

Bayfield Sewage Treatment Plant and Collection System Annual Performance Report

*Prepared For:
The Municipality of
Bluewater*

Operating Authority:



Reporting Period of January 1 – December 31, 2024

Issued: March 28, 2025

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Overview

The following report was prepared by Ontario Clean Water Agency on behalf of The Municipality of Bluewater in accordance with:

- Condition 11(4) (a) through (n) cited in Environmental Compliance Approval (ECA) #A-500-1518928419 issued March 6, 2024, to The Corporation of the Municipality of Bluewater.
- Schedule E(4) cited in the Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) #045-W601 issued June 20, 2023, to The Corporation of the Municipality of Bluewater.

System Process Description

The Bayfield Sewage Treatment Plant (STP) is located at 37892 Mill Road, Bayfield, Ontario. The facility has a rated capacity of 1000 m³/d and is comprised of the following components:

- Wastewater collection system (WWC) and pumping stations
- Two facultative lagoons with supplementary treatment
- Intermittent Sand Filters

Raw Wastewater Collection

Raw sewage flows by gravity through the collection system. Where gravity flow is not possible due to elevation restrictions, there are four sewage pumping stations (SPS). Both the North and Marina SPS pump sewage through forcemains into gravity sewers that lead to the South SPS. Sewage from the South SPS is pumped to the Main SPS and then onto the Bayfield STP.

There are two designed overflows in the Bayfield WWC system. At the North SPS, a 250 mm overflow flows into the marina basin of the Bayfield River. The second is at the South SPS, which discharges to a stormwater manhole that discharges into to Lake Huron.

At the Marina SPS, when the wet well fills, it discharges into a holding tank through a 200mm pipe located below the harbour building. The wastewater then drains back into the pumping station once inflows have dropped to a manageable level as per pumping capacity.

The North, South and Main SPS have stand-by generators. The Main and South SPS are equipped with three submersible pumps and the North and Marina SPS with two submersible pumps. Miltronics monitor wet well levels, which control the start/stop cycle of all pumps and alarms. The exception is Marina SPS where pumps and alarms run off floats.

In addition to the community of Bayfield, the Bayfield STP also treats sewage from Wildwood Trailer Park. This park pumps its sewage directly to the Bayfield STP through a 100 mm forcemain.

Sewage Lagoons

Raw sewage is pumped to the lagoon from both the Main SPS and Wildwood Trailer Park. Raw sewage enters an inlet chamber between the two lagoon cells. Inflows may be directed into either or both cells. Leachate is received at the influent chamber for co-treatment at the works; leachate is imported from the Stanley Landfill site.

The two lagoon cells each had an original storage volume of approximately 110 554 m³. This volume has since been reduced by the construction of a berm in the footprint of cell 2 for a new Sequence Batch Reactor (SBR); cell 2 volume is now 97 310 m³. Storage in the cells allows inflow to be stored during the

winter when the Intermittent Sand Filter (ISF) cannot operate, as well as provides a minimum of 60 days retention time for treatment purposes. The lagoons operate in series with sewage flowing from one cell to the other through a transfer chamber and then by gravity to the filter pumping station inlet chamber. From here, effluent can be directed to the filter pumping station or to the discharge chamber.

A liquid aluminum sulfate feed system consists of one 27 000 L chemical storage tank and three metering pumps. Aluminum sulfate is injected into the raw sewage forcemain and into the transfer chamber between cell 1 and 2. Aluminum sulfate coagulates suspended particles in the sewage. The coagulated particles grow to sufficient size where they readily settle. This assists in removing phosphorous from the wastewater before being discharged from the lagoon.

Intermittent Sand Filters (ISF)

The filter pumping station has two submersible pumps that can direct effluent to either or both of the filters. Once filtered through the sand, effluent flows by gravity into the discharge chamber where it is discharged to the Bayfield River.

System Facts:

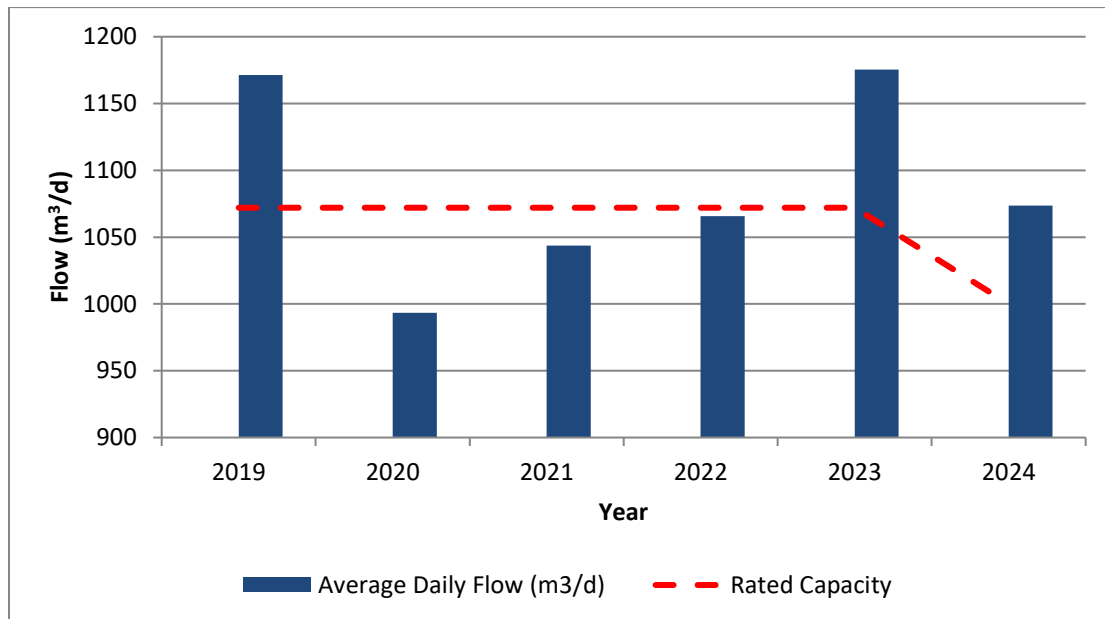
Environmental Compliance Approval	#A-500-1518928419 (issued March 6, 2024)
CLI Environmental Compliance Approval	#045-W601 (issued June 20, 2023)
Rated Capacity	1000 m ³ /d – with berm
Receiving Water	Bayfield River

The Bayfield STP and WWC system were operated in accordance with the provincial regulations as required in ECA #A-500-1518928419 and CLI-ECA #045-W601.

Influent and Effluent Flow Monitoring

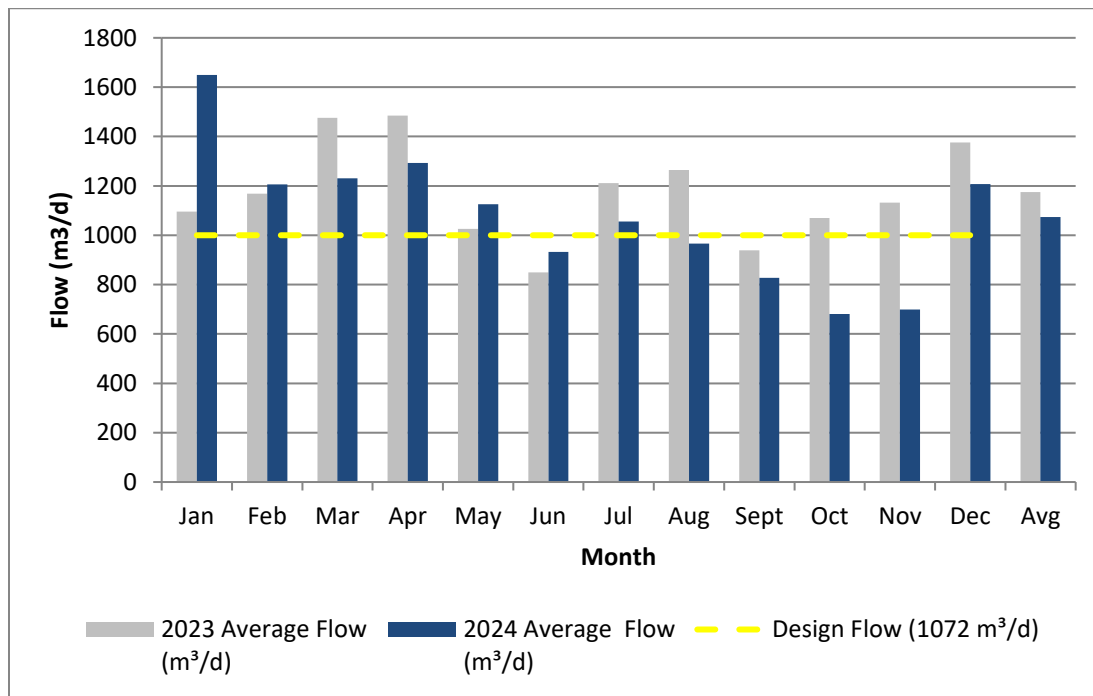
Prior to 2024, the Bayfield STP ECA was rated to treat an average daily flow of 1072 m³ of influent. However, in 2024, a new ECA was issued that specifies a rated capacity of 1000 m³/d for raw sewage, reflecting the reduction in lagoon capacity that occurred when a berm was built in 2022 for plant expansion. The Bayfield STP receives sewage from both the village of Bayfield and Wildwood Trailer Park. All flows in this report are a cumulative total of both flow sources. Refer to Figure 1 for a comparison of the average daily flow for the last six years against the rated capacity of the plant. The plant is currently at 107% of the rated capacity of 1000 m³/d.

Figure 1: Influent Flows 2019-2024



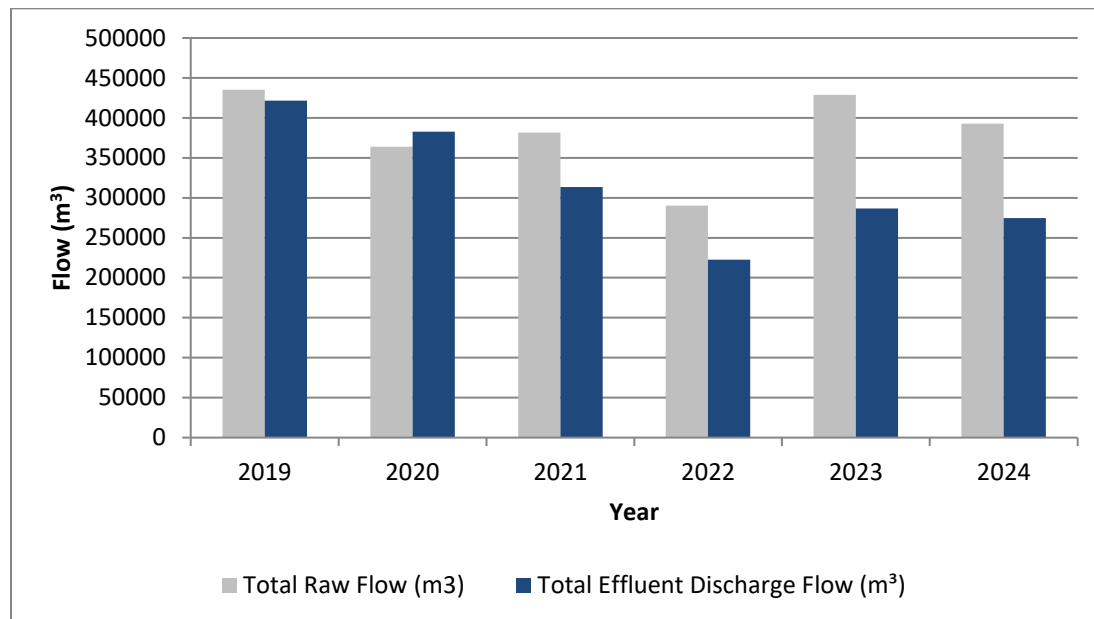
The raw sewage average daily flow was 1073 m³/d in 2024 and 1175 m³/d in 2023. This 9% reduction is attributed to drier weather. Refer to Figure 2 for 2023 and 2024 average daily flows by month and corresponding annual averages.

Figure 2: Average Daily Flows by Month



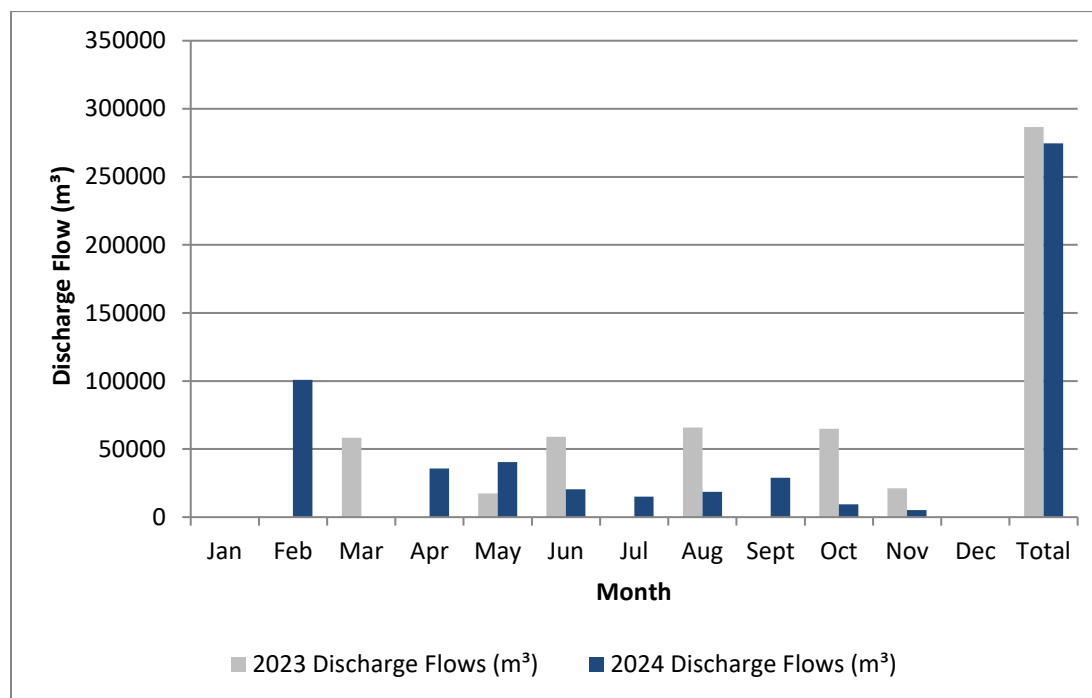
In 2024, the Bayfield STP discharged 274 643 m³ of effluent, a 4% decrease from 2023. This is consistent with lower raw flows seen in 2024. Refer to Figure 3 for the total raw and effluent flow in 2023 and 2024.

Figure 3: Total Raw and Effluent Flow 2019-2024



The average daily discharge flow was 1073 m³/d in 2024 versus 1459 m³/d in 2023. The maximum daily discharge flow in 2024 was 7143 m³ recorded in January. In 2024, the MECP granted an emergency discharge of the lagoon with a bypass of the intermittent sand filters. The emergency discharge occurred from January 31 to February 15. Regular discharge occurred from April 9 to August 9, followed by a period of rest/maintenance. Discharge resumed on September 9 and continued with brief periods of rest due to pooling on the filters until November 22, 2024. Refer to Figure 4 for final effluent total monthly flows for 2023 and 2024.

Figure 4: Final Effluent Total Monthly Flows

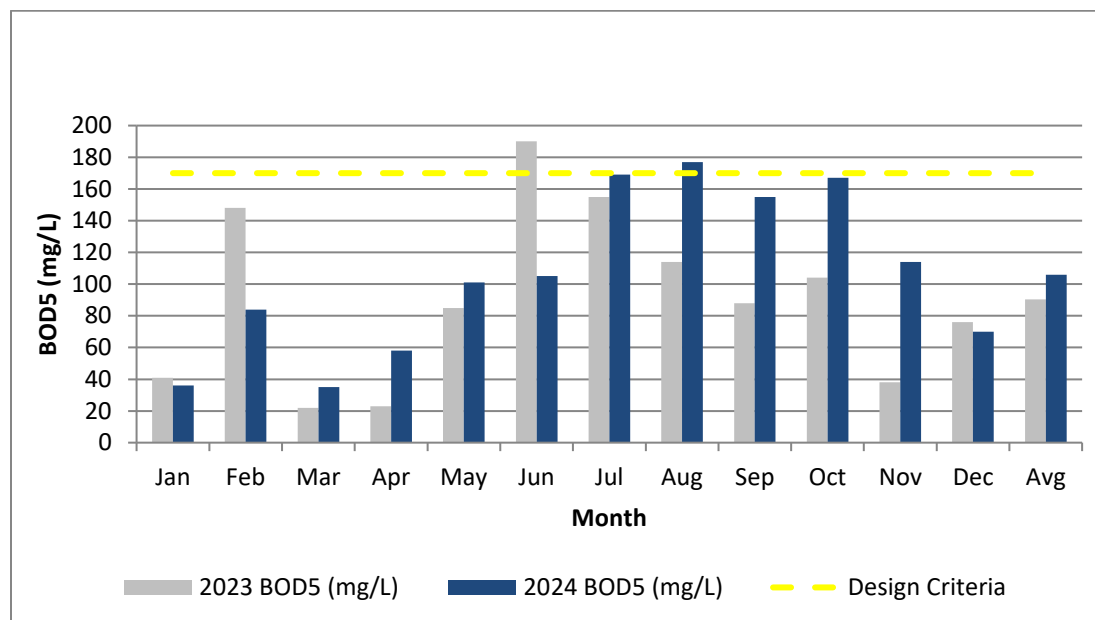


Influent Data

Influent is monitored for Biological Oxygen Demand (BOD₅), Total Suspended Solids (TSS), Total Phosphorous (TP), and Total Kjeldahl Nitrogen (TKN) on a weekly basis through a composite sample. These parameters are measured against the design criteria of the Bayfield STP. Values above design concentration can result in ineffective treatment of raw sewage and lead to effluent limit exceedances. In 2024, the parameters of BOD₅ and TKN had monthly values above design concentration. Despite this, effluent exceedances in 2024 were related to factors other than raw influent quality. See 'Summary of Efforts Made to Achieve Design Objectives' for details. As well, all raw influent parameters except TP were higher in concentration in 2024. This is likely due to lower annual raw flow.

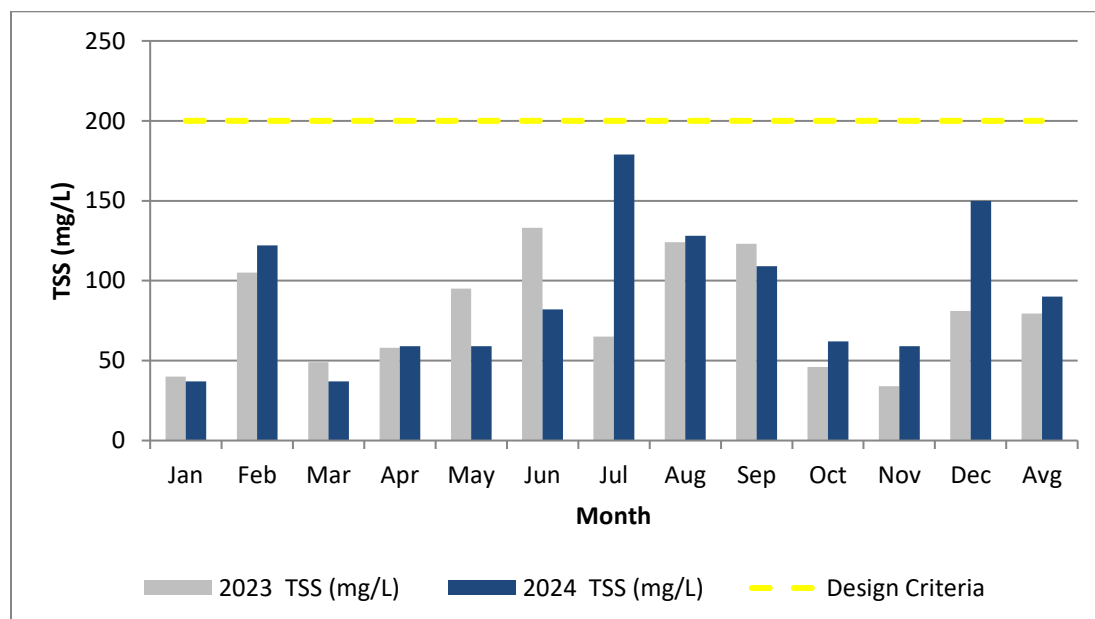
In 2024, the average raw BOD₅ concentration was 106 mg/L, a 17% increase from 2023. Refer to Figure 5 for a comparison of 2024 monthly raw BOD₅ concentrations to 2023 concentrations.

Figure 5: Raw BOD₅ Concentrations



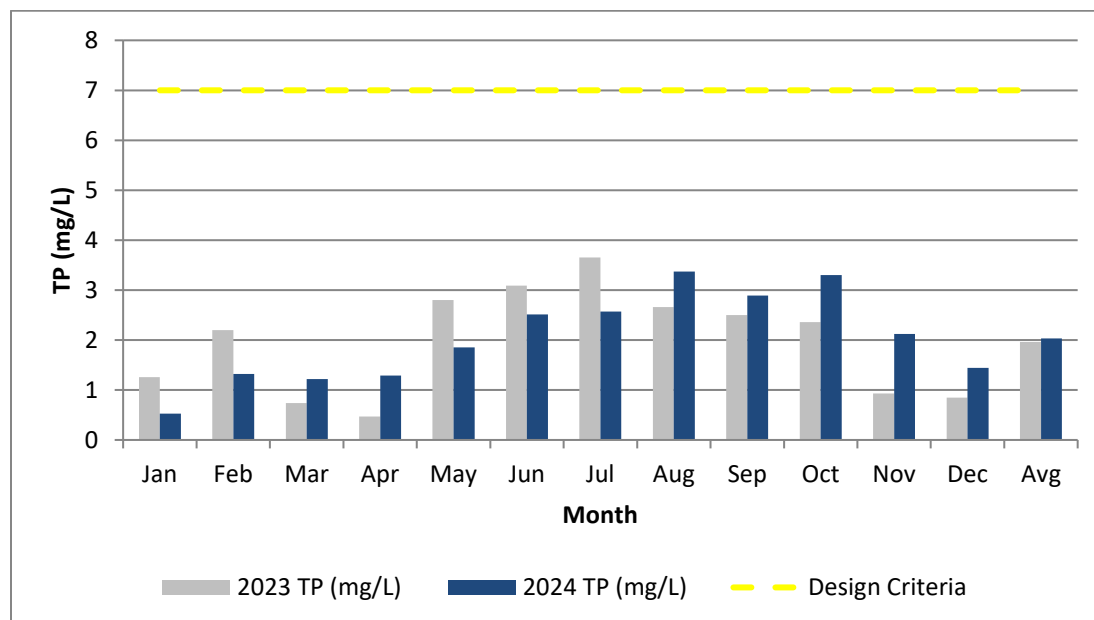
In 2024, the average raw TSS concentration was 90 mg/L, a 13% increase from 2023. Refer to Figure 6 for a comparison of 2024 monthly raw TSS concentrations to 2023 concentrations.

Figure 6: Raw TSS Concentrations



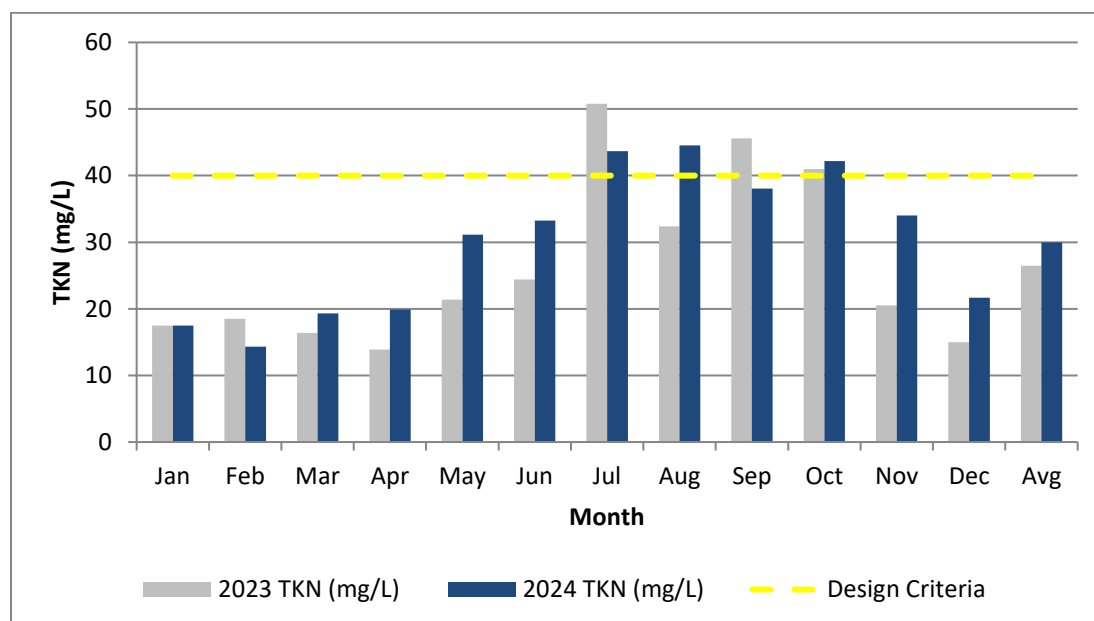
In 2024, the average raw TP concentration was 2 mg/L, essentially equal to the 2023 value. Refer to Figure 7 for a comparison of 2024 monthly raw TP concentrations to 2023 concentrations.

Figure 7: Raw TP Concentrations



In 2024, the average raw TKN concentration was 30 mg/L, a 13% increase from 2023. Refer to Figure 8 for a comparison of 2024 monthly raw TKN concentrations to 2023 concentrations.

Figure 8: Raw TKN Concentrations



Imported Sewage

The Bayfield STP is approved to accept leachate from the Stanley Landfill for co-treatment. The Stanley Landfill did not deposit any leachate at the Bayfield STP in 2024 and therefore no quarterly composite sampling was conducted.

Effluent Monitoring

The lagoon effluent is permitted to be discharged between April 1 to November 30 in accordance with the ECA. Early discharge may be required to prevent a spill of wastewater over the banks due to capacity issues. This was the situation in 2024 and the MECP authorized a request for early discharge (including bypassing the ISF) on January 30. Discharge began on January 31 and ended February 15, 2024. Effluent samples obtained during this time were required to meet guidelines and objectives set by the MECP and Procedure F-5-1. These included less than 60 mg/L for a single sample and 50 mg/L for a running average of four consecutive samples for Carbonaceous Biological Oxygen Demand (CBOD₅) and less than 80 mg/L for a single sample and 60 mg/L for a running average of four consecutive samples for Total Suspended Solids (TSS). All guidelines and objectives were met. Refer to Table 1 for early discharge sample results.

Table 1: Early Discharge Effluent Sample Results

Bayfield STP Effluent				
Date	Twice F-5-1 Guideline CBOD ₅ (mg/L)	CBOD ₅ (mg/L)	Twice F-5-1 Guideline TSS (mg/L)	TSS (mg/L)
02/01/24	60	4	80	6
02/02/24	60	3	80	4
02/05/24	60	2	80	6
02/07/24	60	4	80	11
02/12/24	60	5	80	5
02/14/24	60	4	80	5

Four sets of upstream/downstream Bayfield River samples were also obtained during the early discharge. These samples measured the following parameters: CBOD₅, TSS, Total Phosphorus (TP), Total Ammonia Nitrogen (TAN), E. coli, pH, and Temperature. During discharge, there were no observations of adverse impacts on the Bayfield River. Sample results are in Table 2 below.

Table 2: Bayfield River Samples Early Discharge 2024

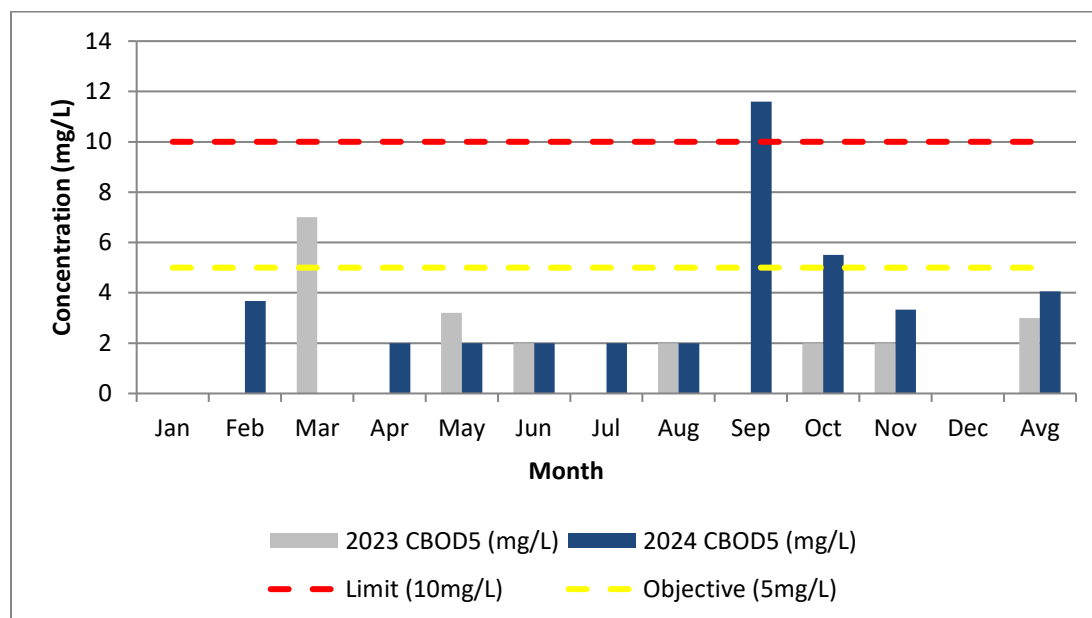
Bayfield River Samples							
Upstream (Parr Line Bridge)							
Date	CBOD ₅ (mg/L)	TSS (mg/L)	TP (mg/L)	TAN (mg/L)	E. coli (cfu/100 mL)	pH	Temp (°C)
02/01/24	< 4	6	0.07	< 0.01	320	7.27	6.5
02/05/24	< 4	6	< 0.03	< 0.01	30	7.72	4.9
02/07/24	< 2	7	< 0.03	< 0.01	< 10	7.60	8.4
02/12/24	< 4	3	< 0.03	< 0.01	10	6.10	12.8
Downstream (Wildwood Line)							
Date	CBOD ₅ (mg/L)	TSS (mg/L)	TP (mg/L)	TAN (mg/L)	E. coli (cfu/100 mL)	pH	Temp (°C)
02/01/24	< 4	5	< 0.03	< 0.01	1800	7.28	7.6
02/05/24	< 4	4	0.05	< 0.01	10	7.69	5.5
02/07/24	< 2	5	< 0.03	< 0.01	20	7.68	7.3
02/12/24	< 4	3	< 0.03	< 0.01	30	7.60	13.32

During the regular discharge season, effluent from the Bayfield STP is sampled weekly through a composite sample and analyzed for CBOD₅, TSS, TP, TAN, Total Kjeldahl Nitrogen (TKN), Nitrate (NO₃), Nitrite (NO₂), and Unionized Ammonia. Grab samples are collected weekly and tested for E.coli, pH, Dissolved Oxygen (DO) and Temperature. For details on objective and limit exceedances, refer to 'Summary of Efforts Made to Achieve Design Objectives'. Note that the February values in the figures below meet the criteria outlined in Procedure F-5-1 as documented above; the regular ECA objectives and limits do not apply to effluent parameters in February.

Comparison to Compliance Limits and Objectives

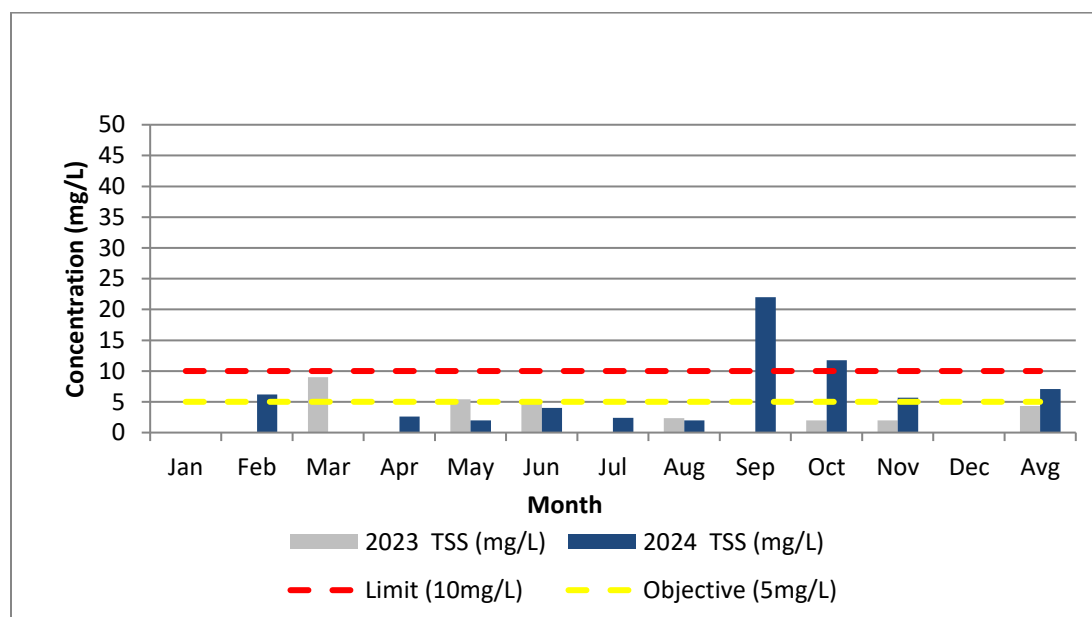
In 2024, the average monthly effluent CBOD₅ concentration was 4.1 mg/L, a 35% increase from 2023. The limit was exceeded in September and the objective exceeded in September and October. Refer to Figure 9 for a comparison of 2024 monthly effluent CBOD₅ concentrations to 2023 concentrations.

Figure 9: Effluent CBOD₅ Concentrations



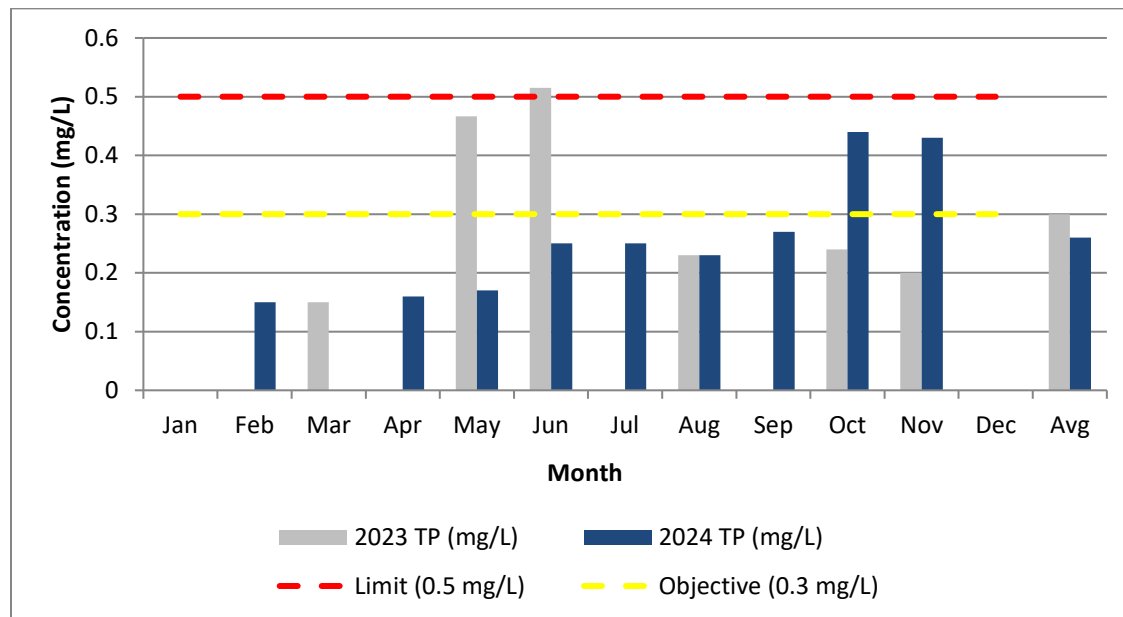
In 2024, the average monthly effluent TSS concentration was 7.1 mg/L, a 65% increase from 2023. The limit was exceeded in September and October and the objective exceeded September to November. Refer to Figure 10 for a comparison of 2024 monthly effluent TSS concentrations to 2023 concentrations.

Figure 10: Effluent TSS Concentrations



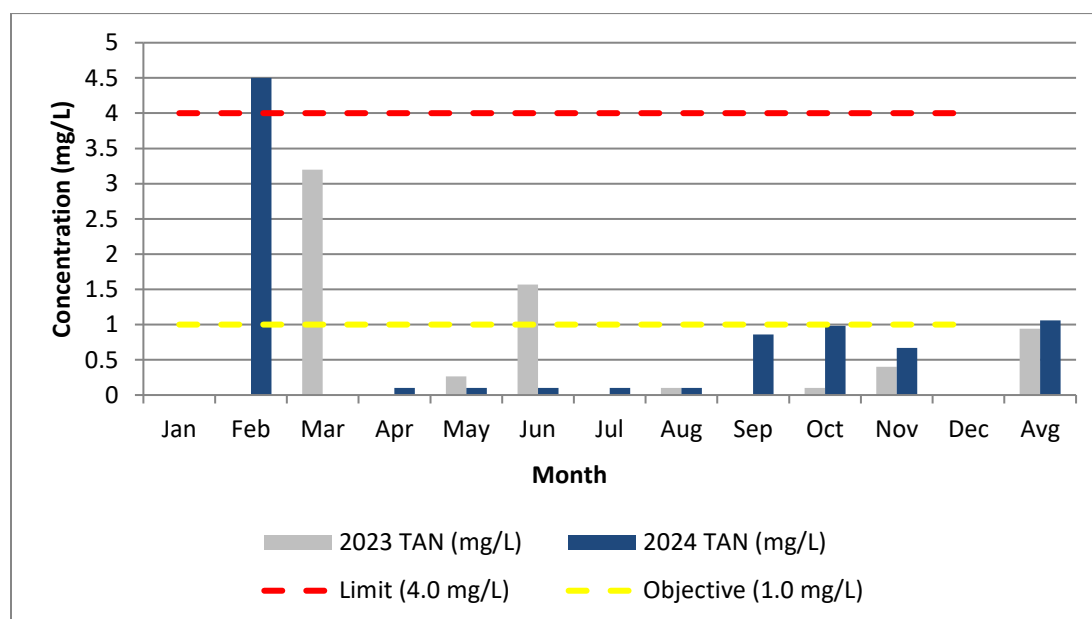
In 2024, the average monthly effluent TP concentration was 0.3 mg/L, a 13% decrease from 2023. There were no limit exceedances in 2024, however the objective was not met in October or November. Refer to Figure 11 for a comparison of 2024 monthly effluent TP concentrations to 2023 concentrations.

Figure 11: Effluent TP Concentrations



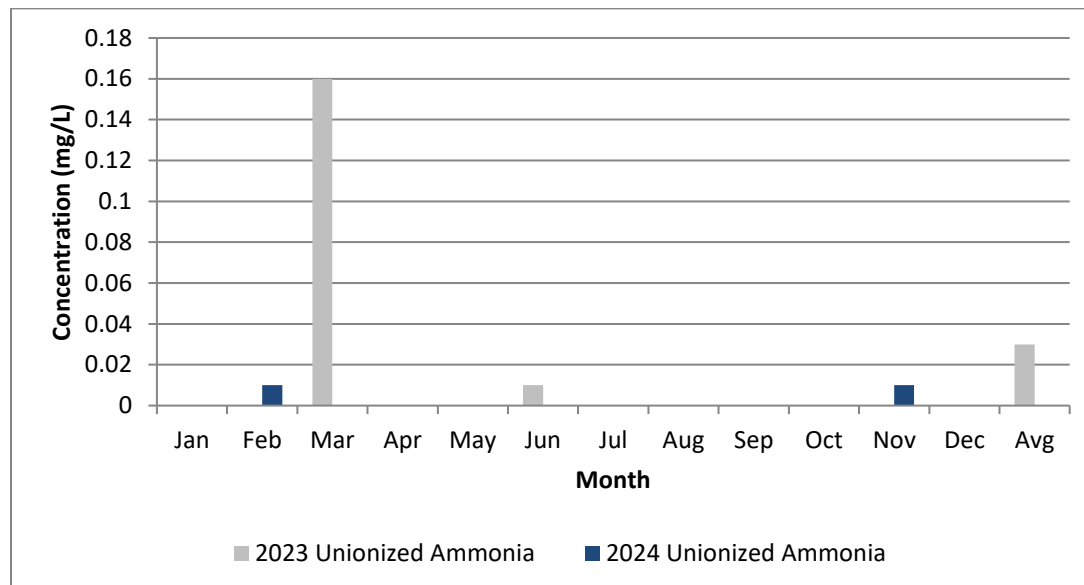
In 2024, the average monthly effluent TAN concentration was 1.1 mg/L, a 13% increase from 2023. The limit and objective was met throughout 2024. Refer to Figure 12 for a comparison of 2024 monthly effluent TAN concentrations to 2023 concentrations.

Figure 12: Effluent TAN Concentrations



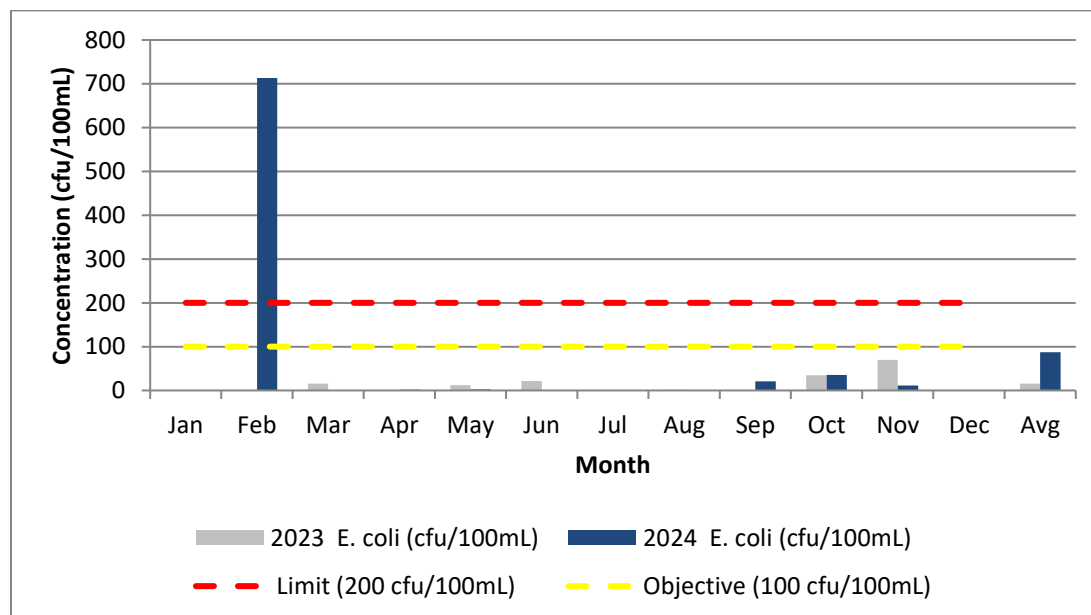
In 2024, the average monthly effluent Unionized Ammonia concentration was 0 mg/L compared to 0.03 mg/L in 2023. There are no ECA objectives or limits for this parameter. Refer to Figure 13 for a comparison of 2024 monthly effluent Unionized Ammonia concentrations to 2023 concentrations.

Figure 13: Effluent Unionized Ammonia Concentrations



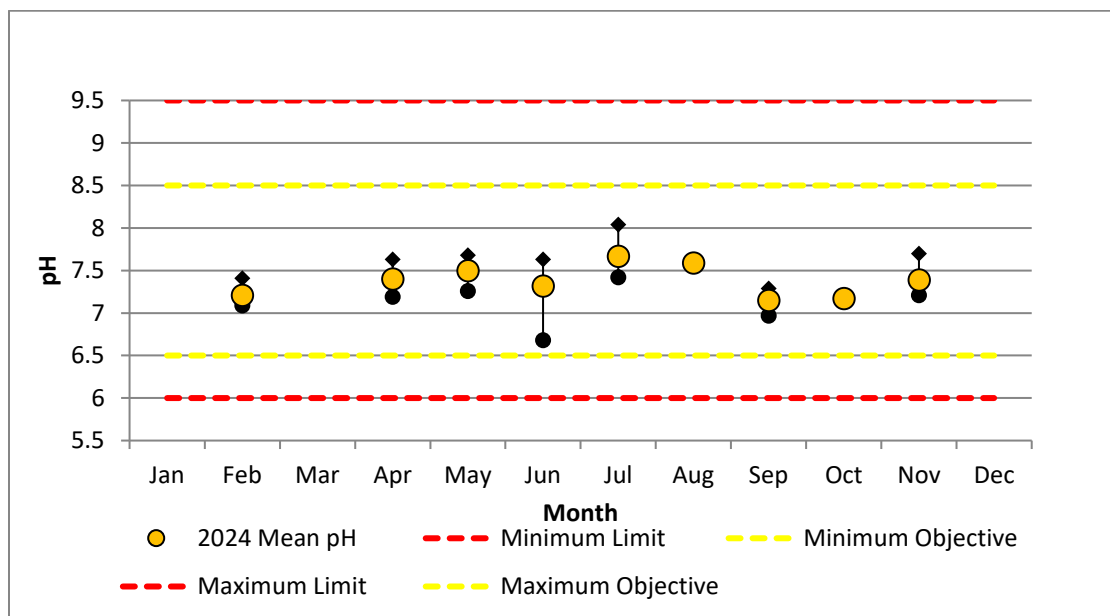
In 2024, the average monthly effluent E. coli concentration (geomean) was 88 cfu/100mL, a 455% increase from 2023. This increase is the result of the emergency discharge results in February. There was no limit for E. coli for the emergency discharge. The ECA limit and objective for the regular discharge season was met. Refer to Figure 14 for a comparison of 2024 annual effluent E. coli concentrations to 2023 concentrations.

Figure 14: Effluent E. coli Concentrations



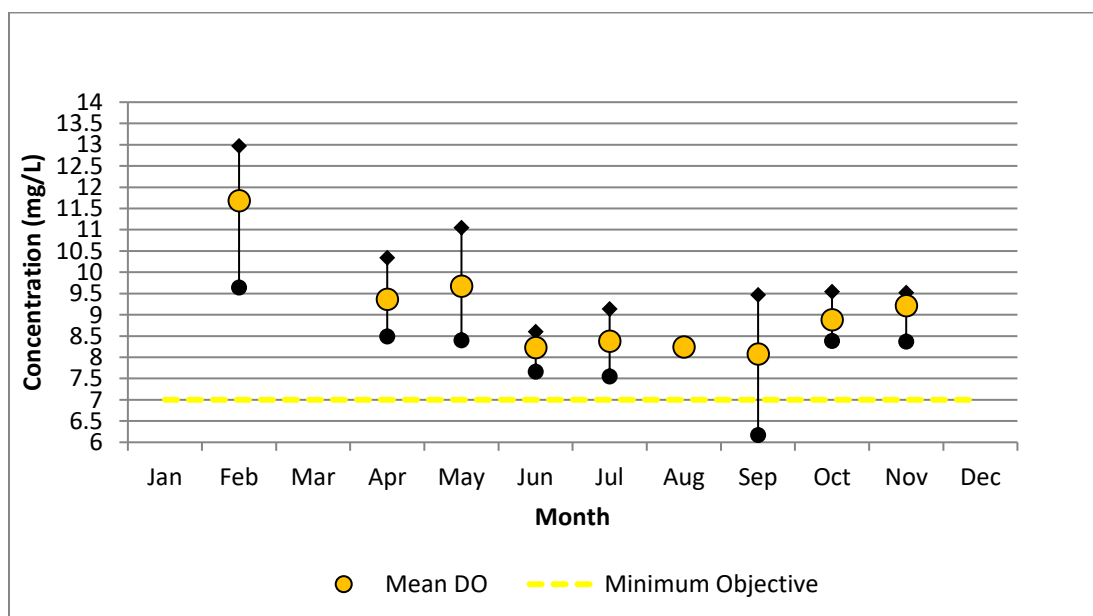
In 2024, effluent pH ranged from 6.7 to 8.0. Limits and objectives were met in 2024. Refer to Figure 15 for a comparison of 2024 monthly effluent pH values to the objectives and limits.

Figure 15: Effluent pH Values



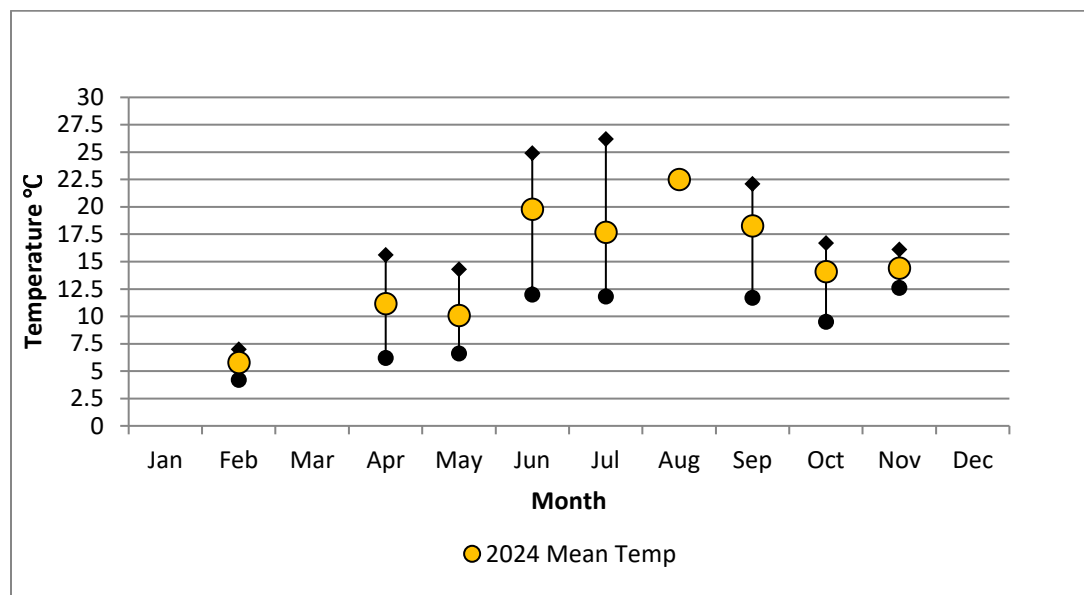
In 2024, effluent DO at the Bayfield STP ranged from 6.2 to 13.0 mg/L. September's value did not meet the minimum objective. There is no DO limit. Refer to Figure 16 for a comparison of 2024 monthly effluent DO values to the minimum objective.

Figure 16: Effluent DO Concentrations



In 2024, effluent Temperature at the Bayfield STP ranged from 4.2 °C to 26.2 °C. There are no objectives or limits for Temperature. Refer to Figure 17 for monthly effluent Temperature values in 2024.

Figure 17: Effluent Temperatures



Average waste loadings were calculated for CBOD₅, TSS, and TP. No loading limits were exceeded. Refer to Table 3 below for details.

Table 3: Average Waste Loadings in 2024

Effluent Parameter	Average Waste Loading Limit (kg/d)	2024 Loading (kg/d)
CBOD ₅	15.1	5.15
Total Suspended Solids	15.1	9.0
Total Phosphorus	0.76	0.33

Effluent Quality Assurance

Effluent quality assurance is evaluated by monitoring parameters and changes in the lagoons.

Operational staff monitor plant performance by conducting in-house tests on dissolved oxygen, pH, and temperature. Staff also monitor and record chemical dosages and any adverse observations in the lagoon cells. Data collected from these tests provide valuable information to the operators to make the appropriate adjustments in the treatment process and take corrective actions before the plant reaches its effluent limits.

Deviations from Monitoring Schedule

Deviations from the 2024 sample calendar are outlined in Table 4. Many of these deviations were from two composite samplers malfunctioning and using the “Manual 3” composite sampling method as specified in the ‘Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater’. The samplers have since been replaced. Refer to Appendix D for the 2025 sampling schedule.

Table 4: Summary of Deviations from Monitoring Schedule

Scheduled Date	Collected Date	Reason for Deviation
April 8	April 11	Composite Sampler Malfunction
May 7	May 8	Operator Schedule
June 17	June 20	Composite Sampler Malfunction
June 24	June 25	New Sampler Incorrectly Set (Raw)
June 24	June 26	Operator Schedule (Final Effluent)
July 8	July 9	Operator Schedule
September 23	September 25 and 26	Discharge off on September 20, turned back on September 23. Multiple samples obtained to determine process control changes.
October 15	October 16	Filter Bed Maintenance
October 21	October 22	Composite Sampler Broken – Using Manual 3 Composite Method
October 28	October 29	Composite Sampler Broken – Using Manual 3 Composite Method
November 4	November 5	Composite Sampler Broken – Using Manual 3 Composite Method
December 2	December 3	Snow Storm/Lagoon Access

Summary of Efforts Made to Achieve Design Objectives

Design objectives were not exceeded more than 50% of the time in 2024. The average influent flow exceeded 80% of the rated capacity; however, effluent exceedances were unrelated to this. All limit and objective exceedances occurred between September and November in 2024. The three limit exceedances (CBOD₅ in September and TSS in September and October) were reported as non-compliances to the MECP. All limit and objective exceedances were related to issues with hydraulic overloading and pooling on the intermittent sand filters, algae build up, and cooler temperatures. In November, objective exceedances for TSS and TP were also related to the deterioration in quality of effluent at the end of the discharge season. Repairs were made on the intermittent sand filters that resulted in increased drainage and improved TSS results later in the month of October and November. It is anticipated that these repairs will produce better results in 2025. Refer to Table 5 for a summary of objective and limit exceedances in 2024.

Table 5: Summary of Objective and Limit Exceedances

Month	Parameter	Concentration (mg/L)	Objective (mg/L)	Limit (mg/L)
September	CBOD ₅	11.6	5.0	10.0
October	CBOD ₅	5.5	5.0	10.0
September	TSS	22.0	5.0	10.0
October	TSS	11.8	5.0	10.0
November	TSS	5.7	5.0	10.0
October	TP	0.44	0.3	0.5
November	TP	0.43	0.3	0.5
September	DO	6.2	>7.0	-

Operating Problems and Corrective Actions

A major challenge in 2024 for the Bayfield STP was being over capacity. The plant is currently operating at 107% of its rated capacity and required another emergency discharge in the winter to prevent a spill over the lagoon berms. Construction of a new Sequencing Batch Reactor at the site of the Bayfield STP is planned for early 2025.

Capital and major maintenance recommendations were submitted by OCWA to the Municipality of Bluewater to address aging infrastructure and ongoing maintenance requirements for the collection system and STP to continue to produce high quality effluent. Items on the list for 2025 include:

- Pump rebuilds – All SPS
- Roof replacement – North SPS and Bayfield STP
- Pipe replacement for odour control – North SPS
- Pump replacements – Main SPS
- Housing repair on charcoal filter – Main SPS
- Pipe and overflow pipe replacement – Main SPS
- Actuator valve rebuild/replacement – Bayfield STP
- Forcemain air valve replacement – WWC system
- Auto sampler – Bayfield STP
- High velocity flushing/camera inspection – WWC system
- Excavation of sewer laterals – WWC system

Maintenance Activities

Preventative and corrective maintenance is assigned and monitored within the Workplace Management System (WMS) program. Refer to Appendix B for the 2024 maintenance summary. Refer to Table 6 for a list of repairs and replacements that took place in 2024.

Table 6: Major Maintenance in 2024

Major Maintenance Wastewater
Alum pump repairs – Bayfield STP
Sand replacement – Filter Bed 1, ISF
Pipe repairs - ISF
Float repair – Bayfield STP Pumps
Auto sampler repair – Bayfield STP
Pump repair – North SPS

Calibration Records

Pierce Services and Solutions Inc. calibrated influent and effluent flow meters, level sensors and level transmitters on March 18 and 20, 2024. Flow meters met the accuracy tolerance of being within 15% of the actual flow rate. Operational staff complete routine pH meter calibrations and verifications. Refer to Appendix C for 2024 Calibration Records.

Sludge Generation

In 2024, the Bayfield STP generated 163 m³ of sludge. It is estimated that approximately 163 m³ of sludge will be generated in 2025. No sludge was hauled in 2024.

Table 7: Sludge Volumes over a Five-Year Interval

Bayfield STP	2020 Sludge Volume (m ³)	2021 Sludge Volume (m ³)	2022 Sludge Volume (m ³)	2023 Sludge Volume (m ³)	2024 Sludge Volume (m ³)
Total (Cell 1 and 2)	22520	22680	22841	23003	23166

Complaints

There were no complaints for the Bayfield STP or WWC system in 2024.

Bypass, Overflows, Spills and Abnormal Discharge Events

The ECA requires additional daily sampling when a bypass, overflow or spill event occurs. In 2024, there were no bypasses, overflows, or spills in the Bayfield STP or WWC systems.

Summary of Efforts made to achieve conformance with F-5-1

The Municipality of Bluewater has a separated collection system, therefore a Pollution Prevention Control Program is not required to be established or maintained.

There are two designed overflows within the collection system for the protection against basement flooding, damage to equipment/property and prevention of treatment process wash out. No overflows or bypasses occurred in 2024. In 2025, pump rebuilds or replacements in sewage pumping stations and flushing/camera inspections of a portion of the collection system has been recommended. These recommendations assist in reducing or eliminating future overflows, bypasses and spills.

Notice of Modification to the Works

There were no 'Notice of Modification to Sewage Works' forms completed in 2024.

No alterations to the collection system posed any significant threat to the drinking water systems in 2024.

Additional Information the Water Supervisor Requires

No additional information requests were required in 2024.

Appendix A

Monitoring Data

6655 BAYFIELD WASTEWATER TREATMENT LAGOON 120002754

	1 / 2024	2 / 2024	3 / 2024	4 / 2024	5 / 2024	6 / 2024	7 / 2024	8 / 2024	9 / 2024	10 / 2024	11 / 2024	12 / 2024	<-Total-->	<-Avg-->	<-Max-->	<-Criteria-->
Flows																
Raw Flow: Total - Raw Sewage m³/d	51,149.66	34,988.36	38,152.13	38,773.57	34,907.71	27,960.07	32,719.47	29,951.32	24,829.61	21,094.68	20,983.41	37,432.87	392,942.86			0.00
Raw Flow: Avg - Raw Sewage m³/d	1,649.99	1,206.50	1,230.71	1,292.45	1,126.06	932.00	1,055.47	966.17	827.65	680.47	699.45	1,207.51		1,073.61		1,072.00
Raw Flow: Max - Raw Sewage m³/d	3,430.61	1,783.43	2,120.56	1,892.64	1,397.26	1,199.48	1,652.76	1,180.60	1,209.88	865.83	1,285.16	2,433.24			3,430.61	0.00
Raw Flow: Count - Raw Sewage m³/d	31.00	29.00	31.00	30.00	31.00	30.00	31.00	31.00	30.00	31.00	30.00	31.00	366.00			0.00
Eff. Flow: Total - Final Effluent m³/d	0.00	100,776.58	0.00	35,806.63	40,518.12	20,380.69	14,983.08	18,635.07	28,934.63	9,473.53	5,134.51	0.00	274,642.84			0.00
Eff. Flow: Avg - Final Effluent m³/d	0.00	6,718.44	0.00	1,627.57	1,307.04	815.23	483.33	2,070.56	964.49	305.60	223.24	0.00		1,271.49		0.00
Eff. Flow: Max - Final Effluent m³/d	0.00	7,142.96	0.00	1,824.45	1,902.17	2,084.58	847.14	4,287.39	4,751.72	3,036.34	1,745.28	0.00			7,142.96	0.00
Eff Flow: Count - Final Effluent m³/d	0.00	15.00	0.00	22.00	31.00	25.00	31.00	9.00	30.00	31.00	22.00	0.00	216.00			0.00
Carbonaceous Biochemical Oxygen Demand: CBOD																
Eff: Avg cBOD5 - Final Effluent mg/L	0.00	3.67	0.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 11.60	< 5.50	< 3.33	0.00		4.05	11.60	10.00
Eff: # of samples of cBOD5 - Final Effluent	0.00	6.00	0.00	5.00	4.00	4.00	5.00	1.00	5.00	4.00	3.00		37.00			0.00
Loading: cBOD5 - Final Effluent kg/d	0.000	24.634	0.000	< 3.255	< 2.614	< 1.630	< 0.967	< 4.141	< 11.188	< 1.681	< 0.778	0.000		5.15	24.63	15.100
Biochemical Oxygen Demand: BOD5																
Raw: Avg BOD5 - Raw Sewage mg/L	36.00	84.00	35.00	57.80	101.00	105.00	169.20	176.75	154.80	166.50	114.00	< 70.40		105.87	176.75	0.00
Raw: # of samples of BOD5 - Raw Sewage	1.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	43.00			0.00
Total Suspended Solids: TSS																
Raw: Avg TSS - Raw Sewage mg/L	37.00	122.00	37.00	59.40	59.25	81.50	179.20	127.75	109.00	61.75	59.25	150.20		90.28	179.20	0.00
Raw: # of samples of TSS - Raw Sewage	1.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	43.00			0.00
Eff: Avg TSS - Final Effluent mg/L	0.00	6.17	0.00	< 2.60	< 2.00	< 4.00	< 2.40	< 2.00	< 22.00	< 11.75	< 5.67	0.00		7.08	22.00	10.00
Eff: # of samples of TSS - Final Effluent	0.00	6.00	0.00	5.00	4.00	4.00	5.00	1.00	5.00	4.00	3.00	0.00	37.00			0.00
Loading: TSS - Final Effluent kg/d	0.000	41.430	0.000	< 4.232	< 2.614	< 3.261	< 1.160	< 4.141	< 21.219	< 3.591	< 1.323	0.000		9.00	41.43	15.100
Percent Removal: TSS - Raw Sewage %	0.00	94.95	0.00	95.62	96.62	95.09	98.66	98.43	79.82	80.97	90.44	0.00		92.29	98.66	0.00
Total Phosphorus: TP																
Raw: Avg TP - Raw Sewage mg/L	0.53	1.32	1.22	1.29	1.85	2.51	2.57	3.37	2.89	3.30	2.12	1.44		2.03	3.37	0.00
Raw: # of samples of TP - Raw Sewage	1.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	43.00			0.00
Eff: Avg TP - Final Effluent mg/L	0.00	0.15	0.00	0.16	0.17	0.25	0.25	0.23	0.37	0.44	0.43	0.00		0.26	0.44	0.50
Eff: # of samples of TP - Final Effluent	0.00	6.00	0.00	5.00	4.00	4.00	5.00	1.00	5.00	4.00	3.00	0.00	37.00			0.00
Loading: TP - Final Effluent kg/d	0.000	0.985	0.000	0.260	0.225	0.202	0.120	0.476	0.353	0.134	0.100	0.000		0.33	0.99	0.760
Percent Removal: TP - Raw Sewage %	0.00	88.89	0.00	87.62	90.69	90.15	90.34	93.18	87.33	86.72	79.74	0.00		88.29	93.18	0.00
Nitrogen Series																
Raw: Avg TKN - Raw Sewage mg/L	17.50	14.30	19.30	19.90	31.15	33.23	43.68	44.55	38.06	42.20	34.00	21.68		29.96	44.55	0.00
Raw: # of samples of TKN - Raw Sewage	1.00	1.00	1.00	5.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	43.00			0.00
Eff: Avg TAN - Final Effluent mg/L	0.00	4.50	0.00	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.86	< 0.98	< 0.67	0.00		1.06	4.50	4.00
Eff: # of samples of TAN - Final Effluent	0.00	6.00	0.00	5.00	4.00	4.00	5.00	1.00	5.00	4.00	3.00	0.00	37.00			0.00
Loading: TAN - Final Effluent kg/d	0.000	30.233	0.000	< 0.163	< 0.131	< 0.082	< 0.048	< 0.207	< 0.829	< 0.298	< 0.156	0.000		1.34	30.23	0.00
Eff: Avg NO3-N - Final Effluent mg/L	0.00	0.00	0.00	3.89	1.71	1.19	1.19	0.27	1.45	3.15	3.71	0.00		2.07	3.89	0.00
Eff: # of samples of NO3-N - Final Effluent	0.00	0.00	0.00	5.00	4.00	4.00	5.00	1.00	5.00	4.00	3.00	0.00	31.00			0.00
Eff: Avg NO2-N - Final Effluent mg/L	0.00	0.00	0.00	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.06	< 0.17	< 0.10	0.00		< 0.06	< 0.17	0.00
Eff: # of samples of NO2-N - Final Effluent	0.00	0.00	0.00	5.00	4.00	4.00	5.00	1.00	5.00	4.00	3.00	0.00	31.00			0.00
Disinfection																
Eff: GMD E. Coli - Final Effluent cfu/100mL	0.00	713.50	0.00	1.55	2.30	1.00	1.00	1.00	20.58	35.17	11.04	0.00				200.00
Eff: # of samples of E. Coli - Final Effluent	0.00	6.00	0.00	5.00	4.00	4.00	5.00	1.00	5.00	4.00	3.00	0.00	37.00			0.00

Appendix B

Maintenance Summary

				Workorder Details			
WO #	Asset ID	Asset Description	Location Description	Work Order Description	Status	Schedule Start	Actual Finish
3714326	0000156277	LAGOON CELL 01 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 01 Inspection/Service (1m/6m/1y)	CLOSE	1/1/24 12:00 AM	2/14/24 10:05 AM
3714336	0000156278	LAGOON CELL 02 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 02 Inspection/Service (1m/6m/1y)	CLOSE	1/1/24 12:00 AM	2/14/24 10:04 AM
3714346	0000156160	PANEL ALARM/ DIALER 01 PS1	6655, Bayfield South Pumping Station	Alarm Dialer 01 South Lift PS1 Testing (1m) 6655	CLOSE	1/1/24 12:00 AM	1/5/24 02:29 PM
3714351	0000156242	PANEL ALARM/ DIALER BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Alarm Dialer 01 Main Lift PS3 Testing (1m) 6655	CLOSE	1/1/24 12:00 AM	1/5/24 02:30 PM
3714356	0000156186	PANEL ALARM/ DIALER BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Alarm Dialer 02 North Lift PS2 Testing (1m) 6655	CLOSE	1/1/24 12:00 AM	1/5/24 02:32 PM
3714361	0000156272	PANEL ALARM/ DIALER BAYFIELD LAGOON	6655, Bayfield WWL & CS	Alarm Dialer 04 Bayfield Lagoon Testing (1m) 6655	CLOSE	1/1/24 12:00 AM	1/5/24 02:33 PM
3714544			6655, Bayfield WWL & CS	Spill Kit Inspect (1y) 6655/5876/5695	CLOSE	1/1/24 12:00 AM	1/31/24 08:24 AM
3714961	0000156159	ENGINE DIESEL STANDBY GEN BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Engine Diesel Bayfield South PS Insp/Test (1m) 6655	CLOSE	1/1/24 12:00 AM	1/5/24 02:36 PM
3714980	0000156182	ENGINE DIESEL 02 STANDBY GEN BAYFIELD NORTH	6655, Bayfield North Pumping Station	Engine Diesel North Lift PS Insp/ Test (1m) 6655	CLOSE	1/1/24 12:00 AM	1/5/24 02:42 PM
3714999	0000156238	ENGINE DIESEL STANDBY GEN BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Engine Diesel Bayfield Main PS Insp/Test (1m) 6655	CLOSE	1/1/24 12:00 AM	1/5/24 02:43 PM
3732953			6655, Bayfield South Pumping Station	Client Reports Bluewater Area (1y) 6	CLOSE	1/1/24 12:00 AM	11/1/24 08:48 AM
3737096			Bayfield Wastewater Lagoons and Collection System	Data Logger Insp/Service - Campgrounds (1m) 6655	CLOSE	1/1/24 12:00 AM	1/31/24 08:03 AM
3740792			6655, Bayfield WWL & CS	72 Hour Trending Review (1y) - 6655/5876/5695	COMP	1/1/24 12:00 AM	1/2/25 10:03 AM
3743359			6655, Bayfield WWL & CS	Chemical Receiving (1y) 6655/6676/5695	COMP	1/1/24 12:00 AM	1/2/25 10:04 AM
3743520			6655, Bayfield WWL &	e.Ris Data Collection (1m)	CLOSE	1/1/24 12:00 AM	1/5/24 02:44 PM
3746246			6655, Bayfield Main Pumping Station	Sewer Backups (1y) 6655	COMP	1/1/24 12:00 AM	1/2/25 10:15 AM
3748138			6655, Bayfield WWL & CS	RP03 Annual Report ECA (1y) 6655	CLOSE	1/1/24 12:00 AM	3/26/24 08:39 AM
3760022	0000156264	PUMP DIAPHRAGM 01 ALUM DOSING BAYFIELD LAGOON	6655, Bayfield WWL & CS	Fixed Alum pump #1 6655	CLOSE		1/5/24 08:40 AM
3761969			6655, Bayfield WWL & CS	WSER Quarterly Reporting (1y) 6655	CLOSE	1/12/24 12:00 AM	2/9/24 01:48 PM
3764971			6655, Bayfield WWL &	Bayfield lagoon stop logs	CLOSE	1/26/24 08:37	1/26/24 05:00 PM
3769982	0000156277	LAGOON CELL 01 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 01 Inspection/Service (1m/6m/1y) 6655	CLOSE	2/1/24 12:00 AM	2/14/24 10:08 AM
3769992	0000156278	LAGOON CELL 02 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 02 Inspection/Service (1m/6m/1y)	CLOSE	2/1/24 12:00 AM	2/14/24 10:10 AM
3770002	0000156160	PANEL ALARM/ DIALER 01 PS1	6655, Bayfield South Pumping Station	Alarm Dialer 01 South Lift PS1 Testing (1m) 6655	CLOSE	2/1/24 12:00 AM	2/5/24 03:45 PM
3770007	0000156242	PANEL ALARM/ DIALER BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Alarm Dialer 01 Main Lift PS3 Testing (1m) 6655	CLOSE	2/1/24 12:00 AM	2/5/24 03:46 PM
3770012	0000156186	PANEL ALARM/ DIALER BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Alarm Dialer 02 North Lift PS2 Testing (1m) 6655	CLOSE	2/1/24 12:00 AM	2/5/24 03:49 PM
3770017	0000156272	PANEL ALARM/ DIALER BAYFIELD LAGOON	6655, Bayfield WWL & CS	Alarm Dialer 04 Bayfield Lagoon Testing (1m) 6655	CLOSE	2/1/24 12:00 AM	2/5/24 03:50 PM

3770518	0000156159	ENGINE DIESEL STANDBY GEN BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Engine Diesel Bayfield South PS Insp/Test (1m) 6655	CLOSE	2/1/24 12:00 AM	2/6/24 07:48 AM
3770537	0000156182	ENGINE DIESEL 02 STANDBY GEN BAYFIELD NORTH	6655, Bayfield North Pumping Station	Engine Diesel North Lift PS Insp/ Test (1m) 6655	CLOSE	2/1/24 12:00 AM	2/6/24 07:54 AM
3770556	0000156238	ENGINE DIESEL STANDBY GEN BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Engine Diesel Bayfield Main PS Insp/Test (1m) 6655	CLOSE	2/1/24 12:00 AM	2/6/24 02:12 PM
3786371			Bayfield Wastewater Lagoons and Collection System	Data Logger Insp/Service - Campgrounds (1m) 6655	CLOSE	2/1/24 12:00 AM	2/15/24 11:10 PM
3791106			6655, Bayfield WWL & CS	e.Ris Data Collection (1m)	CLOSE	2/1/24 12:00 AM	3/26/24 03:02 PM
3806043	0000249197	METER FLOW FIT- 111 ALUM DOSING BAYFIELD	6655, Bayfield WWL & CS	Meter Flow 02 Bayfield Lagoon Calibration (1y) 6676	CLOSE	4/1/24 12:00 AM	3/22/24 09:01 AM
3806046	0000249217	METER FLOW FIT- 221 PLANT DISCHARGE	6655, Bayfield WWL & CS	Meter Flow Effluent Bayfield Lagoon Calibration (1y) 6676	CLOSE	4/1/24 12:00 AM	3/22/24 09:05 AM
3806049	0000249218	METER FLOW FIT-121 INFLUENT BAYFIELD LAGOON	6655, Bayfield WWL & CS	Meter Flow Bayfield Lagoon Main Lift Calibration (1y) 6676	CLOSE	4/1/24 12:00 AM	3/22/24 09:09 AM
3812032			6655, Bayfield WWL & CS	Lifting Device Route (1y) 6655	CLOSE	3/1/24 12:00 AM	6/17/24 01:36 PM
3812251	0000156277	LAGOON CELL 01 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 01 Inspection/Service (1m/6m/1y) 6655	CLOSE	3/1/24 12:00 AM	3/8/24 03:03 PM
3812261	0000156278	LAGOON CELL 02 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 02 Inspection/Service (1m/6m/1y)	CLOSE	3/1/24 12:00 AM	3/8/24 03:05 PM
3812271	0000156154	METER LEVEL LIT- 01 WET WELL BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Meter Level 01 Wet Well Ps1 Insp/ Service (1y) 6655	CLOSE	3/1/24 12:00 AM	4/12/24 09:03 AM
3812273	0000156233	METER LEVEL LIT- 01 WET WELL BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Meter Level 01 Wet Well Ps3 Insp/ Service (1y) 6655	CLOSE	3/1/24 12:00 AM	4/12/24 09:01 AM
3812275	0000156177	METER LEVEL WET WELL BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Meter Level 02 Wet Well Ps2 Insp/ Service (1y) 6655	CLOSE	3/1/24 12:00 AM	4/12/24 09:00 AM
3812277	0000156160	PANEL ALARM/ DIALER 01 PS1	6655, Bayfield South Pumping Station	Alarm Dialer 01 South Lift PS1 Testing (1m) 6655	CLOSE	3/1/24 12:00 AM	3/8/24 08:05 AM
3812282	0000156242	PANEL ALARM/ DIALER BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Alarm Dialer 01 Main Lift PS3 Testing (1m) 6655	CLOSE	3/1/24 12:00 AM	3/11/24 11:40 AM
3812287	0000156186	PANEL ALARM/ DIALER BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Alarm Dialer 02 North Lift PS2 Testing (1m) 6655	CLOSE	3/1/24 12:00 AM	3/7/24 07:38 AM
3812292	0000156272	PANEL ALARM/ DIALER BAYFIELD LAGOON	6655, Bayfield WWL & CS	Alarm Dialer 04 Bayfield Lagoon Testing (1m) 6655	CLOSE	3/1/24 12:00 AM	3/7/24 07:42 AM
3812792	0000156159	ENGINE DIESEL STANDBY GEN BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Engine Diesel Bayfield South PS Insp/Test (1m) 6655	CLOSE	3/1/24 12:00 AM	3/8/24 08:06 AM
3812811	0000156182	ENGINE DIESEL 02 STANDBY GEN BAYFIELD NORTH	6655, Bayfield North Pumping Station	Engine Diesel North Lift PS Insp/ Test (1m) 6655	CLOSE	3/1/24 12:00 AM	3/7/24 07:39 AM
3812830	0000156238	ENGINE DIESEL STANDBY GEN BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Engine Diesel Bayfield Main PS Insp/Test (1m) 6655	CLOSE	3/1/24 12:00 AM	3/11/24 11:41 AM
3823426	0000249217	METER FLOW FIT- 221 PLANT DISCHARGE	6655, Bayfield WWL & CS	Meter Level Effluent Bayfield Lagoon Insp/ Service (1y) 6655	CLOSE	3/1/24 12:00 AM	3/27/24 10:32 AM
3823432	0000249216	METER LEVEL LIT-601 ALUM TANK BAYFIELD LAGOON	6655, Bayfield WWL & CS	Meter Level 04 Alum Insp/Service (1y) 6655	CLOSE	3/1/24 12:00 AM	3/27/24 10:34 AM
3829926			Bayfield Wastewater Lagoons and Collection System	Data Logger Insp/Service - Campgrounds (1m) 6655	CLOSE	3/1/24 12:00 AM	3/26/24 03:47 PM
3834513			6655, Bayfield WWL & CS	e.Ris Data Collection (1m)	CLOSE	3/1/24 12:00 AM	3/8/24 03:09 PM

3847911			6655, Bayfield WWL & CS	Bayfield sewer clean out extensions for new sidewalk	CLOSE	3/6/24 09:00 AM	3/8/24 04:00 PM
3851628	0000156177	METER LEVEL WET WELL BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Troubleshoot ultrasonic transducer 6655	CLOSE		3/28/24 12:53 PM
3857374	0000156279	FILTER SAND 01 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Filter Sand 01 Insp/Service (1y) 6655	CLOSE	4/1/24 12:00 AM	4/22/24 11:50 AM
3857377	0000156280	FILTER SAND 02 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Filter Sand 02 Insp/Service (1y) 6655	CLOSE	4/1/24 12:00 AM	4/22/24 11:51 AM
3857380	0000156277	LAGOON CELL 01 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 01 Inspection/Service (1m/6m/1y)	CLOSE	4/1/24 12:00 AM	4/5/24 03:09 PM
3857387	0000156278	LAGOON CELL 02 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 02 Inspection/Service (1m/6m/1y)	CLOSE	4/1/24 12:00 AM	4/5/24 03:10 PM
3857394	0000156160	PANEL ALARM/ DIALER 01 PS1	6655, Bayfield South Pumping Station	Alarm Dialer 01 South Lift PS1 Testing (1m) 6655	CLOSE	4/1/24 12:00 AM	4/16/24 01:16 PM
3857399	0000156242	PANEL ALARM/ DIALER BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Alarm Dialer 01 Main Lift PS3 Testing (1m) 6655	CLOSE	4/1/24 12:00 AM	4/22/24 09:31 AM
3857404	0000156186	PANEL ALARM/ DIALER BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Alarm Dialer 02 North Lift PS2 Testing (1m) 6655	CLOSE	4/1/24 12:00 AM	4/12/24 11:25 AM
3857409	0000156272	PANEL ALARM/ DIALER BAYFIELD LAGOON	6655, Bayfield WWL & CS	Alarm Dialer 04 Bayfield Lagoon Testing (1m) 6655	CLOSE	4/1/24 12:00 AM	4/5/24 02:55 PM
3857419	0000156240	SAMPLER AUTOMATIC 01 INFLUENT	6655, Bayfield Main Pumping Station	Sampler 01 Auto Composite Insp/ Service (1y) 6655	CLOSE	4/1/24 12:00 AM	4/22/24 11:51 AM
3857425	0000156258	SAMPLER AUTOMATIC 02 EFFLUENT	6655, Bayfield WWL & CS	Sampler 02 Auto Composite Insp/ Service (1y) 6655	CLOSE	4/1/24 12:00 AM	4/22/24 11:52 AM
3857945	0000156159	ENGINE DIESEL STANDBY GEN BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Engine Diesel Bayfield South PS Insp/Test (1m) 6655	CLOSE	4/1/24 12:00 AM	4/16/24 01:17 PM
3857964	0000156182	ENGINE DIESEL 02 STANDBY GEN BAYFIELD NORTH	6655, Bayfield North Pumping Station	Engine Diesel North Lift PS Insp/ Test (1m) 6655	CLOSE	4/1/24 12:00 AM	4/15/24 09:39 PM
3857983	0000156238	ENGINE DIESEL STANDBY GEN BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Engine Diesel Bayfield Main PS Insp/Test (1m) 6655	CLOSE	4/1/24 12:00 AM	4/15/24 09:41 PM
3877957			Bayfield Wastewater Lagoons and Collection System	Data Logger Insp/Service - Campgrounds (1m) 6655	CLOSE	4/1/24 12:00 AM	4/17/24 03:02 PM
3884095			6655, Bayfield WWL & CS	e.Ris Data Collection (1m)	CLOSE	4/1/24 12:00 AM	4/5/24 03:11 PM
3909536	0000156277	LAGOON CELL 01 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 01 Inspection/Service (1m/6m/1y)	CLOSE	5/1/24 12:00 AM	5/27/24 02:20 PM
3909546	0000156278	LAGOON CELL 02 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 02 Inspection/Service (1m/6m/1y)	CLOSE	5/1/24 12:00 AM	5/27/24 02:22 PM
3909556	0000156160	PANEL ALARM/ DIALER 01 PS1	6655, Bayfield South Pumping Station	Alarm Dialer 01 South Lift PS1 Testing (1m) 6655	CLOSE	5/1/24 12:00 AM	5/10/24 04:32 PM
3909561	0000156242	PANEL ALARM/ DIALER BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Alarm Dialer 01 Main Lift PS3 Testing (1m) 6655	CLOSE	5/1/24 12:00 AM	5/10/24 04:47 PM
3909566	0000156186	PANEL ALARM/ DIALER BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Alarm Dialer 02 North Lift PS2 Testing (1m) 6655	CLOSE	5/1/24 12:00 AM	5/10/24 04:21 PM
3909571	0000156272	PANEL ALARM/ DIALER BAYFIELD LAGOON	6655, Bayfield WWL & CS	Alarm Dialer 04 Bayfield Lagoon Testing (1m) 6655	CLOSE	5/1/24 12:00 AM	5/17/24 09:36 AM
3910098	0000156159	ENGINE DIESEL STANDBY GEN BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Engine Diesel Bayfield South PS Insp/Test (1m) 6655	CLOSE	5/1/24 12:00 AM	5/10/24 04:40 PM
3910117	0000156182	ENGINE DIESEL 02 STANDBY GEN BAYFIELD NORTH	6655, Bayfield North Pumping Station	Engine Diesel North Lift PS Insp/ Test (1m) 6655	CLOSE	5/1/24 12:00 AM	5/10/24 04:25 PM
3910136	0000156238	ENGINE DIESEL STANDBY GEN BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Engine Diesel Bayfield Main PS Insp/Test (1m) 6655	CLOSE	5/1/24 12:00 AM	5/10/24 04:49 PM

3928861			Bayfield Wastewater Lagoons and Collection System	Data Logger Insp/Service - Campgrounds (1m) 6655	CLOSE	5/1/24 12:00 AM	5/22/24 03:25 PM
3933445			6655, Bayfield WWL &	e.Ris Data Collection (1m)	CLOSE	5/1/24 12:00 AM	6/13/24 03:45 PM
3958065			6655, Bayfield WWL & CS	Analyzer Gas Tri Detector Insp/ Calib (1y) 6655	CLOSE	6/1/24 12:00 AM	11/8/24 02:46 PM
3958068	0000156277	LAGOON CELL 01 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 01 Inspection/Service (1m/6m/1y)	CLOSE	6/1/24 12:00 AM	6/17/24 01:53 PM
3958078	0000156278	LAGOON CELL 02 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 02 Inspection/Service (1m/6m/1y)	CLOSE	6/1/24 12:00 AM	6/17/24 01:54 PM
3958088	0000156160	PANEL ALARM/ DIALER 01 PS1	6655, Bayfield South Pumping Station	Alarm Dialer 01 South Lift PS1 Testing (1m) 6655	CLOSE	6/1/24 12:00 AM	6/7/24 01:17 PM
3958094	0000156242	PANEL ALARM/ DIALER BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Alarm Dialer 01 Main Lift PS3 Testing (1m) 6655	CLOSE	6/1/24 12:00 AM	6/7/24 01:27 PM
3958099	0000156186	PANEL ALARM/ DIALER BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Alarm Dialer 02 North Lift PS2 Testing (1m) 6655	CLOSE	6/1/24 12:00 AM	6/7/24 01:04 PM
3958104	0000156272	PANEL ALARM/ DIALER BAYFIELD LAGOON	6655, Bayfield WWL & CS	Alarm Dialer 04 Bayfield Lagoon Testing (1m) 6655	CLOSE	6/1/24 12:00 AM	6/10/24 01:45 PM
3958114	0000207003	PUMP SUBMERSIBLE 01 WET WELL	6655, Bayfield North Pumping Station	Pump Subm 01 Marina PS Insp/ Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 01:55 PM
3958123	0000207002	PUMP SUBMERSIBLE 02 WET WELL	6655, Bayfield North Pumping Station	Pump Subm 02 Marina PS Insp/ Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 01:58 PM
3958132	0000156178	PUMP SUBMERSIBLE H1 WET WELL	6655, Bayfield North Pumping Station	Pump Subm H1 North Lift Ps2 Insp/ Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 01:58 PM
3958141	0000156179	PUMP SUBMERSIBLE H2 WET WELL	6655, Bayfield North Pumping Station	Pump Subm H2 North Lift Ps2 Insp/ Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 01:59 PM
3958150	0000156234	PUMP SUBMERSIBLE M1 WET WELL	6655, Bayfield Main Pumping Station	Pump Subm M1 Bayfield Main Ps3 Insp/Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 02:00 PM
3958159	0000156235	PUMP SUBMERSIBLE M2 WET WELL	6655, Bayfield Main Pumping Station	Pump Subm M2 Bayfield Main Ps3 Insp/Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 02:00 PM
3958168	0000156236	PUMP SUBMERSIBLE M3 WET WELL	6655, Bayfield Main Pumping Station	Pump Subm M3 Bayfield Main Ps3 Insp/Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 02:01 PM
3958177	0000156161	PUMP SUBMERSIBLE S1 WET WELL	6655, Bayfield South Pumping Station	Pump Subm S1 Bayfield South Ps1 Insp/Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 02:01 PM
3958186	0000156162	PUMP SUBMERSIBLE S2 WET WELL	6655, Bayfield South Pumping Station	Pump Subm S2 Bayfield South Ps1 Insp/Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 02:02 PM
3958195	0000156163	PUMP SUBMERSIBLE S3 WET WELL	6655, Bayfield South Pumping Station	Pump Subm S3 Bayfield South Ps1 Insp/Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 02:03 PM
3958204	0000156169	VALVE AIR RELEASE BASEMENT	6655, Bayfield South Pumping Station	Valve Ball 01 Air Relief Ps1 Insp/ Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 02:03 PM
3958207	0000156193	VALVE AIR RELEASE BASEMENT	6655, Bayfield North Pumping Station	Valve Ball 02 Air Relief Ps2 Insp/ Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 02:04 PM
3958210	0000156253	VALVE AIR RELEASE BASEMENT	6655, Bayfield Main Pumping Station	Valve Ball 03 Air Relief Ps3 Insp/ Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 02:05 PM
3958342			6655, Bayfield WWL &	MSDS Review - (6m) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 02:10 PM
3958785	0000156159	ENGINE DIESEL STANDBY GEN BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Engine Diesel Bayfield South PS Insp/Test (1m) 6655	CLOSE	6/1/24 12:00 AM	6/7/24 01:18 PM
3958804	0000156182	ENGINE DIESEL 02 STANDBY GEN BAYFIELD NORTH	6655, Bayfield North Pumping Station	Engine Diesel North Lift PS Insp/ Test (1m) 6655	CLOSE	6/1/24 12:00 AM	6/7/24 01:05 PM

3958823	0000156238	ENGINE DIESEL STANDBY GEN BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Engine Diesel Bayfield Main PS Insp/Test (1m) 6655	CLOSE	6/1/24 12:00 AM	6/7/24 01:28 PM
3958909			6655, Bayfield WWL & CS	OG35 FEP Review (1y) 6655/5695/5	CLOSE	6/1/24 12:00 AM	7/2/24 09:51 AM
3970255	0000249219	PUMP SUBMERSIBLE FP1 FILTER PS WET	6655, Bayfield WWL & CS	Pump Subm P1 Bayfield Lagoon Filter Insp/Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 02:14 PM
3970264	0000249220	PUMP SUBMERSIBLE FP2 FILTER PS WET	6655, Bayfield WWL & CS	Pump Subm P2 Bayfield Lagoon Filter Insp/Service (1y) 6655	CLOSE	6/1/24 12:00 AM	6/17/24 02:14 PM
3978439			Bayfield Wastewater Lagoons and Collection System	Data Logger Insp/Service - Campgrounds (1m) 6655	CLOSE	6/1/24 12:00 AM	6/20/24 10:21 AM
3983390			6655, Bayfield WWL & CS	e.Ris Data Collection (1m)	CLOSE	6/1/24 12:00 AM	6/13/24 03:46 PM
3997413			6655, Bayfield WWL & CS	Zurich dentist sewer back up	CLOSE	6/5/24 05:21 PM	6/5/24 05:21 PM
4007750	0000156277	LAGOON CELL 01 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 01 Inspection/Service (1m/6m/1y)	CLOSE	7/1/24 12:00 AM	7/9/24 07:39 AM
4007760	0000156278	LAGOON CELL 02 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 02 Inspection/Service (1m/6m/1y)	CLOSE	7/1/24 12:00 AM	7/9/24 07:40 AM
4007770	0000156160	PANEL ALARM/ DIALER 01 PS1	6655, Bayfield South Pumping Station	Alarm Dialer 01 South Lift PS1 Testing (1m) 6655	CLOSE	7/1/24 12:00 AM	7/8/24 03:16 PM
4007775	0000156242	PANEL ALARM/ DIALER BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Alarm Dialer 01 Main Lift PS3 Testing (1m) 6655	CLOSE	7/1/24 12:00 AM	7/11/24 03:08 PM
4007780	0000156186	PANEL ALARM/ DIALER BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Alarm Dialer 02 North Lift PS2 Testing (1m) 6655	CLOSE	7/1/24 12:00 AM	7/11/24 03:01 PM
4007785	0000156272	PANEL ALARM/ DIALER BAYFIELD LAGOON	6655, Bayfield WWL & CS	Alarm Dialer 04 Bayfield Lagoon Testing (1m) 6655	CLOSE	7/1/24 12:00 AM	7/2/24 02:08 PM
4008296	0000156159	ENGINE DIESEL STANDBY GEN BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Engine Diesel Bayfield South PS Insp/Test (1m) 6655	CLOSE	7/1/24 12:00 AM	7/8/24 03:14 PM
4008315	0000156182	ENGINE DIESEL 02 STANDBY GEN BAYFIELD NORTH	6655, Bayfield North Pumping Station	Engine Diesel North Lift PS Insp/ Test (1m) 6655	CLOSE	7/1/24 12:00 AM	7/11/24 03:02 PM
4008334	0000156238	ENGINE DIESEL STANDBY GEN BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Engine Diesel Bayfield Main PS Insp/Test (1m) 6655	CLOSE	7/1/24 12:00 AM	7/11/24 03:10 PM
4025822			Bayfield Wastewater Lagoons and Collection System	Data Logger Insp/Service - Campgrounds (1m) 6655	CLOSE	7/1/24 12:00 AM	7/31/24 07:50 AM
4031163			6655, Bayfield WWL & CS	e.Ris Data Collection (1m)	CLOSE	7/1/24 12:00 AM	7/19/24 01:53 PM
4056754	0000156277	LAGOON CELL 01 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 01 Inspection/Service (1m/6m/1y)	CLOSE	8/1/24 12:00 AM	8/9/24 01:42 PM
4056764	0000156278	LAGOON CELL 02 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 02 Inspection/Service (1m/6m/1y)	CLOSE	8/1/24 12:00 AM	8/9/24 01:43 PM
4056774	0000156160	PANEL ALARM/ DIALER 01 PS1	6655, Bayfield South Pumping Station	Alarm Dialer 01 South Lift PS1 Testing (1m) 6655	CLOSE	8/1/24 12:00 AM	8/13/24 02:52 PM
4056779	0000156242	PANEL ALARM/ DIALER BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Alarm Dialer 01 Main Lift PS3 Testing (1m) 6655	CLOSE	8/1/24 12:00 AM	8/13/24 01:39 PM
4056784	0000156186	PANEL ALARM/ DIALER BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Alarm Dialer 02 North Lift PS2 Testing (1m) 6655	CLOSE	8/1/24 12:00 AM	8/13/24 01:25 PM
4056789	0000156272	PANEL ALARM/ DIALER BAYFIELD LAGOON	6655, Bayfield WWL & CS	Alarm Dialer 04 Bayfield Lagoon Testing (1m) 6655	CLOSE	8/1/24 12:00 AM	8/6/24 09:56 AM
4057341	0000156159	ENGINE DIESEL STANDBY GEN BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Engine Diesel Bayfield South PS Insp/Test (1m) 6655	CLOSE	8/1/24 12:00 AM	8/13/24 02:55 PM
4057360	0000156182	ENGINE DIESEL 02 STANDBY GEN BAYFIELD NORTH	6655, Bayfield North Pumping Station	Engine Diesel North Lift PS Insp/ Test (1m) 6655	CLOSE	8/1/24 12:00 AM	8/13/24 01:27 PM

4057379	0000156238	ENGINE DIESEL STANDBY GEN BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Engine Diesel Bayfield Main PS Insp/Test (1m) 6655	CLOSE	8/1/24 12:00 AM	8/13/24 01:41 PM
4073478			Bayfield Wastewater Lagoons and Collection System	Data Logger Insp/Service - Campgrounds (1m) 6655	CLOSE	8/1/24 12:00 AM	8/21/24 09:06 PM
4077991			6655, Bayfield WWL & CS	e.Ris Data Collection (1m)	CLOSE	8/1/24 12:00 AM	8/6/24 02:27 PM
4101487	0000156277	LAGOON CELL 01 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 01 Inspection/Service (1m/6m/1y)	CLOSE	9/1/24 12:00 AM	9/23/24 03:35 PM
4101497	0000156278	LAGOON CELL 02 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 02 Inspection/Service (1m/6m/1y)	CLOSE	9/1/24 12:00 AM	9/23/24 03:36 PM
4101507	0000156160	PANEL ALARM/ DIALER 01 PS1	6655, Bayfield South Pumping Station	Alarm Dialer 01 South Lift PS1 Testing (1m) 6655	CLOSE	9/1/24 12:00 AM	9/17/24 01:22 PM
4101512	0000156242	PANEL ALARM/ DIALER BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Alarm Dialer 01 Main Lift PS3 Testing (1m) 6655	CLOSE	9/1/24 12:00 AM	9/17/24 01:37 PM
4101517	0000156186	PANEL ALARM/ DIALER BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Alarm Dialer 02 North Lift PS2 Testing (1m) 6655	CLOSE	9/1/24 12:00 AM	9/17/24 01:10 PM
4101522	0000156272	PANEL ALARM/ DIALER BAYFIELD LAGOON	6655, Bayfield WWL & CS	Alarm Dialer 04 Bayfield Lagoon Testing (1m) 6655	CLOSE	9/1/24 12:00 AM	9/20/24 03:43 PM
4102275	0000156159	ENGINE DIESEL STANDBY GEN BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Engine Diesel Bayfield South PS Insp/Test (1m) 6655	CLOSE	9/1/24 12:00 AM	9/17/24 01:24 PM
4102294	0000156159	ENGINE DIESEL STANDBY GEN BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Engine Diesel Bayfield South PS Insp/Service (1y) 6655	CLOSE	9/1/24 12:00 AM	10/7/24 02:33 PM
4102333	0000156182	ENGINE DIESEL 02 STANDBY GEN BAYFIELD NORTH	6655, Bayfield North Pumping Station	Engine Diesel North Lift PS Insp/ Test (1m) 6655	CLOSE	9/1/24 12:00 AM	9/17/24 01:09 PM
4102352	0000156182	ENGINE DIESEL 02 STANDBY GEN BAYFIELD NORTH	6655, Bayfield North Pumping Station	Engine Diesel North Lift PS Insp/ Service (1y) 6655	CLOSE	9/1/24 12:00 AM	
4102391	0000156238	ENGINE DIESEL STANDBY GEN BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Engine Diesel Bayfield Main PS Insp/Test (1m) 6655	CLOSE	9/1/24 12:00 AM	
4102410	0000156238	ENGINE DIESEL STANDBY GEN BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Engine Diesel Bayfield Main PS Insp/Service (1y) 6655	CLOSE	9/1/24 12:00 AM	
4109201			6655, Bayfield WWL & CS	Backflow Preventer Inspection (1y) 6655	CLOSE	9/1/24 12:00 AM	
4121044			Bayfield Wastewater Lagoons and Collection System	Data Logger Insp/Service - Campgrounds (1m) 6655	CLOSE	9/1/24 12:00 AM	
4126041			6655, Bayfield WWL & CS	e.Ris Data Collection (1m)	CLOSE	9/1/24 12:00 AM	
4133947			Bayfield Wastewater Lagoons and Collection System	Health and Safety Inspection (1m) 6655, 5695, 5876	CLOSE	9/1/24 12:00 AM	
4152328			6655, Bayfield WWL & CS	Analyzer Gas Portable Insp/Calib (6m) Bluewater 6655, 5695, 5876	CLOSE	10/1/24 12:00 AM	
4152331	0000156277	LAGOON CELL 01 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 01 Inspection/Service (1m/6m/1y)	CLOSE	10/1/24 12:00 AM	
4152341	0000156278	LAGOON CELL 02 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 02 Inspection/Service (1m/6m/1y) 6655	CLOSE	10/1/24 12:00 AM	
4152351	0000156242	PANEL ALARM/ DIALER BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Alarm Dialer 01 Main Lift PS3 Testing (1m) 6655	CLOSE	10/1/24 12:00 AM	
4152356	0000156186	PANEL ALARM/ DIALER BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Alarm Dialer 02 North Lift PS2 Testing (1m) 6655	CLOSE	10/1/24 12:00 AM	
4152361	0000156272	PANEL ALARM/ DIALER BAYFIELD LAGOON	6655, Bayfield WWL & CS	Alarm Dialer 04 Bayfield Lagoon Testing (1m) 6655	CLOSE	10/1/24 12:00 AM	10/4/24 02:48 PM

4152927	0000156159	ENGINE DIESEL STANDBY GEN BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Engine Diesel Bayfield South PS Insp/Test (1m) 6655	CLOSE	10/1/24 12:00 AM	10/7/24 06:05 PM
4152946	0000156182	ENGINE DIESEL 02 STANDBY GEN BAYFIELD NORTH	6655, Bayfield North Pumping Station	Engine Diesel North Lift PS Insp/ Test (1m) 6655	CLOSE	10/1/24 12:00 AM	10/7/24 06:07 PM
4152965	0000156238	ENGINE DIESEL STANDBY GEN BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Engine Diesel Bayfield Main PS Insp/Test (1m) 6655	CLOSE	10/1/24 12:00 AM	10/7/24 06:04 PM
4171340			Bayfield Wastewater Lagoons and Collection System	Data Logger Insp/Service - Campgrounds (1m) 6655	CLOSE	10/1/24 12:00 AM	
4176369			6655, Bayfield WWL &	e.Ris Data Collection (1m)	CLOSE	10/1/24 12:00	10/4/24 03:03 PM
4185037			Bayfield Wastewater Lagoons and Collection System	Health and Safety Inspection (1m) 6655, 5695, 5876	CLOSE	10/1/24 12:00 AM	10/4/24 03:46 PM
4197352			6655, Bayfield WWL &	New sump pump install north	CLOSE		
4201758	0000156277	LAGOON CELL 01 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 01 Inspection/Service (1m/6m/1y) 6655	CLOSE	11/1/24 12:00 AM	
4201768	0000156278	LAGOON CELL 02 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 02 Inspection/Service (1m/6m/1y) 6655	CLOSE	11/1/24 12:00 AM	
4201778	0000156242	PANEL ALARM/ DIALER BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Alarm Dialer 01 Main Lift PS3 Testing (1m) 6655	CLOSE	11/1/24 12:00 AM	11/13/24 11:20 AM
4201783	0000156186	PANEL ALARM/ DIALER BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Alarm Dialer 02 North Lift PS2 Testing (1m) 6655	CLOSE	11/1/24 12:00 AM	11/13/24 11:21 AM
4201788	0000156272	PANEL ALARM/ DIALER BAYFIELD LAGOON	6655, Bayfield WWL & CS	Alarm Dialer 04 Bayfield Lagoon Testing (1m) 6655	CLOSE	11/1/24 12:00 AM	11/8/24 02:21 PM
4201798			6655, Bayfield WWL & CS	Tank Wet Well Insp/Service (1y) 6655	CLOSE	11/1/24 12:00 AM	
4202415	0000156159	ENGINE DIESEL STANDBY GEN BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Engine Diesel Bayfield South PS Insp/Test (1m) 6655	CLOSE	11/1/24 12:00 AM	11/13/24 11:26 AM
4202434	0000156182	ENGINE DIESEL 02 STANDBY GEN BAYFIELD NORTH	6655, Bayfield North Pumping Station	Engine Diesel North Lift PS Insp/ Test (1m) 6655	CLOSE	11/1/24 12:00 AM	11/13/24 11:28 AM
4202453	0000156238	ENGINE DIESEL STANDBY GEN BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Engine Diesel Bayfield Main PS Insp/Test (1m) 6655	CLOSE	11/1/24 12:00 AM	11/13/24 11:30 AM
4217658			Bayfield Wastewater Lagoons and Collection System	Data Logger Insp/Service - Campgrounds (1m) 6655	CLOSE	11/1/24 12:00 AM	11/22/24 07:20 AM
4221839			6655, Bayfield WWL &	e.Ris Data Collection (1m)	CLOSE	11/1/24 12:00	11/5/24 03:31 PM
4228576			Bayfield Wastewater Lagoons and Collection System	Health and Safety Inspection (1m) 6655, 5695, 5876	CLOSE	11/1/24 12:00 AM	11/8/24 02:12 PM
4236973			6655, Bayfield North Pumping Station	Bayfield North SPS Sewage Pump #2 Repair 6655	COMP		2/19/25 09:53 AM
4243687	0000156277	LAGOON CELL 01 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 01 Inspection/Service (1m/6m/1y) 6655	CLOSE	12/1/24 12:00 AM	12/4/24 02:24 PM
4243697	0000156278	LAGOON CELL 02 BAYFIELD LAGOON	6655, Bayfield WWL & CS	Lagoon Cell 02 Inspection/Service (1m/6m/1y) 6655	CLOSE	12/1/24 12:00 AM	12/4/24 02:24 PM
4243707	0000156242	PANEL ALARM/ DIALER BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Alarm Dialer 01 Main Lift PS3 Testing (1m) 6655	CLOSE	12/1/24 12:00 AM	12/4/24 02:25 PM
4243712	0000156186	PANEL ALARM/ DIALER BAYFIELD NORTH PS	6655, Bayfield North Pumping Station	Alarm Dialer 02 North Lift PS2 Testing (1m) 6655	CLOSE	12/1/24 12:00 AM	12/4/24 02:26 PM
4243717	0000156272	PANEL ALARM/ DIALER BAYFIELD LAGOON	6655, Bayfield WWL & CS	Alarm Dialer 04 Bayfield Lagoon Testing (1m) 6655	CLOSE	12/1/24 12:00 AM	

4243859			6655, Bayfield WWL &	MSDS Review - (6m) 6655	CLOSE	12/1/24 12:00	
4243867			6655, Bayfield WWL & CS	Do Probe Calibration (1y) 6655/5876	CLOSE	12/1/24 12:00 AM	
4244328	0000156159	ENGINE DIESEL STANDBY GEN BAYFIELD SOUTH	6655, Bayfield South Pumping Station	Engine Diesel Bayfield South PS Insp/Test (1m) 6655	CLOSE	12/1/24 12:00 AM	
4244347	0000156182	ENGINE DIESEL 02 STANDBY GEN BAYFIELD NORTH	6655, Bayfield North Pumping Station	Engine Diesel North Lift PS Insp/ Test (1m) 6655	CLOSE	12/1/24 12:00 AM	
4244366	0000156238	ENGINE DIESEL STANDBY GEN BAYFIELD MAIN PS	6655, Bayfield Main Pumping Station	Engine Diesel Bayfield Main PS Insp/Test (1m) 6655	CLOSE	12/1/24 12:00 AM	
4259444			Bayfield Wastewater Lagoons and Collection System	Data Logger Insp/Service - Campgrounds (1m) 6655	COMP	12/1/24 12:00 AM	
4263657			6655, Bayfield WWL &	e.Ris Data Collection (1m)	CLOSE	12/1/24 12:00	
4269942			Bayfield Wastewater Lagoons and Collection System	Health and Safety Inspection (1m) 6655, 5695, 5876	COMP	12/1/24 12:00 AM	
4278879			6655, Bayfield WWL & CS	Sampling Calendar Review (1y) 6655	COMP	12/15/24 12:00 AM	

Appendix C

2024 Calibration Records



Pierce Services
& Solutions Inc.

45 Wilton Road
Guelph, ON N1E 7L6

Phone: 519.820.4853

Fax: 519.824.9402

Flowmeter Report

Verification: ☒

Calibration: ☐

Client: OCWA Bluewater

Location: Bayfield Lagoons

Description: Mag Flow Meter

Date: 24-Mar-18

Manufacturer: Krohne

Checked By: Greg Pierce

Model: Aquaflex

Serial No.: 1047692

Inventory No.: 249218

Velocity	Input	As Found	As Left	Pass/Fail
0 m/s	0.00 l/s	0.00 l/s	0.00 l/s	Pass
1.23 m/s	59.94 l/s	59.94 l/s	59.94 l/s	Pass
2.54 m/s	125.00 l/s	125.00 l/s	125.00 l/s	Pass
3.76 m/s	57.6 l/s	57.6 l/s	57.6 l/s	Pass

Confirmed Run Mode: X

Returned to service: X

Service Comments:

Flowmeter Information

Flow Unit: l/s
Meter Size: 250 mm
Pipe Material: Cast Steel
Liner Material: PU
Range: 0-125 l/s
Tag Number: FIT 601



Comments:

Verification of original calibration

Coil Temp - 369.4 F

Electrode Temp - 100.1 F

Conductivity - 489.5 uS/cm

Coil Resistance - 79.18 Ω

Signature:

Greg Pierce, CCST



Pierce Services
& Solutions Inc.

45 Wilton Road
Guelph, ON N1E 7L6

Phone: 519.820.4853

Fax: 519.824.9402

Flowmeter Report

Verification: ☒

Calibration: ☐

Client: OCWA Bluewater

Location: Bayfield Lagoons

Description: Mag Flow Meter

Date: 18-Mar-24

Manufacturer: ABB

Checked By: Greg Pierce

Model: Watermaster

Serial No.: 3K620000215245

Inventory No.: 249197

Velocity	Input	As Found	As Left	Pass/Fail
0 m/s	0.00 l/s	0.00 l/s	0.00 l/s	Pass
1.99 m/s	3.9 l/s	3.92 l/s	3.92 l/s	
3.05 m/s	6.00 l/s	6.00 l/s	6.00 l/s	

Confirmed Run Mode: X

Returned to service: X

Service Comments:

Flowmeter Information

Flow Unit: l/s
Meter Size: 50 mm
Pipe Material: Cast Steel
Liner Material: PU
Range: 0-6 l/s
Tag Number: FIT 602



Comments:

Verification of original calibration

No Alarms

E1 - 1.24 kΩ

E2 - 1.28 kΩ

E1 - 0.057 V

E2 - 1.018 V

E12 - -0.038 V

CDI - 179.93 mA

CDR - 25.94 Ω

Signature: Greg Pierce

Greg Pierce, CCST



Pierce Services
& Solutions Inc.

519.820.4853 Fax 519.824.9402

Instrument Verification Sheet

Client Name: Ontario Clean Water Agency

Date: March 18, 2024

Equipment Description: Level Sensor

Assigned Number: LIT 601

Area Located: Bayfield Lagoons

Inventory Number: N/A

Instrument Data

Manufacturer: Milltronics

Model Number: MultiRanger Plus

Type: Ultrasonic

Serial Number: N/A

Range: 0 - 3.700 m

Accuracy: +/- 5%

Method Of Calibration: Standard Measurement

Application: Waste Water

Calibration Data

Input %	Input	As Found	As Left	% Error
	9.022 mA	1.161 m	1.161 m	

Confirmed Run Mode: ✓

Placed back in service: ✓

Comments:



Checked By: Greg Pierce CCST

Signature:



**Pierce Services
& Solutions Inc.**

Instrument Verification Sheet

Client Name: Ontario Clean Water Agency

Date: March 18, 2024

Equipment Description: Flow Transmitter

Assigned Number: Lagoon Filter Flow

Area Located: Bayfield Lagoons

Inventory Number: 114632

Instrument Data

Manufacturer: Krohne

Model Number: AquaFlux

Type: Magmeter

Serial Number: A00 12009

Range: 0-300 l/s

Accuracy: +/- 5%

Method Of Calibration: Standard Verification

Application: Wastewater

Meter Size: 300mm

PASS/FAIL: Pass

Calibration Data

Input	Input	Theoretical	As Found	Pass/Fail
	0.00 l/s	0.00 l/s	0.00 l/s	Pass
	135.96 l/s	135.96 l/s	135.96 l/s	Pass

Confirmed Run Mode: ✓

Placed back in service: ✓

Comments:

Verification of original calibration only.



Checked By: Greg Pierce CCST

Signature: _____



Pierce Services
& Solutions Inc.

519.820.4853 Fax 519.824.9402

Instrument Verification Sheet

Client Name: Ontario Clean Water Agency

Date: March 18, 2024

Equipment Description: Level Sensor

Assigned Number: LIT 103

Area Located: Bayfield Lagoons Chamber

Inventory Number: 114630

Instrument Data

Manufacturer: Milltronics

Model Number: MultiRanger Plus

Type: Ultrasonic

Serial Number: N/A

Range: 0 - 3.500 m

Accuracy: +/- 5%

Method Of Calibration: Standard Measurement

Application: Waste Water

Calibration Data

Input %	Input	As Found	As Left	Pass/Fail
	16.58 mA	2.516 m	2.516 m	Pass

Confirmed Run Mode: ✓

Placed back in service: ✓

Comments:



Transducer Erratic Recommend Replacement

Checked By: Greg Pierce CCST

Signature: _____



**Pierce Services
& Solutions Inc.**

45 Wilton Road
Guelph, ON N1E 7L6

Phone: 519.820.4853

Fax: 519.824.9402

Flowmeter Report

Verification: ☒ X

Calibration: ☐

Client: OCWA Bluewater

Location: Bayfield Lagoons

Description: Ultrasonic

Date: 24-Mar-18

Manufacturer: Milltronics

Checked By: Greg Pierce

Model: OCM III

Serial No.:

Inventory No.: 249100

Volocity	Input	Theroretical	As Left	Pass/Fail
	0 cm	0.00 l/s	0.00 l/s	Pass
	10 cm	4.364 l/s	4.3652 l/s	Pass
	20 cm	24.69 l/s	24.69334 l/s	Pass
	30 cm	68.03 l/s	68.04685 l/s	Pass
	42 cm	157.8 l/s	157.8 l/s	Pass

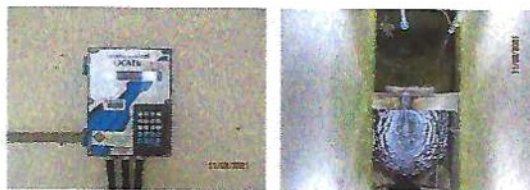
Confirmed Run Mode: X

Returned to service: X

Service Comments:

Flowmeter Information

Flow Unit: l/s
Meter Size: 200 mm
Pipe Material: Stainless Steel
Flume Type: 90° V Notch Weir
Range: 0-157.8 l/s
Tag Number: FIT 101



Comments:

Verified with ISCO Open Channel Flow Book

Signature:

Greg Pierce, CCST



Pierce Services
& Solutions Inc.

519.820.4853 Fax 519.824.9402

Instrument Verification Sheet

Client Name: Ontario Clean Water Agency

Date: March 20, 2024

Equipment Description: Level Sensor

Assigned Number: Wet Well Level

Area Located: Bayfield Main Lift Station

Inventory Number: 156233

Instrument Data

Manufacturer: Milltronics

Model Number: MultiRanger Plus

Type: Ultrasonic

Serial Number: N/A

Range: 0 - 3.300 m

Accuracy: +/- 5%

Method Of Calibration: Standard Measurement

Application: Waste Water

Calibration Data

Input %	Input	As Found	As Left	Pass/Fail
	9.967 mA	1.119 m	1.119 m	Pass

Confirmed Run Mode: ✓

Placed back in service: ✓

Comments:



Checked By: Greg Pierce CCST

Signature: _____



Pierce Services
& Solutions Inc.

519.820.4853 Fax 519.824.9402

Instrument Verification Sheet

Client Name: Ontario Clean Water Agency

Date: March 20, 2024

Equipment Description: Level Sensor

Assigned Number: LIT 101

Area Located: North Lift Bayfield

Inventory Number: 1556177

Instrument Data

Manufacturer: Milltronics

Model Number: MultiRanger Plus

Type: Ultrasonic

Serial Number: N/A

Range: 0 - 3.750 m

Accuracy: +/- 5%

Method Of Calibration: Standard Measurement

Application: Waste Water

Calibration Data

Input %	Input	As Found	As Left	Pass/Fail
	9.376 mA	1.159 m	1.159 m	Pass

Confirmed Run Mode: ✓

Placed back in service: ✓

Comments:



Checked By: Greg Pierce CCST

Signature:



Pierce Services
& Solutions Inc.

519.820.4853 Fax 519.824.9402

Instrument Verification Sheet

Client Name: Ontario Clean Water Agency

Date: March 18, 2024

Equipment Description: Level Sensor

Assigned Number: Wet Well Level

Area Located: Bayfield South Lift Station

Inventory Number: 156154

Instrument Data

Manufacturer: Milltronics

Model Number: MultiRanger 100

Type: Ultrasonic

Serial Number: PBD/E5150044

Range: 0 - 5.000 m

Accuracy: +/- 5%

Method Of Calibration: Standard Measurement

Application: Waste Water

Calibration Data

Input %	Input	As Found	As Left	Pass/Fail
26.62%	8.36 mA	1.25 m	1.25 m	Pass

Confirmed Run Mode: ☒

Placed back in service: ☒

Comments:



Checked By: Greg Pierce CCST

Signature: 

Appendix D

2025 Sample Calendar



Sample Schedule 2025 Bayfield Sewage Treatment Plant

Rev. Date: 2025-03-20
Rev.#: 3
Pages: 1 of 12

Reviewed by: QEMS Representative

Approved by: Operations Management

◀ December	January 2025					February ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 STAT	2	3	4
5	6	7 □ Raw	8	9	10	11
12	13	14 □ Raw	15	16	17	18
19	20	□ Raw	22	23	24	25
26	27	28 □ Raw	29	30	31	

Discharge Period: April 1 to November 30

Raw Sample: Weekly Composite (BOD5, TSS, TP, TKN)
Final Effluent: Weekly Composite (CBOD, TSS, TP, TAN, TKN, NO3, NO2, Unionized Ammonia)
 Weekly Grab (E.Coli)
 Weekly Grab In-House (pH, Temp, DO)
Pre-Filter: Quarterly Grab (CBOD5, TSS, TP, TAN)
Sludge: Grab from Cell 1, Cell 2, WAS storage lagoon one week prior to removal (TS, TP, TAN, NO3, Metals – see “Sludge/Biosolids” Table in ECA)
Leachate: Quarterly – Only When Receiving (Refer to ‘Landfill Leachate Monitoring’ Table in ECA)
Notes: Initial on date when sample was taken. Add any additional sampling completed for the facility.

Revision History

Date	Revision #	Reason for Revision	Revision By
2024-11-05	0	Create 2025 Sample Calendar	Lisa Benoit
2025-01-24	1	Changed Discharge Period to end November 30	HeatherWharram
2025-02-10	2	Added emergency discharge samples	Heather Wharram
2025-03-20	3	Added additional effluent sampling parameters on notes	HeatherWharram



Sample Schedule 2025 Bayfield Sewage Treatment Plant

Rev. Date: 2025-03-20
Rev.#: 3
Pages: 2 of 12

Reviewed by: QEMS Representative

Approved by: Operations Management

◀ January	February 2025					March ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4 □ Raw	5	6	7	8
9	10	11 □ Raw □ Final Effluent	12	13 □ Final Effluent □ Upstream □ Downstream	14	15
16	17 STAT	18 □ Raw □ Final Effluent □ Upstream □ Downstream	19	20 □ Final Effluent □ Upstream □ Downstream	21	22
23	24	25 □ Raw	26	27	28	

Discharge Period: April 1 to November 30

Raw Sample: Weekly Composite (BOD5, TSS, TP, TKN)
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2025-02-10	2	Added emergency discharge samples	Heather Wharram
2025-03-20	3	Added additional effluent sampling parameters on notes	HeatherWharram



Sample Schedule 2025 Bayfield Sewage Treatment Plant

Rev. Date: 2025-03-20
Rev.#: 3
Pages: 3 of 12

Reviewed by: QEMS Representative

Approved by: Operations Management

◀ February	March 2025					April ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4 ☐ Raw	5	6	7	8
9	10	11 ☐ Raw	12	13	14	15
16	17	18 ☐ Raw	19	20	21	22
23	24	25 ☐ Raw	26	27	28	29
30	31					

Discharge Period: April 1 to November 30

Raw Sample: Weekly Composite (BOD5, TSS, TP, TKN)
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2025-03-20	3	Added additional effluent sampling parameters on notes	HeatherWharram



Sample Schedule 2025 Bayfield Sewage Treatment Plant

Rev. Date: 2025-03-20
Rev.#: 3
Pages: 4 of 12

Reviewed by: QEMS Representative

Approved by: Operations Management

◀ March		April 2025				May ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent <input type="checkbox"/> Pre Filter	2	3	4	5
6	7	8 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	9	10	11	12
13	14	15 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	16	17	18 STAT	19
20	21 STAT	22 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	23	24	25	26
27	28	29 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	30			

Discharge Period: April 1 to November 30

Raw Sample: Weekly Composite (BOD5, TSS, TP, TKN)
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2025-03-20	3	Added additional effluent sampling parameters on notes	HeatherWharram



Sample Schedule 2025 Bayfield Sewage Treatment Plant

Rev. Date: 2025-03-20
Rev.#: 3
Pages: 5 of 12

Reviewed by: QEMS Representative

Approved by: Operations Management

◀ April	May 2025					June ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	7	8	9	10
11	12	13 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	14	15	16	17
18	19 STAT	20 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	21	22	23	24
25	26	27 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	28	29	30	31

Discharge Period: April 1 to November 30

Raw Sample: Weekly Composite (BOD5, TSS, TP, TKN)
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Sample Schedule 2025 Bayfield Sewage Treatment Plant

Rev. Date: 2025-03-20
Rev.#: 3
Pages: 6 of 12

Reviewed by: QEMS Representative

Approved by: Operations Management

◀ May	June 2025					July ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	4	5	6	7
8	9	10 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	11	12	13	14
15	16	17 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	18	19	20	21
22	23	24 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	25	26	27	28
29	30					

Discharge Period: April 1 to November 30

Raw Sample: Weekly Composite (BOD5, TSS, TP, TKN)
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2025-02-10	2	Added emergency discharge samples	Heather Wharram
2025-03-20	3	Added additional effluent sampling parameters on notes	HeatherWharram



Sample Schedule 2025 Bayfield Sewage Treatment Plant

Rev. Date: 2025-03-20
Rev.#: 3
Pages: 7 of 12

Reviewed by: QEMS Representative

Approved by: Operations Management

◀ June	July 2025					August ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 STAT	2 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent <input type="checkbox"/> Pre Filter	3	4	5
6	7	8 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	9	10	11	12
13	14	15 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	16	17	18	19
20	21	22 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	23	24	25	26
27	28	29 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	30	31		

Discharge Period: April 1 to November 30

Raw Sample: Weekly Composite (BOD5, TSS, TP, TKN)
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Leachate: Quarterly – Only When Receiving (Refer to ‘Landfill Leachate Monitoring’ Table in ECA)

Notes: Initial on date when sample was taken. Add any additional sampling completed for the facility.

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2025-01-24	1	Changed Discharge Period to end November 30	Heather Wharram
2025-02-10	2	Added emergency discharge samples	Heather Wharram
2025-03-20	3	Added additional effluent sampling parameters on notes	Heather Wharram



Sample Schedule 2025 Bayfield Sewage Treatment Plant

Rev. Date: 2025-03-20
Rev.#: 3
Pages: 8 of 12

Reviewed by: QEMS Representative

Approved by: Operations Management

◀ July	August 2025					September ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4 STAT	5 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	6	7	8	9
10	11	12 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	13	14	15	16
17	18	19 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	20	21	22	23
24 31	25	26 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	27	28	29	30

Discharge Period: April 1 to November 30

Raw Sample: Weekly Composite (BOD5, TSS, TP, TKN)
Final Effluent: Weekly Composite (CBOD, TSS, TP, TAN, TKN, NO3, NO2, Unionized Ammonia)
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Sludge: Grab from Cell 1, Cell 2, WAS storage lagoon one week prior to removal (TS, TP, TAN, NO3, Metals – see "Sludge/Biosolids" Table in ECA)
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2024-11-05	0	Create 2025 Sample Calendar	Lisa Benoit
2025-01-24	1	Changed Discharge Period to end November 30	HeatherWharram
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2025-03-20	3	Added additional effluent sampling parameters on notes	HeatherWharram



Sample Schedule 2025 Bayfield Sewage Treatment Plant

Rev. Date: 2025-03-20
Rev.#: 3
Pages: 9 of 12

Reviewed by: QEMS Representative

Approved by: Operations Management

◀ August	September 2025					October ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 STAT	2 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	3	4	5	6
7	8	9 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	10	11	12	13
14	15	16 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	17	18	19	20
21	22	23 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	24	25	26	27
28	29	30 STAT				

Discharge Period: April 1 to November 30

Raw Sample: Weekly Composite (BOD5, TSS, TP, TKN)
Final Effluent: Weekly Composite (CBOD, TSS, TP, TAN, TKN, NO3, NO2, Unionized Ammonia)
Weekly Grab (E.Coli)
Weekly Grab In-House (pH, Temp, DO)
Pre-Filter: Quarterly Grab (CBOD5, TSS, TP, TAN)
Sludge: Grab from Cell 1, Cell 2, WAS storage lagoon one week prior to removal (TS, TP, TAN, NO3, Metals – see
“Sludge/Biosolids” Table in ECA)
Leachate: Quarterly – Only When Receiving (Refer to ‘Landfill Leachate Monitoring’ Table in ECA)

Notes: Initial on date when sample was taken. Add any additional sampling completed for the facility.

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2025-03-20	3	Added additional effluent sampling parameters on notes	HeatherWharram



Sample Schedule 2025 Bayfield Sewage Treatment Plant

Rev. Date: 2025-03-20
Rev.#: 3
Pages: 10 of 12

Reviewed by: QEMS Representative

Approved by: Operations Management

◀ September		October 2025				November ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent <input type="checkbox"/> Pre Filter	2	3	4
5	6	7 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	8	9	10	11
12	13 STAT	14 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	15	16	17	18
19	20	21 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	22	23	24	25
26	27	28 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	29	30	31	

Discharge Period: April 1 to November 30

Raw Sample: Weekly Composite (BOD5, TSS, TP, TKN)
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Sample Schedule 2025 Bayfield Sewage Treatment Plant

Rev. Date: 2025-03-20
Rev.#: 3
Pages: 11 of 12

Reviewed by: QEMS Representative

Approved by: Operations Management

◀ October		November 2025					December ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat	
						1	
2	3	4 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	5	6	7	8	
9	10	11 STAT	12 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	13	14	15	
16	17	18 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	19	20	21	22	
23 30	24	25 <input type="checkbox"/> Raw <input type="checkbox"/> Final Effluent	26	27	28	29	

Discharge Period: April 1 to November 30

Raw Sample: Weekly Composite (BOD5, TSS, TP, TKN)
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Sample Schedule 2025 Bayfield Sewage Treatment Plant

Rev. Date: 2025-03-20
Rev.#: 3
Pages: 12 of 12

Reviewed by: QEMS Representative

Approved by: Operations Management

◀ November	December 2025					January ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2 □ Raw	3	4	5	6
7	8	9 □ Raw	10	11	12	13
14	15	16 □ Raw	17	18	19	20
21	22	23 □ Raw	24	25 STAT	26 STAT	27
28	29	30 □ Raw	31			

Discharge Period: April 1 to November 30

Discharge Period: April 1 to November 30

Raw Sample: Weekly Composite (BOD5, TSS, TP, TKN)
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Revision History

Date	Revision #	Reason for Revision	Revision By
2024-11-05	0	Create 2025 Sample Calendar	Lisa Benoit
2025-01-24	1	Changed Discharge Period to end November 30	HeatherWharram
2025-02-10	2	Added emergency discharge samples	Heather Wharram
2025-03-20	3	Added additional effluent sampling parameters on notes	HeatherWharram