ANNUAL PERFORMANCE REPORT, Version 2

ENVIRONMENTAL COMPLIANCE APPROVAL No. 8860-9N8NCX

NEW HORIZON
WASTEWATER TREATMENT PLANT

Township of Adjala-Tosorontio

FOR THE PERIOD:
JANUARY 1, 2024 – DECEMBER 31, 2024

Prepared for the Corporation of the Township of Adjala-Tosorontio
by the Ontario Clean Water Agency

OCWA
ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

REQUIREMENTS FOR ANNUAL PERFORMANCE REPORT

This report has been prepared in accordance with Amended Environmental Compliance Approval Number 8860-9N8NCX Section 8.4 items a) through l) for the New Horizons (Everett) Wastewater Treatment Plant and with Environmental Compliance Approval #097-W601, Issue 1 for the Township of Adjala-Tosorontio Municipal Sewage Collection System.

ECA 8860-9N8NCX, Section 8.4 REPORTING REQUIREMENTS

(4) The Owner shall prepare and submit a performance report to the Water Supervisor on an annual basis, within ninety (90) days following the end of the period being reported upon. The first such report shall cover the first annual period following the commencement of operation of the Works and subsequent reports shall be submitted to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:

(a) a summary and interpretation of all monitoring data and a comparison to the effluent objectives outlined in Condition 5, review of impacts on groundwater at the property boundary if any and an overview of the success and adequacy of the Works;

(b) a description of any operating problems encountered and corrective actions taken;

(c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;

(d) a summary of any effluent quality assurance or control measures undertaken in the reporting period;

(e) a summary of the calibration and maintenance carried out on all effluent monitoring equipment;

(f) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 5. (g) a tabulation of the volume of sludge generated in the reporting period, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed;

(h) a summary of any complaints received during the reporting period and any steps taken to address the complaints;

(i) a summary of all By-pass, spill or abnormal discharge events;

(j) a copy of all Notice of Modifications submitted to the Water Supervisor as a result of Schedule B, Section 1, with a status report on the implementation of each modification;

(k) a report summarizing all modifications completed as a result of Schedule B, Section 3; and

(l) any other information the Water Supervisor requires from time to time.

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Appendices

The enclosed 2024 Annual Performance Report has been prepared in accordance with Amended Environmental Compliance Approval Number 8860-9N8NCX Section 8.4 items a) through l) for the New Horizons Wastewater Treatment Plant and with Environmental Compliance Approval #097-W601, Issue 1 for the Township of Adjala-Tosorontio Municipal Sewage Collection System for the reporting period of January 1, 2024 to December 31, 2024.

1. System Description

The New Horizon Wastewater Treatment Plant is a rotating biological contactor (RBC) plant located in Everett, Ontario. The WWTP and its collection system are owned by the Corporation of the Township of Adjala-Tosorontio and are operated on behalf of the Owner by the Ontario Clean Water Agency (OCWA). The Amended ECA was issued to the existing municipal sewage treatment works for the collection, transmission, treatment and disposal of domestic sewage with a rated capacity of 175 m^3/d. The works consists of two raw sewage pumping stations which discharge into the treatment plant.

Within the packaged Sewage Treatment Plant, the major process units consist of: one primary settling tank and sludge storage, one three-stage Rotating Biological Contractor (RBC), one single-stage denitrification zone RBC equipped with a carbon source dosing system, one alum/PASS dosing system to aid in flocculation if needed, one surface area final settling tank, two filter feed pumps in the clarifier and three single-media sand filters. The WWTP discharges treated effluent into a subsurface tile-bed system.

The final effluent pump station consists of one final effluent dosing pumping station and a 100 mm diameter forcemain to the primary distribution box of the subsurface final effluent disposal system. The primary distribution box splits flow evenly to six splitter distribution boxes feeding three tile beds. In the event of an outage, a standby diesel generator supplies the works with backup power.

An overview of the New Horizons Wastewater Treatment System can be found in the following table:

Table 1. New Horizons Wastewater Treatment Plant System Overview

Facility Name:	New Horizons Wastewater Treatment Plant
Facility Type:	Rotating Biological Contractor (RBC) with chemical dosing and sand filtration
Plant Classification:	N/A
Works Number:	110003629
Rated Capacity:	175 m^3/day
Discharge Point:	Subsurface Tile Beds
Environmental Compliance Approval:	8421-9PMHXN (Issue Date: October 21, 2014)

2. Flow Summary

The Rated Capacity listed in the most current ECA for New Horizon WWTP is 175 cubic metres per day (m^3/day). Typically the Rated Capacity listed in an ECA is determined based on the highest average annual flow during which the sewage treatment plant can consistently meet site specific effluent quality criteria (as per the Ontario Design Guidelines for Sewage Works); this is usually dictated by the most limiting treatment/process unit in the system. ECA #8660-9N8NCX, Section 5(2) requires the Owner to use its best efforts to (a) operate the works within the Rated Capacity of the Works.

2.1 Comparison of Effluent Flow Data with Rated Capacity

Based on the definition of the Rated Capacity, a single exceedance does not necessarily result in a non-compliance event, however, if a system continually exceeds its Rated Capacity, this could result in reduced treatment efficiency and lead to effluent objective exceedances.

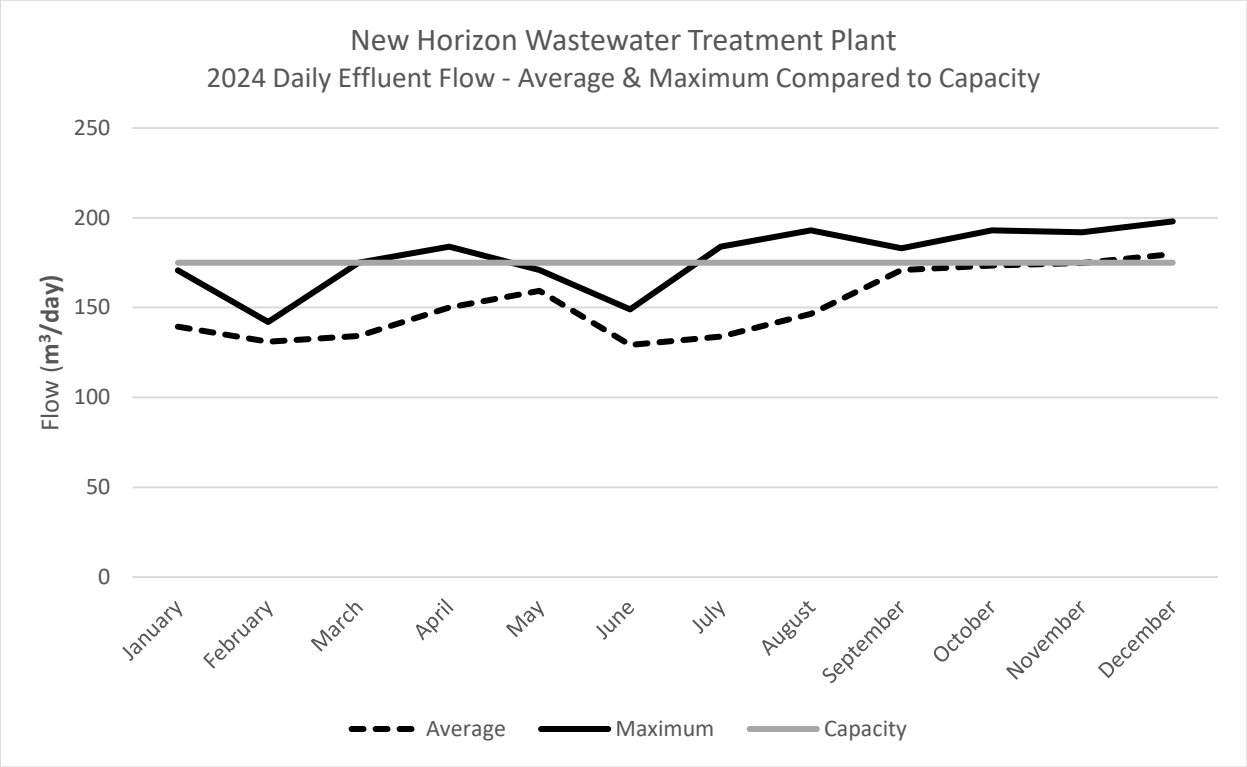
For the reporting period, Table 2 and Graph 1 compare monthly average effluent flow and monthly maximum (peak) effluent flow to the ECA Effluent Rated Capacity.

Table 2: 2024 Final Effluent Flow Average and Maximum Daily Flow Data with Comparison to the Rated Capacity

Month	Average Daily Effluent Flow (m^3/day)	% of Rated Capacity	Maximum (Peak) Daily Effluent Flow (m^3/day)	% of Rated Capacity	Total Effluent Flow
January	139.38	79.64%	170.80	97.60%	4,320.65
February	131.00	74.86%	142.00	81.14%	3,799.00
March	134.29	76.74%	175.00	100.00%	4,163.00
April	150.00	85.71%	184.00	105.14%	4,500.00
May	159.32	91.04%	171.00	97.71%	4,939.00
June	129.23	73.85%	149.00	85.14%	3,877.00
July	133.97	76.55%	184.00	105.14%	4,153.00
August	146.45	83.69%	193.00	110.29%	4,540.00
September	170.96	97.69%	183.00	104.57%	5,129.00
October	173.45	99.11%	193.00	110.29%	5,377.00
November	174.83	99.90%	192.00	109.71%	5,245.00
December	179.80	102.74%	198.00	113.14%	5,574.00
2024	**151.95**	**86.83%**	**198.00**	**113.14%**	**55,616.65**

Note: As per the ECA, 'Rated Capacity' is defined as "the Average Daily Flow for which the Works are approved to handle".
Note: As per the ECA, 'Average Daily Flow' is defined as "the cumulative total sewage flow to the sewage works during a calendar year divided by the number of days during which sewage was flowing to the sewage works that year".

Graph 1: 2024 Daily Effluent Flow - Average and Maximum Compared to Capacity



During the report period, the New Horizon WWTP average daily flow was 151.95 m^3/day or 86.83% of the Rated Capacity. The highest recorded peak flow occurred on December 8, 2024 and was 198.00 m^3/day, which is 113.14% of the Rated Capacity. Peak flows in December and throughout the reporting period were attributed to using effluent water after the flow meter to backwash the filter media. Essentially, the effluent goes though the effluent flow meter and then that water is recycled to before the effluent flow meter where it is used for backwashing. The flow eventually makes its way through the meter again.

If the Annual Average Daily Flow reaches/exceeds 80% of the Rated Capacity, current best practice is to assess issues and provide recommendations for proactive actions. For 2024, the annual Average Daily Flow was above 80% of the Rated Capacity, at 86.83%. See *Appendix A – Annual Flow and Effluent Quality Summary*, for details. OCWA will monitor the situation and determine if proactive actions are required in 2025 for the system.

3. Effluent Objectives, Groundwater Impacts, Success & Adequacy of the System

Where ECA 8860-9N8NCX, Section 8.4, Element (a) requires:

"A summary and interpretation of all monitoring data and a comparison to the effluent objectives outlined in Condition 5, review of impacts on groundwater at the property boundary if any and an overview of the success and adequacy of the Works;"

Where condition 5 is *"imposed to establish non-enforceable effluent quality objectives which the Owner is obligated to use best efforts to strive towards on an on-going basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs".*

3.1 Water Quality Monitoring Program

3.1.1 Sampling Locations, Parameters, Frequency and Method(s)

The following table outlines the water quality monitoring program at the New Horizon WWTP as per the most current ECA as it applies to grab samples collected and analyzed by an external laboratory. An additional monitoring program in place for measuring groundwater levels at Piezometers #1, #2, and #3 on a monthly basis.

Table 3: Water Quality Monitoring Program and Sampling Points – as per ECA 8860-9N8NCX Section 7.(1)(2)(3)(4)

Source[3B]	Parameter	Frequency[3A]	Method
Influent	BOD_5, TSS, TKN	Quarterly	Grab External Analysis
Effluent	$CBOD_5$, TSS, Total Nitrogen, *E.Coli*	Monthly	Grab External Analysis
Groundwater Monitoring Wells (MW-1, MW-2, MW-3, MW-4)	Nitrates	Quarterly	Grab External Analysis
Piezometer No. 1[3C]	Groundwater Level	Monthly	Grab Internal Analysis

Note: BOD_5 is Biochemical Oxygen Demand; $CBOD_5$ is Carbonaceous Biochemical Oxygen Demand; TKN is Total Kjeldahl Nitrogen; TP is Total Phosphorus; and TSS is Total Suspended Solids.

Note: As per Section 7, the Owner shall, upon commencement of operations of the Works, carry out the monitoring program and all samples and measurements taken for the purposes of the Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored.

Note: As per Section 7.5, the methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in (a) the Ministry's Procedure F-10-1,

"Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only) or as amended (b) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999) or as amended and (c) the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition) or as amended.

[3A]As per ECA 8660-9N8NCX Section 7.2 the following definitions apply (a) monthly means once every month; (b) quarterly means once every three months.

[3B]As per ECA 8660-9N8NCX Section 7, the influent monitoring sampling point is the inlet to packaged sewage treatment plant; the effluent monitoring sampling point is the effluent discharged to subsurface disposal system; and groundwater samples shall be collected of the groundwater in the monitoring wells on a quarterly basis and analyzed for nitrates.

[3C]As per ECA 8660-9N8NCX Section 7.6, the Owner shall monitor and record the groundwater level in piezometer No. 1 on a monthly basis. As a proactive approach, the Operating Authority records the groundwater level at all monitoring wells on a monthly basis (Piezometer 1, 2 and 3).

3.1.2 Effluent Quality Compliance Objectives

Section 5(1) of ECA 8660-9N8NCX requires the Owner to use best efforts to design, construct and operate the Works within the objective that the concentrations of the materials listed in Table 3 - Effluent Objectives of the ECA, as such that the effluent parameters are not exceeded in the effluent being discharged to the subsurface disposal system. The following table outlines the effluent water quality compliance objectives at the New Horizons WWTP as per Table 3 of Section 5(1) of the ECA.

Table 4: Final Effluent Concentration Objectives - as per Table 3 of ECA 8860-9N8NCX Section 5(1).

Parameter	Units	Compliance Objective
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)	mg/L	10.0
Total Suspended Solids (TSS)	mg/L	10.0
Total Nitrogen (TKN + Nitrite + Nitrate)[4A]	mg/L	5.0
E.Coli	CFU/100 mL	N/A[4B]

[4A]Total Nitrogen is defined as (TKN + Nitrite + Nitrate), where TKN is Total Kjeldahl Nitrogen

[4B]ECA 8860-9N8NCX Section 5(1) does not list any compliance objectives for E.Coli. However, E.Coli must be sampled on a monthly basis as part of the sampling program.

3.2 Comparison of Effluent Quality Data to the Compliance Objectives

The following table summarizes the monthly effluent quality data for the reporting period compared with the ECA compliance objectives. The most current ECA for the New Horizon WWTP does not contain final effluent compliance limits, only objectives; as such any exceedances to the concentration objectives are not reportable as a non-compliances. See *Appendix A – Annual Flow and Effluent Quality Report* for a facility performance assessment report containing monthly and annual final effluent quality data.

3.2.1 Final Effluent

Table 5: Final Effluent Results Compared to the Concentration Objectives Listed in Table 3 of ECA 8860-9N8NCX Section 5(1).

Month	Monthly Final Effluent Concentration Compared to Compliance Objectives							
	$CBOD_5$ (mg/L)	**Within Objective?** (10 mg/L)	**TSS** (mg/L)	**Within Objective?** (10 mg/L)	**Total Nitrogen** (mg/L)	**Within Objective?** (5 mg/L)	***E.Coli*** (CFU/100 mL)	**Within Objective?**
January	<2.0	Yes	14.0	No	15.12	No	286.0	N/A
February	6.0	Yes	13.0	No	16.09	No	53.0	N/A
March	8.0	Yes	12.0	No	15.83	No	96.0	N/A
April	<4.5	Yes	12.0	No	17.98	No	187.08	N/A
May	<2.0	Yes	10.0	Yes	13.95	No	162.0	N/A
June	3.0	Yes	21.0	No	18.49	No	102.0	N/A
July	2.0	Yes	10.0	No	18.10	No	80.0	N/A
August	6.0	Yes	29.0	No	20.70	No	780.0	N/A
September	5.0	Yes	9.0	Yes	2.71	Yes	2.0	N/A
October	<2.0	Yes	25.0	No	4.43	Yes	208.0	N/A
November	<2.0	Yes	2.0	Yes	11.65	No	86.0	N/A
December	<2.0	Yes	14.0	No	12.02	No	102.0	N/A
2024 Average	**3.77**	**-**	**14.0**	**-**	**14.23**	**-**	**343.92**	**-**

Treated final effluent from the WWTP operated within the compliance objectives for $CBOD_5$ for the duration of the reporting period. The annual average $CBOD_5$ was 3.77 mg/L. In March, a maximum of 8.0 mg/L was recorded.

For the majority of the reporting period, the WWTP produced effluent that was outside of the compliance objectives for Total Suspended Solids (TSS). The monthly average TSS for the year was 14.0 mg/L, with a maximum of 29.0 mg/L in August, which is one of the nine objective exceedances during this reporting year (January, February, March, April, June, July, August, October and December). For further details see *Section 4. Operational Issues and Corrective Actions.*

Total Nitrogen (TKN + Nitrite + Nitrate) averaged 14.23 mg/L in 2024, peaking at 20.70 mg/L in August. The objective of 5 mg/L was exceeded every month of the reporting period, except for September and October. For details, see *Section 4. Operational Issues and Corrective Actions*.

E.Coli concentrations in final effluent is monitored on a monthly basis via a grab sample. There are no compliance limits or objectives listed in the most current ECA for *E.Coli*. For the 2024 reporting year, the average annual result for *E.Coli* was 178.67 CFU/100 mL with the lowest CFU/100 mL recorded in September at a density of 2.0 CFU/100 mL and the highest result recorded in August at a density of 780 cfu/100 mL. For further details see *Section 4. Operational Issues and Corrective Actions.*

3.3 Interpretation and Summary of Other Monitoring Data

The following parameters do not have limits or objectives but are monitored on a regular basis (see Section 3.1.1 Sampling Locations, Parameters, Frequency and Method(s) for sampling frequency) as required by the most current ECA.

3.3.1 Influent Monitoring

An annual summary of influent monitoring data can be found in the table below. Influent (raw sewage) sampling is completed on a quarterly basis and sent to an external laboratory for analysis.

Table 6. Raw Sewage Monitoring Parameters as required by ECA 8860-9N8NCX Section 7(1)(Table 1) for New Horizon Wastewater Treatment Plant, 2024 [6A]

Parameter	Minimum	Maximum	Average
BOD_5 (mg/L)	51.00	215.00	107.75
Total Suspended Solids (mg/L)	76.00	188.00	113.25
Total Kjeldahl Nitrogen (mg/L)	14.80	36.00	22.43

[6A] *Refer to Appendix A- Annual Flow and Effluent Quality Summary*

When comparing raw sewage concentrations in 2024 to 2023 it was observed that:

- BOD_5 – the average concentration for 2023 (201.50 mg/L) is significantly higher than 2024 (107.75 mg/L). The 2023 maximum concentration (599.00 mg/L) was significantly higher than the 2024 maximum (215.00 mg/L).
- TSS – The average 2023 concentration (133.50 mg/L) was higher than the 2024 average (113.25 mg/L). The 2023 maximum concentration (329.0 mg/L) was significantly higher than the 2024 maximum (188.0 mg/L).
- TKN – The average 2023 concentration (33.35 mg/L) was higher than the average 2024 concentration (22.42 mg/L). The 2023 maximum concentration of 79.70 mg/L was significantly higher when compared to the 2024 maximum of 36.00 mg/L.

3.3.2 Groundwater Monitoring for Nitrates

The following table summarizes the groundwater quarterly sampling data for nitrates at all the monitoring wells for the reporting period.

Table 7: Nitrate Groundwater Monitoring data at the Monitoring Wells (MW #1, MW #2, MW #3 and MW #4) as per Table 3 of ECA 8860-9N8NCX Section 7(4)

Calculated Reasonable Use Nitrate Standard= 2.61 mg/L[7A]				
Sample Date	**MW #1 Nitrate (mg/L)**	**MW #2 Nitrate (mg/L)**	**MW #3 Nitrate (mg/L)**	**MW #4 Nitrate (mg/L)**
2024-01-24	7.16	12.90	13.70	3.65
2024-04-09	0.51	8.79	14.00	3.22
2024-07-09	0.29	14.70	14.50	1.55
2024-11-19	0.28	12.00	14.90	2.03

[7A]*The Reasonable Use Standard at the property boundary for Nitrate is 2.61 mg/L, which is based on the R.J. Burnside & Associates Limited letter dated August 20, 2012 to Brad Allen of the MECP Barrie District Office.*

In 2012, R.J. Burnside & Associate Limited (Burnside) was retained by the Township of Adjala-Tosorontio, to conduct a water quality monitoring program at the New Horizon WWTP. MW1 is located on the south side of the sewage plant and is intend as a background well. Previous studies of the site indicate that groundwater flows to the northwest, therefore MW 2, 3 and 4 were located north and west of the septic beds adjacent to the property boundary, in order to provide information on down gradient water quality and compliance with the Reasonable Use Policy. See *Appendix B* for a detailed map of the property boundaries.

The Reasonable Use Concept (RUC) is outlined by the MECP, based on discharge of final effluent and the level of a contaminate originating at the disposal site, and its impingement on adjacent properties. In this case, the contaminant is nitrate.

In a letter dated May 10, 2012 to Brad Allen of the Barrie MECP local office by Burnside, who completed the drilling and installation of the four monitoring wells, Reasonable Use Standard was calculated to be 2.61 mg/L of nitrate as the maximum acceptable concentration on adjacent property following the Ministry's Provincial Guidelines for nitrate concentrations under the Ontario Drinking Water Quality Standards (ODWQS).

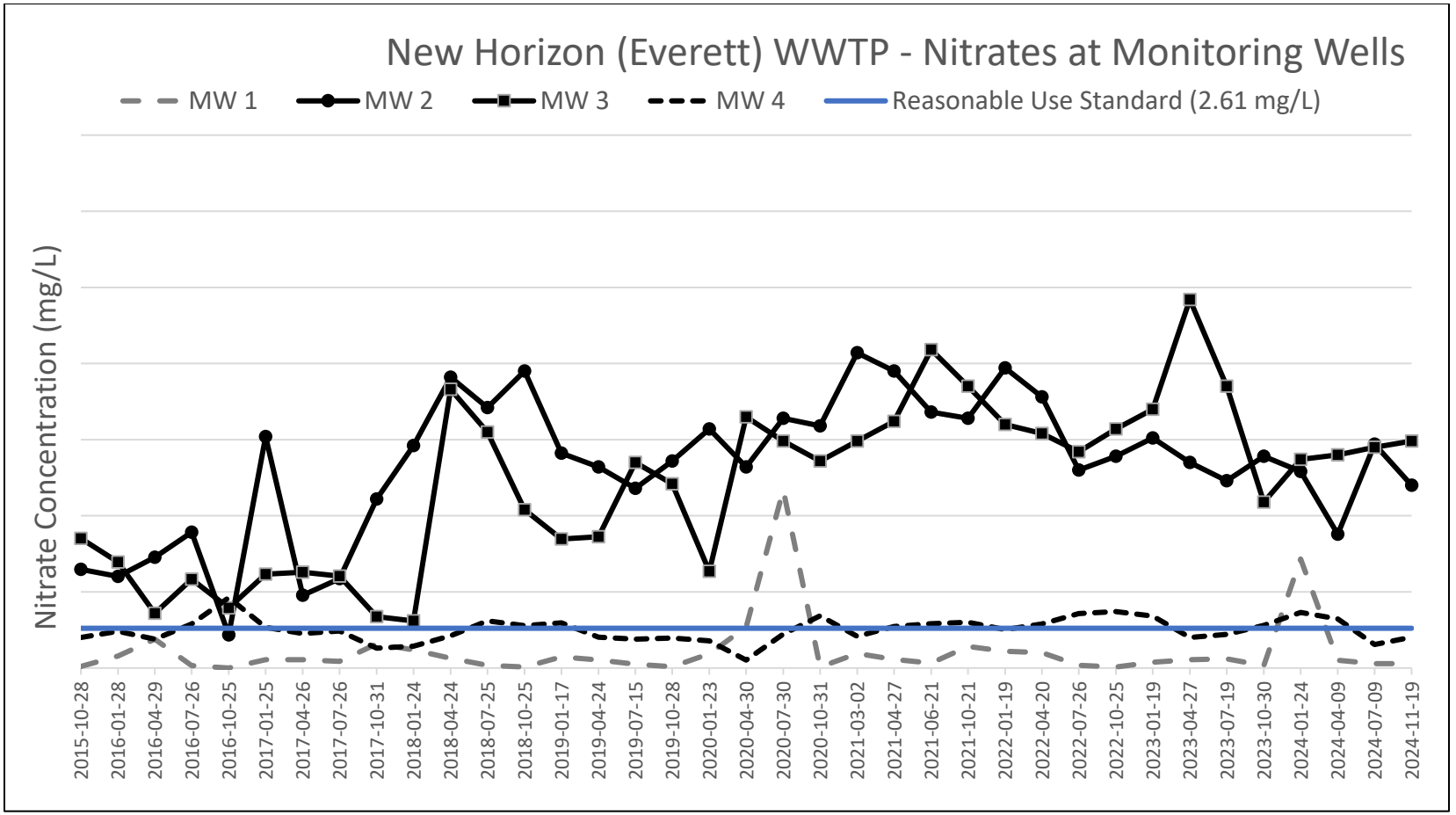
Based on the above information the following observations from 2024 in comparison to previous years include:

- MW #1 – located South of the tile bed, continues to have nitrate levels below the standard, with the exception of January 2024.

- MW #2 and MW #3 – located North of the tile field, the results have consistently exceeded the standard. A maximum reading of 14.90 mg/L was observed in MW #3 in November 2024.
- MW #4 – nitrate concentration has fluctuated just above or just below the standard, with 2024 producing two results above the standard and two results below the standard.
- Ground water appears to be traveling in a northerly direction.

The following graph provides a representation of the nitrate levels at the monitoring wells between October 2015 and November 2024.

Graph 2: 2024 Groundwater Nitrate Concentrations Data at the Monitoring Wells (MW #1, MW #2, MW #3, and MW #4) compared to the Calculated Reasonable Use Standard



3.3.3 Impacts on Groundwater at the Property Boundary

Nitrate is a naturally occurring form of nitrogen in groundwater. Surface runoff, agricultural fertilizing activities, wastewater treatment facilities that discharge to tile beds, etc., leech into the groundwater contain nitrates. Although necessary for plants life, high nitrates in drinking water can cause adverse health effects in humans.

Initial water level measurements taken at the monitoring wells confirmed that shallow groundwater flow at the site is northwest, and that nitrate discharged from the tile bed is moving with the groundwater towards the property boundary, impinging upon adjacent properties and causing the groundwater at the property boundary to have a higher nitrate level.

In terms of drinking water quality, the Everett Drinking Water system follows the Ontario guidelines for the Ontario Drinking Water Quality Standards (ODWQS). As per O.Reg 170/03, Everett DWS nitrates are sampled quarterly. Treated water at Grohal and Ballpark Pumphouse continues to show nitrates below the minimum detection limit (0.006 mg/L). While the wastewater treatment plant effluent has elevated nitrate levels, causing increased levels in shallow groundwater at the site and adjacent properties, the nitrates are not leeching into the groundwater supply system/confined aquifers supplying potable water for the Everett DWS users.

In January, 2024 the Ministry of the Environment, Conservation and Parks (MECP) conducted an inspection on the New Horizons WWTP. Through that inspection, the Owner was required to complete a domestic well survey in the vicinity of the WWTP. The purpose of the well survey was to identify the number/location, type(s) and use(s) of private groundwater supply wells within the 250 m semicircle radius to the north of the WWTP and identify those wells that may be vulnerable to contamination based on construction or aquifer conditions. The Township of Adjala-Tosorontio retained R.J Burnside & Associates Limited to complete the survey and report.

Based on the data collected by R.J. Burnside the report concluded that a shallow sand aquifer exists in the study area, however there are not many wells comprised or in use within this aquifer. Where wells do exist, they are for non-potable purposes only. Vulnerability in the setting was determined to be low if the current uses of the private well continued. The report and findings was provided to the MECP on May 27, 2024 and no further actions were advised.

3.3.4 Groundwater Level Monitoring at Piezometer Number 1, 2 & 3

As per ECA 8860-9N8NCX Section 7(6), the Owner shall monitor and record the ground water level in Piezometer number 1 on a monthly basis. As a best practice, OCWA continues to monitor and record the ground water levels at all four of the monitoring well. For details, refer to *Appendix C – Groundwater Level Monitoring*.

Table 8. Groundwater Level Monitoring at Piezometer Number 1, 2 and 3 for 2024*

Parameters	Minimum Elevation (m)	Maximum Elevation (m)	Average Elevation (m)
Piezometer 1	3.00	3.80	3.32
Piezometer 2	3.40	4.00	3.81
Piezometer 3	4.00	4.60	4.34

**Groundwater level is measured from the top of casing*

A comparison of groundwater level monitoring data from 2023 to 2024 shows the following:

Piezometer 1 – The average level in 2024 (3.32 m) was higher than in 2023 (2.02 m). The 2024 maximum (3.80 m) was higher than the 2023 maximum (1.80 m). The 2024 minimum (3.0 m) was higher than the 2023 minimum (2.20 m).

- Piezometer 2 – The average level in 2024 (3.81 m) was higher than in 2023 (3.53 m). The 2024 maximum (4.00 m) is lower than the 2023 maximum (4.10 m). The 2024 minimum (3.40 m) is higher than the 2023 minimum (3.10 m).

- Piezometer 3 – The average level in 2024 (4.34 m) was higher than in 2023 (3.55 m). The 2024 maximum (4.60 m) was higher than the 2023 maximum (4.50 m). The 2024 minimum (4.00 m) was higher than the 2023 minimum (3.10 m).

3.4 Success and Adequacy of the Works

During the 2024 reporting year, the sewage works operated below the rated capacity of the sewage works (175 m^3) based on the definition of 'Rated Capacity' as per the ECA. Overall, the system did struggle to meet some of the effluent quality objectives as described in section 2.1 to 3.2.

During the report period, the New Horizon WWTP average daily flow was 151.95 m^3/day or 86.83% of the Rated Capacity (175 m^3). The highest recorded peak flow occurred on December 8, 2024 and was 198.00 m^3/day, which is 113.14% of the Rated Capacity. Peak flows in December and throughout the reporting period were attributed to using effluent water after the flow meter to backwash the filter media.

For the duration of the reporting year, $CBOD_5$ remained in compliance with the final effluent objective. TAN and TSS concentrations were frequently above the objective limit in 2024, with the exception of May, September and November for TSS and in September and October for TAN. Operational issues that lead to the TSS exceedances of the objective are described below in Section 4.

Based on the above evidence, the current sewage treatment program is deemed adequate for some of the sampling parameters; however, the plant is not adequately designed to treat Total Nitrogen, as it does not allow for effective denitrification. OCWA will continue to monitor compliance objectives, provide notifications to the MECP, and adjust treatment processes as

necessary to meet $CBOD_5$ and TSS effluent objectives, and continue to seek out practical solutions to meet Total Nitrogen objectives during each reporting period.

4. Operational Issues and Corrective Actions

Where ECA 8860-9N8NCX, section 8.4, element (b) requires:
"A description of any operating problems encountered and corrective actions taken;"

Throughout the reporting period, New Horizon WWTP experienced several notable operating issue as outlined below:

1) Missed Quarterly Influent Monitoring Samples – Fourth Quarter, 2024. The ECA requires influent monitoring samples every 3 months, in October 2024 a quarterly sample was missed. OCWA collected the missed sample November 19, 2024. Verbal notification was provided to the MECP on November 19, 2024, and written notification on November 21, 2024.

2) Total Suspended Solids (TSS) objective exceedance were recorded in every month with the exception of May, September and November 2024. TSS exceedances throughout the reporting period were attributed to poor filter performance. Several operational changes were implemented in order to bring TSS sampling results down including increasing the SternPAC dosage and sugar pump frequency, replacing the media filter on XX, 2024 and using effluent water after the flow meter to backwash the filter media.

3) Total Nitrogen exceedances for every month of the reporting period, with the exception of September and October 2024. Since 2015, nitrate concentration north of the infiltration field has been out of compliance with the objective limits. Due to the system design, the ability to process the raw sewage to meet the regulatory objectives is limited. In an effort to meet the nitrate objective, OCWA has made many operational adjustments since 2015 including: Sodium Bisulphite dosing trials, sugar (carbon) dosing and adjusting the dosing as needed on a monthly basis. The largest limiting factor at this facility is the inability to provide effective denitrification.

5. Effluent Objective Results and Efforts

Where, ECA 8860-9N8NCX, section 8.4, element (f) requires:
"A description of efforts made and results achieved in meeting the Effluent Objectives of Condition 6;"

Where: Condition 6 is "imposed to establish non-enforceable effluent quality objectives which the Owner is obligated to use best efforts to strive towards on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs and before the compliance limits of Condition 7 are exceed."

As described above, despite best efforts, objective exceedances for Total Suspended Solids and Total Nitrogen were recorded for almost every month of the reporting period. Although not considered non-compliance issues, OCWA did report each exceedance to the MECP Barrie District Office for their respective months. OCWA made their best effort in achieving the effluent objectives as outlined in the ECA with the help of continuous monitoring equipment, plant checks and detailed notes, process adjustments, in-house sampling and laboratory testing, third-party laboratory regulatory testing, maintenance and repairs as required, and a 24/7 alarm monitoring with out-of-hours call-ins when necessary.

Other corrective actions include weekly in-house laboratory sampling and testing of final effluent parameters for monitoring purposes and hauling sludge on a monthly basis.

In previous years, OCWA has employed a suite of corrective actions to bring the wastewater plant into line with the compliance objectives including:

- In 2017, OCWA's Process Optimization and Technical Services (POTS) completed a thorough study of the New Horizon WWTP and produced a comprehensive report with several process improvement recommendations which were implemented starting in 2018 through to 2020 and included:
    - Installation of a variable frequency drive on the aerobic RBC motor drive to have ability to lower the rotational speed in order to reduce dissolved oxygen levels after aerobic RBC;
    - Introduce an oxygen scavenger to reduce the amount of dissolved oxygen entering the anoxic RBC to improve the denitrification process;
    - Dose a carbon source prior to anoxic RBC after the dissolved oxygen levels are reduced due to the oxygen scavenger chemical addition;
    - Purchase a dissolved oxygen meter and probe for operational checks, process optimizations, and troubleshooting;
    - Modification of the final clarifier inlet pipework and installation of baffles to minimize short-circuiting and optimize solids settling;
    - Confirmation of the over-growth of filamentous bacteria based on microscope tests and perform a shock chlorination treatment in order to improve solids settling;
    - Utilize a portion of the final effluent equalization tank as a final polishing settling tank; and;
    - Modify sludge pumps to remove sludge more effectively and efficiently.

The short-term and long-term recommendations in the study were discussed with the Township of Adjala-Tosorontio Public Works Department and Council at the time and funding was approved to proceed with the above mentioned projects.
In addition, on July 14, 2018 Environmental Compliance Approval Number 5451-AXXPYX was issued to the Township of Adjala-Tosorontio for a new Everett Wastewater Treatment Plant for

the establishment, usage and operation of new private sewage works, for the treatment of sanitary and disposal of effluent to Pine Rive via a Sewage Treatment Plant. Enclosed within the new ECA are more stringent final effluent Design Concentration Objectives and Compliance Limits, along with an increased influent and final effluent sampling monitoring program. The ECA was renewed in 2023 and the Township is currently actively engaged in working with the Developer in North Everett to begin construction of the works.

In the meantime, OCWA and the Township of Adjala-Tosorontio will continue to work together to improve the process to the best of their abilities. It is the goal of both parties to continue to use best efforts to operate and maintain the sewage works such that the concentration objectives in the ECA are met while awaiting the development of the new Everett Wastewater Treatment Plant.

6. System Maintenance

6.1 Work Management System

Planned maintenance, including scheduled and non-scheduled maintenance activities are scheduled using a computerized Work Management System (WMS) that allows user to:

- Enter detailed asset information
- Generate and process work orders
- Access maintenance and inspection procedures
- Plan, schedule, and document all asset related tasks and activities
- Access maintenance records and asset histories

Work Orders are automatically generated by the WMS program and are assigned to the applicable Operations staff accordingly.

Please refer to *Appendix D* for a complete summary of work orders completed during the reporting period.

6.2 Preventative Maintenance

There were a number of preventative maintenance tasks completed throughout the reporting period. They are as follows:

- Monthly panel alarm and generator testing
- Monthly sand filter inspections
- Annual tile bed inspections
- Annual valve backflow device inspections
- Annual calibrations (flow meters, gas detectors, pH meters, D.O. probes etc.)
- Annual sewer system flushing

6.3 Summary of Major Maintenance

Where, ECA 8860-9N8NCX, section 8.4, element (c) requires:
"A summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming a part of the works;"

During the reporting period, maintenance on major parts of the WWTP include:

- Pump rebuilds and float replacements
- Clarifier Decant Pump Repair
- Sand filter media replacement
- Sand filter repairs

7. Effluent Quality Assurance

ECA 8860-9N8NCX, section 8.4, element (d) requires:
"A summary of any effluent quality assurance or control measures undertaken in the reporting period;"

Quality assurance and control measures undertaken during the reporting period include adherence to provincial regulations, use of accredited laboratories, operation of the system by Licensed operators, scheduled sampling and analysis, in-house laboratory analysis and calibration of equipment. The sections below provide further details of these measures.

7.1 Adherence to Provincial Regulations

The Ontario Clean Water Agency operates the WWTP in accordance with provincial regulations and the Environmental Compliance Approval.

7.2 Use of Accredited Laboratories

During the reporting period, all chemical sample analyses were conducted by SGS (Lakefield) Canada Inc.; a laboratory audited by the Canadian Association for Laboratory Accreditation Inc. (CALA) and accredited by the Standards Council of Canada (SCC). Accreditation ensures that the laboratory has acceptable laboratory protocols and test methods in place. It also requires the laboratory to provide evidence and assurances of the proficiency of the analysts performing the test methods.

7.3 Operation by Licensed Operators

The WWTP was operated and maintained by Licensed operators. The mandatory licensing program for operators of sewage treatment facilities in Ontario is regulated under the Ontario Water Resources Act (OWRA) Regulation 435/93 and Ontario Regulation 129/04. A Licensed individual has successfully passed the licensing exam and meets the education and experience requirements set out in the regulation.

7.4 Sampling and Analysis

The Ontario Clean Water Agency followed a sampling and analysis schedule that meets the requirements of the ECA.

7.5 In-house Analysis

To support process performance monitoring, adjustment, and optimization, in-house samples were collected and analyzed at the WWTP. In-house analysis was conducted by Licensed operators using Standard Methods. The data generated from these tests was used to determine the treatment efficiency while maintaining process control. All in-house monitoring equipment was calibrated based on the manufacturer's recommendations. The Operators of the facility continue to use their expertise to make best efforts to meet the ECA Effluent Objectives.

7.6 Calibrations

Third-party and in-house calibrations were completed on various equipment and monitoring and analysis items as required based on manufacturer's recommendations. Refer to Section 8 for more information regarding calibration of monitoring equipment.

8. Calibration of Monitoring Equipment

Where ECA 8860-9N8NCX, section 8.4, element (e) requires:
"A summary of the calibration and maintenance carried out on all effluent monitoring equipment;"

The flow meter used to measure the final effluent at New Horizon WWTP were calibrated on June 19, 2024 by Indus Control Inc. All program parameters received a passing inspection. Refer to *Appendix E* for a copy of the calibration record.

9. Sludge Production and Disposal

Where ECA 8860-9N8NCX, section 8.4, element (g) requires:
"A tabulation of the volume of sludge generated in the reporting period, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed;"

During the reporting period, a total volume of 380.56 m^3 of sludge produced was hauled by Region of Huronia Environmental Services Ltd. (ROHES). The sludge was delivered to the ROHES lagoons for storage, for later spreading in accordance with Regulation 267/03 under Nutrient Management Act. Refer to Table 9 for a tabulation of the hauled sludge and the locations of where the sludge was disposed.

Table 9: New Horizon WWTP Sludge Haulage Dates, Location and Volume Hauled for 2024

Date of Haulage	Hauled to Location	Volume Hauled (m^3)
March 12, 2024	Rohes 4 Lagoon	36.36
April 9, 2024	Rohes 4 Lagoon	36.36
June 27, 2024	Rohes 4 Lagoon	36.36
July 9, 2024	Rohes 9 Lagoon	36.36
July 23, 2024	Rohes 4 Lagoon	36.36
August 13, 2024	Rohes 4 Lagoon	36.36
October 29, 2024	Rohes 5 Lagoon	84.00
November 12, 2024	Rohes 5 Lagoon	78.40
	Total To Rohes 4 Lagoon:	**181.80**
	Total To Rohes 5 Lagoon:	**162.40**
	Total To Rohes 9 Lagoon:	**36.36**
	Total for 2024:	**380.56**

The total volume of biosolids hauled during 2024 was 380.56 m^3 a decrease of 197.40 m^3 from 2023 (577.96 m^3). Typically, New Horizons WWTP hauls the same amount of sludge on a monthly basis (37 m^3/month). Occasionally, there are instances where one month a double load of sludge is required due to increased buildup or when maintenance on the system is needed, such as pump or filter maintenance. As such, anticipated volume of sludge removed for the next reporting period is between 400 to 600 m^3 for the year.

10. Summary of Community Complaints Received

Where, ECA 8860-9N8NCX, section 8.4, element (h) requires:
"A summary of any complaints received during the reporting period and any steps taken to address the complaints;"

For the reporting period, no community complaints were reported to the Owner or Operating Authority for the WWTP.

11. By-pass, Spill or Abnormal Discharge Events

Where, ECA 8860-9N8NCX, section 8.4, element (i) requires:
"A summary of all By-pass, spill or abnormal discharge event;"

According to the ECA, an Event is defined as "*an action or occurrence, at a given location within the Sewage Treatment Plant that causes a Plant By-pass or Plant Overflow. An event ends when there is no occurrence of a bypass or Overflow in the 12-hour period following the last bypass or Overflow. Two events are separated by at least 12 hours during which there has been no reoccurrence of a Bypass or Overflow*".

The ECA requires the submission of an Event Report of any Bypass and Plant Overflow Event(s) to the Ministry's local office on a quarterly basis, no later than each of the following dates for

each calendar year: February 14, May 15, August 14, and November 15. The reports were prepared and submitted as per the ECA by the required deadlines for the reporting period.

11.1 By-pass and Overflow Events

According to the facility's current ECA a by-pass is defined as "diversion of sewage around one or more unit processes with the Sewage Treatment Plant with the sewage flows being returned to the Sewage Treatment Plant treatment train upstream of the Final Effluent sampling location, and discharging to the environment through the Sewage Treatment Plant outfall". A Plant Overflow is defined as a "discharge to the environment from the Sewage Treatment Plant at a location other than the plant outfall or into the plant outfall downstream of the Final Effluent sampling location."

There were three (3) reportable by-pass events for the reporting period

1) April 11, 2024 – SAC Incident #1-5NDCX9. On April 11, 2024 from 0821 to 1308 hrs, for approximately 4 hours and 47 minutes, an unplanned emergency by-pass occurred at the WWTP. Approximately 46 m^3 of final effluent, which received secondary treatment, by-passed the sand filters. The by-pass was caused by maintenance activities during sand filter media replacement that required the sand filters to be by-passed during replacement. The sand filters were removed and replaced and the system was placed back online. Verbal and written notifications were made to SAC, MoH- SMDHU, and local MECP area office on April 11, 2024. Final effluent samples were taken and no further actions were required.
2) August 12 to August 13, 2024 – SAC Incident #1-9U1MM0. From August 12 at 1230 hrs to August 13, 2024 at 0830 hrs, for approximately 8 hours and 3 minutes (intermittent), an unplanned emergency by-pass occurred at the WWTP. Approximately 50 m^3 of final effluent, which received secondary treatment, by-passed the sand filters. The by-pass was caused by the sand filter start float, which failed to activate the sand filter pumps. The Operating Authority stopped the by-pass by organizing sludge haulage and then inspected and cleaned the failed equipment. OCWA verified that the equipment was operating as require following equipment cleaning and maintenance. Verbal and written notifications were made to SAC, MoH- SMDHU, and local MECP area office on August 13, 2024. Final effluent samples were taken and no further actions were required.
3) August 15 to August 22, 2024 – SAC Incident #1-9WPQ57. From August 15 at 1050 hrs to August 22, 2024 at 1354 hrs (7 days, 3 hours and 39 minute duration), an unplanned emergency by-pass occurred at the WWTP. Approximately 1,262.72 m^3 of final effluent, which received all treatment, by-passed the sand filters. On August 15 operations staff were on site for routine maintenance, during a plant walk through it was observed that the sand filters were starting to by-pass. Upon further review it was discovered that one of the two filter backwash pumps were in need of repair/replacement. On August 15, 2024, in an effort to stop further by-passing the backwash source water was changed from effluent to potable water. The faulty backwash pump was disconnected and sent for repair/replacement, the backwash frequency and length was increased, and the filter pump floats were adjusted.

Repairs were made to the backwash pump on August 22, 2024. The pump was reinstalled effectively ending the by-pass. Verbal notification provided to SAC, MoH-SMDHU, and MECP on August 15, 2024. Follow-up verbal notifications were made on August 22, 2024 at the conclusion of the by-pass incident. Written notification was provided on August 26, 2024. Final effluent samples were taken and no further actions were required.

See *Appendix G* for a copy of the Environmental incident Reports from all three events.

11.2 Spill Events

There were no reportable spill events that occurred during the reporting period.

11.3 Abnormal Discharge Events

There were no reportable abnormal discharge events that occurred during the reporting period.

12. Notice of Modification (Limited Operational Flexibility)

Where, ECA 8860-9N8NCX, section 8.4, element (j) requires:

"A copy of all Notice of Modifications submitted to the Water Supervisor as a result of Schedule B, Section 1, with a status report on the implementation of each modification;", Where: *Schedule B, Section 1 is the "Limited Operational Flexibility Criteria for Modifications to Municipal Sewage Works."*

There were no new notices of modification submitted to the Water Supervisor during the reporting period.

A previously submitted Notice of Modification (LOF) issued in 2015 for the use of SternPAC (instead of alum) as an aid to flocculation is still in effect. A copy of the submission form can be found in *Appendix F*.

13. Modification Summary

ECA 8860-9N8NCX, section 8.4, element (k) requires:

"A report summarizing all modifications completed as a result of Schedule B, Section 3;"

As per Schedule B, Section 4, *modifications that are not required to follow the notification protocols under Limited Operational Flexibility, provided that the number of pieces and description of the equipment as described in the Approval does not change are listed in Schedule B, Section 3. Section 3 considers these to be "normal or emergency operational modifications, such as repairs, reconstructions, or other improvements that are part of maintenance activities,*

including cleaning, renovations to existing approved sewage works equipment, provided that the modification is made with Equivalent Equipment, are considered preapproved".

The following is a summary of the major capital and/or repair work completed at the facility; details can be found in *Appendix D*.

- Pump rebuilds and float replacements
- Sludge haulage, as needed, usually monthly or more
- Clarifier decant pump repair
- Sand filter repairs
- Sand filter media replacement

14. Other Information

Where, ECA 8860-9N8NCX, section 8.4, element (l) requires:

"Any other information the Water Supervisor requires from time to time."

During the reporting period following a MECP inspection of the New Horizons WWTP, the MECP/Water Supervisor required the Owner to complete a domestic well survey in the vicinity of the WWTP and supply the report to the local district office by May 30, 2024. R.J. Burnside & Associates Limited was retained by the Township of Adjala-Tosorontio to complete the survey and associated report. Further details regarding the survey and conclusions can be found in section 3.3.3 *Impacts on Groundwater at the Property Boundary*

15. Municipal Sewage Collection System- Annual Performance Report

This report was prepared in accordance with the requirements of the Environmental Compliance Approval for a Municipal Sewage Collection Systems, Schedule E, Section 4.6.1.

Municipal Sewage Collection System ECA #	097-W601, Issue 1
Sewage Works	Township of Adjala-Tosorontio Municipal Sewage Collection System
Collection System Owner	The Corporation of the Township of Adjala-Tosorontio
Reporting Period	January 1, 2024 to December 31, 2024

Is the Annual Report available to the public at no charge on a website on the Internet?

Yes

Note: As per Schedule E, Section 4.7.1 of CLI-ECA #097-W601, the annual performance report must be made available, on request and without charge, to members of the public who are served by the Authorized

System; and 4.7.2 must be made available, by June 1st of the same reporting year, to members of the public without charge by publishing the report on the Internet, if the Owner maintains a website on the Internet.

Location where Annual Performance Report required under CLI-ECA #097-W601, Schedule E will be available for inspection. *(CLI-ECA #097-W601, Schedule E, Section 4.6.1 & 4.7.1):*

- Township of Adjala-Tosorontio Municipal Office, 7855 Side Road 30, Alliston, ON
- https://www.adjtos.ca/en/living-in-our-community/water-and-sewer.aspx

Pursuant to Schedule E, sections 4.6.3 to 4.6.9, this Annual Performance Report shall:

a) If applicable, includes a summary of all required monitoring data along with an interpretation of the data and any conclusion drawn from the data evaluation about the need for future modifications to the Authorized System or system operations.

b) If applicable, include a summary of any operating problems encountered and corrective actions taken.

c) Includes a summary of all calibration, maintenance, and repairs carried out on any major structure, Equipment, apparatus, mechanism, or thing forming part of the Municipal Sewage Collection System.

d) Include a summary of any complaints related to the Sewage Works received during the reporting period and any steps taken to address the complaints.

e) Include a summary of all Alterations to the Authorized System within the reporting period that are authorized by this Approval including a list of Alterations that pose a Significant Drinking Water Threat.

f) Include a summary of all Collection System Overflow(s) and Spill(s) of Sewage.
   i. Dates;
   ii. Volumes and durations;
   iii. If applicable, loadings for total suspended solids, BOD, total phosphorus, and total kjeldahl nitrogen and sampling results for E.Coli;
   iv. Disinfection, if any; and
   v. Any adverse impacts(s) and any corrective actions, if applicable

g) Includes a summary of efforts made to reduce Collection System Overflows, Spills, STP Overflows, and/or STP Bypasses, including the following items, as applicable:
   i. A description of projects undertaken and completed in the Authorized System that result in overall overflow reduction or elimination including expenditures and proposed projects to eliminate overflows with estimated budget forecast for the year following that for which the report is submitted.

ii. Details of the establishment and maintenance of a PPCP, including a summary of project progresses compared to the PPCP's timelines.
iii. An assessment of the effectiveness of each action taken.
iv. An assessment of the ability to meet Procedure F-5-1 or Procedure F-5-5 objectives (as applicable) and if able to meet the objectives, an overview of next steps and estimated timelines to meet the objectives.
v. Public reporting approach including proactive efforts.

15.1 Description of the Works

The Township of Adjala-Tosorontio Municipal Sewage Collection System is owned by the Township of Adjala-Tosorontio and operated by the Ontario Clean Water Agency (OCWA) and consists of The New Horizon Sanitary Collection System. The works are designed for the collection and transmission of sewage, through separate gravity mains, two sewage pumping stations that discharge into the New Horizon Wastewater Treatment Plant. The sewage pumping stations in the Authorized system include:

- New Horizon Pump Station 1 (PS1) – located at 34 Lynch Lane, in the Community of Everett, ON, the PS consists of one deep sealed concrete manhole which is fed by sanitary sewers by gravity, two submersible grinder pumps, floats, level regulators, air relief valves and backflow preventers. The station is connected to a 75 mm diameter forcemain that directs raw domestic sewage directly to the pretreatment tank at New Horizon WWTP. Emergency power is provided by the back-up diesel generator at the WWTP plant in case of power failure.

- New Horizon Pump Station 2 (PS2) - located at 27 Dekker, in the Community of Everett, ON, the PS consists of one deep sealed concrete manhole which is fed by sanitary sewers by gravity, two submersible grinder pumps, floats, level regulators, air relief valves and backflow preventers. The station is connected to a 50 mm diameter forcemain that directs raw domestic sewage directly to the pretreatment tank at New Horizon WWTP. Emergency power is provided by the back-up diesel generator at the WWTP plant in case of power failure.

The Township of Adjala-Tosorontio Municipal Collection System contains no combined sewage pumping stations, no combined sewage storage structures or combined storage tanks. The authorized collection system also contains no authorized combined sewer collection system overflow points and no authorized sanitary sewer overflow points.

15.2 Summary of Monitoring Data and Interpretation

No monitoring data was required within the municipal sewage collection system for the reporting period.

15.3 Summary of Operating Problems Encountered and Corrective Actions Taken

There were no operating problems encountered within the system for the reporting period.

15.4 Summary of Calibration, Maintenance, and Repairs

All in-house monitoring equipment is calibrated/verified as per manufacturer's recommendations. Preventative maintenance is scheduled for all equipment at the sewage treatment plant and pumping stations at regular frequency (frequency depends on the equipment and type of maintenance). Maintenance activities are scheduled within the work management system Maximo, upon completion operators set the work order to complete. On a monthly basis, preventative work orders are reviewed for completion.

The following maintenance and repair activities were completed during the reporting period:

- Collection system flushing
- Pump station cleanouts
- Pump station #2 replaced pipework and valves

15.5 Community Complaints Received in Relation to the Sewage Works

There were no community complaints regarding the municipal collection system received during the reporting period.

15.6 Alterations to the Authorized System

There were no alternations made during the reporting period to the authorized system.

15.7 Summary of Collection System Overflow(s) and Spill(s) of Sewage

There were no collection system overflow/spills of sewage for the municipal collection system during the reporting period.

15.8 Efforts Made to Reduce Collection System Overflows, Spills, STP Overflows, and/or STP Bypasses

The sewage pumping stations are equipped with alarm monitoring for high flow events. Preventative maintenance procedures are in place to ensure the sewage pumping stations are operating as designed and include:

- Weekly pump station inspections
- Alarm testing

- Pump station #2 replaced pipework and valves

The Township of Adjala-Tosorontio Municipal Collection System does not have any authorized by-pass/overflow points within its works. As per the Wet Weather Flows Compared to the Dry Weather Flows Assessment report that was submitted to the Director on March 25, 2024 there have been no discharge events in the collection system in the prescribed date range of January 1, 2012 and December 31, 2021. The New Horizon Sanitary Collection System does not have issues with Collection System Overflows, Spills, STP Overflows, and/or Bypasses therefore further efforts are not required at this time.

2024 Annual Performance Report

Appendix A

Performance Assessment Report: Annual Flow and Effluent Quality

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Performance Assessment Report

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

5322 NEW HORIZONS EVERETT WASTEWATER TREATMENT FACILITY 110003629

	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																
Eff. Flow: Total - Final Effluent m³/d	4,320.65	3,799.00	4,163.00	4,500.00	4,939.00	3,877.00	4,153.00	4,540.00	5,129.00	5,377.00	5,245.00	5,574.00	55,616.65			0.00
Eff. Flow: Avg - Final Effluent m³/d	139.38	131.00	134.29	150.00	159.32	129.23	133.97	146.45	170.97	173.45	174.83	179.81		151.96		175.00
Eff. Flow: Max - Final Effluent m³/d	170.80	142.00	175.00	184.00	171.00	149.00	184.00	193.00	183.00	193.00	192.00	198.00			198.00	0.00
Eff Flow: Count - Final Effluent m³/d	31.00	29.00	31.00	30.00	31.00	30.00	31.00	31.00	30.00	31.00	30.00	31.00	366.00			0.00
Carbonaceous Biochemical Oxygen Demand: CBOD																
Eff: Avg cBOD5 - Final Effluent mg/L	< 2.00	6.00	8.00	< 4.50	< 2.00	3.00	2.00	6.00	5.00	< 2.00	< 2.00	< 2.00		< 3.77	< 8.00	
Eff: # of samples of cBOD5 - Final Effluent	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	13.00			0.00
Loading: cBOD5 - Final Effluent kg/d	< 0.279	0.786	1.074	< 0.675	< 0.319	0.388	0.268	0.879	0.855	< 0.347	< 0.350	< 0.360		< 0.57	< 1.07	
Biochemical Oxygen Demand: BOD5																
Raw: Avg BOD5 - Raw Sewage mg/L	215.00	0.00	0.00	89.00	0.00	0.00	76.00	0.00	0.00	0.00	51.00	0.00		107.75	215.00	0.00
Raw: # of samples of BOD5 - Raw Sewage	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	4.00			0.00
Total Suspended Solids: TSS																
Raw: Avg TSS - Raw Sewage mg/L	188.00	0.00	0.00	86.00	0.00	0.00	103.00	0.00	0.00	0.00	76.00	0.00		113.25	188.00	0.00
Raw: # of samples of TSS - Raw Sewage	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	4.00			0.00
Eff: Avg TSS - Final Effluent mg/L	14.00	13.00	12.00	12.00	10.00	21.00	10.00	29.00	9.00	25.00	2.00	14.00		14.08	29.00	
Eff: # of samples of TSS - Final Effluent	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	13.00			0.00
Loading: TSS - Final Effluent kg/d	1.951	1.703	1.611	1.800	1.593	2.714	1.340	4.247	1.539	4.336	0.350	2.517		2.14	4.34	
Percent Removal: TSS - Raw Sewage %	92.55	0.00	0.00	86.05	0.00	0.00	90.29	0.00	0.00	0.00	97.37	0.00		91.56	97.37	0.00
Nitrogen Series																
Raw: Avg TKN - Raw Sewage mg/L	36.00	0.00	0.00	23.80	0.00	0.00	15.10	0.00	0.00	0.00	14.80	0.00		22.43	36.00	0.00
Raw: # of samples of TKN - Raw Sewage	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	4.00			0.00
Eff: Avg NO3-N - Final Effluent mg/L	15.00	15.50	14.70	15.55	12.60	15.80	17.10	17.40	2.61	4.11	10.90	11.00		12.69	17.40	0.00
Eff: # of samples of NO3-N - Final Effluent	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	13.00			0.00
Eff: Avg NO2-N - Final Effluent mg/L	0.07	0.07	0.08	0.09	0.14	0.13	0.12	0.20	< 0.03	< 0.03	0.03	< 0.03		0.09	0.20	0.00
Eff: # of samples of NO2-N - Final Effluent	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	13.00			0.00
Disinfection																
Eff: GMD E. Coli - Final Effluent cfu/100mL	286.00	53.00	96.00	187.08	162.00	102.00	80.00	780.00	2.00	208.00	86.00	102.00				
Eff: # of samples of E. Coli - Final Effluent	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	13.00			0.00

2024 Annual Performance Report

Appendix B

R.J. Burnside & Associates Ltd. Property Boundary Map

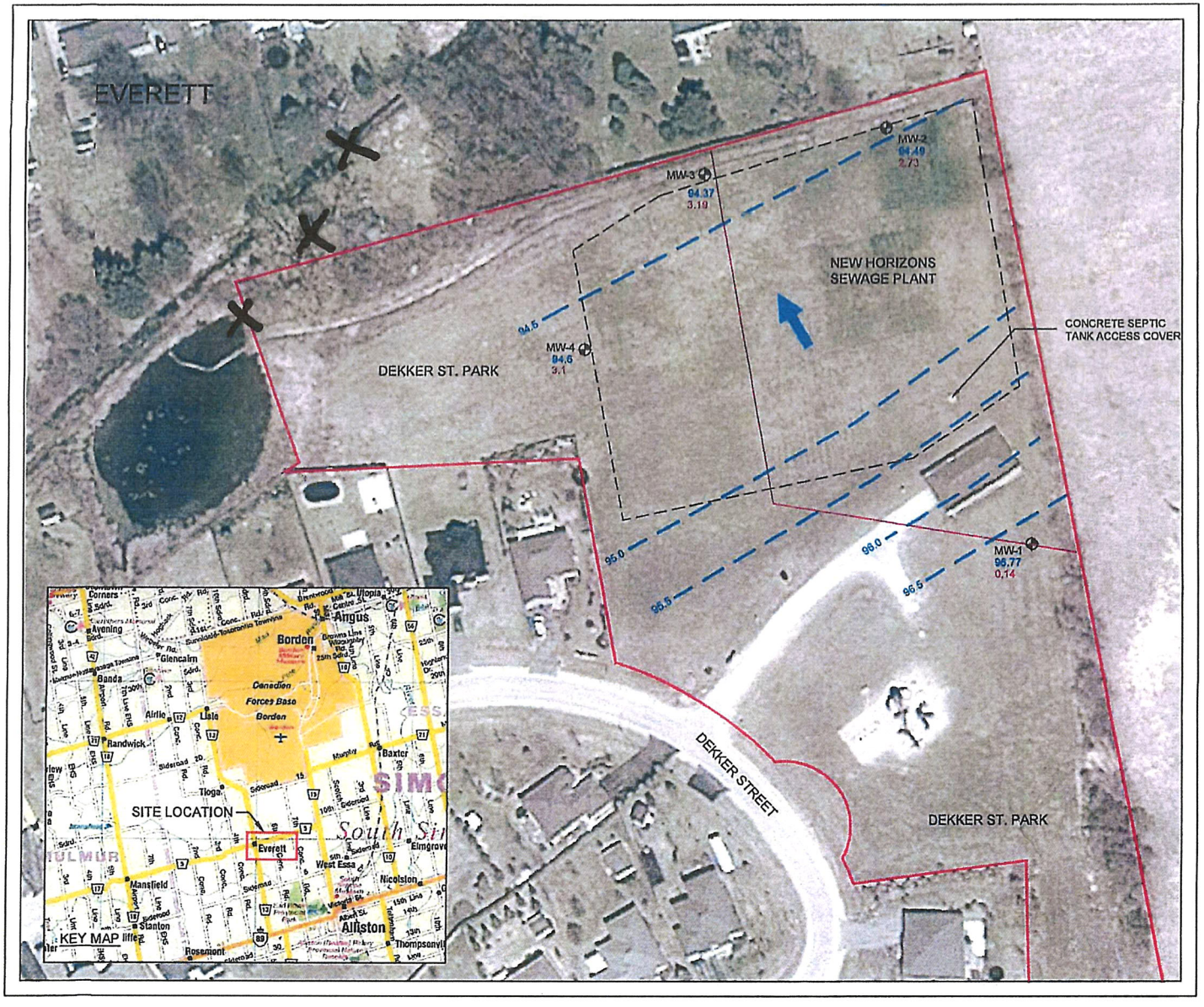


FIGURE 1

TOWNSHIP OF ADJALA-TOSORONTIO
NEW HORIZONS SEWAGE PLANT, EVERETT
WATER QUALITY MONITORING PROGRAM

NITRATE LEVELS & GROUNDWATER FLOW

LEGEND

- APPROXIMATE SITE OUTLINE
- APPROXIMATE OUTLINE OF SEPTIC TILE BED
- MONITORING WELL LOCATION *By Burnside, June 2012*
- 94.49 GROUNDWATER ELEVATION (m ald) *July 11, 2012*
- INTERPRETED GROUNDWATER ELEVATION CONTOUR (m ald) *July 11, 2012*
- INTERPRETED GROUNDWATER FLOW DIRECTION *July 11, 2012*
- 2.73 GROUNDWATER NITRATE CONCENTRATION (mg/L) *July 11, 2012*

Air Photo Source:
Background air photo circa 2011 obtained from Google Earth Professional.

N

0 10 20 30 40 50 60 70 80
Metres

1:1,000
August 2012
Project Number: 300031598

Projection: UTM Zone 17
Datum: NAD83

Prepared by: C. Sheppard

Verified by: D. Durham

BURNSIDE

031598 WATER QUALITY MONITORING SP.DWG

Plot Time: Wednesday, August 08, 2012 9:12:49 AM

2024 Annual Performance Report

Appendix C

Historical Monthly Static Groundwater Levels from Piezometers #1, #2 and #3 from 2012 to 2024

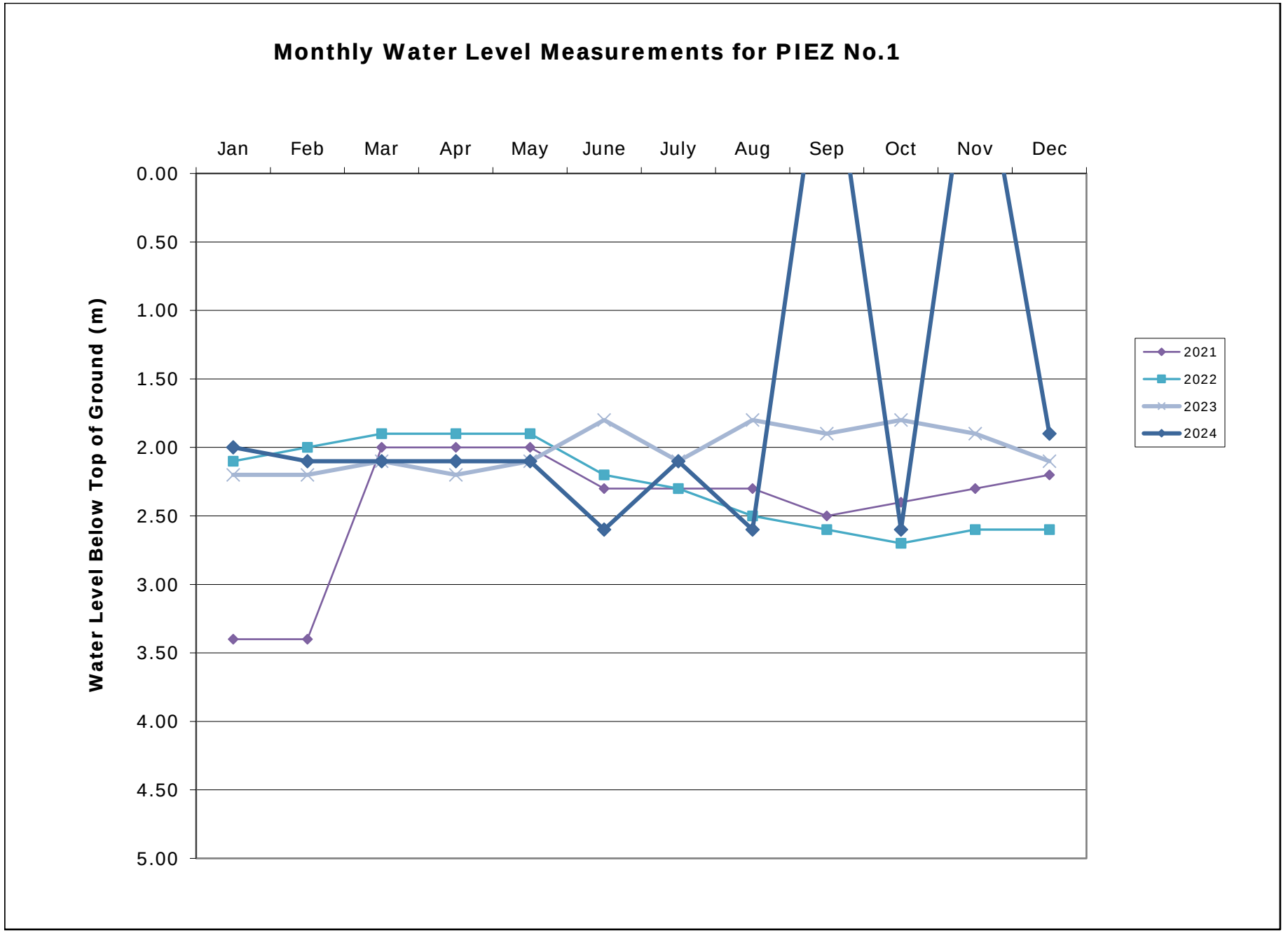
New Horizon WWTP - Monitoring Well Levels
2024

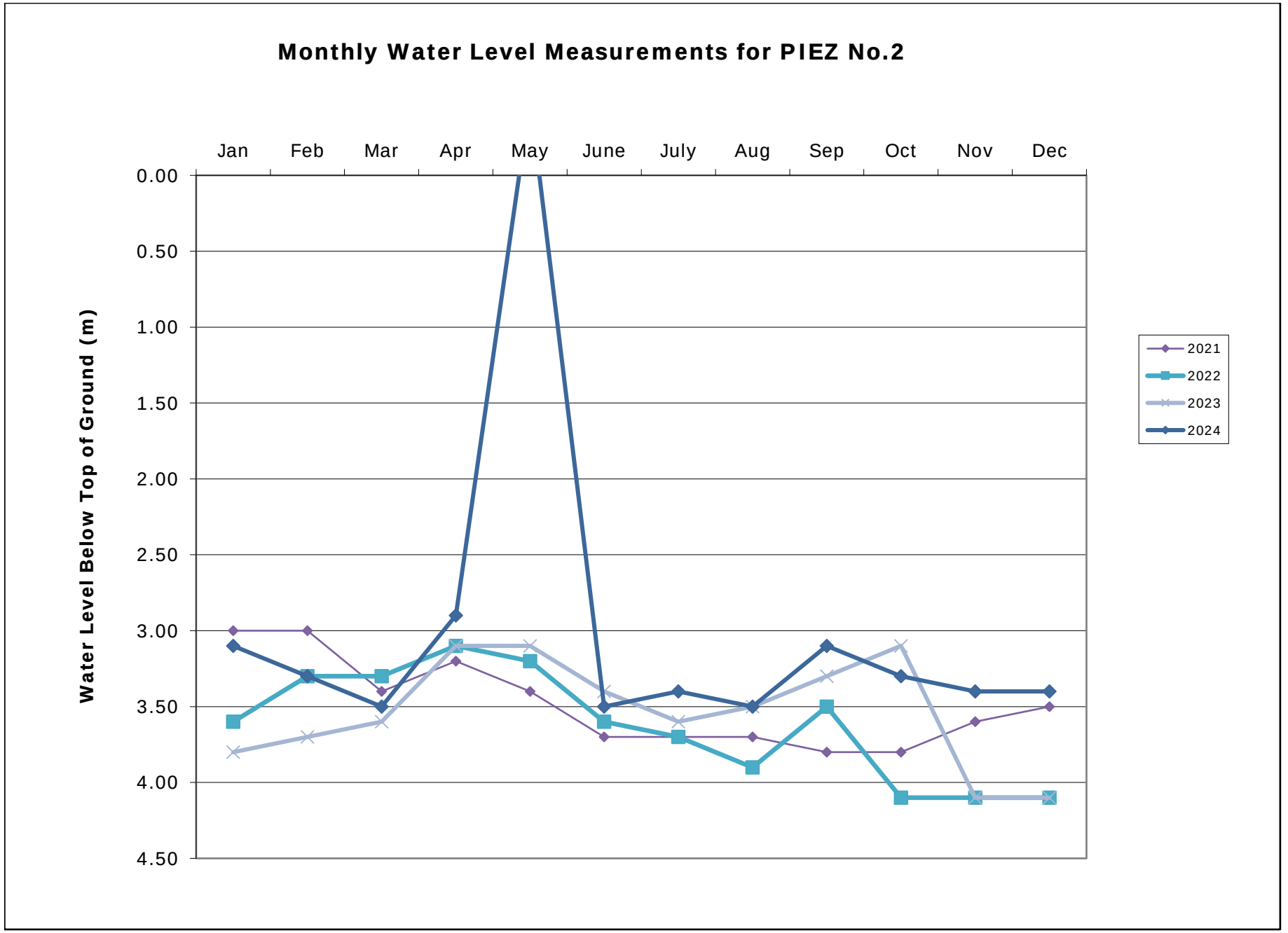
DATE	PIEZ #	PIEZ STICK UP (m)	WATER LEVEL from Top of Stick Up (m)	WATER ELEVATION Below Top of Ground (m)
January 23, 2024	1	1.2	3.2	2.00
January 23, 2024	2	0.5	3.6	3.10
January 23, 2024	3	1	4.2	3.20
February 27, 2024	1	1.2	3.3	2.10
February 27, 2024	2	0.5	3.8	3.30
February 27, 2024	3	1	4.6	3.60
March 19, 2024	1	1.2	3.3	2.10
March 19, 2024	2	0.5	4.0	3.50
March 19, 2024	3	1	4.4	3.40
April 25, 2024	1	1.2	3.8	2.60
April 25, 2024	2	0.5	3.4	2.90
April 25, 2024	3	1	4.0	3.00
May	1	1.2		-1.20
May	2	0.5		-0.50
May	3	1		-1.00
June 27, 2024	1	1.2	3.1	1.90
June 27, 2024	2	0.5	4.0	3.50
June 27, 2024	3	1	4.6	3.60
July 24, 2024	1	1.2	3.1	1.90
July 24, 2024	2	0.5	3.9	3.40
July 24, 2024	3	1	4.4	3.40
August 13, 2024	1	1.2	3.5	2.30
August 13, 2024	2	0.5	4.0	3.50
August 13, 2024	3	1	4.4	3.40
September 26, 2024	1	1.2	3.1	1.90
September 26, 2024	2	0.5	3.6	3.10
September 26, 2024	3	1	4.1	3.10
October 22, 2024	1	1.2	3.5	2.30
October 22, 2024	2	0.5	3.8	3.30
October 22, 2024	3	1	4.2	3.20
November 19, 2024	1	1.2	3.5	2.30
November 19, 2024	2	0.5	3.9	3.40
November 19, 2024	3	1	4.4	3.40
December 12, 2024	1	1.2	3	1.80
December 12, 2024	2	0.5	3.8	3.30
December 12, 2024	3	1	4.2	3.20

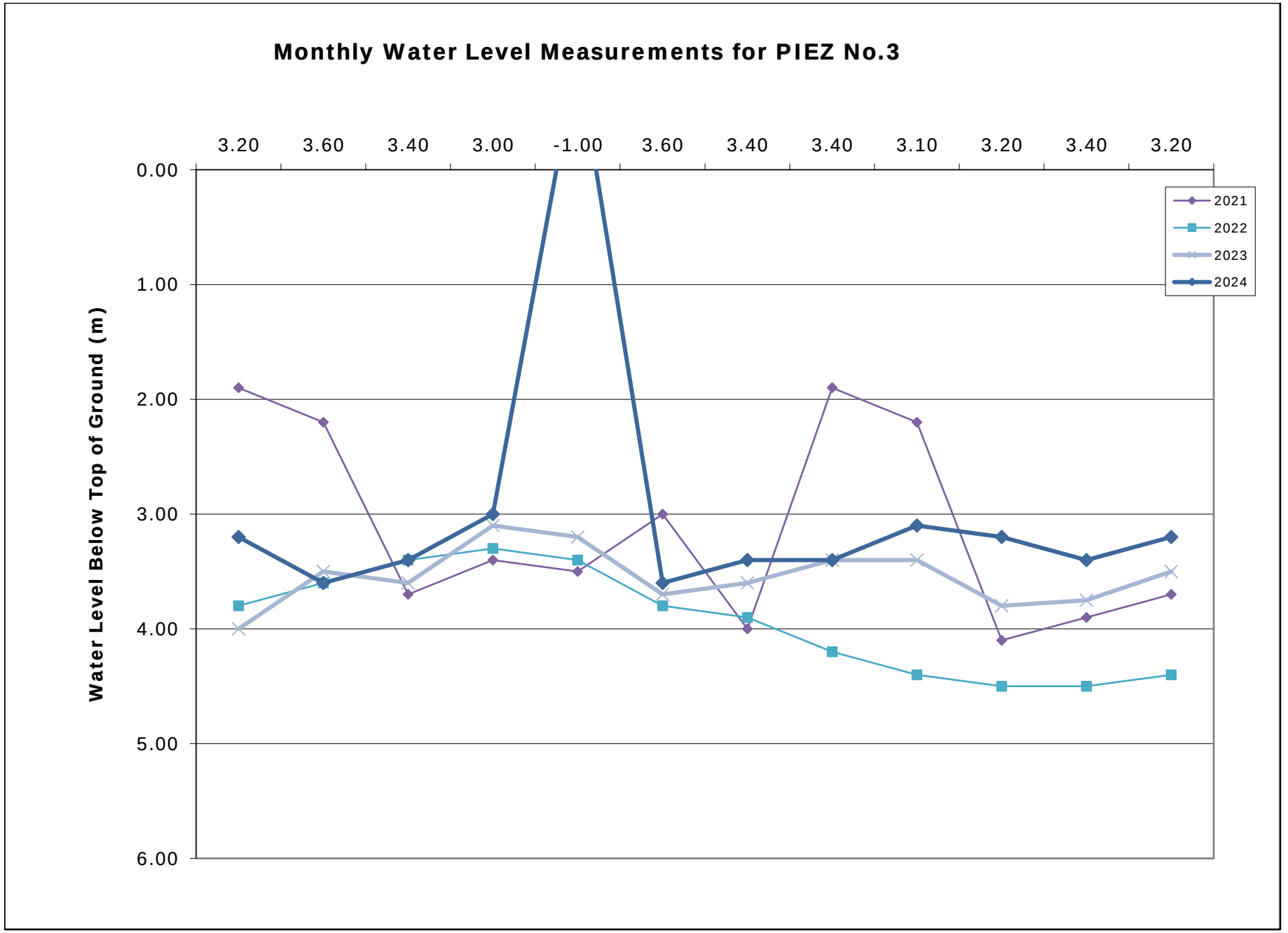
Note:
* June 2013 – Piezometer No. 2 broke during repairs to bed and was re-measured at 0.5 m

Instructions
1. Well stick up is the measurement of the piezometer above the ground,
2. Water level from the top of the stick is the measurement from top of the piezometer to the water table, and;

3. Water elevation below ground is the measurement of the ground water level.
For example:
PIEZ No.1 Stick up is 1.2 m
If the operator measures 3.8 m then
The water elevation below ground top of ground is 3.8 m – 1.2 m = 2.6 m.


Monthly Water Level Measurements for PIEZ No.1
Jan
Feb
Mar
Apr
May
June
July
Aug
Sep
Oct
Nov
Dec
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
Water Level Below Top of Ground (m)
2021
2022
2023
2024


Monthly Water Level Measurements for PIEZ No.2
Water Level Below Top of Ground (m)
Jan
Feb
Mar
Apr
May
June
July
Aug
Sep
Oct
Nov
Dec
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
2021
2022
2023
2024


Monthly Water Level Measurements for PIEZ No.3
3.20
3.60
3.40
3.00
-1.00
3.60
3.40
3.40
3.10
3.20
3.40
3.20
0.00
1.00
2.00
3.00
4.00
5.00
6.00
Water Level Below Top of Ground (m)
2021
2022
2023
2024

2024 Annual Performance Report

Appendix D

System Maintenance Work Order Summary for 2024

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Work Management System (WMS)

Work Order List

Site: OCWASITE

Work Order	Description	Location	Type	Status	Criticality	Lead	Crew Work Group	Asset	Route	Job Plan	Scheduled Start	Actual Start	Reported Date
3717734	Panel Alarm Dialer Testing Everett WWTP (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS	0000092469		PANALA03	1/1/24	1/15/24	1/1/24
3717741	Diesel Genset Test (1m) EVERETT WWTP 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM		5322-OPS	0000092463		ENGDIE02-M	1/1/24	1/30/24	1/1/24
3718674	Sampling Everett WWTP (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			FACOG11GB	1/1/24	1/29/24	1/1/24
3718983	Daily O&M Activities Everett PS01 Collections (1y) 5322	5322-SP01	OPER	COMP	3 - PM		5322-OPS			FACINS01-W	1/1/24	1/13/25	1/1/24
3718988	Daily O&M Activities Everett WWTP (1y) 5322	5322-WWEV	OPER	COMP	3 - PM		5322-OPS			FACINS01-W	1/1/24	1/13/25	1/1/24
3719677	FEP Contact List Review Everett WWTP (6m) 5322	5322-WWEV	PM	CLOSE	3 - PM		SSIM-PCT			FACOG35CL	1/1/24	1/1/24	1/1/24
3720425	Filter Sand #1 Inspection Everett WWTP (1y) 5322	5322-WWEV-P-TT	PM	CLOSE	3 - PM		5322-OPS	0000095541		FILSAN01-A	1/1/24	4/15/24	1/1/24
3720435	Filter Sand #2 Inspection Everett WWTP (1y) 5322	5322-WWEV-P-TT	PM	CLOSE	3 - PM		5322-OPS	0000095542		FILSAN01-A	1/1/24	4/15/24	1/1/24
3720445	Filter Sand #3 Inspection Everett WWTP (1y) 5322	5322-WWEV-P-TT	PM	CLOSE	3 - PM		5322-OPS	0000095543		FILSAN01-A	1/1/24	4/15/24	1/1/24
3721485	Sampling and Testing Everett WWTP (3m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			SAMPLE01-Q	1/1/24	4/15/24	1/1/24
3721491	FEP Binder Review/Update- Everett WWTP (1y) 5322	5322-WWEV	PM	CLOSE	3 - PM		SSIM-PCT			FACOG35	12/31/24	1/1/24	1/1/24
3728441	Inspection of Facility Spill Kit Everett WWTP (1y) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS			SAFSPL00-A	1/1/24	9/18/24	1/1/24
3736910	Everett WWTP Weekly Facility & Security Inspections (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS			1240FACSEC	1/1/24	1/29/24	1/1/24
3737536	Grease RBC Bearings - Everett WWTP (3m) 5322	5322-WWEV-P	PM	CLOSE	4 - High		SSIM-MEC	0000310011		PUMGRE01	1/1/24	6/13/24	1/1/24
3747121	Analyzer pH Portable Monthly Maintenance/ Calibration (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS	0003098246		ANALPH07-M	1/1/24	1/29/24	1/1/24
3759215	OCWA Annual Workplace Insp Everett WWTP (1y) 5322	5322-WWEV	OPER	CLOSE	3 - PM	Hannah Flavelle	SSIM-H&S			HSCWI-A	12/1/24	11/12/24	1/3/24
3759546	Check Expiry Dates of Lab Items Everett WWTP (6m) 5322	5322-WWEV-P	PM	CLOSE	3 - PM		5322-OPS			EXPREG01-A	1/4/24	5/6/24	1/4/24
3760793	Facility Health & Safety Inspection Everett PS01 (1m) 5322	5322-SP01	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	1/9/24	1/29/24	1/9/24
3760808	Facility Health & Safety Inspection Everett WWTP (1m) 5322	5322-WWEV	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	1/9/24	1/29/24	1/9/24
3762113	MECP - Inspection - New HorizonWWTP (Everett) - 5322 (January 26, 2024)	5322-WWEV	ADMIN	CLOSE	3 - PM		SSIM-PCT					5/8/24	1/12/24

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Work Management System (WMS)

Work Order List

Site: OCWASITE

Work Order	Description	Location	Type	Status	Criticality	Lead	Crew Work Group	Asset	Route	Job Plan	Scheduled Start	Actual Start	Reported Date
3772702	Panel Alarm Dialer Testing Everett WWTP (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS	0000092469		PANALA03	2/1/24	2/20/24	2/1/24
3772709	Diesel Genset Test (1m) EVERETT WWTP 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM		5322-OPS	0000092463		ENGDIE02-M	2/1/24	2/12/24	2/1/24
3773661	Sampling Everett WWTP (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			FACOG11GB	2/1/24	3/5/24	2/1/24
3774883	Meter Flow and Chart Recorder Route Insp/Calib (1y) 5105	5105-AONS	PM	CLOSE	3 - PM		5105NSOP		5105FMWW	METFLW06	2/1/24	8/4/24	2/1/24
3786011	Fan Exhaust 1+2 Insp/Service Route Everett (1y) 5322	5322-WWEV	PM	CLOSE	3 - PM		SSIM-ELE		5322FANS	FANEXH01-A	2/1/24	6/5/24	2/1/24
3786250	Everett WWTP Weekly Facility & Security Inspections (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS			1240FACSEC	2/1/24	3/5/24	2/1/24
3793603	Analyzer pH Portable Monthly Maintenance/ Calibration (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS	0003098246		ANALPH07-M	2/1/24	3/5/24	2/1/24
3803826	Facility Health & Safety Inspection Everett PS01 (1m) 5322	5322-SP01	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	2/9/24	3/5/24	2/9/24
3803841	Facility Health & Safety Inspection Everett WWTP (1m) 5322	5322-WWEV	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	2/9/24	3/5/24	2/9/24
3805791	Objective Exced- ECA 8860-9N8NCX - January 24 2024 Total Nitrogen Limit Exceed - New Horizon WWTP	5322-WWEV	OPER	CLOSE	5 - Urgent	Angela Pauze	SSIM-PCT					3/28/24	2/19/24
3815044	Panel Alarm Dialer Testing Everett WWTP (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS	0000092469		PANALA03	3/1/24	3/18/24	3/1/24
3815051	Diesel Genset Test (1m) EVERETT WWTP 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM		5322-OPS	0000092463		ENGDIE02-M	3/1/24	4/2/24	3/1/24
3815997	Sampling Everett WWTP (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			FACOG11GB	3/1/24	4/2/24	3/1/24
3817569	Pump Subm 01 East Insp/Service Everett WWTP (1y) 5322	5322-WWEV-P	PM	CLOSE	3 - PM		SSIM-EM	0000092478		PUMSUB01-A	3/1/24	11/8/24	3/1/24
3817578	Pump Subm 02 West Insp/Srv Everett WWTP (1y) 5322	5322-WWEV-P	PM	CLOSE	3 - PM		SSIM-EM	0000092479		PUMSUB01-A	3/1/24	11/8/24	3/1/24
3817587	Pump Subm 01 Sludge Insp/Srv Everett WWTP (1y) 5322	5322-WWEV-P-SH	PM	CLOSE	3 - PM		SSIM-EM	0000092494		PUMSUB01-A	3/1/24	11/6/24	3/1/24
3817596	Pump Subm 02 Sludge Insp/Srv Everett WWTP (1y) 5322	5322-WWEV-P-SH	PM	CLOSE	3 - PM		SSIM-EM	0000092495		PUMSUB01-A	3/1/24	11/6/24	3/1/24
3817615	Pump Subm 03 Sludge Insp/Srv Everett WWTP (1y) 5322	5322-WWEV-P-SH	PM	CLOSE	3 - PM		SSIM-EM	0000092496		PUMSUB01-A	3/1/24	11/6/24	3/1/24
3817624	Pump Subm 04 Sludge Insp/Srv Everett WWTP (1y) 5322	5322-WWEV-P-SH	PM	CLOSE	3 - PM		SSIM-EM	0000092497		PUMSUB01-A	3/1/24	11/6/24	3/1/24

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Work Management System (WMS)

Work Order List

Site: OCWASITE

Work Order	Description	Location	Type	Status	Criticality	Lead	Crew Work Group	Asset	Route	Job Plan	Scheduled Start	Actual Start	Reported Date
3817633	Pump Subm 01 Insp/Service Everett PS01 (1y) 5322	5322-SP01	PM	CLOSE	3 - PM		SSIM-EM	0000398650		PUMSUB01-A	3/1/24	12/2/24	3/1/24
3817642	Pump Subm 02 Insp/Service Everett PS01 (1y) 5322	5322-SP01	PM	CLOSE	3 - PM		SSIM-EM	0000092499		PUMSUB01-A	3/1/24	12/2/24	3/1/24
3817651	Pump Subm 01 Insp/Service Everett PS02 (1y) 5322	5322-SP02	PM	CLOSE	3 - PM		SSIM-EM	0000092500		PUMSUB01-A	3/1/24	12/2/24	3/1/24
3817660	Pump Subm 02 Insp/Service Everett PS02 (1y) 5322	5322-SP02	PM	CLOSE	3 - PM		SSIM-EM	0000092501		PUMSUB01-A	3/1/24	12/2/24	3/1/24
3818420	Sewer System Flushing Everett WWTP Collections (3m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			DISFLU02-S	3/1/24	5/3/24	3/1/24
3829625	Pump Subm 01 Filter Feed Insp/Service Everett (1y) 5322	5322-WWEV-P-TT	PM	CLOSE	3 - PM		SSIM-EM	0000326752		PUMSUB01-A	3/1/24	12/13/24	3/1/24
3829805	Everett WWTP Weekly Facility & Security Inspections (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS			1240FACSEC	3/1/24	4/2/24	3/1/24
3837084	Analyzer pH Portable Monthly Maintenance/ Calibration (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS	0003098246		ANALPH07-M	3/1/24	4/2/24	3/1/24
3848005	Facility Health & Safety Inspection Everett PS01 (1m) 5322	5322-SP01	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	3/9/24	4/2/24	3/9/24
3848020	Facility Health & Safety Inspection Everett WWTP (1m) 5322	5322-WWEV	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	3/9/24	4/2/24	3/9/24
3848778	Everett WWTP PS2 High Level (5322)	5322	CALL	CLOSE	5 - Urgent	Johnathan Purkis						3/11/24	3/11/24

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Work Management System (WMS)

Work Order List

Site: OCWASITE

Work Order	Description	Location	Type	Status	Criticality	Lead	Crew Work Group	Asset	Route	Job Plan	Scheduled Start	Actual Start	Reported Date
3849646	Objective Exced- ECA 8860-9N8NCX - February 24, 2024 TAN & TSS Exceed - New Horizon WWTP	5322-WWEV	OPER	CLOSE	5 - Urgent	Angela Pauze	SSIM-PCT					3/17/24	3/17/24
3850292	Everett WWTP Compressor Repair/Maintenance (5322)	5322-WWEV-P	CORR	CLOSE	4 - High						3/20/24	3/22/24	3/20/24
3851626	Non-Compliance - ECA 8860-9N8NCX - March 2024, Total Nitrogen & TSS objective- New Horizon WWTP	5322-WWEV	OPER	CLOSE	5 - Urgent		SSIM-PCT					5/6/24	3/28/24
3860391	Panel Alarm Dialer Testing Everett WWTP (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS	0000092469		PANALA03	4/1/24	4/22/24	4/1/24
3860398	Diesel Genset Test (1m) EVERETT WWTP 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM		5322-OPS	0000092463		ENGDIE02-M	4/1/24	6/3/24	4/1/24
3861351	Sampling Everett WWTP (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			FACOG11GB	4/1/24	4/29/24	4/1/24
3862824	Confined Space Gas Detectors {Qty-7} Calibra (6m) 5105	124000	PM	CLOSE	3 - PM		5105NSOP		5105GASM	ANAGASCL-S	4/1/24	8/4/24	4/1/24
3863482	Valve Backflow Device Insp/Test Everett WWTP (1y) 5322	5322-WWEV-P-PI	PM	CLOSE	3 - PM		SSIM-OPS	0000095799		VALBAC02	4/1/24	8/7/24	4/1/24
3864404	Sampling and Testing Everett WWTP (3m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			SAMPLE01-Q	4/1/24	5/6/24	4/1/24
3877833	Everett WWTP Weekly Facility & Security Inspections (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS			1240FACSEC	4/1/24	4/29/24	4/1/24
3878323	Grease RBC Bearings - Everett WWTP (3m) 5322	5322-WWEV-P	PM	CLOSE	4 - High		SSIM-MEC	0000310011		PUMGRE01	4/1/24	6/5/24	4/1/24
3887040	Backflow Device Insp/Test (1y) Portable Everett WWTP (5322)	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS	0000326846		VALBAC02	4/1/24	8/7/24	4/1/24
3887607	Analyzer pH Portable Monthly Maintenance/ Calibration (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS	0003098246		ANALPH07-M	4/1/24	4/29/24	4/1/24
3900648	Facility Health & Safety Inspection Everett PS01 (1m) 5322	5322-SP01	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	4/9/24	4/29/24	4/9/24
3900663	Facility Health & Safety Inspection Everett WWTP (1m) 5322	5322-WWEV	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	4/9/24	4/29/24	4/9/24
3901304	Everett Wastewater Filter Media Replacement (5332)	5322-WWEV-P-TT	CORR	CLOSE	4 - High						4/11/24	6/10/24	4/10/24
3901798	Tile Bed Visual Inspection Everett WWTP (1y) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			FAC05GB01	4/15/24	5/21/24	4/15/24
3902233	SAC 1-5NDCX9 - April 11, 2024 - New Horizon WWTP- 5322	5322-WWEV	ADMIN	CLOSE	5 - Urgent		SSIM-PCT					4/26/24	4/15/24
3903068	Everett WWTP PS#2 High Level (5322)	5322	CALL	CLOSE	5 - Urgent	Johnathan Purkis						4/22/24	4/22/24

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Work Management System (WMS)

Work Order List

Site: OCWASITE

Work Order	Description	Location	Type	Status	Criticality	Lead	Crew Work Group	Asset	Route	Job Plan	Scheduled Start	Actual Start	Reported Date
3903094	Objective Exced- April 9, 2024 Total Nitrogen Limit Exceed - New Horizon WWTP	5322-WWEV	OPER	CLOSE	5 - Urgent	Angela Pauze	SSIM-PCT					5/8/24	4/22/24
3912844	Panel Alarm Dialer Testing Everett WWTP (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS	0000092469		PANALA03	5/1/24	6/3/24	5/1/24
3912851	Diesel Genset Test (1m) EVERETT WWTP 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM		5322-OPS	0000092463		ENGDIE02-M	5/1/24	6/3/24	5/1/24
3914334	Sampling Everett WWTP (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			FACOG11GB	5/1/24	6/3/24	5/1/24
3928507	Heater Electric Insp/Srv Route Everett WWTP (5m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS		5322HTR	HEATER01-S	5/1/24	10/22/24	5/1/24
3928740	Everett WWTP Weekly Facility & Security Inspections (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS			1240FACSEC	5/1/24	6/3/24	5/1/24
3936436	Analyzer pH Portable Monthly Maintenance/ Calibration (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS	0003098246		ANALPH07-M	5/1/24	6/3/24	5/1/24
3938536	Heater Electric Insp/Srv Hoe Doe Sewage (6m) 1715	1715	PM	CLOSE	3 - PM		1715-OPS		5322HTR	HEATER01-S	5/1/24	6/10/24	5/1/24
3947372	Process Area Fixed Gas Monitors (LELx2 O2 H2S) Insp/Service (6m) 5322	5322-WWEV-P	PM	CLOSE	3 - PM		5322-OPS	0000092470		ANAGAS04-S	5/3/24	8/7/24	5/3/24
3948474	Facility Health & Safety Inspection Everett PS01 (1m) 5322	5322-SP01	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	5/9/24	6/3/24	5/9/24
3948489	Facility Health & Safety Inspection Everett WWTP (1m) 5322	5322-WWEV	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	5/9/24	6/3/24	5/9/24
3961035	Panel Alarm Dialer Testing Everett WWTP (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS	0000092469		PANALA03	6/1/24	6/24/24	6/1/24
3961042	Diesel Genset Test (1m) EVERETT WWTP 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM		5322-OPS	0000092463		ENGDIE02-M	6/1/24	6/24/24	6/1/24
3961953	Sampling Everett WWTP (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			FACOG11GB	6/1/24	6/24/24	6/1/24
3964972	Sewer System Flushing Everett WWTP Collections (3m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			DISFLU02-S	6/1/24	8/23/24	6/1/24
3978314	Everett WWTP Weekly Facility & Security Inspections (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS			1240FACSEC	6/1/24	7/2/24	6/1/24
3986280	Analyzer pH Portable Monthly Maintenance/ Calibration (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS	0003098246		ANALPH07-M	6/1/24	7/2/24	6/1/24
3997918	Facility Health & Safety Inspection Everett PS01 (1m) 5322	5322-SP01	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	6/9/24	7/2/24	6/9/24
3997933	Facility Health & Safety Inspection Everett WWTP (1m) 5322	5322-WWEV	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	6/9/24	7/2/24	6/9/24
4001717	Everett WWTP PS1 low level (5322)	5322-SP01	CALL	CLOSE	5 - Urgent	Cody Butler						6/26/24	6/26/24

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Work Management System (WMS)

Work Order List

Site: OCWASITE

Work Order	Description	Location	Type	Status	Criticality	Lead	Crew Work Group	Asset	Route	Job Plan	Scheduled Start	Actual Start	Reported Date
4010474	Panel Alarm Dialer Testing Everett WWTP (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS	0000092469		PANALA03	7/1/24	7/15/24	7/1/24
4010481	Diesel Genset Test (1m) EVERETT WWTP 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM		5322-OPS	0000092463		ENGDIE02-M	7/1/24	7/22/24	7/1/24
4011388	Sampling Everett WWTP (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			FACOG11GB	7/1/24	7/29/24	7/1/24
4013232	Sampling and Testing Everett WWTP (3m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			SAMPLE01-Q	7/1/24	10/21/24	7/1/24
4025701	Everett WWTP Weekly Facility & Security Inspections (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS			1240FACSEC	7/1/24	7/22/24	7/1/24
4026087	Grease RBC Bearings - Everett WWTP (3m) 5322	5322-WWEV-P	PM	CLOSE	4 - High		SSIM-MEC	0000310011		PUMGRE01	7/1/24	9/20/24	7/1/24
4034325	Analyzer pH Portable Monthly Maintenance/ Calibration (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS	0003098246		ANALPH07-M	7/1/24	8/6/24	7/1/24
4046447	Check Expiry Dates of Lab Items Everett WWTP (6m) 5322	5322-WWEV-P	PM	CLOSE	3 - PM		5322-OPS			EXPREG01-A	7/4/24	10/21/24	7/4/24
4047442	Objective Exced- Jun 11, 2024 Total Nitrogen & TSS - New Horizon WWTP	5322-WWEV	OPER	CLOSE	5 - Urgent	Angela Pauze	SSIM-PCT					7/11/24	7/8/24
4047664	Facility Health & Safety Inspection Everett PS01 (1m) 5322	5322-SP01	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	7/9/24	8/6/24	7/9/24
4047679	Facility Health & Safety Inspection Everett WWTP (1m) 5322	5322-WWEV	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	7/9/24	8/6/24	7/9/24

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Work Management System (WMS)

Work Order List

Site: OCWASITE

Work Order	Description	Location	Type	Status	Criticality	Lead	Crew Work Group	Asset	Route	Job Plan	Scheduled Start	Actual Start	Reported Date
4049325	Everett WWTP PS1 Low Level (5322)	5322	CALL	CLOSE	5 - Urgent	Johnathan Purkis						7/15/24	7/15/24
4050029	Objective Exced- July 9, 2024 Total Nitrogen - New Horizon WWTP - RE 1-93J0AV	5322-WWEV	OPER	CLOSE	5 - Urgent	Angela Pauze	SSIM-PCT					7/19/24	7/19/24
4059439	Panel Alarm Dialer Testing Everett WWTP (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS	0000092469		PANALA03	8/1/24	8/23/24	8/1/24
4059446	Diesel Genset Test (1m) EVERETT WWTP 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM		5322-OPS	0000092463		ENGDIE02-M	8/1/24	8/23/24	8/1/24
4060365	Sampling Everett WWTP (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			FACOG11GB	8/1/24	9/3/24	8/1/24
4061688	Lifting Equipment Hoist/Davit Route Insp Everett (1y) 5322	5322-WWEV	PM	CLOSE	3 - PM		SSIM-MEC		5322LIFT	LIFDEV01-A	8/1/24	10/21/24	8/1/24
4073357	Everett WWTP Weekly Facility & Security Inspections (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS			1240FACSEC	8/1/24	9/3/24	8/1/24
4080666	Analyzer pH Portable Monthly Maintenance/ Calibration (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS	0003098246		ANALPH07-M	8/1/24	9/3/24	8/1/24
4092447	Facility Health & Safety Inspection Everett PS01 (1m) 5322	5322-SP01	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	8/9/24	9/3/24	8/9/24
4092462	Facility Health & Safety Inspection Everett WWTP (1m) 5322	5322-WWEV	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	8/9/24	9/3/24	8/9/24
4094114	Tertiary Bypass Event - New Horizon, Everett WWTP 5322 - August 13, 2024 Incident 1-9U1MM0	5322-WWEV	EMER	CLOSE	3 - PM	Melissa Cortes	5767OPER			CM03		8/16/24	8/16/24
4094120	Tertiary Bypass Event - New Horizon, Everett WWTP 5322 - August 15, 2024 Incident 1-9WPQ57	5322-WWEV	EMER	CLOSE	3 - PM		SSIM-PCT			CM03		9/26/24	8/16/24
4104676	Panel Alarm Dialer Testing Everett WWTP (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS	0000092469		PANALA03	9/1/24	10/1/24	9/1/24
4104683	Diesel Genset Test (1m) EVERETT WWTP 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM		5322-OPS	0000092463		ENGDIE02-M	9/1/24	10/1/24	9/1/24
4105591	Sampling Everett WWTP (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			FACOG11GB	9/1/24	10/1/24	9/1/24
4107809	Engine Diesel 01 Insp/Service Everett (1y) 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM	Johnathan Purkis		0000092463		ENGDIE02-A	9/1/24	12/12/24	9/1/24
4108187	Sewer System Flushing Everett WWTP Collections (3m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			DISFLU02-S	9/1/24	12/12/24	9/1/24
4120923	Everett WWTP Weekly Facility & Security Inspections (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS			1240FACSEC	9/1/24	10/1/24	9/1/24
4128978	Analyzer pH Portable Monthly Maintenance/ Calibration (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS	0003098246		ANALPH07-M	9/1/24	10/1/24	9/1/24

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Work Management System (WMS)

Work Order List

Site: OCWASITE

Work Order	Description	Location	Type	Status	Criticality	Lead	Crew Work Group	Asset	Route	Job Plan	Scheduled Start	Actual Start	Reported Date
4142306	Facility Health & Safety Inspection Everett PS01 (1m) 5322	5322-SP01	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	9/9/24	9/20/24	9/9/24
4142321	Facility Health & Safety Inspection Everett WWTP (1m) 5322	5322-WWEV	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	9/9/24	9/20/24	9/9/24
4155176	Panel Alarm Dialer Testing Everett WWTP (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS	0000092469		PANALA03	10/1/24	10/21/24	10/1/24
4155183	Diesel Genset Test (1m) EVERETT WWTP 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM		5322-OPS	0000092463		ENGDIE02-M	10/1/24	10/11/24	10/1/24
4156060	Sampling Everett WWTP (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			FACOG11GB	10/1/24	11/4/24	10/1/24
4157459	Confined Space Gas Detectors {Qty-7} Calibra (6m) 5105	124000	PM	CLOSE	3 - PM		5105NSOP		5105GASM	ANAGASCL-S	10/1/24	11/4/24	10/1/24
4157898	Sampling and Testing Everett WWTP (3m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			SAMPLE01-Q	10/1/24	12/13/24	10/1/24
4170918	Heater Electric Insp/Srv Route Everett WWTP (5m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS		5322HTR	HEATER01-S	10/1/24	12/13/24	10/1/24
4170959	Actuator Electric 1-3 Insp/Service Route Everett (1y) 5322	5322-WWEV	PM	CLOSE	3 - PM		SSIM-ELE		5322ACTU	ACTELE01-A	10/1/24	12/5/24	10/1/24
4171217	Everett WWTP Weekly Facility & Security Inspections (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS			1240FACSEC	10/1/24	11/4/24	10/1/24
4171703	Grease RBC Bearings - Everett WWTP (3m) 5322	5322-WWEV-P	PM	CLOSE	4 - High	Cody Butler	5105SSOP	0000310011		PUMGRE01	10/1/24	12/13/24	10/1/24
4179528	Analyzer pH Portable Monthly Maintenance/ Calibration (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS	0003098246		ANALPH07-M	10/1/24	11/4/24	10/1/24
4193091	Facility Health & Safety Inspection Everett PS01 (1m) 5322	5322-SP01	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	10/9/24	11/4/24	10/9/24
4193106	Facility Health & Safety Inspection Everett WWTP (1m) 5322	5322-WWEV	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	10/9/24	11/4/24	10/9/24
4194267	New Horizon multiple burglary alarms (5322)	5322-WWEV	CALL	CLOSE	5 - Urgent	Cody Butler						10/14/24	10/14/24
4204453	Panel Alarm Dialer Testing Everett WWTP (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS	0000092469		PANALA03	11/1/24	12/2/24	11/1/24
4204460	Diesel Genset Test (1m) EVERETT WWTP 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM		5322-OPS	0000092463		ENGDIE02-M	11/1/24	11/22/24	11/1/24
4205306	Sampling Everett WWTP (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			FACOG11GB	11/1/24	11/22/24	11/1/24
4217357	Tank Storage Fuel 01 Insp/Srv Everett WWTP (1y) 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM	Cody Butler	5105SSOP	0000398635		TANKFUEL	11/1/24	12/13/24	11/1/24
4217537	Everett WWTP Weekly Facility & Security Inspections (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS			1240FACSEC	11/1/24	12/2/24	11/1/24

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Work Management System (WMS)

Work Order List

Site: OCWASITE

Work Order	Description	Location	Type	Status	Criticality	Lead	Crew Work Group	Asset	Route	Job Plan	Scheduled Start	Actual Start	Reported Date
4224388	Analyzer pH Portable Monthly Maintenance/ Calibration (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS	0000309826		ANALPH07-M	11/1/24	12/2/24	11/1/24
4234186	Everett (New Horizon) WWTP 5322 - Oct 23/24 - ECA Objective Exceedance TSS - Incident RE 1-CPYC2Z	5322-WWEV	EMER	CLOSE	3 - PM	Melissa Cortes	5767OPER			CM03		11/1/24	11/1/24
4234468	Process Area Fixed Gas Monitors (LELx2 O2 H2S) Insp/Service (6m) 5322	5322-WWEV-P	PM	CLOSE	3 - PM		5322-OPS	0000092470		ANAGAS04-S	11/3/24	12/16/24	11/3/24
4235798	Facility Health & Safety Inspection Everett PS01 (1m) 5322	5322-SP01	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	11/9/24	12/2/24	11/9/24
4235813	Facility Health & Safety Inspection Everett WWTP (1m) 5322	5322-WWEV	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	11/9/24	12/2/24	11/9/24
4238750	Non-Compliance - ECA #8860-9N8NCX - New Horizon WWTP (5322)	5322-WWEV	ADMIN	CLOSE	5 - Urgent	Lauren Orlovski	NSIM-PCT					11/25/24	11/25/24
4239040	5322 - Everett Pump Stations - Rail Replacement	5322-SP01	CORR	CLOSE	2 - Medium	John Bristow	SSIM-OPS					11/27/24	11/27/24
4246320	Panel Alarm Dialer Testing Everett WWTP (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS	0000092469		PANALA03	12/1/24	12/9/24	12/1/24
4246327	Diesel Genset Test (1m) EVERETT WWTP 5322	5322-WWEV-F-PG	PM	CLOSE	3 - PM		5322-OPS	0000092463		ENGDIE02-M	12/1/24	12/9/24	12/1/24
4247135	Sampling Everett WWTP (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS			FACOG11GB	12/1/24	12/16/24	12/1/24
4248500	Pump Diaphragm 1+2 Chemical Route Insp/ Srv(1y) 5322	5322-WWEV	PM	COMP	3 - PM		5322-OPS		5322DIPH	PUMDIA01-A	12/1/24	3/19/25	12/1/24

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Work Management System (WMS)

Work Order List

Site: OCWASITE

Work Order	Description	Location	Type	Status	Criticality	Lead	Crew Work Group	Asset	Route	Job Plan	Scheduled Start	Actual Start	Reported Date
4249133	Sewer System Flushing Everett WWTP Collections (3m) 5322	5322-WWEV	PM	COMP	3 - PM		5322-OPS			DISFLU02-S	12/1/24	3/19/25	12/1/24
4259323	Everett WWTP Weekly Facility & Security Inspections (1m) 5322	5322-WWEV-F	PM	CLOSE	3 - PM		5322-OPS			1240FACSEC	12/1/24	12/9/24	12/1/24
4266045	Analyzer pH Portable Monthly Maintenance/ Calibration (1m) 5322	5322-WWEV	PM	CLOSE	3 - PM		5322-OPS	0000309826		ANALPH07-M	12/1/24	12/16/24	12/1/24
4277383	Facility Health & Safety Inspection Everett PS01 (1m) 5322	5322-SP01	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	12/9/24	12/16/24	12/9/24
4277398	Facility Health & Safety Inspection Everett WWTP (1m) 5322	5322-WWEV	OPER	CLOSE	3 - PM		5322-OPS			HSCWI-MR01	12/9/24	12/16/24	12/9/24

Number of Records: 155

2024 Annual Performance Report

Appendix E

Effluent Flow Meter Calibration Records

Induscontrol Inc
3170 Ridgeway Drive, Unit #11
Mississauga, ON L5L 5R4

VERIFICATION REPORT - **OCM III**
OPEN CHANNEL FLOW MEASUREMENT

Customer Name:	OCWA-Gerogian Bay	Site/Plant Address:	27 Dekker St
Plant Name:	5322-Everett WWTP		Everett, ON

Device Information		Service Information	
Make:	Milltronics	Date:	June 19, 2024
Model:	OCM III	Report No:	CO1540-2405-01
Tag:	N/A	Job No:	CO1540-2405
Job Location:	Effluent		
Asset ID:	92466		

Flow Details	
Unit:	l/sec
Flow Range:	0- 7.53 l/sec
Current Output:	4-20 mA
4 mA Set Point	0 l/sec
20 mA Set Point	7.53 l/sec

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	96523486	96524485
FLOW (l/sec)	0.6048	0.5531

Maintenance Checklist				Remarks
Visual Inspection:	☑	OK	☐ NOT OK	
Electrical Inspection:	☑	OK	☐ NOT OK	

Programming Parameter of Instrument

Parameter	Discription	Value	Parameter	Discription	Value
F0	Access Code	0	P7	Height of Max. Head	15.50
P1	Dimension Unit (cm)	0	P32	Totalizer Multiplier	1
P3	Exponential Device	0	P42	Head by OCM III	0
P4	Cal. Method -Ratiometric	1	P45	Low Flow Cut-off	0
P5	Flow Unit - m3/Hr	0	P46	Range at Zero Head	64.59078
P6	Max Flow rate	7.53	P47	Blanking Distance	30.4826

Test Point Report

Reference Distance (cm)	Measured Distance (cm)	Calculated Flow (l/sec)	UUT Flow Display (l/sec)	Calculated (mA)	Measured (mA)	Deviaiton (l/s)
5.47	5.45	0.557	0.552	9.65	9.63	-0.01
5.12	5.10	0.472	0.468	9.29	9.26	0.00

Calculations

Flow Calculations

$Q = q_{cal}\ (h/h_{cal})^{Exp}$ Where, Q= Discharge Flow, qcal = max flow, h = head, hcal = max head

Exp = 2.5 , Hence,

$Q = 5.47\ (2.98/15.50)^{2.5}$

Q = 0.557

Instrument Test Information and Results

Input (%)	Calculated Flow(l/sec)	Calculated Input (mA)	Flow on UUT (l/sec)	UUT Measured Output (mA)	Deviation (l/s)
0	0.00	4.00	0.02	4.00	0.02
25	1.88	8.00	1.87	7.99	-0.01
50	3.77	12.00	3.75	11.99	-0.02
75	5.65	16.00	5.61	15.98	-0.04
100	7.53	20.00	7.52	19.99	-0.01

Information of Tools used for Verification of the Instruments

Device Description:	Manufacturer	Model
Electrical Multimeter	Fluke	179

* Refer Calibration Tools Certificates submittal for more Information

Verification Test Result:	☑ Passed	☐ Fail	☐ Not Verified

Overall Remarks:	Program parameters verified Single/Two Point Verification Done

Service Technician :	Sanket Trada	Stamp/Signature	
Printed Date:	June 19, 2024		

2024 Annual Performance Report

Appendix F

Notice of Modification to Sewage Works: LOF from 2015 (still in-effect)

Ontario

Ministry of
the Environment

Notice of Modification to Sewage Works

RETAIN COPY OF COMPLETED FORM AS PART OF THE ECA AND SEND A COPY TO THE WATER SUPERVISOR (FOR MUNICIPAL PLANTS) OR DISTRICT MANAGER (FOR INDUSTRIAL PLANTS)

Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility

(Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)

ECA Owner	ECA number	Issuance Date (mm/dd/yy)	Notice number
Township of Adjala-Tosorontio	8860-9N8NCX	08/11/15	4

Part 2 – Description of the modifications as part of the Limited Operational Flexibility

(Attach a detailed description of the sewage works)

TRIAL WITH STERNPAC – INSTEAD OF ALUM as an aid to flocculation

Reason for dosing:

1. Has less effect on pH
2. Reduced sludge production and
3. Improved treatment in cold-water treatment applications

Description shall include:1. A detail description above of the modifications and/or operations to the sewage works (e.g. sewage work component, location, size, equipment type/model, material, process name, etc.)

2. An assessment of the anticipated environmental effects
3. Updated versions of, or amendments to, all relevant technical documents required by this ECA that are affected by the modifications as applicable, e.g. site plan, design brief, drawings, emergency and spill prevention plan, etc.

Part 3 – Declaration by Professional Engineer

I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:

1. Has been prepared or reviewed by a Professional Engineer who is licensed to practice in the Province of Ontario;
2. Has been designed in accordance with the Limited Operational Flexibility as described in the ECA;
3. Has been designed consistent with Ministry's Design Guidelines, adhering to engineering standards, industry's best management practices, and demonstrating ongoing compliance with s.53 of the Ontario Water Resources Act; and other appropriate regulations.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name (Print)	PEO License Number
Zaheer Mohamed	100211238
Signature	Date (mm/dd/yy)
Name of Employer: Ontario Clean Water Agency	03/14/17

LICENSED PROFESSIONAL ENGINEER
Z. L. MOHAMED
100211238
03.14.17
PROVINCE OF ONTARIO

Part 4 – Declaration by Owner

I hereby declare that:

1. I am authorized by the Owner to complete this Declaration;
2. The Owner consents to the modification; and
3. This modifications to the sewage works are proposed in accordance with the Limited Operational Flexibility as described in the ECA.
4. The Owner has fulfilled all applicable requirements of the Environmental Assessment Act.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name of Owner Representative (Print)	Owner representative's title (Print)
Jim Moss	Public Works Superintendent
Owner Representative's Signature	Date (mm/dd/yy)
	03/14/2017

2024 Annual Performance Report

Appendix G

Environmental Incident Reports

Ontario Clean Water Agency
Environmental Incident Report

Facility ID: 5322 EIncidentReport

Facility Name: Everett WWTP

Address: 30 Woodland Drive

City: Wasaga Beach

Province: Ontario

Postal Code: L9Z 2V4

Date of Occurrence: 04/11/2024

Time of Occurrence: 08:21:00 AM

Nature of the Incident

● Level 1 Contingency ○ Level 2 Contingency ○ Level 3 Contingency *Click here To Show the Definitions*

Incident affected: ☐ Air ☐ Water ☒ Land ☐ Nothing

What was discharged or emitted?

☐ Chlorine
☐ Sodium Hypochlorite
☐ Calcium Chloride
☐ Aluminum Compounds (Specify in Other)
☐ Arsenic
☐ Fluoride
☐ Oil/Diesel/Gas
☒ Untreated or partly treated sewage
☐ Odours
☐ Water
☐ Iron Coagulants

Other: _____

If this was a discharge, spill or emission...

If a liquid, approximately what quantity was released?: 34064 Litres

If a gas, approximately what quantity was released?: _____

If a solid, approximately what quantity was released?: _____ Kg

What was the source of release?:

April 11, 2024 maintenance activity, Sand Filter media remove and replace, was the source of the bypass.

Where did the release go?:

The release went into the intended effluent point, Subsurface Beds - Land adjacent to the facility.

If it entered a watercourse: ○ Yes ● No

If it went off site: ○ Yes ● No

Duration of the release?: 4 hours, 47 minutes

Is the release now stopped?: ● Yes ○ No

Was there any damage? (i.e. property and/or environmental): ○ Yes ● No ○ N/A

If "Yes", describe below and fill out "Insurance Claim" report

Action(s) Taken

What actions were taken to control the incident?

Operations staff removed and replaced the Sand Filter media.

What actions have been taken to remediate the incident?

The bypass incident was reported to SAC, MOH and the MECP- Barrie District Office. Sand filter media was removed and replaced.

Was this a reportable spill or discharge?: ● Yes ○ No

If "Yes", at what time was it first reported to the MOE?

April 11, 2024 @ 14:32 PCT notified Barrie District MECP Office - spoke with Phil Sauer, EO

Was it reported to the MOE district office?: ● Yes ○ No

If "Yes", which office/location and who was the contact?: 14:32 PCT notified Barrie District MECP Office - spoke with Phil Sauer, EO

Was it reported to MOE SAC?: ● Yes ○ No

If "Yes", at what time was it reported to MOE SAC?:

April 11, 2024 @ 13:30 PCT notified SAC - spoke with Stephanie McGill, EO

Was it reported to Municipality?: ● Yes ○ No

If "Yes", at what time was it reported to Municipality?:

Aprill 11, 2024, the municipality was notified via email at time of written notification,

External Assistance/Involvement

Was corporate or area office assistance requested?: ○ Yes ● No

If "Yes", was it received?: ○ Yes ○ No

Was external emergency assistance requested?: ○ Yes ● No

If "Yes", from who?: ☐ Fire Department ☐ Equipment Suppliers ☐ Canutec
☐ Ambulance or Hospital ☐ MOE ☐ Coast Guard
☐ Police ☐ Municipality

Other: _____

Was there any media involvment?: ○ Yes ● No

If "Yes", who?: _____

Was the public affected?: ○ Yes ● No

If "Yes", how?: _____

Updated By: Angela Pauze 04/11/2024 04:11:33 PM

Comments:

SAC Reference Number: 1-5NDCX9
Facility: New Horizon WWTP
Works Number: 110003629
Bypass Location: Sand Filters
Spill Date & Time: April 11, 2024 from 08:21 to 13:08 hours
Duration: 4 hours, 47 minutes
Approximate Volume: 46 m3

Incident Description
April 11, 2024, during Sand Filter media replacement, the Sand filters were bypassed.

Actions Taken to Control Incident
Removed and replace Sand Filter media.

Corrective Actions
Bypass incident reported to SAC, MOH- SMDHU and the MECP- Barrie District Office.

Reporting
April 11, 2024:
- 13:30 PCT notified SAC - spoke with Stephanie McGill, EO, Incident Report 1-5NDCX9 generated. No further actions advised
- 13:40 PCT called MOH- SMDHU - Left a voicemail
- 13:46 PCT called MECP Barrie District Office - Left a voicemail on Phil Sauer, EO, cell
- 14:32 PCT notified Barrie District MECP Office - spoke with Phil Sauer, EO
- 14:42 PCT notified MOH - SMDHU - spoke wit Craig Dale, PHI

Ontario Clean Water Agency
Environmental Incident Report

Facility ID: 5322

EIncidentReport

Facility Name: Everett WWTP

Address: 30 Woodland Drive

City: Wasaga Beach

Province: Ontario

Postal Code: L9Z 2V4

Date of Occurrence: 08/13/2024

Time of Occurrence: 08:33:00 AM

Nature of the Incident

● Level 1 Contingency ○ Level 2 Contingency ○ Level 3 Contingency *Click here To Show the Definitions*

Incident affected: ☐ Air ☐ Water ☐ Land ☒ Nothing

What was discharged or emitted?

☐ Chlorine
☐ Sodium Hypochlorite
☐ Calcium Chloride
☐ Aluminum Compounds (Specify in Other)
☐ Arsenic
☐ Fluoride
☐ Oil/Diesel/Gas
☒ Untreated or partly treated sewage
☐ Odours
☐ Water
☐ Iron Coagulants

Other: _____

If this was a discharge, spill or emission...

If a liquid, approximately what quantity was released?: 50000 Litres

If a gas, approximately what quantity was released?: _____

If a solid, approximately what quantity was released?: _____ Kg

What was the source of release?:

The source of the release was secondary effluent. Equipment failure caused he pumps that push secondary effluent through the sand filters not to be activated. The chamber overflowed, sending secondary effluent to the final effluent chamber. The final effluent chamber contents flows to the weeping tile bed, the intended final effluent outflow.

Where did the release go?:

The release went to the weeping tile bed, the intended effluent outflow

If it entered a watercourse: ○ Yes ● No

If it went off site: ○ Yes ● No

Duration of the release?: 8hours, 3 minutes

Is the release now stopped?: ● Yes ○ No

Was there any damage? (i.e. property and/or environmental): ○ Yes ● No ○ N/A

If "Yes", describe below and fill out "Insurance Claim" report

Action(s) Taken

What actions were taken to control the incident?

Scheduled sludge haulage stopped the spill, monthly samples were taken

What actions have been taken to remediate the incident?

Inspected and cleaned failed equipment and verified operating as required

Was this a reportable spill or discharge?: ● Yes ○ No

If "Yes", at what time was it first reported to the MOE?

10:54 Angela Pauze, PCT notified MECP Barrie District Office - Spoke to Mark Kowalyk, EO

Was it reported to the MOE district office?: ● Yes ○ No

If "Yes", which office/location and who was the contact?: Barrie District

Was it reported to MOE SAC?: ● Yes ○ No

If "Yes", at what time was it reported to MOE SAC?:

10:37 Angela Pauze, PCT notified SAC - Spoke to Julian Aristizabal, EO

Was it reported to Municipality?: ○ Yes ● No

If "Yes", at what time was it reported to Municipality?:

External Assistance/Involvement

Was corporate or area office assistance requested?: ○ Yes ● No

If "Yes", was it received?: ○ Yes ○ No

Was external emergency assistance requested?: ○ Yes ● No

If "Yes", from who?: ☐ Fire Department ☐ Equipment Suppliers ☐ Canutec
☐ Ambulance or Hospital ☐ MOE ☐ Coast Guard
☐ Police ☐ Municipality

Other: _____

Was there any media involvment?: ○ Yes ● No

If "Yes", who?: _____

Was the public affected?: ○ Yes ● No

If "Yes", how?: _____

Updated By: Angela Pauze 08/13/2024 03:22:00 PM

Comments:

This is the written notification concerning August 12 to 13, 2024, Bypass incident at New Horizon (Everett) WWTP.

SAC Reference Number: 1-9U1MM0
Facility: New Horizon WWTP
Works Number: 110003629
Bypass Location: Sand Filters
Spill Date & Time: August 12, 2024 at 12:30 to August 13, 2024 at 08:33
Duration: 8 hours, 3 minutes
Approximate Volume: 50 m3

Incident Description
- Sand filter start float failed to activate the sand filter pumps

Actions Taken to Control Incident
- 08:28 Monthly samples were taken as per ECA requirements
- 08:33 Spill was stopped by routine sludge haulage

Corrective Actions
- Inspected and cleaned failed equipment
- Verified equipment was operating as required

Reporting
August 13, 2024:
- 10:28 Angela Pauze, PCT called MOH, SMDHUC - Left a voicemail
- 10:37 Angela Pauze, PCT notified SAC - Spoke to Julian Aristizabal, EO
- 10:54 Angela Pauze, PCT notified MECP Barrie District Office - Spoke to Mark Kowalyk, EO
- 10:54 Angela Pauze, PCT called MECP Inspector Phillip Sauer, left a voicemail
- 13:22 Angela Pauze, PCT spoke to SMDHU Jamie Azan, PHI

Please find attached a copy of the Environmental Incident Report for your records.

If there are any questions or comments, please let me know.

Sincerely,

Angela Pauzé (she/her)
South Simcoe & Georgian Bay
Process & Compliance Technician
Georgian Highlands Region

Cell: 705-715-7241
Tel: 705-429-2525
Fax: 705-429-7967
Email: apauze@ocwa.com

Ontario Clean Water Agency
Environmental Incident Report

Facility ID: 5322 EIncidentReport

Facility Name: Everett WWTP

Address: 30 Woodland Drive

City: Wasaga Beach

Province: Ontario

Postal Code: L9Z 2V4

Date of Occurrence: 08/15/2024

Time of Occurrence: 02:54:07 PM

Nature of the Incident

● Level 1 Contingency ○ Level 2 Contingency ○ Level 3 Contingency *Click here To Show the Definitions*

Incident affected: ☐ Air ☐ Water ☐ Land ☒ Nothing

What was discharged or emitted?

☐ Chlorine
☐ Sodium Hypochlorite
☐ Calcium Chloride
☐ Aluminum Compounds (Specify in Other)
☐ Arsenic
☐ Fluoride
☐ Oil/Diesel/Gas
☒ Untreated or partly treated sewage
☐ Odours
☐ Water
☐ Iron Coagulants

Other: _____

If this was a discharge, spill or emission...

If a liquid, approximately what quantity was released?: 1262720 Litres

If a gas, approximately what quantity was released?: _____

If a solid, approximately what quantity was released?: _____ Kg

What was the source of release?:

Partially treated sanitary sewage. Filter bypassed

Where did the release go?:

The release went to the intendent infiltration bed

If it entered a watercourse: ○ Yes ● No

If it went off site: ○ Yes ● No

Duration of the release?: 7 days, 3 hours, 39 minutes

Is the release now stopped?: ● Yes ○ No

Was there any damage? (i.e. property and/or environmental): ○ Yes ● No ○ N/A

If "Yes", describe below and fill out "Insurance Claim" report

Action(s) Taken

What actions were taken to control the incident?

Manually backwashed filters

What actions have been taken to remediate the incident?

The backwash source water was changed from effluent to potable; The faulty backwash pump was disconnected and sent for repair/replacement; The Backwash frequency and length was increased; The Filter pump floats were adjusted

Was this a reportable spill or discharge?: ● Yes ○ No

If "Yes", at what time was it first reported to the MOE?

1258 hours

Was it reported to the MOE district office?: ● Yes ○ No

If "Yes", which office/location and who was the contact?: Barrie District Office

Was it reported to MOE SAC?: ● Yes ○ No

If "Yes", at what time was it reported to MOE SAC?:

1238 hours

Was it reported to Municipality?: ○ Yes ● No

If "Yes", at what time was it reported to Municipality?:

External Assistance/Involvement

Was corporate or area office assistance requested?: ○ Yes ● No

If "Yes", was it received?: ○ Yes ○ No

Was external emergency assistance requested?: ○ Yes ● No

If "Yes", from who?: ☐ Fire Department ☐ Equipment Suppliers ☐ Canutec
☐ Ambulance or Hospital ☐ MOE ☐ Coast Guard
☐ Police ☐ Municipality

Other: _____

Was there any media involvment?: ○ Yes ● No

If "Yes", who?: _____

Was the public affected?: ○ Yes ● No

If "Yes", how?: _____

Updated By: Angela Pauze 08/26/2024 09:36:21 AM

Comments:

SAC Reference Number: 1-9WPQ57
Facility: New Horizon WWTP
Works Number: 110003629
Bypass Location: Sand Filters
Bypass Date & Time: August 15, 2024 at 1050 hrs to August 22, 2024 at 13:54 hrs
Duration: 7 days, 3 hours, 39 minutes, intermittently depending on influent rate
Approximate Volume: 1,262,720 litres.

Incident Description
August 15, 2024 operations staff were on site for routine maintenance, when at 10:15 a plant walk through found the sand filters were starting to bypass. It was found one of the two filter backwash pumps were in need of repair/replacement. Bypass samples were taken as soon as possible, at the beginning of the bypass on August 15, middle of bypass on August 20 and at the end of bypass on August 22, 2024. Samples were sent to third party laboratory for testing.

Actions Taken to Control Incident
August 15, improved filter flow with manual backwashing

Corrective Actions
August 15, 2024, In an effort to stop further bypassing: The backwash source water was changed from effluent to potable; The faulty backwash pump was disconnected and sent for repair/replacement; The Backwash frequency and length was increased; The Filter pump floats were adjusted

Reporting
August 15, 2024:
- At 1235 hrs OCWA PCT Angela Pauze, notified SAC - Spoke to Neil St. Denis, EO. Incident #1-9WPQ57 assigned. No further directions.
- At 1255 hrs OCWA PCT Angela Pauze, called MECP Inspector Phillip Sauer, left a voicemail.
- At 1258 hrs OCWA PCT Angela Pauze, notified MECP Barrie District Office - Spoke to inspector Mark Bailey, no further actions advised.
- At 1322 hrs OCWA PCT Angela Pauze, notified the MoH- SMDHU, spoke to PHI

Jamie Azan. No further actions advised.

August 22, 2024:
- At 1444 hrs OCWA PCT Lauren Orlovski called SAC to advised bypass had ended. Spoke with EO Fatima Jabeen. No further actions required
- At 1457 hrs OCWA PCT Lauren Orlovski called SMDHU, to advised bypass had ended. Spoke with PHI Rachel Blackwell. No further actions required
- At 1516 hrs OCWA OCT Lauren Orlovski spoke with the MECP officer Phillip Sauer. Was advised of the end of bypass. No further actions required.