



CLEARVIEW  
TOWNSHIP

# Stayner

## 2024 Annual Wastewater Performance Report

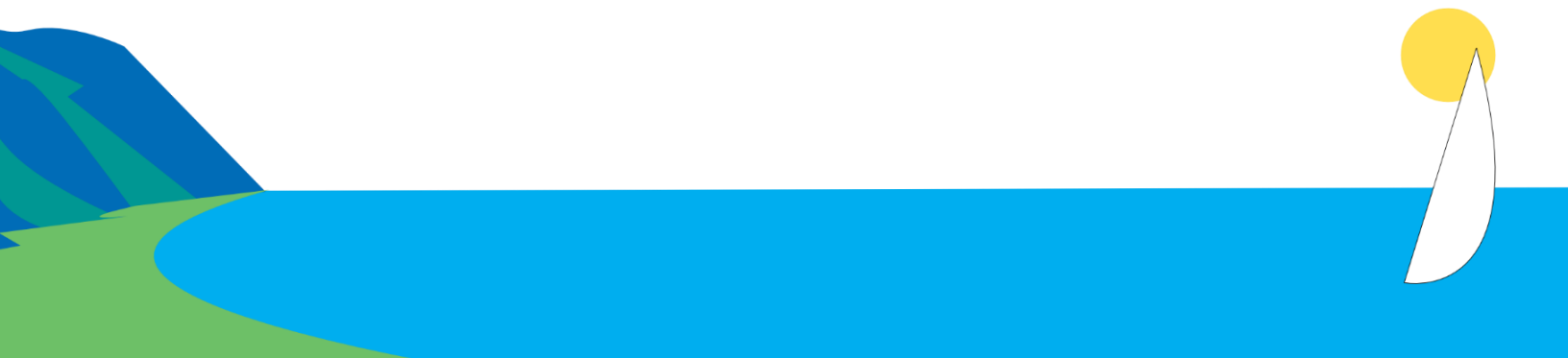


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## Acronyms

BOD	Biochemical Oxygen Demand
CBOD <sub>5</sub>	Five Day Carbonaceous Biochemical Oxygen Demand
Cfu	Colony Forming Units
COD	Chemical Oxygen Demand
DO	Dissolved Oxygen
ECA	Environmental Compliance Approval
E.coli	Thermally tolerant forms of Escherichia
Hg	Mercury
FP	Filtered Phosphorous
GEOMEAN	Average of a set of Products
HP	Horsepower
kg	Kilograms
kW	Kilowatt
MECP	Ministry of the Environment, Conservation and Parks
mg/l	Milligrams per litre
ML/d	Mega litres per day
m <sup>3</sup> /d	Cubic metres per day
NH <sub>3</sub>	Ammonia
NO <sub>2</sub>	Nitrites
NO <sub>3</sub>	Nitrates
pH	Acidity, 'potential of hydrogen'
STF	Sewage Treatment Facility
SVI	Sludge Volume Index
TBOD <sub>5</sub> or BOD <sub>5</sub>	Five Day Biochemical Oxygen Demand
TAN	Total Ammonia Nitrogen
TKN	Total Kjeldahl Nitrogen
TP	Total Phosphorous
TS	Total Solids
TSS	Total Suspended Solids
UV	Ultraviolet
VFA	Volatile Fatty Acids
VS	Volatile Solids
WPCP	Wastewater Treatment Plant

## Introduction

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The Town of Collingwood operates Stayner Water Pollution Control Plant (WPCP) and Sewage Pumping Stations (SPS): Dominion Drive SPS and Stayner SPS, owned by the Township of Clearview. WPCP has class II certification, and its Wastewater Works Number is 1100695.

This report has been prepared to address the annual performance reporting requirements for the Stayner Water Pollution Control Plant (WPCP) as outlined in the Environmental Compliance Approval (ECA) 3718-A4CQTD issued January 4, 2016.

The report summarizes the monitoring and operational results and covers the period from January 1, 2024, to December 31, 2024. All compliance and objective limits were met in 2024, except for Total Suspended Solids (TSS) and CBOD<sub>5</sub> monthly average concentration and TSS loading exceedances in April 2024 as further described in the report. The report is submitted to the District Manager of the Ministry of Environment, Conservation and Parks (MECP) by March 31<sup>st</sup>.

## Facility Description

The Stayner Water Pollution Control Plant (WPCP) was built in 1984 and subsequently upgraded in 1991 and modified in 2004 giving the plant a rated capacity of 2500 m<sup>3</sup>/d average daily flow and a peak flow rate of 6250 m<sup>3</sup>/d. The plant serves the population of Stayner of about 4,699 persons.

Wastewater generated within the community of Stayner flows to the plant by gravity with the assistance of two pumping stations to boost the flow where required.

The treatment process consists of activated sludge extended aeration treatment in combination with a lagoon polishing and storage system with effluent discharge to Lamont Creek.

Major unit operations at the Stayner WPCP include the following:

### Inlet Works

- Influent chamber receiving raw sewage via a forcemain from Dominion Drive Pumping Station, distributing flows to the two aeration cells with an emergency bypass to the lagoons

### Aeration

- Two aeration tanks, each equipped with fine bubble aeration system and two air blowers

### Secondary Clarifiers

- Two secondary clarifiers, with sludge and scum removal mechanisms

### Return and Waste Activated Sludge Facilities

- Two activated sludge pumps, each equipped with variable speed drives, complete with a magnetic flow meter on both return and activated sludge lines

### Sludge Storage Facility

- One lagoon (lagoon#2) measuring for storage of waste activated sludge

### Phosphorus Removal Facilities

- One phosphorus removal chemical tank in a containment crib and two chemical metering pumps

### Effluent Storage Lagoons

- Three cells (lagoons #1, #3 and #4) for treated effluent storage

### Effluent Outfall

- Outfall sewer discharging to a riprap lined ditch conveying effluent to Lamont Creek
- One stream flow measuring and calculation system

# Annual Average Performance Assessment

## Effluent Objectives and Limits

- The effluent objectives and effluent concentration limits are summarized below in Table 1A. The loading limits are summarized below in Table 1B.
- The plant is to be operated and maintained such that the concentrations and waste loadings of the materials named below as effluent parameters are not exceeded in the final effluent.

Table 1A - Effluent Objectives & Effluent Concentration Limits		
	Objective, mg/L	Limit, mg/L
<b>CBOD<sub>5</sub></b>	5	10
<b>TSS</b>	10	15
<b>TP</b>	0.3	0.4

Note: To determine compliance with and enforcing the above: the monthly average concentration of a parameter named in Column 1 shall not exceed the corresponding maximum concentration set out in Column 3 of Table 1A.

- The monthly average effluent concentration objective for Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>) was slightly above the objective of 5.0 mg/L in April 2024 with a monthly average of 6.6 mg/L, but fell within applicable compliance limit.
- Total Suspended Solids (TSS) with a monthly average of 19.2 mg/L. in April 2024 exceeded objective and compliance limits of 10 mg/L and 15 mg/L respectively. Documentation sent to the MECP with notification of this event is enclosed in Appendix C.
- Total Phosphorous (TP) objective and compliance limits have been met throughout 2024.

The sampling results are provided in Appendix B for more detail.

Table 1A - Effluent Objectives & Effluent Concentration Limits		
TAN, mg/L		
Month	Objective	Limit
January	3.0	4.0
February	3.0	4.0
March	3.0	4.0
April	2.0	2.5
May	2.0	2.5
June	1.0	1.5
July	1.0	1.5
August	1.0	1.5
September	2.0	2.5
October	2.0	2.5
November	3.0	4.0
December	3.0	4.0
pH	6.5-9.0	6.0-9.0

Note: The TAN and pH of the effluent shall be maintained within the limits outlined in Column 3 of Table 1A.

- Total Ammonia Nitrogen (TAN) monthly average effluent concentration objective was met and compliance limit was not exceeded throughout 2024.
- The Acidity (pH) values fell within the range of objective and compliance limit in 2024.

The sampling results are provided in Appendix B for more detail.

## Effluent Waste Loading Limits

Table 1B - Effluent Loading Limits				
Monthly Average Loading Limits (kgs/d)				
Month	CBOD <sub>5</sub>	TSS	TP	TAN
January	16.3	24.5	0.65	6.5
February	19.7	29.6	0.79	7.9
March	82.0	123.0	3.28	32.8
April	86.4	129.6	3.46	21.6
May	17.6	26.4	0.7	4.4
June	6.3	9.5	0.25	0.9
July	2.8	4.2	0.11	0.4
August	3.2	4.8	0.13	0.5
September	1.9	2.9	0.08	0.5
October	10.4	15.6	0.42	2.6
November	21.4	32.1	0.86	8.6
December	33.3	50.0	1.33	13.3

Note: The monthly average loading of a parameter listed in Columns 2 to 5 of Table 1B shall not exceed the corresponding maximum waste loading as set for the corresponding month (Column 1).

- The effluent loading objective and compliance limits (kg/d) have been met for Total Kjeldahl Nitrogen (TKN), CBOD<sub>5</sub> (kg/d) and Total Phosphorous (TP) in 2024.
- Total Suspended Solids (TSS) limit of 129.6 kg/d was exceeded in April with a monthly average loading of 136.3 kg/d. Documentation sent to the MECP with notification of this event is enclosed in Appendix C.

The sampling results are provided in Appendix B for more detail.

## Effluent Discharge to Lamont Creek

The average daily effluent discharge rate to Lamont Creek shall not exceed the daily discharges listed in Table 2 below. However, periodic discharges above the prescribed limits are allowed if a minimum dilution ratio of 3:1 (3 parts creek flow and 1 part effluent discharge), based on actual measurements of flow rate in the Lamont Creek. Notwithstanding these periodic excess discharges, the average annual effluent discharge should not exceed 2,500 m<sup>3</sup>/d, which is the rated capacity of the treatment works.

Table 2 – Effluent Discharges to Lamont Creek	
Month	Average Daily Discharge (m <sup>3</sup> /d)
January	1,630
February	1,970
March	8,200
April	8,640
May	1,760
June	630
July	280
August	320
September	190
October	1,040
November	2,140
December	3,330

During certain times of the year, Lamont Creek backs up into the final effluent channel, and the discharge flow meter becomes blinded. This causes the flow meter to incorrectly record that there is discharge coming from the polishing lagoons towards Lamont Creek. This type of backup occurred once in 2024 during a heavy rainfall on April 12<sup>th</sup> and December 29<sup>th</sup> – 31<sup>st</sup> resulting in an incorrect flow measurement above the prescribed limit. The letter to MECP for each of these instances was sent to explain that non-compliance has not occurred. The letters are enclosed in Appendix C.



## Compliance Testing and Analysis

- Monitoring requirements are specified under Condition 9 of the ECA. Grab samples of raw sewage are required to be collected at the Dominion Street pumping station weekly and analyzed for CBOD<sub>5</sub>, TSS, TP and TKN. Grab samples of final effluent are required to be collected weekly (during discharge periods) and analyzed for BOD<sub>5</sub>, TSS, TP, TAN and E. coli (Escherichia). Temperature and pH of the final effluent are required to be tested on-site weekly.
- Compliance sampling and analysis of raw sewage are carried out weekly. 48-hour composite samples are collected using a refrigerated automatic sampler for analysis of CBOD<sub>5</sub>, TSS, TP and TKN.
- Compliance sampling and analysis of final effluent are carried out weekly when discharging and secondary effluent analysis is carried out weekly to monitor the quality of the effluent being received by the storage lagoons.
- Samples are collected at the outfall to Lamont Creek, analysis of CBOD<sub>5</sub>, TSS, TP, and TKN, total ammonia nitrogen, nitrite, nitrate and E. coli. Lastly, grab samples are collected weekly and tested for pH and temperature.
- Except for the samples collected for pH and temperature testing, analysis for all compliance samples is carried out by an external contract laboratory, Testmark Laboratories, in Mississauga, ON. The plant also complies with Guideline F-10-1 concerning sampling and analysis requirements which satisfies Condition 9 (4) (a) of the ECA.
- The temperature and pH of the final effluent is measured in the field at the time of sampling for TAN so the concentration of un-ionized ammonia can be calculated, as set out in condition 8 (5).
- The Stayner WPCP external sampling program is attached as Appendix A.
- All external laboratory analysis results are reported in the Municipal Utility Monitoring forms which are submitted electronically to the Barrie District Office and are used in generating the annual plant performance report.

## In-House Testing and Analysis for Process Control

- Grab samples are taken twice per week of the secondary effluent and final effluent (if discharging to Lamont Creek).
- Grab samples are also obtained for other process streams as required for process control purposes. Grab samples are also obtained for other process streams as required for process control purposes.
- All samples are analyzed on-site or at the Collingwood WPCP laboratory using techniques in standard methods or using approved methods for HACH DR/2800 Spectrophotometer.
- The Stayner WPCP internal sampling program is attached as Appendix A
- Flow Measurement.

- Raw sewage (influent) flows at Dominion PS are monitored by a magnetic flow meter installed on the station force main. Final effluent flows are continuously monitored by means of Parshall flume in conjunction with a Milltronics flow monitor.
- Both the influent and final effluent flows are trended through the SCADA system.
- The flow meters are calibrated annually for accuracy (must be +/- 15% of flow rate) to satisfy condition 9 (7) of the ECA.

## Capacity Assessment

The annual average daily flow (ADF) has fallen within the design limit for this reporting period as Table 3 demonstrates. The peak influent flow for any day did not exceed the design flow.

Table 3 - Capacity	Design	Current Year
ADF (m <sup>3</sup> /d)	2,500	1,616
Peak Flow Rate (m <sup>3</sup> /d)	6,250	4,208

The annual average performance data is summarized in Appendix B.

## Sludge Management

- Sludge is routinely wasted from the plant to wasting lagoon #2.
- In 2024, approximately 38,096 m<sup>3</sup> was wasted in total.
- Sludge Accountability for 2024:
  - Reported 425.55 kg/d.
  - Projected 421.29 kg/d.
  - Accountability – 1.0 % (desirable +/- 15%)
- Sludge removal took place in 2024.
  - A total of 4,699.0 m<sup>3</sup> of sludge was removed from lagoon #2 in 2024 and directly applied to approved land.
  - Sludge removal is not part of the Town of Collingwood's scope of work and is managed by Clearview Township. Sludge removal has been identified as a recurring operational need as part of the capital works budget.

## Bypass Occurrences

- There were no bypass occurrences in 2024.

## Maintenance

- Routine preventive maintenance was performed throughout the year in accordance with the recommendations of the original equipment manufacturer.
- There were no major equipment failures or malfunctions that occurred during this reporting period that would compromise effluent quality.
- Maintenance records are kept for each piece of equipment at the plant and are available at the plant for viewing.
- Calibrations were carried out on the plant instrumentation and flow metering and level sensing equipment on June 24, 2024 by SCG Flowmetrix.

Date 2024	Equipment Calibrated/Maintained	Pass/Fail	Comments
June 24	Dominion Street Level sensor	No Instrument to verify	An equipment upgrade is required, and Clearview township has been notified
June 24	Effluent flowmeter	Pass	
June 24	WAS flowmeter	Pass	
June 24	RAS flowmeter	Pass	

2024 Maintenance Tracking	
Blower #2	Refurbishment
Blower #1	Check valve replacement
Clarifier # 1 drive unit	Replacement commenced in 2024 to be completed in 2025

## Complaints

- There were no complaints in 2024.

## Operational Challenges

- Although the influent CBOD<sub>5</sub> lab results are trending lower over the year there are still higher than typical strengths from time to time. With the completion of blower upgrades, there is more stable operational control, but slug loading could still

become an issue if incoming waste from industrial contributors is not monitored.

- In February operations staff noticed an oil sheen on the aerators and clarifiers at the plant. Quick action by the operator resulted in the elimination of any oil reaching the natural environment. An environmental spill response company was immediately employed to prevent any oil from entering the polishing lagoons. The company did not observe any adverse impact. The incident was reported to the Spills Action Centre (SAC) out of precaution and the MECP inspector was informed.
- During wet weather events Lamont creek can experience flooding of its banks. The water reached the outflow from the lagoons and temporarily blinds the effluent flow meter which gives false readings. Each of these instances requires a letter to the MECP to explain that non-compliance has not occurred and also requires the operator to stop flow so that a proper assessment can be made.
- Lagoon #4 is seeing increased algal growth each year which could impact the ability to stay compliant with suspend solids objectives or limits during the summer months. It is believed that the increase algae is due to the nutrients that come from the sludge-wasting lagoon.

## Appendix A Sampling & Process Control

Samples are analyzed using procedures from the most current edition of “Standard Methods for the Examination of Water and Wastewater” or HACH DR 2800 Spectrophotometer methods.

Samples are obtained by the Operators and returned to the Collingwood Lab for analysis other than pH, DO, Temp, and 30 min. settling tests which are done on-site at the time the sample is taken. Operators are responsible for obtaining sufficient samples for the laboratory technician.

### In-House Sampling:

Unit Process	Type Sample	Parameters Tested	Minimum Frequency
Influent	24 hr. composite	pH, TSS, TP	2 x per week
Aeration			2 x per week
• mixed liquor	Grab	half hour settling, pH, TSS	
• RAS	Grab	TSS	
• WAS	Grab	TSS	
Secondary Effluent	Grab	TP, NH <sub>3</sub> , TSS, pH	2 x per week
Final Effluent	Grab	TSS, pH, TP, NH <sub>3</sub>	2 x per week if discharging to Creek

### External Lab Analysis:

Unit Process	Type Sample	Parameters Tested	Minimum Frequency
Influent	Composite	TP, TSS, CBOD <sub>5</sub> , TKN	Weekly minimum as per ECA
Effluent	Grab	TSS, CBOD <sub>5</sub> , TP, FP, TAN, N <sub>03</sub> , N <sub>02</sub> , TKN, E-coli	Weekly minimum as per ECA
	On-site at time of sample collection	pH & Temperature	Weekly

Samples are sent to an outside Lab to supplement the testing completed in-house and provide a QA/QC check.

The external lab is an accredited laboratory, and these results are recorded on the monthly MUMPS reports.

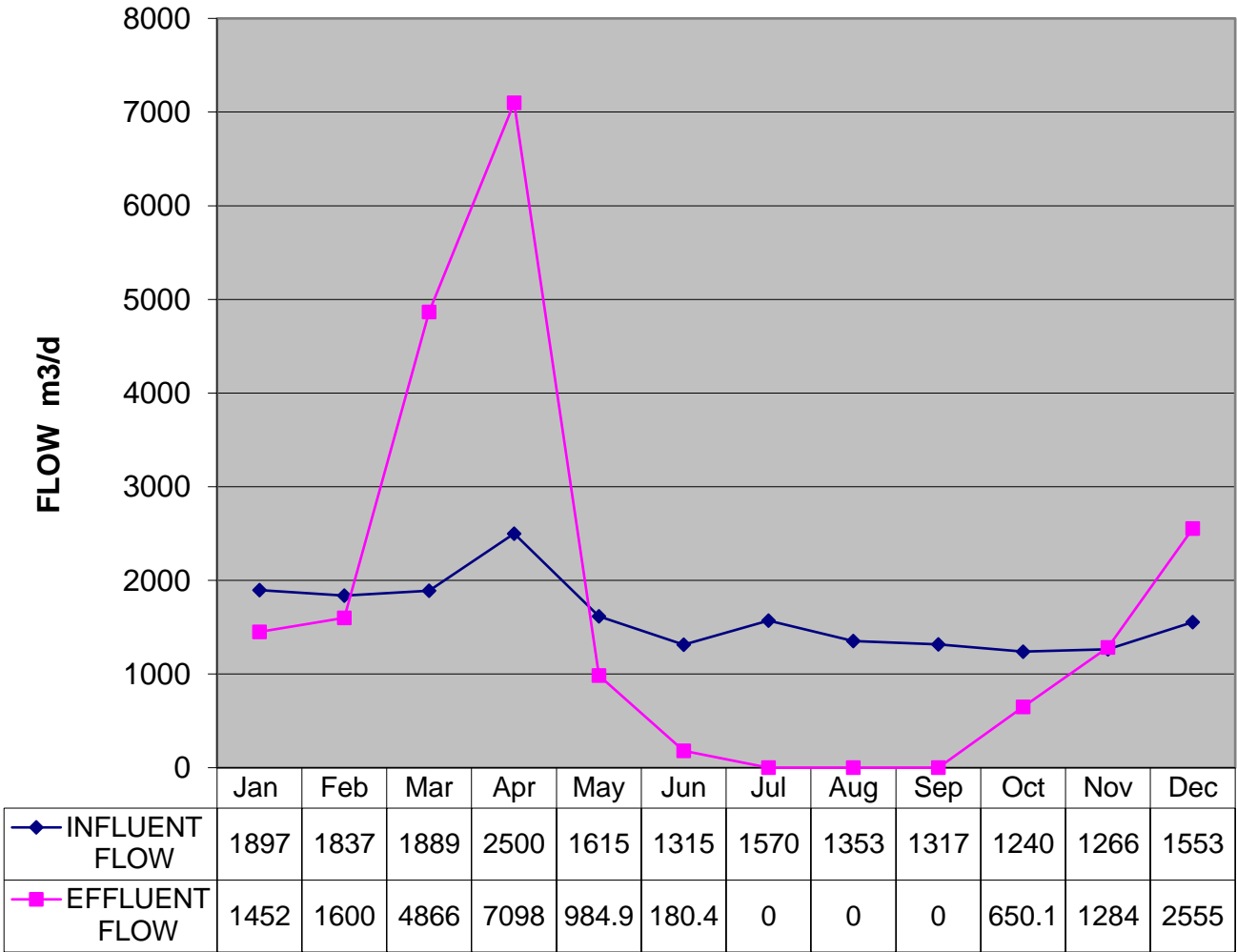
## Appendix B

### Monthly Flow & Process Quality

## TOWNSHIP OF CLEARVIEW, STAYNER WPCP PERFORMANCE EVALUATION

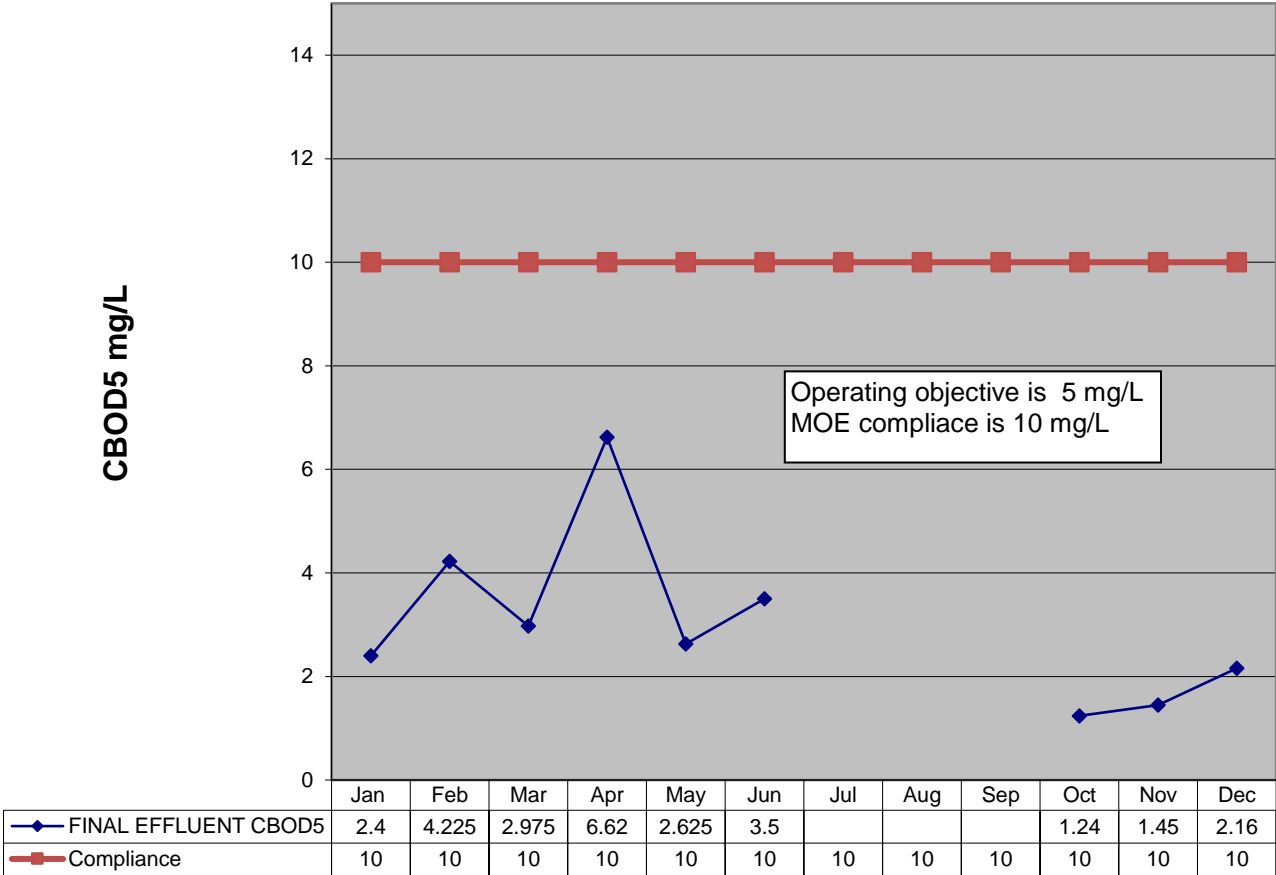
2024	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year summary
FLOWS(m3/d)													
Influent													
ADF	1,897	1,837	1,889	2,500	1,615	1,315	1,570	1,353	1,317	1,240	1,266	1,553	1,616
Total	58,803	53,264	58,553	74,991	50,075	39,440	48,659	41,956	39,498	38,429	37,983	48,137	589,788
Max day	2,588	2,223	2,312	4,208	2,250	1,622	3,605	1,651	1,503	1,430	1,415	2,605	4,208
Min day	1,538	1,503	1,657	1,626	1,353	1,179	1,186	1,186	1,209	1,121	1,157	1,243	1,121
Final Effluent													
ADF	1,452	1,600	4,866	7,098	985	180	0	0	0	650	1,284	2,555	1,719
Total	45,000	46,412	150,849	212,932	30,533	5,413	0	0	0	20,152	38,532	79,200	629,023
Max day	1,588	1,772	7,638	8,688	1,459	520	0	0	0	733	1,583	5,376	8,688
Min day	1,415	1,199	40	1,185	25	0	0	0	0	451	809	835	0
Max aver. daily discharge limits	1630	1970	8200	8640	1760	630	280	320	190	1040	2140	3330	2500
CBODs (mg/L)													
Influent	646	338	335	544	805	708	608	683	789	508	888	632	624
Effluent	2.4	4.2	3.0	6.6	2.6	3.5				1.2	1.5	2.2	3.0
	monthly average concentration: objective is 5mg/L, compliance limit is 10mg/L												
CBODs (kg/d)													
Final Effluent monthly ave loading	3.5	6.8	14.5	46.99	2.59	0.63				0.81	1.86	5.52	
Compliance monthly average loading	16.3	19.7	82.0	86.4	17.6	6.3	2.8	3.2	1.9	10.4	21.4	33.3	
TSS (mg/L)													
Influent	222	228	216	184	355	404	314	257	187	244	255	231	258
Effluent	2.9	8.8	9.3	19.2	2.2	4.0				2.3	1.9	7.3	6.4
	monthly average concentration: objective is 10mg/L, compliance limit is 15mg/L												
TSS (kg/d)													
Final Effluent monthly ave loading	4.2	14.1	45.0	136.3	2.2	0.7				1.5	2.4	18.5	
Compliance monthly average loading	24.5	29.6	123.0	129.6	26.4	9.5	4.2	4.8	2.9	15.6	32.1	50.0	
TP (mg/L)													
Influent	4.6	5.0	5.0	3.2	7.5	6.3	7.3	4.6	4.2	6.8	5.8	6.4	6
Effluent	0.13	0.21	0.10	0.19	0.04	0.08				0.03	0.03	0.07	0.10
	monthly average concentration: objective is 0.3mg/L, compliance limit is 0.4mg/L												
TP (kg/d)													
Final Effluent monthly ave loading	0.19	0.34	0.49	1.32	0.04	0.01				0.02	0.03	0.17	
Compliance monthly average loading	0.65	0.79	3.28	3.46	0.70	0.25	0.11	0.13	0.08	0.42	0.86	1.33	
TAN (NH3+NH4+) (mg/L)	monthly average monthly concentration: objective is 3.0 mg/L, compliance limit is 4.0 mg/L(Feb-Mar; Nov,Dec)												
Effluent	0.4	0.6	1.1	0.5	0.2	0.2				0.2	0.3	0.5	0.43
	monthly ave concentration: objective is 2.0mg/L, compliance limit is 2.5mg/L(Apr,May,Sep,Oct) :objective is 1.0mg/L, compliance limit is 1.5 (Jul,Aug)												
TAN (kg/d)													
Final Effluent monthly ave loading	0.57	0.92	5.29	3.69	0.16	0.04				0.10	0.35	1.30	
Compliance monthly average loading	6.50	7.90	32.80	21.60	4.40	0.90	0.40	0.50	0.50	2.60	8.60	13.30	
TKN (mg/L)													
Influent	26.9	27.8	26.4	17.0	27.9	32.3	49.1	42.8	42.7	58.7	51.4	94.1	41
Effluent	1.54	2.23	1.73	1.80	1.08	0.70				2.90	3.55	2.70	2.02
NO3 (mg/L)													
Effluent	5.28	4.12	4.64	3.24	3.05	1.87				1.46	5.00	7.50	4.02
NO2 (mg/L)													
Effluent	0.05	0.05	0.24	0.08	0.52	0.2				0.3	1.1	1.5	0.44
FP (mg/L)													
Effluent	0.17	0.14	0.03	0.076	0.01	0.03				0.01	0.004	0.016	0.05
Temperature and pH													
Effluent	Temperature and pH determined in the field at time of sampling as per ECA												
pH													
Influent	7.7	7.5	7.6	6.9	7.1	6.8	7.0	6.6	6.5	8.1	6.7	6.9	
Effluent	7.8	7.9	7.9	8.1	8.4	8.5				8.4	8.1	8.1	
Min	7.4	7.6	7.4	7.4	8.1	7.8				8.3	7.9	7.9	
Max	8.3	8.3	8.3	8.8	8.8	8.9				8.6	8.3	8.3	
	Compliance means maintaining the pH of the final effluent within the limits 6.0 to 9.0 (objective within 6.5 to 9.0)												
E-Coli (MPN/100mL)													
Effluent	359	35	144	93	34	75				112	58	54	

2024 Monthly Average Flows

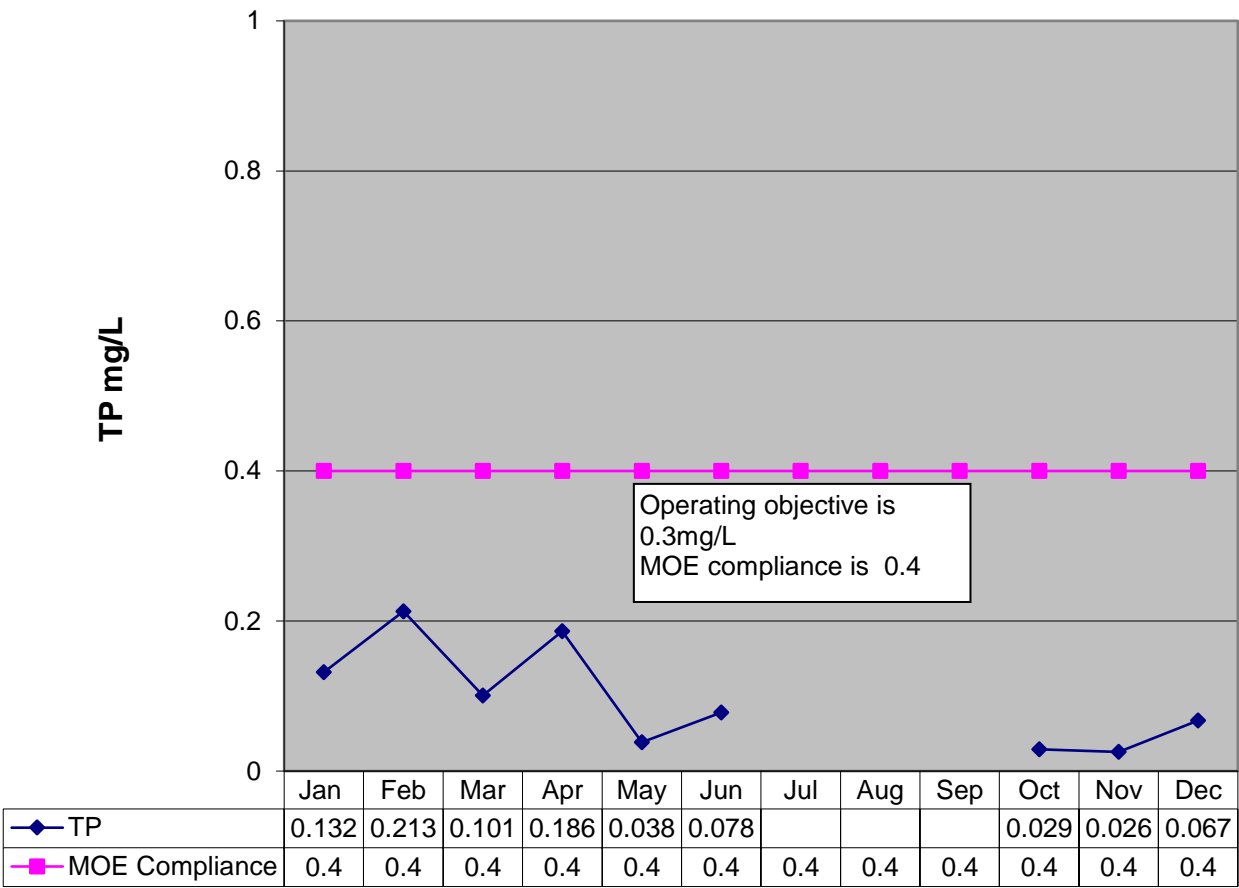




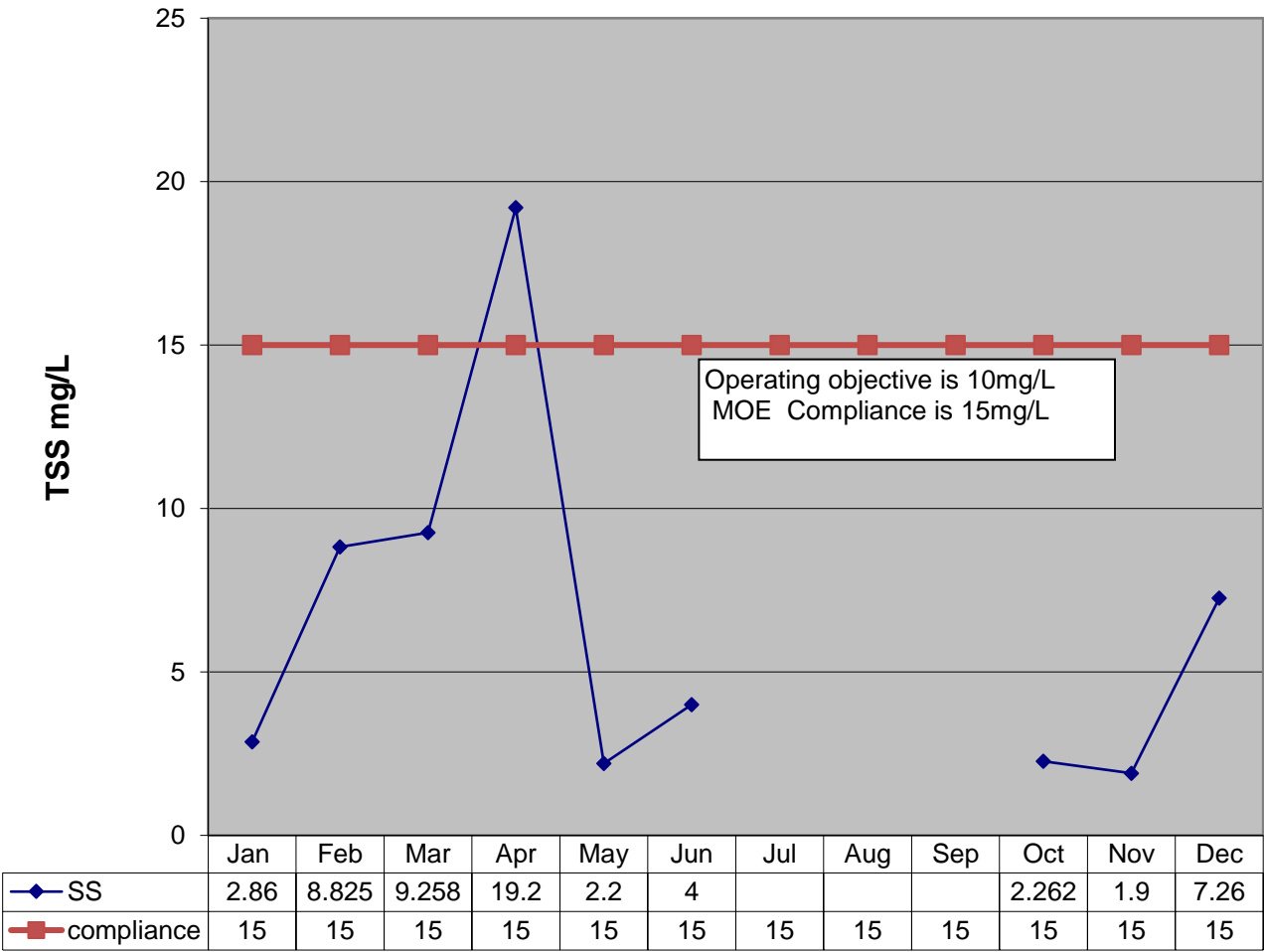
2024 Monthly Average Concentration  
Final Effluent CBOD<sub>5</sub>



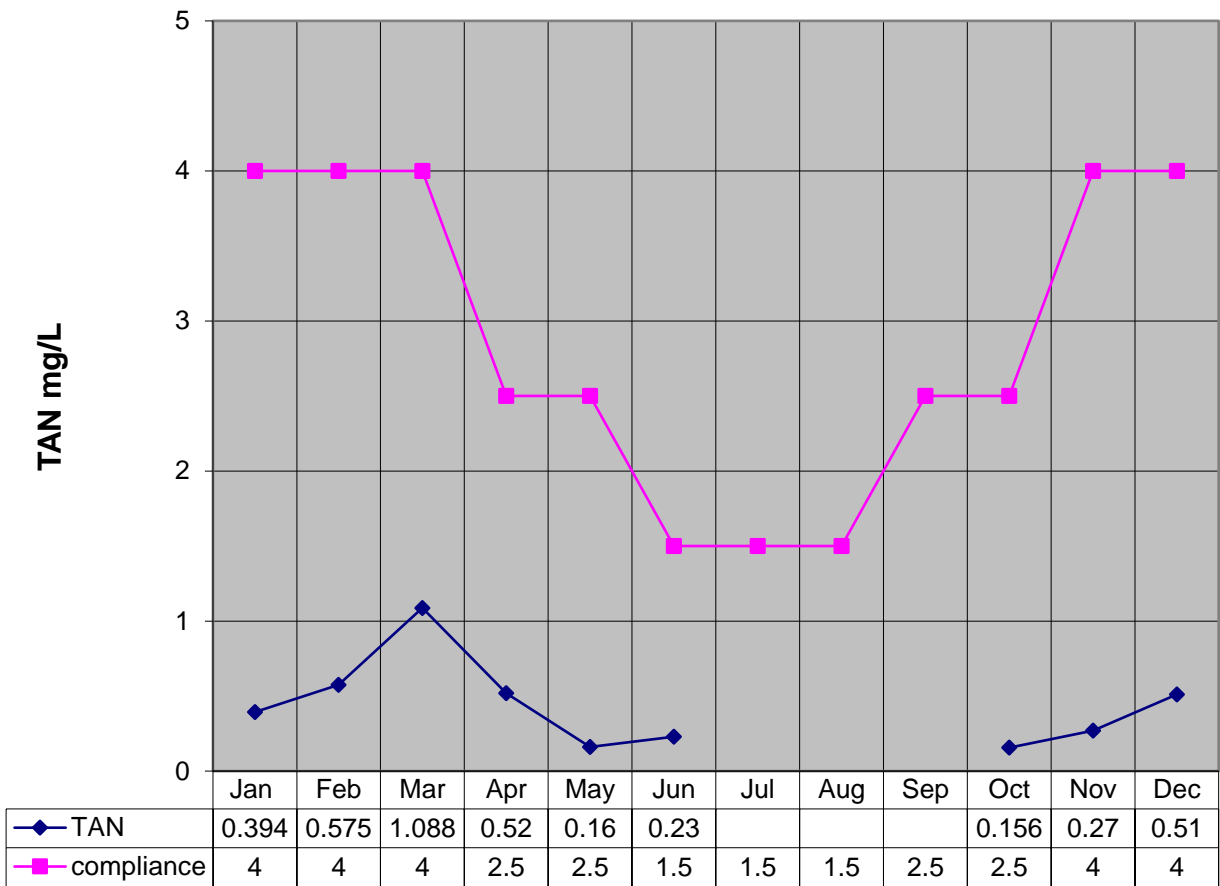
2024 Monthly Average Concentration  
Final Effluent TP



2024 Monthly Average Concentration  
Final Effluent TSS



2024 Monthly Average Concentration  
Final Effluent TAN (ammonia plus ammonium)



## Appendix C

### Exceedance & Corrective Actions



10367 County Road #10  
New Lowell, ON L0M 1N0  
Tel: (705) 424-9799  
Fax: (705) 424-6075  
Toll Free: 1-800-265-0046  
Website: [regionofhuron.com](http://regionofhuron.com)  
Email: [info@regionofhuron.com](mailto:info@regionofhuron.com)

March 19, 2024

Collingwood Wastewater Treatment Plant  
Jennifer Adams  
Supervisor, Wastewater

Ms. Adams,

This letter is to confirm that we have investigated Lagoon #4 at the Stayner WPCP as requested in part of the spill response consultation by ROHES (2013).

On Feb 21, 2024 you contacted ROHES due to your staff finding an oil sheen on the aerators and clarifiers and asked if we could respond. My staff and I attended the plant and provided oil absorbent, booms, and pads to cover the clarifiers to mitigate any further contamination downstream of the clarifier (Lagoon #4).

Collingwood staff then monitored the oil sheen and oil absorbent pads, until the operator deemed that there was no visible sign of oil/hydrocarbons remaining in the clarifiers. You made me aware that the Collingwood operator would remove the pads and look after disposal.

During this time Lagoon #4 was covered with ice but you made me aware that there were concerns that oil could have entered the lagoon, and asked that ROHES follow up and monitor for contamination once the ice had melted. I attended the site on March 6, 2024, with an NW prevailing wind and again on March 13, 2024, with a south prevailing wind. On both dates, I walked the perimeter to inspect the edges and the vegetation while picking random spots to stir within the vegetation to see if there was evidence of hydrocarbons present. I did not find any evidence and can assume that the oil was absorbed within the clarifiers and did not enter the lagoon.

I write this letter to confirm that I will not be conducting a spill response clean-up of Lagoon #4, as there was no evidence of contamination during my investigation.

Please feel free to contact me if you find any evidence or if you want further clarification.

Regards,

Clarence McGillivray  
Ph: 705-794-1408

April 15, 2024

Ministry of Environment Conservation and Parks

Barrie District Office Unit 1201

54 Cedar Point Drive

Barrie, Ontario L4N 5R7

**Attention:** Aaron Mattson

I am writing to notify you about an irregularity in the Stayner WPCP Final Effluent discharge numbers for the month of April.

On April 12, 2024, the maximum daily flow was recorded as 8688m<sup>3</sup>/day on our SCADA totals and is considered out of compliance as prescribed by condition 8(1) of the ECA which states a maximum allowable daily flow of 8640 m<sup>3</sup>/d.

**Findings:** A heavy rainfall event occurred on April 12, 2024, and continued into the night. Due to the amount of rainwater, Lamont Creek becomes swollen and floods its banks. It also backs up our discharge point and blinds our effluent flow milltronics, giving a false reading. During the rain event, the lagoon 4 discharge valve was in auto and fully shut. The effluent flow at the time coming from lagoon 3 was set to discharge 1600m<sup>3</sup>/day which is well below the prescribed limit.

Thank you for your time and let me know if you have any questions or concerns.

Regards,

Pierce Wieland

Wastewater Operator (Collingwood)

[pwieland@collingwood.ca](mailto:pwieland@collingwood.ca)

1 (705)-443-9872

May 14, 2024  
Ministry of Environment Conservation and Parks  
Barrie District Office  
Unit 1201  
54 Cedar Point Drive  
Barrie, Ontario  
L4N 5R7

Attention: Aaron Mattson

I am writing to you to inform you of limit exceedances for “Suspended Solids and Waste Loading” limits, as well as an objective exceedance for “CBOD5” in the discharge effluent of the Stayner WPCP for the month of April as prescribed by condition 7 (Table 1,2, 3) of the ECA.

**Effluent Limit Exceedances:**

- |   |                                |
|---|--------------------------------|
| 1. (ECA) Suspended Solids Limit = 15 mg/L   | Monthly average = 19.2 mg/L    |
| 2. (ECA) Waste Loading Limit = 129.6 kg/day | Monthly average = 136.3 kg/day |

**Effluent Objective Exceedance:**

- |                                   |                            |
|-----------------------------------|----------------------------|
| 1. (ECA) CBOD5 Objective = 5 mg/L | Monthly average = 6.6 mg/L |
|-----------------------------------|----------------------------|

It was determined that the cause for these exceedances was due to the low level of the lagoons, where sediment and algae must have been drawn from the bottom. When the lab results were received, valve adjustments were made but solids levels remained high, so further adjustments were made but the monthly average was still above the compliance limit.

The solution moving forward is to ensure that a sufficient lagoon level is maintained during discharge so that solids are not pulled off the bottom. At the beginning of May, all discharge from lagoons was shut off to allow the lagoons to fill temporarily so that when discharging resumed, sediment wouldn't be pulled from the bottom. Since resuming discharge, the effluent quality has returned to within the objective parameters. Let

me know if you have any questions.

Regards,

Pierce Wieland  
Town of Collingwood  
[pwieland@collingwood.ca](mailto:pwieland@collingwood.ca)  
1(705)-443-9872



January 2, 2025

Ministry of Environment Conservation and Parks

Barrie District Office

54 Cedar Point Drive, Unit 1201

Barrie, Ontario L4N 5R7

**Attention:** Aaron Mattson

I am writing to notify you about an irregularity in the Stayner WPCP Final Effluent discharge numbers for the month of December.

On December 29 and December 30, 2024, the maximum daily flow was recorded as 3411m<sup>3</sup>/day and 5376m<sup>3</sup>/day, respectively, on our SCADA totals, and is considered out of compliance as prescribed by condition 8(1) of the ECA which states a maximum allowable daily flow of 3330 m<sup>3</sup>/day for the month of December.

**Findings:** A heavy rainfall and snow melt event occurred from December 29 to December 31 causing Lamont Creek to swell which flooded its banks. As a result, Lamont Creek backed up the discharge point causing false readings on the effluent flow meter. The false flow readings were discovered at 9:00am December 30, and all discharge flow to Lamont Creek was stopped until the Creek flows subsided. Lamont Creek remained swollen until December 31 at 11:30pm and the effluent discharge and correct flow meter recordings resumed as usual on January 1.

Thank you for your time and let me know if you have any questions or concerns.

Regards,

Pierce Wieland

Wastewater Operator (Collingwood)

[pwieland@collingwood.ca](mailto:pwieland@collingwood.ca)

1 (705)-443-9872