass & Overflow Incident Final Reports

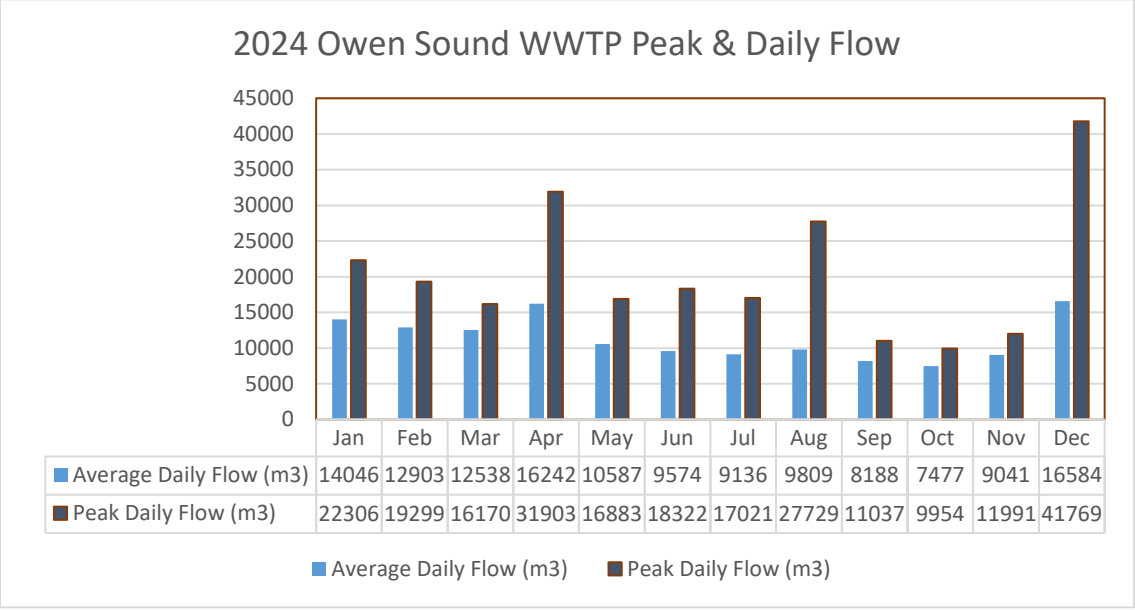
1.0 Background

The Owen Sound Wastewater Treatment Plant was originally constructed in 1962 and expanded in 1978. The Headworks of the plant was upgraded in 2010 to include automated bar screens and grit removal. The City then undertook a 48-million-dollar Secondary Treatment Biological Aerated Filtration (BAF) System upgrade that reached substantial completion on August 24, 2017. The WWTP has a rated capacity of 24,545 m^3/d and a Peak Daily Flow Rate of 65,000 m^3/d. This report is written as a requirement under section 12 (6) of the Amended Environmental Compliance Approval Number 6575-AFTK6S for the Owen Sound Wastewater Treatment Plant. Through MECP email correspondence, an Amended Environmental Compliance Approval Number 1994-CERHEG took effect on December 1st, 2024.

2.0 Summary and Interpretation of Flow Data

The following figures show the Average Day, Peak Daily and Instantaneous Flow, Monthly Flow and Annual Historical Flow through the Wastewater Treatment Plant.

Figure 1

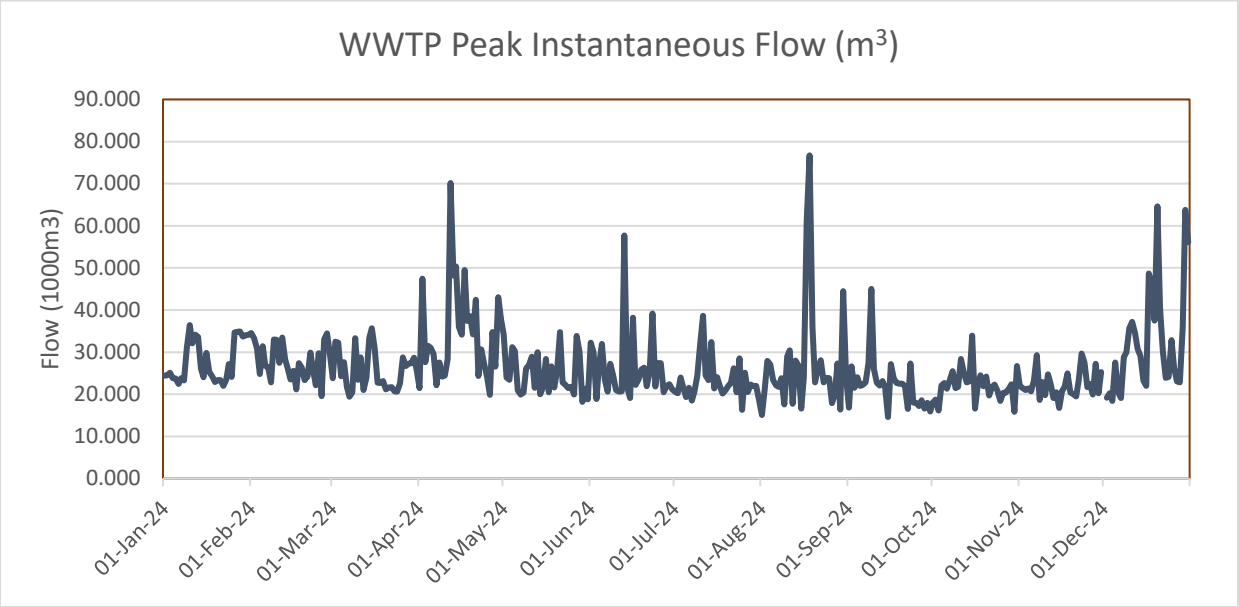


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average Daily Flow (m3)	14046	12903	12538	16242	10587	9574	9136	9809	8188	7477	9041	16584
Peak Daily Flow (m3)	22306	19299	16170	31903	16883	18322	17021	27729	11037	9954	11991	41769

Flow trends for the Owen Sound WWTP were in the typical range.

The Average Daily Flow for 2024 was 11,342 m^3/d, 46.2% of the plant's capacity of 24,545 m^3/d.

Figure 2



2024 spring flows were lower than in 2023. The highest peak instantaneous flow was 76,726m^{3,} recorded on August 18th, 2024, due to heavy rain accumulating 75.2mm of precipitation over two days.

Figure 3

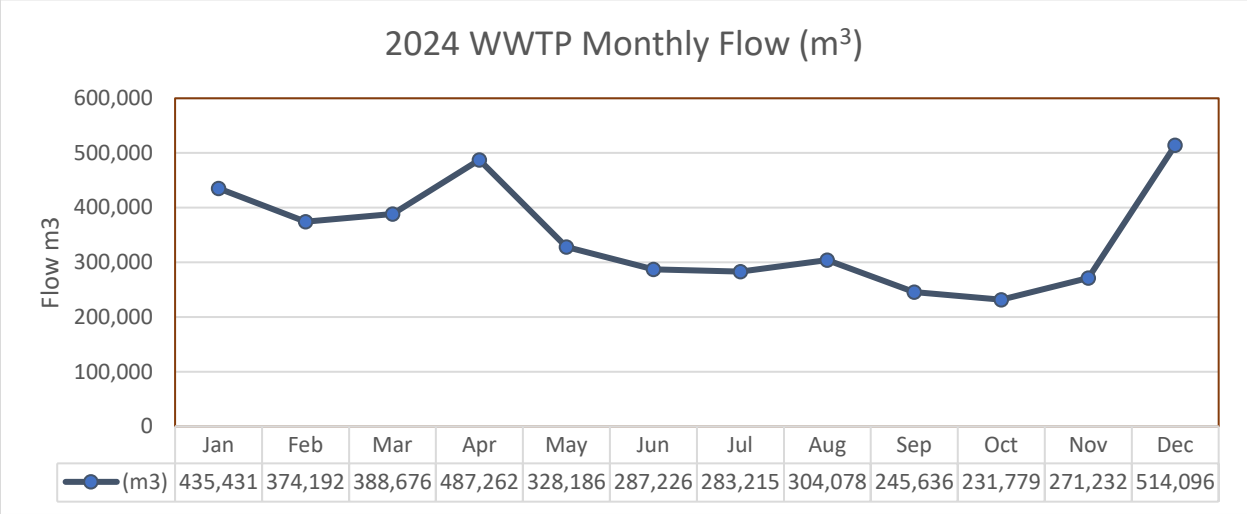
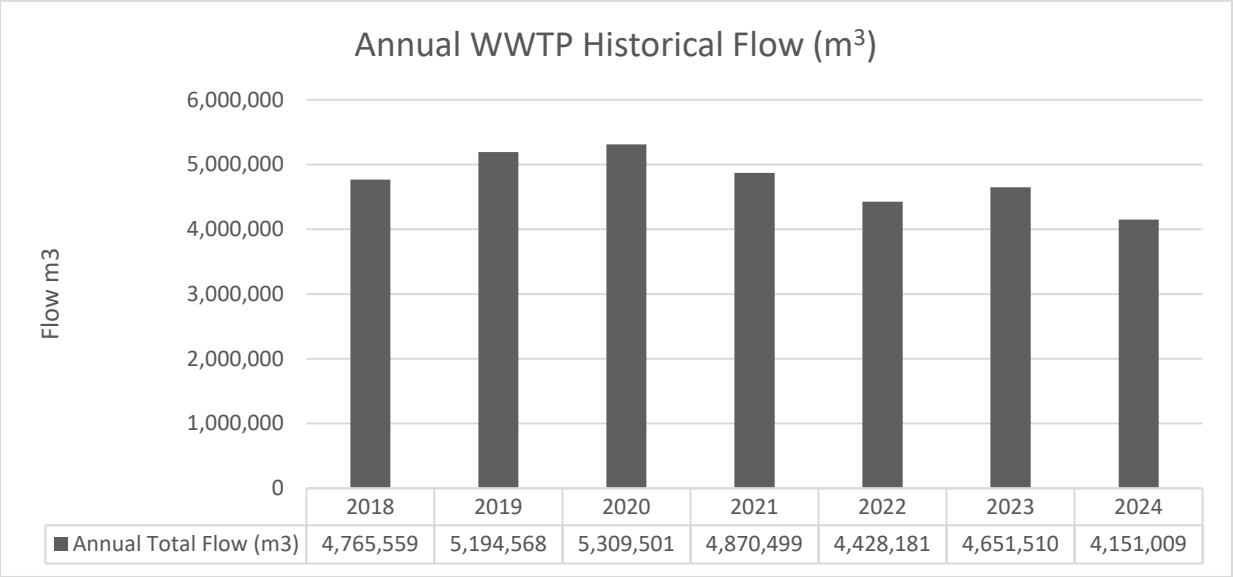


Figure 4



3.0 Collection System Overview, Flows and Overflows

The Owen Sound Collection System consists of seven (7) minor and one (1) major sewage pumping stations that pump sewage to the WWTP.

Combined Sewer Overflow (CSO) locations in the system are monitored during peak wet weather events. There were three wet weather overflows in 2024. The following charts and tables show flow through the major Westside Sewage Pump Station and the CSO events for 2024.

Figure 5

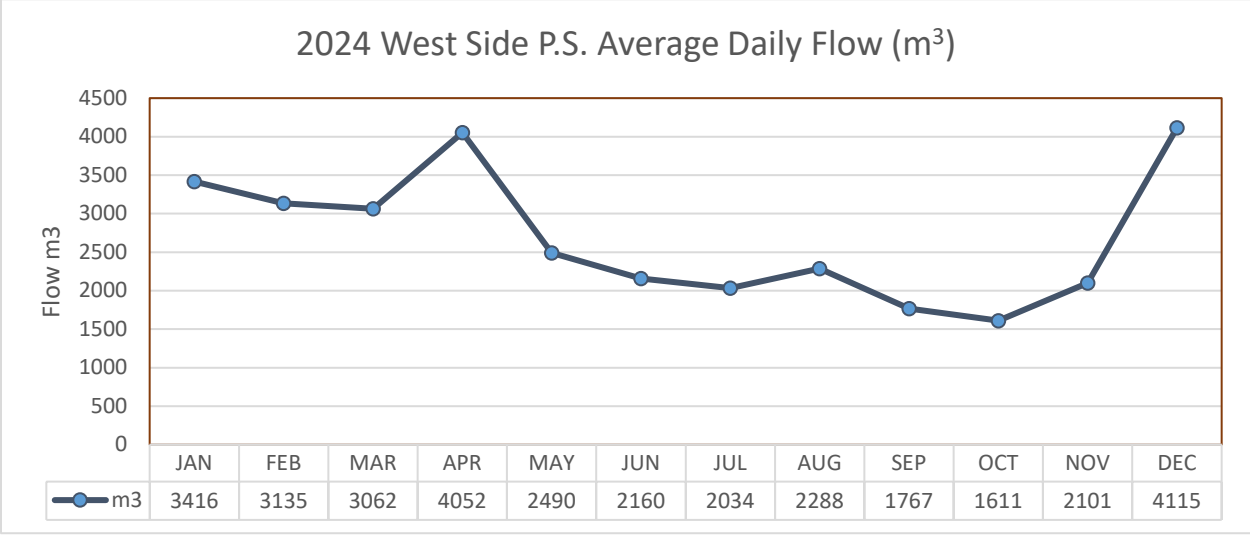
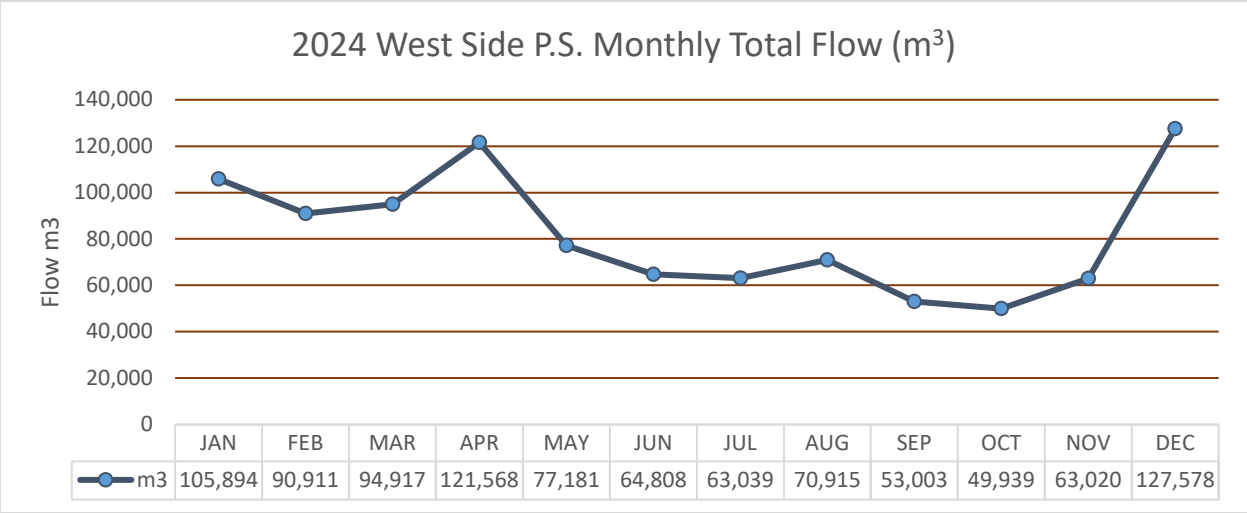


Figure 6



The 2024 Total Annual Flow through the West Side Sewage Pumping Station was 855,194.8m^3.

Table 1 **Owen Sound Collection System Overflows 2024**

The following table shows the Collection System overflows for 2024. The 27th Street West Sewage Pump Station overflow was caused by a Hydro One power outage, and the remainder due to heavy rain. Samples taken at OS-19A are representative of CSO locations OS-22, OS-12, OS-11, OS-16 & OS-17, as per MECP written correspondence.

2024 Owen Sound Collection System Overflows

Quarter	Location	Date (2024)	Volume (m^3)	BOD5 (mg/l)	TSS (mg/l)	TP (mg/l)	E-Coli cfu/100ml	TKN (mg/l)
2	27th St W	13-Apr	0.16	30	55	0.19	19600UAL	1.1
3	OS-19A	17-Aug	8.5	93	140	1.09	Overgrown	8.1
3	OS-11	18-Aug	2304	*	*	*	*	*
3	OS-12	18-Aug	2814	*	*	*	*	*
3	OS-16	18-Aug	2288	*	*	*	*	*
3	OS-19A	18-Aug	876	24	86	0.39	Overgrown	2.2
3	OS-22	18-Aug	1650					
3	Westside EQ Tank	18-Aug	398.4	25	55	0.39	Not Required	2.7
	Total		10,339.06					

- * Representative of OS-19A sample results.
- Overgrown- Refers to bacterial growth covering the surface of the membrane filter or culture media such that colonies are not discrete and therefore cannot be quantified (i.e., there are too many to count reliably.)
- UAL- Sample age exceeds the recommended holding time of 48 hours.

4.0 Influent Monitoring (Raw Sewage)

Weekly composite samples are taken at the Inlet Works building and sent to an accredited lab as part of the Influent Monitoring requirement of the ECA.

Table 2 shows the monthly averages of the required parameters.

Influent grab samples are taken and analyzed in-house by plant operators for pH and temperature. The recorded influent pH range was between 7.06-8.07, and the temperature range was 9.9-21.9 degrees Celsius.

Table 2 **Influent Monitoring**

Month	Raw BOD5	Raw TSS	Raw A+A(N)	Raw TKN	Raw TP
2024	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Jan Avg.	128.8	167.2	13.98	19.5	2.13
Feb Avg.	128.5	145.25	14.13	21.15	2.17
Mar Avg.	118	139.75	14.18	20.03	2.28
Apr Avg.	121.4	186.8	12.74	17.58	1.94
May Avg.	180.5	155.5	18.53	23.4	2.54
Jun Avg.	170.75	167	20.13	22.98	2.89
Jul Avg.	166.6	186.2	25.34	29.9	3.58
Aug Avg.	167.5	191.5	22.38	27.48	3.36
Sep Avg	170.25	224.75	27.2	34.75	5.32
Oct Avg.	203.2	240.6	28.36	34.14	4.4
Nov Avg.	220	257	24.9	29.6	4.16
Dec Avg.	149.8	187.6	14.56	17.6	2.75
Annual Avg.	*160.44*	*187.43*	*19.7*	*28.84*	*3.12*

While there is little ability to control the raw sewage characteristics, seasonal variations occur due to temperature and precipitation fluctuations affecting the influent's dilution levels.

5.0 Effluent Monitoring and Compliance

***Provincial*:**

Weekly composite samples are taken at the WWTP outfall and sent to an accredited lab for required Effluent Monitoring analysis. The WWTP ECA establishes effluent objectives and limits. The following tables show these and the achieved monthly averages for the required parameters.

Table 3 **CBOD5**

Month 2024	Concentration Objective (mg/l)	Monthly Average Concentration Limit (mg/l)	Concentration Achieved (mg/l)
Jan	12	15	7.2
Feb	12	15	5
Mar	12	15	4.25
Apr	12	15	4.2
May	12	15	7.5
Jun	12	15	5
Jul	12	15	8.4
Aug	12	15	7.75
Sep	12	15	8
Oct	12	15	9.8
Nov	12	15	9
Dec	12	15	8.2

No Effluent CBOD5 concentrations were exceeded.

Table 4 **Total Suspended Solids**

Month 2024	Concentration Objective (mg/l)	Monthly Average Concentration Limit (mg/l)	Concentration Achieved (mg/l)
Jan	12	15	5.8
Feb	12	15	7.25
Mar	12	15	4.5
Apr	12	15	6.2
May	12	15	3.75
Jun	12	15	6
Jul	12	15	10
Aug	12	15	9.75
Sep	12	15	8
Oct	12	15	11
Nov	12	15	11.25
Dec	12	15	8

No Effluent TSS concentrations were exceeded.

Table 5 **Total Ammonia-N**

Month 2024	Concentration Objective (mg/l)	Monthly Average Concentration Limit (mg/l)	Concentration Achieved (mg/l)
Jan	3.2	5	1
Feb	3.2	5	1.5
Mar	3.2	5	1.6
Apr	3.2	5	1.52
May	1.6	3	1.58
Jun	1.6	3	1.43
Jul	1.6	3	0.94
Aug	1.6	3	0.63
Sep	1.6	3	0.48
Oct	1.6	3	0.7
Nov	1.6	3	0.8
Dec	3.2	5	0.88

No Effluent Total Ammonia-N concentrations were exceeded.

Table 6 **Total Phosphorus**

Month 2024	Concentration Objective (mg/l)	Monthly Average Concentration Limit (mg/l)	Concentration Achieved (mg/l)
Jan	0.8	1	0.34
Feb	0.8	1	0.38
Mar	0.8	1	0.43
Apr	0.8	1	0.47
May	0.5	0.8	0.38
Jun	0.5	0.8	0.31
Jul	0.5	0.8	0.68
Aug	0.5	0.8	0.35
Sep	0.5	0.8	0.48
Oct	0.8	1	0.43
Nov	0.8	1	0.28
Dec	0.8	1	0.31

Effluent Total Phosphorus did exceed the Objective in July but not Limit.

Table 7 **E. Coli**

Month 2024	Concentration Objective (count/100mL)	Monthly Average Concentration Limit (count/100mL)	Concentration Achieved (count/100mL)
Jan	150	200	0
Feb	150	200	12
Mar	150	200	8
Apr	150	200	9
May	150	200	3
Jun	150	200	5
Jul	150	200	13
Aug	150	200	4
Sep	150	200	82
Oct	150	200	10
Nov	150	200	5
Dec	150	200	28

Note: Monthly Geometric Mean Density

No Effluent E.Coli concentrations were exceeded.

Table 8 **Total Residual Chlorine**

Month 2024	Concentration Objective (mg/l)	Monthly Average Concentration Limit (mg/l)	Concentration Achieved (mg/l)
Jan	N/A	0.02	0.002
Feb	N/A	0.02	0.002
Mar	N/A	0.02	0.001
Apr	N/A	0.02	0.003
May	N/A	0.02	0.002
Jun	N/A	0.02	0.007
Jul	N/A	0.02	0.008
Aug	N/A	0.02	0.004
Sep	N/A	0.02	0.001
Oct	N/A	0.02	0.002
Nov	N/A	0.02	0.003
Dec	N/A	0.02	0.002

Total Residual Chlorine did not exceed Limit.

Table 9 **Annual Average Waste Loading**

Effluent Parameter	Annual Average Waste Loading Limit(kg/day)	Actual Annual Loading (kg/day)
CBOD5	368	79.73
Total Suspended Solids	368	86.54
Total Ammonia-N (Non-Freezing) (Freezing)	 73.6 122.7	 8.57 18.8
Total Phosphorus (Non-Freezing) (Freezing)	 19.6 24.5	 3.83 5.64
E. Coli	N/A	N/A
Total Residual Chlorine	0.49	0.035

No Annual Average Waste Loading parameters were exceeded.

The pH of the effluent was maintained between 6.0 to 9.5, inclusive, at all times. The annual minimum recorded pH was 6.51 & maximum was 7.82 with an average of 7.15.

In the above charts, any *Concentrations Achieved* shown in red either exceeded the ECA's Objective or Limit for that parameter. All exceedances were reported to the MECP Water Supervisor.

No Ministry of the Environment, Conservation and Parks (MECP) inspection occurred on the Owen Sound Wastewater System in 2024.

b) ***Federal:***

Final Effluent samples were sent to comply with the Wastewater Systems Effluent Regulations (WSER) acute lethality testing requirements per section 11 of the Regulations.

The Acute Lethality testing requires a 20-litre Final Effluent sample to be sent to an accredited lab quarterly. At the lab, they introduce Rainbow Trout into the effluent in a controlled environment for 96 hours to monitor the fish for impairment and mortality. It is critical to keep the Final Effluent Total Residual Chlorine monthly average concentration less than 0.02 mg/l for compliance and this toxicity test.

Table 10 **Acute Lethality Testing**

Date	Mean Impairment	Mean Mortality
Jan 2, 24	0%	0%
Apr 1, 24	0%	0%
Jul 8, 24	0%	0%
Oct 2, 24	0%	0%

The Acute Lethality testing results were a 0% fish kill.

6.0 Operating Issues and Corrective Actions

Under normal conditions, the Biological Aerated Filter (BAF) Secondary Plant produces effluent exceeding the ECA requirements. Issues are rare, but when they occur, troubleshooting requires staff to follow procedures and perform checks unique to the BAF system; conventional Activated Sludge treatment plant practices have no analogous place in the BAF process. Plant data is monitored and analyzed by Veolia Water Technologies (BAF Supplier), who can assist with BAF operating issues.

As mentioned above, there was one Effluent Objective exceedance in 2024. The local MECP Provincial Officer was notified in writing. After extensive troubleshooting and adjustments, all wearable items on the coagulant dosing pump system were replaced and/or rebuilt to correct this issue.

7.0 Chemical Use

The following tables summarize chemical usage at the WWTP for 2024.

Table 11 **Sodium Hypochlorite (Disinfectant)**

Month 2024	Average Daily Usage (kg)	Total Monthly Usage (kg)	Average Daily Dosage (mg/l)
Jan	32.03	992.79	2.31
Feb	27.25	790.13	2.11
Mar	24.51	759.73	1.97
Apr	31.49	944.82	1.98
May	20.48	634.86	1.95
Jun	20.94	628.08	2.23
Jul	23.25	720.65	2.60
Aug	32.78	1016.29	3.51
Sep	28.42	852.57	3.52
Oct	28.97	898.15	3.93
Nov	27.59	827.82	3.26
Dec	37.47	1161.5	2.29
2024 Annual	27.94	10227.39	2.64
2023 Annual	29.66	10824.97	2.39
2022 Annual	28.69	10471.42	2.61

Table 12 **Ferric Chloride (Coagulant)**

Month 2024	Average Daily Usage (kg)	Total Monthly Usage (kg)	Average Daily Dosage (mg/l)
Jan	54.57	1691.73	3.85
Feb	54.54	1581.63	4.29
Mar	46.68	1447.14	3.74
Apr	58.42	1752.61	3.88
May	74.60	2312.46	7.28
Jun	78.95	2368.4	8.28
Jul	65.02	2015.5	7.45
Aug	84.91	2632.24	9.57
Sep	86.03	2580.91	10.64
Oct	88.67	2748.88	11.97
Nov	93.96	2818.79	11.01
Dec	69.42	2152.16	4.57
2024 Annual	71.32	25983.65	7.21
2023 Annual	66.56	25398.03	5.82
2022 Annual	70.71	26374.56	6.89

Table 13 **Calcium Thiosulphate (Captor)-Dechlorination Agent**

Month 2024	Average Daily Usage (kg)	Total Monthly Usage (kg)	Average Daily Dosage (mg/l)
Jan	120.63	3739.61	8.80
Feb	106.39	3085.22	8.30
Mar	122.77	3805.98	9.87
Apr	136.14	4084.12	8.87
May	107.38	3328.71	10.30
Jun	108.61	3258.20	11.49
Jul	94.88	2941.32	10.52
Aug	100.15	3104.58	10.73
Sep	84.8	2543.99	10.53
Oct	84.84	2630.08	11.34
Nov	93.76	2812.7	10.46
Dec	129.16	4003.89	8.44
2024 Annual	107.48	39338.4	9.98
2023 Annual	126.11	44391.9	8.54
2022 Annual	101.14	36916.54	9.60

8.0 Low Chlorine Residual Summary

There is a Standard Operating Procedure to report to the Owen Sound Water Treatment Plant any pre-dechlorination Total Residual Chlorine samples below 0.1mg/l. Although this is not required under the current ECA, this ensures the Water Plant is aware of any disinfection issues.

There were 5 Low Total Chlorine Residual incidents, shown below:

Table 14 **Low Total Chlorine Residuals**

Date 2024	Total Chlorine Residual (mg/l)	WTP Operator Contacted
28-Jul	0.07	Rob M.
14-Aug	0.09	Troy P.
25-Aug	0.06	Troy P.
19-Sep	0.06	Rob M.
17-Oct	0.08	Matt F.

Total # of Incidents in 2023	5
Total # of Incidents in 2022	14
Total # of Incidents in 2021	7
Total # of Incidents in 2020	1
Total # of Incidents in 2019	10
Total # of Incidents in 2018	1

9.0 Effluent Quality Assurance

The following in-house lab frequency chart has been developed for WWTP staff as a guideline to aid in Effluent Quality Assurance.

Table 15 **Testing Frequency**

		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Raw Sewage	pH		X		X		X	
	Temperature		X		X		X	
	TSS		X		X		X	
	COD		X					
Primary Effluent	TSS		X	X	X	X	X	
	pH		X	X	X	X	X	
	Alkalinity		X					
	Reactive Phosphorus as "P" (Filtered)		X	X	X	X	X	
	Total Ammonia-N		X		X		X	
BAF Effluent (Effluent Channel)	Total Ammonia-N		X		X		X	
	Nitrate		X		X		X	
	Nitrite		X		X		X	
	pH		X		X		X	
	Dissolved Oxygen		X					
Final Effluent	pH	X	X	X	X	X	X	X
	Temperature	X	X	X	X	X	X	X
	TSS	X	X	X	X	X	X	X
	COD		X					
	Total Ammonia-N		X		X		X	
	Nitrate		X		X		X	
	Total Phosphorus as "P" (Not Filtered)		X		X		X	
	Reactive Phosphorus as "P" (Filtered)	X	X	X	X	X	X	X
	Total Residual Chlorine (Pre-dechlor)	X	X	X	X	X	X	X
	Total Residual Chlorine (Post-dechlor)	X	X	X	X	X	X	X

Weekly regulatory samples are sent to an external accredited lab and analyzed in-house to compare results, which are usually similar. A certified third-party technician inspects and calibrates major effluent monitoring equipment annually. Asset Management software is used at the WWTP as a computerized maintenance management system that generates work orders to complete preventative equipment maintenance.

A Wastewater Quality Management System (WWQMS) was implemented in June 2019. This is a Wastewater System Operational Plan prepared per the Ontario Drinking Water Quality Management Standard. The fifth internal audit on the WWQMS was in November 2023. In this audit there were no non-conformities and eight (8) opportunities for improvement. The OFI's will be addressed by the WWQMS Representative in collaboration with the Wastewater Superintendent and Manager of Water/Wastewater, as required. The OFI's are related to Documentation, training and the clarification of inter-departmental roles and responsibilities.

10.0 Calibration & Maintenance Summary

The following summarizes calibrations, inspections, and other maintenance by 3rd Party Contractors:

- Annual fire extinguisher and emergency lights inspection- Georgian Bay Fire & Safety
- Annual lifting device inspection- Tradesafe Industrial Inc
- Annual backflow/double check valve assembly testing and inspection- Sharah Young, City Backflow Coordinator
- Semi-annual gas monitoring and detection system calibrations- Hetek Solutions
- Annual on-site stormceptor inspection- Minotaur Stormwater Services Ltd
- Annual flow-meter calibrations- Indus Control
- Annual online analyzer and lab instrumentation service, calibration and verification-Hach Sales & Service and SPD Sales
- Annual maintenance of BAF compressors- Ingersoll Rand
- Annual maintenance and load bank testing of backup power generators- GenWorx

- Annual boiler, digester gas and HVAC maintenance/repairs, including semi-annual boiler insurance inspection of both fire & water side for TSSA- Maurice Mechanical
- Required elevator inspections and maintenance- OTIS
- Confined Space and fall arrest equipment annual inspection- Rubicon Safety
- Reload lost program onto PLC of bar screen SCR-SCN201- Fusion Automation
- BAF analyzer sample sink feed pump rebuilt- Johnson's Pumps & Motors, plant staff
- Plant fire inspection by Greg Nicol of Owen Sound Fire Department
- BAF Pump 101 wiring troubleshoot and re-connection- Mike Elder Electric
- DC input programming on Ferric valve changed for proper operation- Fusion Automation
- WWTP Scada upgrade completed-Summa Engineering & City IT Department
- Digester gas booster rebuilt-Maurice Mechanical
- Raw Sewage pump #1 rebuilt- SPL Pumps
- Replaced 24V power supply on screen room harmonic filter- Mike Elder Electric
- Bio-solids Storage Tank #1 cleanout-Saugeen Agri Service Ltd, plant staff
- Bio-solids Storage Tank #1 anode replacement and tank inspection-Greatario Service
- Bio-solids Storage Tank #1 mixing nozzle tips replacement- Trev's Welding, plant staff
- Rebuild boiler pump #201-Maurice Mechanical
- Oil sample & analysis of 44kV transformer- Allison Electrical Services
- Replaced failed VFD on BAF PMP101- Mike Elder Electric
- Replaced failed digester gas valve and actuator on Boiler #1-Maurice Mechanical

Non-routine maintenance completed by plant staff:

- Replaced ball valve on fill pipe of sodium-hypo tank #2
- Replaced Screen Building sump pump start float
- Replaced broken shear pins on scum collectors
- Replaced failed LIT on bar screen #2
- Replaced faulty on-line gas detector sensors

- Installed airline for automatic cleaning of Primary Effluent NH4 analyzer
- Replaced anti-rotation wear bars in Roto-pac unit
- Replaced rollers on both bar screen units
- Replaced failed BAF Influent pH sensor- plant staff
- Rebuilt both ferric chloride dosing pumps- plant staff
- Installed new drive sprockets, idler sprockets, and chain on Clarifier #1 cross-collector

11.0 2023 Bio-solids Summary

Below is a tabulation of the volume and locations where WWTP generated bio-solids were land applied. Approximately 13,000m3 is anticipated to be generated in the next reporting period.

The City of Owen Sound works with Saugeen Agri Service Ltd to ensure adequate NASM sites are available for bio-solids application.

Table 16 **2024 Bio-Solids Land Applied**

Date 2024	**Receiver Location**	**Volume Applied (m3)**
May 13-Jun 3	Don Curry- Davidson & Robertson Farms NASM #24871	6250.69
Jun 26-28	McQueen Farm- Field 5 NASM #61113	410.26
Jul 2-3	Home Farm and McQueen Farm NASM #61113	887.21
Oct 22-29	Mike Farrow Home Farm NASM #60034	3953.96
	Total Volume Applied	**11,502.12**

The 2024 Bio-solids production was slightly less than the 2023 volume of 12,868m^3.

12.0 Leachate

Leachate is the liquid that drains or 'leaches' from a landfill. The main leachate concern parameter is ammonia, which the earlier Primary Sewage Treatment plant could not remove. Previously, leachate from the Genoe Landfill was trucked to other Wastewater Plants for treatment. The Secondary upgrade to the WWTP allows The City to

accept this material with minimal to no impact on the treated effluent. The leachate is dumped into the Collection System on the industrial collector main near the Public Works Facility. It is conveyed by gravity to the WWTP while mixing with other incoming sewage. This helps prevent any shock to the plant that could be caused by dumping leachate directly into it.

16,443m^3 of leachate was hauled from the Genoe Landfill and treated by the WWTP in 2023, compared to 20,286m^3 in 2023. Treating Leachate internally saves the costs incurred by trucking the substance to neighbouring municipalities for treatment.

Table 17- **Leachate Volumes 2024**

Month	m3
Jan	2110.5
Feb	2394
Mar	2268
Apr	2551.5
May	1575
Jun	945
Jul	661.5
Aug	315
Sep	661.5
Oct	346.5
Nov	283.5
Dec	2331
Total	16,443

13.0 Complaints

In 2024 there were three (3) customer complaints of sewer odour. Operators followed the SOP and logged these complaints. Operators investigated each situation, the issues were resolved, and the customers were satisfied.

There was also a complaint of a hydrocarbon smell at a business in the 200 block of 10th Street East. This was investigated with Wastewater Collection staff, the Owen Sound Fire Department and local MECP officials.

14.0 By-pass, Spill or Abnormal Discharges

There was one Bypass Event, as shown below, due to a Hydro One power bump. There were no spills, or abnormal discharges to be reported from the WWTP in 2024.

Owen Sound WWTP - Final Report

BYPASS VOLUMES

START DATE: April 12, 2024 END DATE: April 13, 2024

Plant Number: 110000551

LOCATION	RECEIVING WATER	VOLUME	START	END	DURATION	WWI #
Primary Effluent Chamber	Owen Sound Bay	2117.4m3	23:36hrs	00:53hrs	1hr 17min	I-5PBGFU
Distribution Channel on Roof	Owen Sound Bay	-	-	-	-	-
TOTAL		2117.4m3				

SAMPLE ANALYSIS

SAMPLE DATE: April 13, 2024 TIME: 02:00hrs

LOCATION	SAMPLE ANALYSIS RESULTS (PPM)				
	TAN	BOD_5	TSS	TP	E. Coli
Primary Effluent Chamber	1.8	<4	5	0.27	74 UAL
Distribution Channel on Roof	-	-	-	-	-

15.0 Basement Isolation Storm Sewer Disconnection & Weeping Tile Sump Pump Subsidy

The City of Owen Sound offers subsidies for the following:

Basement Isolation
Assistance is available to owners of properties that have experienced flooding due to sanitary sewer or storm sewer surcharging.

Weeping Tile Disconnection
Assistance is available to owners of properties that have experienced flooding due to a sanitary sewer or storm sewer surcharging if:

- the weeping tiles of the house are directly connected to the sanitary sewer or,
- the weeping tiles of the house are directly connected to a storm sewer or,
- the sanitary sewer has experienced a surcharge (backup) event.

In 2024 five (5) properties participated in the above programs.