ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

WWTP-202
WASTEWATER SYSTEM # 120002264

LAGOONS/SPRAY IRRIGATION

ANNUAL WASTEWATER REPORT

PREPARED FOR
The Township of Ramara

SUBMITTED BY
Ontario Clean Water Agency
2115 Highway 12, Brechin, ON L0K 1B0

Reporting period of January 1, 2025 to December 31, 2025

Issued: March 16, 2026

Revision: 0

Operating Authority: Ontario Clean Water Agency (OCWA)

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1. Background

The Ontario Clean Water Agency (OCWA) operates and maintains the WWTP-202 (Bayshore Village Sewage Works) on behalf of the Township of Ramara. During the reporting period January 1st, 2025-December 31st, 2025 the Ontario Clean Water Agency was the operating authority.

The facility is a Class 1 Wastewater Treatment Plant.

The facility's allowable average daily flow is 399m^3/day. The average day raw flow for the year 2025 was 257.30 m^3/day.

The Bayshore Village Sewage Works operates under:

- Certificate of Approval (C of A) No. 3-1337-81-968 issued July 17, 1996
- Environmental Compliance Approval (CLI-ECA) No. 147-W601 Issue 2 issued July 22, 2024

Certificate of Approval (C of A) No. 3-1337-81-968 issued July 17, 1996 Section 4(2) requires the Performance Report to contain the following:

a) *A summary of all monitoring data, including an overview of the success and adequacy of the sewage treatment program;*

b) *a tabulation of all monitoring and analytical results obtained during the reporting period, including sampling/monitoring location and date;*

c) *a record of the operation of the spray irrigation system, including dates and hours of operation, irrigation system, including dates and hours of operations, irrigation areas utilized, rates of effluent application, and volumes of effluent applied;*

d) *an account of any environmental and operating problems encountered at the site and the mitigative measures taken during the reporting period.*

Environmental Compliance Approval (CLI-ECA) No. 147-W601 Issue 2, issued July 22, 2024, Section 4.6 requires the Performance Report to contain the following:

a) *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) *A summary of any operating problems encountered and corrective actions taken.*

c) *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) *A summary of complaints related to the Sewage Works received during the reporting period and nay steps taken to address the complaints.*

e) *A summary of 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) A summary of all Collection System Overflow(s) and Spill(s) of Sewage, including:
i) Dates;
ii) Volumes and durations;
iii) If applicable, loading 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 impact(s) and corrective actions, if applicable.

g) A summary of efforts made to reduce Collection System Overflows, Spills, STP Overflows, and/or STP Bypasses, including 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.

Bayshore Sewage Works consists of two spray irrigation fields where the effluent from the large lagoon is sprayed at a maximum rate of 55 m^3/ha/day from May 18 to October 28 for each calendar year. The timeframe of the spray irrigation may be extended each year upon written request. One extension request was granted by the Ministry of the Environment Conservation and Parks (MECP) as per the letters from the MECP Barrie District Manager, Chris Hyde, sent on September 12, 2025. The spray season was extended with an approved later end date of November 30, 2025. See Appendix I: Extension Approval Letters.

This report will show that the Ontario Clean Water Agency has made every attempt to achieve its goals through its operational performance. This performance was enhanced through the use of an electronic process data collection database, an electronic maintenance and work order database, an electronic operational excellence database, a training program focused on providing the right skills to staff - also captured and tracked by the use of an electronic database and a multi-skilled, flexible workforce.

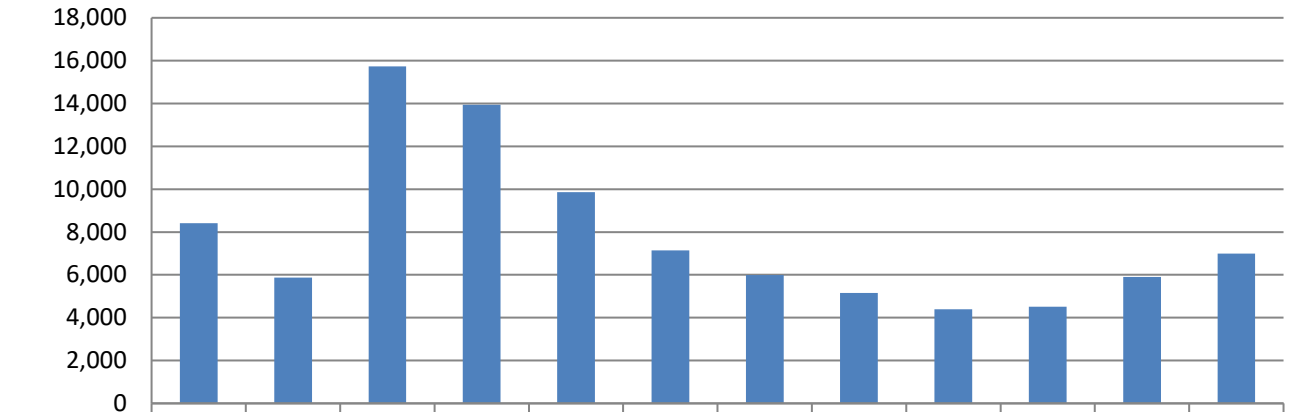
This report will show that the requirements of the facility C of A including effluent monitoring and reporting requirements were consistently met and that effluent quality was consistently within C of A requirements.

2. Summary on Influent Flow Data

Condition 1.1 of the (C of A) No. 3-1337-81-968 *indicates "The Owner Shall ensure that the flow of sewage into the sewage treatment plant does not exceed the average daily flow of 399 m^3/day for any part of time greater than one (1) calendar year."* The annual average daily influent flow was 257.30 m^3/day or 64.5 % of the rated capacity in 2025.

The total Influent flow in 2025 was 93,912.97 m^3.

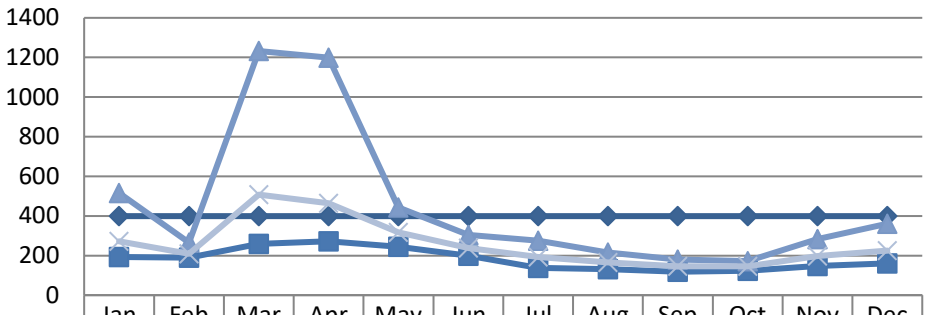
Graph 1: Influent Flow Monthly Totals 2025



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Flow (m^3)	8,405	5,870	15,735	13,943	9,855	7,141	5,998	5,149	4,400	4,518	5,908	6,992

Note: The above flows are calculated based upon manual flow meter readings and was averaged.

Graph 2: Influent Daily Minimum, Maximum and Average Flows 2025



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rated Capacity (m^3/day)	399	399	399	399	399	399	399	399	399	399	399	399
Min (m3/day)	194	189	260	272	245	199	138	132	118	123	148	160
Max (m^3/day)	517	266	1233	1199	443	304	275	215	180	172	283	361
Avg(m^3/day)	271	210	508	465	318	238	193	166	147	146	197	226

Note: Seasonally a significant fluctuation in flow trends shows higher sewage flows which indicates there is ongoing infiltration into the sewer systems. The Ontario Clean Water Agency has maintenance schedules/programs to inspect service laterals, new connections and manholes.

Bayshore Village Sewage Works Historical Flows

Historical sewage flows and sewage generation rates for Bayshore Village Sewage Works are summarized in Table 1.

TABLE 1: HISTORICAL SEWAGE FLOWS AND GENERATION RATES			
Year	**Number of Connections**	**Average Daily Flow (m^3/day)**	**Sewage Generation Rate (L/cap/day)**
2015	320	338	406
2016	322	358	428

2017	328	387	454
2018	335	365	419
2019	340	374	423
2020	342	401	451
2021	342	370	416
2022	348	251	277
2023	350	271	298
2024	353	269	293
2025	353	257	280
3 Year Average		266	290

*Based on 2.6 people per dwelling
Note: This calculation was completed based on current connections in the system, growth within the collection system has not been considered.

3. System Reserve Capacity

In accordance with the MECP Procedure D-5-1, the hydraulic reserve capacity is calculated by the following formula:

Hydraulic Reserve Capacity= Design Flow- Committed Flow

The design flow is equal to the maximum permissible flow approved by the Certificate of Approval. (C of A) No. 3-1337-81-968 maximum permissible flow is: 399 m³/day. The committed flow is equal to the total expected flow by the existing and proposed connections based on the previous 3-year average daily flow.

The built-out service area of the Bayshore Village Sewage Works has a total of 382 units. The three-year (2023-2025) average sewage generation rate is: 290 L/cap/day. With the committed population of 993, there is a projection of 288 m³/day of sewage at full build out.

As a result, the reserve capacity at this system is 111 m³/day.

4. Effluent Spray Irrigation

Effluent spray irrigation was carried out between July 4, 2025 and October 27, 2025. Each day while utilizing the spray irrigation system, logs were kept for weather conditions, which field was being utilized and the volume of effluent that was applied each day.

The Class Environmental Assessment Final Report recommended that a survey be conducted of the piping and spigot layout, along with determining the extent of spray irrigation areas. The survey, completed in the fall, supported efforts to address concerns associated with past system operations while the Township proceeded with the design, approval, and construction of the effluent disposal bed. The survey confirmed that the North Irrigation Field has an area of 10.79 hectares and the South Irrigation Field has an area of 14.60 hectares.

During the spray irrigation season, 14.60 ha from the South fields were utilized from July 4 – October 27, equalling 46 days. In this time, an effluent volume of 19,580 m³ was applied to the South fields (14.60 ha). During the spray irrigation season, the North fields (10.79 ha) were not utilized.

A total effluent volume of 19,580 m^3 was applied to the South spray fields. The average effluent application rate for the reporting period was:

- South Field – 29.15 m^3/ha/day on the 14.6 ha utilized for 46 days.
- North Field - 0.0 m^3/ha/day on 25.39 ha utilized for 0 days

The average effluent application rate has been calculated as per the definition in the (C of A) No. 3-1337-81-968: *"Average Effluent Application rate" means the total volume of effluent applied to a spray irrigation field during a particular spray irrigation season divided by the number of days within that season during which effluent was actually applied to that field."*

The operation of the spray irrigation system consists of the following seasonally:

- Seasonal spray irrigation piping and spray nozzles are installed and pressure tested prior to the beginning of the spray season.
- The spray irrigation fields are inspected daily along with weather conditions (i.e. no rain and wind velocity less than 15 km/hr) to determine if conditions are favourable for spray irrigation.
- If spray irrigation is favourable, the operator starts the effluent pump. The operator verifies the sprinkler heads are operational. If issues arise such as broken pipes, clogged sprinkler heads, surface ponding and aerosol drift, then the spray operation is modified, discontinued or repaired as required.
- Operations staff maintains daily logs during the spray irrigation operation.

5. Lagoon Cell Content Removal

As a result of the conditions limiting spray field operation and continuing high cell levels, lagoon cell contents were removed to allow sufficient storage for the estimated volume of sewage that would accumulate during the 2025 spray season. From January 6, 2025 – March 7, 2025 and July 7, 2025 – October 31, 2025 a total volume of 112,075 m^3 was removed from the large cell at the Bayshore Village Sewage Works and taken to the Brechin and Lagoon City Wastewater Treatment Facility.

6. Summary of Sampling Frequency

(C of A) No. 3-1337-81-968 Condition 2.1 (b) describes the requirement for sample collection at the following locations, frequencies and by means of the specified sample type and analyzed for each parameter listed and all results recorded:

TABLE 2: MINIMUM INFLUENT SEWAGE SAMPLING REQUIREMENTS		
Parameters	Sample Type	Frequency
BOD5	Grab	Monthly
Total Suspended Solids	Grab	Monthly
Total Phosphorus	Grab	Monthly
Total Kjeldahl Nitrogen	Grab	Monthly

TABLE 3: MINIMUM LAGOON EFFLUENT SAMPLING REQUIREMENTS		
Parameters	Sample Type	Frequency
BOD5	Grab	Annually
Total Suspended Solids	Grab	Annually
Total Phosphorus	Grab	Annually
Total Kjeldahl Nitrogen	Grab	Annually

(Ammonia + Ammonium) Nitrogen	Grab	Annually

Note: The annual sampling of the lagoon effluent shall take place at the beginning of each spray irrigation season.

TABLE 4: MINIMUM SURFACE WATER PARAMETER SAMPLING REQUIREMENTS		
Parameters	Sample Type	Frequency
BOD5	Grab	3 per season
Total Suspended Solids	Grab	3 per season
Total Phosphorus	Grab	3 per season
Total Kjeldahl Nitrogen	Grab	3 per season
(Ammonia + Ammonium) Nitrogen	Grab	3 per season
Nitrates	Grab	3 per season
Nitrites	Grab	3 per season
pH	Grab	3 per season
Temperature	Grab	3 per season

Note: The surface water sampling shall take place prior to, in the middle, and after each spray irrigation season, provided that there is flow in the stream.

TABLE 5: MINIMUM SOIL PARAMETER SAMPLING REQUIREMENTS		
Parameters	Sample Type	Frequency
Total Organic Carbon	Core	Annually
Total Phosphorus	Core	Annually
Total Kjeldahl Nitrogen	Core	Annually
(Ammonia + Ammonium) Nitrogen	Core	Annually
Nitrite and Nitrate Nitrogen	Core	Annually
Chlorides	Core	Annually
Sodium	Core	Annually
Conductivity	Core	Annually
pH	Core	Annually

Note: The annual soil sampling shall take place prior to each spray irrigation season.

7. Sewage and Effluent Quality

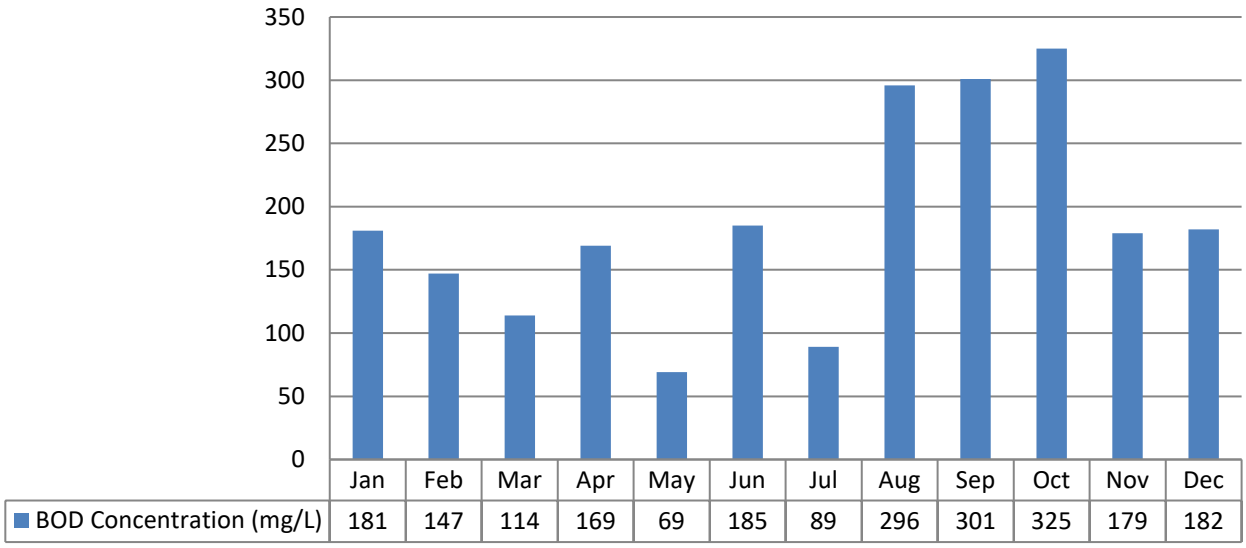
Raw Sewage Characteristics

Detailed below are raw sewage characteristics for the 2025 reporting period.

A summary of the 2025 Raw Sewage monitoring data is contained in Appendix II of this report.

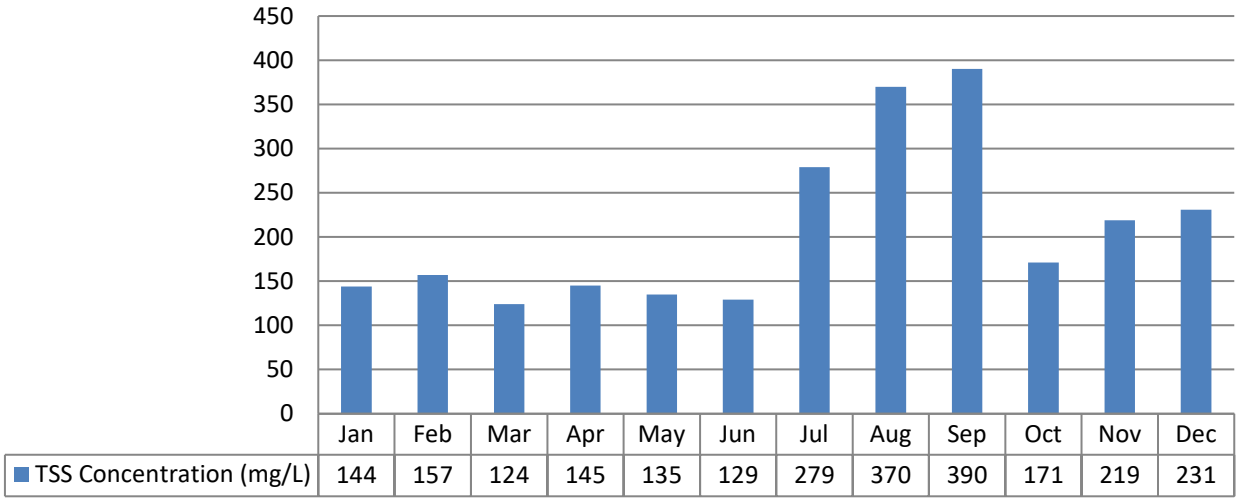
Biochemical Oxygen Demand (BOD5)

Graph 3: Monthly BOD5 Raw Sewage Average Concentration 2025



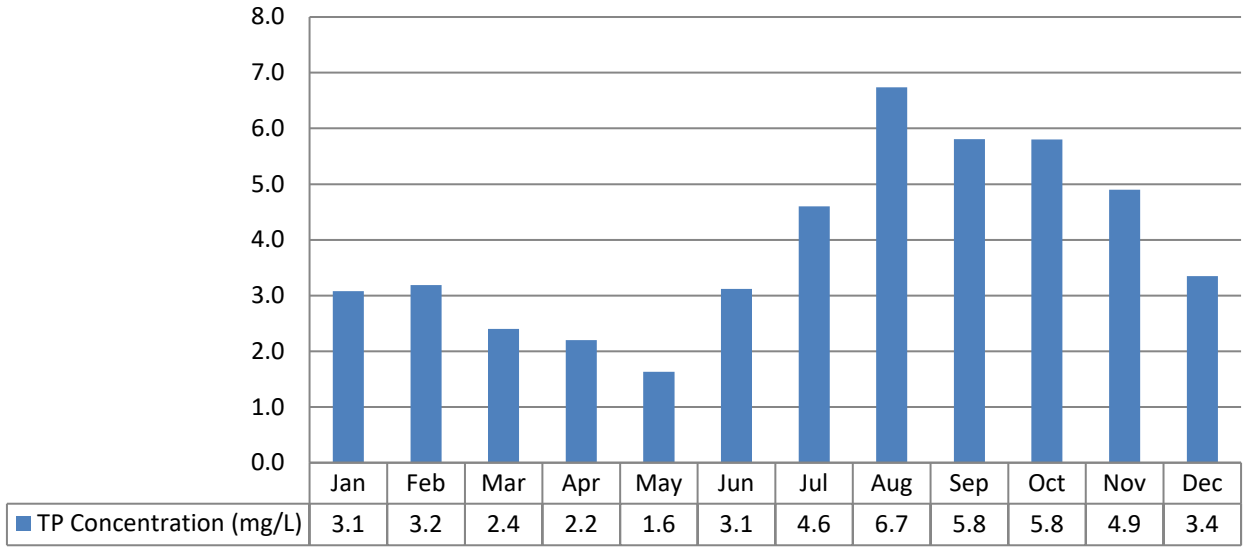
Total Suspended Solids (TSS)

Graph 4: Monthly TSS Raw Sewage Average Concentration 2025



Total Phosphorus (TP)

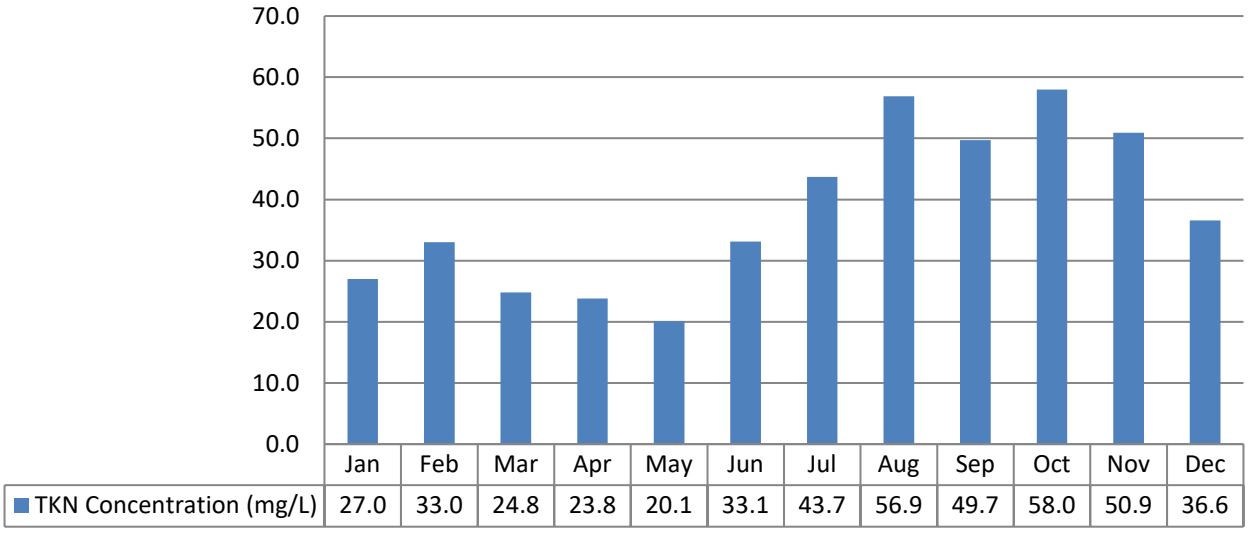
Graph 5: Monthly Total Phosphorus Raw Sewage Average Concentration 2025



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TP Concentration (mg/L)	3.1	3.2	2.4	2.2	1.6	3.1	4.6	6.7	5.8	5.8	4.9	3.4

Total Kjeldahl Nitrogen TKN (mg/L)

Graph 6: Monthly Total Kjeldahl Nitrogen (TKN) Monthly Raw Sewage Average Concentration 2025



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TKN Concentration (mg/L)	27.0	33.0	24.8	23.8	20.1	33.1	43.7	56.9	49.7	58.0	50.9	36.6

Effluent Quality

Grab samples were collected from each lagoon prior to the start of the spray irrigation season on May 13, 2025. The samples were collected as per the Certificate of Approval No. 3-1337-81-968 Condition 2.1 (b). The laboratory results are summarized in Table 6.

There are no effluent limits or objectives in the Certificate of Approval.

TABLE 6: LAGOON CONTENT CHARACTERISTICS			
	MAY 2025		
Parameters	*Large Lagoon (Cell A- West Location)*	*Large Lagoon (Cell A- Dock Location)*	*Small Lagoon (Cell B)*
BOD5 (mg/L)	14	13	40
Total Suspended Solids (mg/L)	21	12	83
Total Phosphorus (mg/L)	0.58	0.46	0.48
TKN (mg/L)	2.2	1.7	4.3
TAN (mg/L)	0.4	<0.1	1.3

8. Effluent Spray Irrigation

Groundwater Monitoring

Groundwater samples were collected in May, August and November for groundwater monitoring in six boreholes in and around the North and South spray irrigation fields. The results for the ground water monitoring samples are summarized below in Tables 7-12. The results were compared with the Ontario Drinking Water Standards, Objectives and Guidelines (ODWS). Chloride concentrations ranged from 12 mg/L to 120 mg/L, which is consistent with levels measured in 2024. Nitrite levels were low, comparable to samples collected in 2024. Nitrate levels were low and comparable to 2024, with a slight increase near the end of season as a result of drought conditions. Most other parameters measured (nitrogen, TKN and TAN) were typically undetectable. The results received indicate the low impact the spray irrigation fields are having on the groundwater.

TABLE 7: GROUNDWATER MONITORING – 1-1 (EAST SOUTH FIELD)				
Parameter	Location	May 12	August 20	November 17
Diss. Organic Carbon (mg/L)	1-1 (East South Field)	2	1	3
Nitrite (mg/L)	1-1 (East South Field)	<0.03	<0.03	<0.03
Nitrate (mg/L)	1-1 (East South Field)	<0.06	<0.06	0.39
Chloride (mg/L)	1-1 (East South Field)	120	140	150
TKN (mg/L)	1-1 (East South Field)	<0.5	<0.5	<0.5
TAN (mg/L)	1-1 (East South Field)	<0.1	<0.1	<0.1
Total Phosphorus (mg/L)	1-1 (East South Field)	<0.03	0.08	0.20

TABLE 8: GROUNDWATER MONITORING – 1-3 (SOUTH FIELD)				
Parameter	Location	May 12	August 20	November 17
Diss. Organic Carbon (mg/L)	1-3 (South Field)	2	1	5
Nitrite (mg/L)	1-3 (South Field)	<0.03	<0.03	<0.03
Nitrate (mg/L)	1-3 (South Field)	<0.06	<0.06	1.69

Chloride (mg/L)	1-3 (South Field)	88	140	160
TKN (mg/L)	1-3 (South Field)	1.2	<0.5	<0.5
TAN (mg/L)	1-3 (South Field)	0.2	<0.1	<0.1
Total Phosphorus (mg/L)	1-3 (South Field)	<0.03	<0.03	0.21

*Unable to collect August 2025 sample due to dry well

TABLE 9: GROUNDWATER MONITORING – 1-4 (NORTH FIELD)				
Parameter	Location	May 12	August 20	November 17
Diss. Organic Carbon (mg/L)	1-4 (North Field)	1	2	5
Nitrite (mg/L)	1-4 (North Field)	<0.03	<0.03	<0.03
Nitrate (mg/L)	1-4 (North Field)	<0.06	0.08	1.69
Chloride (mg/L)	1-4 (North Field)	82	91	160
TKN (mg/L)	1-4 (North Field)	<0.5	<0.5	<0.5
TAN (mg/L)	1-4 (North Field)	<0.1	0.2	<0.1
Total Phosphorus (mg/L)	1-4 (North Field)	<0.03	0.11	0.16

TABLE 10: GROUNDWATER MONITORING – 1-5 (NORTH FIELD)				
Parameter	Location	May 12	August 20	November 17
Diss. Organic Carbon (mg/L)	1-5 (North Field)	2	<1	2
Nitrite (mg/L)	1-5 (North Field)	<0.03	<0.03	<0.03
Nitrate (mg/L)	1-5 (North Field)	<0.06	<0.06	0.09
Chloride (mg/L)	1-5 (North Field)	17	69	64
TKN (mg/L)	1-5 (North Field)	0.6	<0.5	<0.5
TAN (mg/L)	1-5 (North Field)	<0.1	<.01	<0.1
Total Phosphorus (mg/L)	1-5 (North Field)	0.05	0.12	<0.03

TABLE 11: GROUNDWATER MONITORING – 1-7 (NORTH FIELD)				
Parameter	Location	May 12	August 20	November 17
Diss. Organic Carbon (mg/L)	1-7 (North Field)	4	2	2
Nitrite (mg/L)	1-7 (North Field)	0.08	<0.03	<0.03
Nitrate (mg/L)	1-7 (North Field)	0.26	<0.06	0.11
Chloride (mg/L)	1-7 (North Field)	48	20	19
TKN (mg/L)	1-7 (North Field)	2.1	<0.5	<0.5
TAN (mg/L)	1-7 (North Field)	1.5	<0.1	<0.1
Total Phosphorus (mg/L)	1-7 (North Field)	0.19	0.11	<0.03

TABLE 12: GROUNDWATER MONITORING – 1-1 (WEST NORTH FIELD)				
Parameter	Location	May 12	August 20	November 17
Diss. Organic Carbon (mg/L)	1-1 (West North Field)	2	6	4
Nitrite (mg/L)	1-1 (West North Field)	<0.03	<0.03	0.06
Nitrate (mg/L)	1-1 (West North Field)	<0.06	<0.06	6.38

Chloride (mg/L)	1-1 (West North Field)	12	71	63
TKN (mg/L)	1-1 (West North Field)	0.8	14.6	<0.5
TAN (mg/L)	1-1 (West North Field)	<0.1	15.6	<0.1
Total Phosphorus (mg/L)	1-1 (West North Field)	0.04	2.48	0.46

Surface Water Monitoring

The surface water monitoring takes place at Wainman's Creek, upstream and downstream of the spray fields. Samples were taken in May, August and November of 2025. All samples were taken as per (C of A) No. 3-1337-81-968 Condition 2.1 (b).

The sample results from Wainman's Creek are shown in Tables 13 and 14. The upstream and downstream sample location results show water quality is consistent, signifying little to no impact from the spray irrigation process.

TABLE 13: SURFACE WATER MONITORING – WAINMAN'S CREEK (UPSTREAM)				
Parameter	Location	May 13	August 20	November 17
BOD5 (mg/L)	Wainman's Creek (Upstream)	9	<4	<4
Total Suspended Solids (mg/L)	Wainman's Creek (Upstream)	9	5	17
pH	Wainman's Creek (Upstream)	7.66	7.38	7.66
Total Kjeldahl Nitrogen (as N mg/L)	Wainman's Creek (Upstream)	0.6	0.7	0.7
Ammonia+Ammonium (N) (as N mg/L)	Wainman's Creek (Upstream)	<0.1	<0.1	<0.1
Nitrite (mg/L)	Wainman's Creek (Upstream)	<0.03	<0.03	<0.03
Nitrate (mg/L)	Wainman's Creek (Upstream)	0.96	<0.06	3.43
Nitrite + Nitrate (mg/L)	Wainman's Creek (Upstream)	0.96	<0.06	3.43
Phosphorus (total) (mg/L)	Wainman's Creek (Upstream)	0.037	0.082	0.058
E. coli (cfu/100mL)	Wainman's Creek (Upstream)	93	51	>2420
Total Coliforms (cfu/100mL)	Wainman's Creek (Upstream)	1011	1986	>2420

TABLE 14: SURFACE WATER MONITORING – WAINMAN'S CREEK (DOWNSTREAM)				
Parameter	Location	MAY 13	August 20	November 17
BOD5 (mg/L)	Wainman's Creek (Downstream)	10	<4	<4
Total Suspended Solids (mg/L)	Wainman's Creek (Downstream)	10	10	16
pH	Wainman's Creek (Downstream)	7.67	7.40	7.61

Total Kjeldahl Nitrogen (as N mg/L)	Wainman's Creek (Downstream)	0.7	0.8	0.5
Ammonia+Ammonium (N) (as N mg/L)	Wainman's Creek (Downstream)	<0.1	<0.1	0.1
Nitrite (mg/L)	Wainman's Creek (Downstream)	<0.03	<0.03	<0.03
Nitrate (mg/L)	Wainman's Creek (Downstream)	0.95	<0.06	3.38
Nitrite + Nitrate (mg/L)	Wainman's Creek (Downstream)	0.95	<0.06	3.38
Phosphorus (total) (mg/L)	Wainman's Creek (Downstream)	0.040	0.125	0.055
E. coli (cfu/100mL)	Wainman's Creek (Downstream)	133	62	>2420
Total Coliforms (cfu/100mL)	Wainman's Creek (Downstream)	<4840	1733	>2420

Soil Core Monitoring

The soil core monitoring samples are taken in the North and South spray fields. All samples were taken as per (C of A) No. 3-1337-81-968 Condition 2.1 (b) during the 2025 reporting period.

TABLE 15: SOIL CORE MONITORING - NORTH FIELD UPPER

Parameter	Location	May 13
pH	North Field Upper	7.21
Conductivity (µS/cm)	North Field Upper	134
Chloride (µg/g)	North Field Upper	17
Nitrate + Nitrite as N (µg/g)	North Field Upper	<0.2
TKN (µg/g)	North Field Upper	0.23
TAN (µg/g)	North Field Upper	<0.01
Total Organic Carbon (µg/g)	North Field Upper	3.5
Phosphorus (µg/g)	North Field Upper	540
Sodium (µg/g)	North Field Upper	320

TABLE 16: SOIL CORE MONITORING – NORTH FIELD LOWER

Parameter	Location	May 13
pH	North Field Lower	7.30
Conductivity (µS/cm)	North Field Lower	224
Chloride (µg/g)	North Field Lower	2.4
Nitrate + Nitrite as N (µg/g)	North Field Lower	<0.2
TKN (µg/g)	North Field Lower	0.08
TAN (µg/g)	North Field Lower	<0.01
Total Organic Carbon (µg/g)	North Field Lower	2.0

Phosphorus (µg/g)	North Field Lower	730
Sodium (µg/g)	North Field Lower	430

TABLE 17: SOIL CORE MONITORING - SOUTH FIELD		
Parameter	Location	April 17
pH	South Field	6.16
Conductivity (µS/cm)	South Field	59
Chloride (µg/g)	South Field	3.4
Nitrate + Nitrite as N (µg/g)	South Field	<0.2
TKN (µg/g)	South Field	0.20
TAN (µg/g)	South Field	<0.01
Total Organic Carbon (µg/g)	South Field	4.1
Phosphorus (µg/g)	South Field	750
Sodium (µg/g)	South Field	190

9. Description of Operating Problems

The following table details describe all operating problems encountered at the Bayshore Sewage Works and Collection System during the reporting period and the corrective actions taken:

TABLE 18: BAYSHORE VILLAGE SEWER WORKS OPERATIONAL CHALLENGES		
Months	Challenges	Corrective Actions
January February March	Elevated pond levels East pumping station backup generator fault-failure Utility power failures during ice storms	Hauling of effluent from lagoons to Brechin Lagoon City Sewage Works Alternator was repaired and then replaced. Portable generator utilized. Generator to provide backup power, site checks completed.
April May June	Raw inlet crock plugged with debris	Removed debris from crock
July August September	Plugged sewer main on Southview Dr. Multiple leaks in spray fields Limited Spray Irrigation due to field and weather conditions	CCTV sewer and cleared sewer Repaired leaks in spray fields Hauling from lagoons to Brechin Lagoon City Sewage Works
October November December	Faulty flow meter sensor Limited Spray Irrigation due to field and weather conditions	Replaced flow meter sensor Hauling from lagoons to Brechin Lagoon City Sewage Works

10. Summary of Maintenance

Routine maintenance and operation of the Bayshore Village Sewage Works and Collection System in 2025 consisted of the following:

- Repaired East Pumping Station Generator Alternator
- Inflow and infiltration repairs completed in collection system
- Exercised, tested and performed maintenance on East Pumping Station generator
- Cleaned pumping stations
- Purchased new 12” pipe to complete repairs
- Replaced multiple leaking gaskets on mainline pipe through the spray season
- Repair plugged sprinkler heads
- Repair 6”x3” Tee damaged by skid steer
- Added additional pipe and 9 new sprinklers to field A1, additional sprinklers added to area as a
- result of increased grass maintenance assisting in drying
- Repaired pipe damage located in section C3, isolated to allow the fields to run pending repair
- Increased grass cutting at site
- Removal of cat tails
- Effluent flow meter repaired
- Replaced effluent flow meter sensor
- Contracted harvester to clean weeds in the lagoons
- Replaced flusher drum on intake
- Rebuilt small east field of spray infrastructure
- Winterize system
- Completed Annual calibrations
- Pump rentals to transfer from small cell to large cell, OCWA provided 6” diesel pump

11. Summary of Effluent Quality Assurance or Control Measures Undertaken

All final effluent samples collected during the reporting period to meet C of A sampling requirements were submitted to SGS Lakefield Research Ltd. laboratory for analysis. SGS Lakefield Research has been deemed accredited by the Canadian Association for Laboratory Accreditation (CALA), meeting strict provincial guidelines including an extensive quality assurance/quality control program. By choosing this laboratory, the Ontario Clean Water Agency is ensuring appropriate control measures are undertaken during sample analysis.

Effluent quality assurance is maintained in several ways. Laboratory samples are sent to an accredited laboratory (SGS Canada Inc. - Lakefield) for analysis of all effluent parameters. Sampling calendars issued to the operator which denote frequency of sampling. Calendars are used as a tracking mechanism throughout the month to ensure all required samples are collected. These calendars are submitted to the Process Compliance Technician at the end of each month for review. Raw and effluent samples are collected as per the Amended C of A and the results are reviewed on a regular basis to ensure compliance.

Work orders illustrating all scheduled and preventative maintenance to be completed are issued to the operator and/or mechanic. OCWA conducts internal audits of the facility and develops Action Plans to ensure deficiencies are identified.

12. Summary of Calibration and Maintenance

Calibrations on effluent monitoring equipment were performed by Flowmetrix Technical Services Inc. on May 1, 2025 for equipment located at the Bayshore Village Sewage Works and relevant Collection System Components. Please see Appendix III: Calibration Report.

TABLE 19: CALIBRATION AND MAINTENANCE	
Table 19: Bayshore Village Sewage Works – Summary of Calibration and Maintenance – 2025	
Final Effluent Monitoring Equipment	Date of completion
Final Effluent Spray Fields Flow Meter	May 1, 2025
Bayshore Village East Pump Station	Date of completion
Flow Meter	May 1, 2025

13. Sludge Accumulation

In April 2022, a biosolids volume survey was completed to assess sludge accumulation within the small and large lagoons. The 2022 survey represents the most recent biosolids volume assessment. For further details or technical clarification regarding the survey findings, please contact the Township of Ramara.

14. Summary of Community Complaints

Date	Issue	Actions Taken
March 30 – April 2, 2025	Multiple sewer backups reported to the Township during ice storm event	Generator repair at pump station. Operations returned to normal following repair.
April 7, 2025	Customer called to inquire if there are still any issues in the collection system following the ice storm event.	Advised customer there are no further issues.
October 14, 2025	Complaint received by The Township of Ramara - The concern was that wind speeds exceeded 15 km/hr, above the limit outlined in the C of A. The neighbor also reported visible aerosol drift from the fields.	During operations, operators use a manual wind gauge at multiple locations to confirm on-site wind conditions. Wind speeds were observed to be below the limits set out in the Certificate of Approval. Upon receipt of the complaint and observation of potential aerosol drift, field operations were halted in accordance with operational requirements.

15. Summary of Bypass, Spills or Other Discharges

Table 20 summarizes all Bypass, spills or abnormal discharge events that occurred at the Bayshore Village Sewage Works and Collection System in 2025. All were reported to Ministry of Health (MOH) and MECP. Copies of these reports are provided in Appendix IV.

TABLE 20: 2025 SUMMARY OF EVENTS					
Date	Type of Event	Total Estimated Volume (m^3)	Disinfect (Y/N)	Samples Collected (Y/N)	Reason
April 15, 2025	Bypass	518	N	N	Bypassed small lagoon cell to the large cell as a blockage of the inlet crock of small lagoon cell caused raw sewage to discharge onto the bank of the small lagoon cell but was contained by the berm around the crock.

16. Summary of Efforts Made to Reduce Overflows, Spills and Bypasses – *ECA 147-W601*

a) A description of projects undertaken and completed in the Authorized System that result in overall overflow reduction or elimination including expenditures and proposed projects to eliminate overflows with estimated budget forecast for the year following that for which the report is submitted.

- Township of Ramara has allocated funds to an I&I Reduction Program.
- Approved budget to haul required effluent from the lagoons as required based on the lagoon capacity assessment in order to prevent a spill or bypass from the lagoons prior to the 2026 spray season.

b) Details of the establishment and maintenance of a PPCP, including a summary of project progresses compared to the PPCP's timelines.
The Ramara Sanitary Sewage Collection system does not contain combined sewers and therefore is not required to complete a Pollution Prevention and Control Plan (PPCP).

c) An assessment of the effectiveness of each action taken.
Nothing to report at this time.

d) An assessment of the ability to meet Procedure F-5-1 or Procedure F-5-5 objectives (as applicable) and if able to meet the objectives, an overview of next steps and estimated timelines to meet the objectives.
Not applicable.

e) Public reporting approach including proactive efforts.
The Township of Ramara utilizes their website and social media platforms to post Media Releases. Residents have the ability to subscribe to receive Media Releases from the Township of Ramara to an email address. The Township of Ramara also distributes a quarterly publication as well as randomized campaigns that bring awareness to the Sewer Use Bylaw and other information related to municipal sewer use such as sump pump connections.

f) *A summary of 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.*
No alterations were made to the Authorized System within the reporting period.

17. MECP Inspections

The Bayshore Village Sewage Works was not inspected by the Ministry of Environment, Conservation and Parks during the reporting period. Table 21 summarizes the non-compliances identified in the inspection.

TABLE 21: NON-COMPLIANCE IDENTIFIED IN A MINISTRY INSPECTION

Requirement(s) system failed to meet	Required Action	Status
No Non-Compliances during the reporting period.		

APPENDIX I

Extension Approval Letters

Ministry
of the Environment,
Conservation and Parks
1201-54 Cedar Pointe Drive
Barrie ON L4N 5R7
Tel: (705) 739-6441
1-800-890-8511
Fax: (705) 739-6440

Ministère
de l'Environment de la Protection de la nature et des Parcs
1201-54 chemin Cedar Pointe
Barrie ON L4N 5R7
Tél: (705) 739-6441
1-800-890-8511
Téléc: (705) 739-6440

Ontario

September 15, 2025

Laura Pye
General Manager, Development and Infrastructure
Township of Ramara
LPye@ramara.ca

Dear Laura Pye:

Re: Request to extend effluent spray irrigation period for Bayshore Village Sewage Works

I have received your request dated September 12, 2025 in which you request an extension to the effluent spray irrigation period for the Bayshore Village Sewage Works.

As a result, I have considered your request and have decided to approve the extension to the 2025 spray irrigation period from September 29, 2025 to November 30, 2025.

Please accept this letter as permission to continue the period of effluent spray irrigation at the works until November 30, 2025. During the period of September 29, 2025 to November 30, 2025, all conditions of Environmental Compliance Approval #3-1337-81-968 (ECA) will continue to apply to the operations of the sewage works and the spray irrigation system. In addition to the existing conditions within the ECA, the effluent spray irrigation system must also be operated in accordance with the following conditions during this period:

1. The application of effluent to the spray irrigation field shall not be conducted during a precipitation event.
2. The application of effluent to the spray irrigation field shall not be conducted when there is frost in the ground or when there is snow cover.
3. Visual inspection of the field conditions and piping network must be completed before the spray irrigation is turned on each day, during the operation of the spray irrigation system and at the conclusion of the spray irrigation day to confirm conditions are suitable for irrigation and that there is no ponding, run off or aerosol drift occurring. Dates, times, observations of field conditions and piping

network status and details of any corrective actions taken must be recorded in the facility logbook or another record-keeping mechanism along with the initials of the operator(s) conducting the inspections.

Please feel free to contact Laura Kent, Water Compliance Officer at laura.kent@ontario.ca or Sheri Broeckel, Water Compliance Supervisor at (705) 716-3712 with any questions or concerns.

Yours truly,

Chris Hyde
District Manager

APPENDIX II

Performance Assessment Report

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Performance Assessment Report

From 1/1/2025 to 12/31/2025 11:59:59 PM

1616 BAYSHORE VILLAGE LAGOONS 120002264

	1 / 2025	2/ 2025	3/ 2025	4/ 2025	5/ 2025	6/ 2025	7/ 2025	8/ 2025	9/ 2025	10/ 2025	11/ 2025	12/ 2025	<--Total-->	<--Avg-->	<--Max-->	<-Criteria->
Flows																
Raw Flow: Total - Raw Sewage m³/d	8,405.05	5,869.84	15,734.50	13,943.08	9,855.34	7,140.63	5,997.77	5,148.58	4,400.38	4,517.93	5,907.94	6,991.93	93,912.97			0.00
Raw Flow: Avg - Raw Sewage m³/d	271.13	209.64	507.56	464.77	317.91	238.02	193.48	166.08	146.68	145.74	196.93	225.55		257.30		
Raw Flow: Max - Raw Sewage m³/d	516.55	265.83	1,232.51	1,199.21	442.93	303.89	275.29	215.27	179.93	172.21	283.07	360.70			1,232.51	0.00
Raw Flow: Count - Raw Sewage m³/d	31.00	28.00	31.00	30.00	31.00	30.00	31.00	31.00	30.00	31.00	30.00	31.00	365.00			0.00
Biochemical Oxygen Demand: BOD5																
Raw: Avg BOD5 - Raw Sewage mg/L	181.00	147.00	114.00	169.00	69.00	185.00	89.00	296.00	301.00	325.00	179.00	182.00		186.42	325.00	0.00
Raw: # of samples of BOD5 - Raw Sewage	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00			0.00
Percent Removal: BOD5 - Raw Sewage %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00
Total Suspended Solids: TSS																
Raw: Avg TSS - Raw Sewage mg/L	144.00	157.00	124.00	145.00	135.00	129.00	279.00	370.00	390.00	171.00	219.00	231.00		207.83	390.00	0.00
Raw: # of samples of TSS - Raw Sewage	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00			0.00
Percent Removal: TSS - Raw Sewage %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00
Total Phosphorus: TP																
Raw: Avg TP - Raw Sewage mg/L	3.08	3.19	2.40	2.20	1.63	3.12	4.60	6.74	5.81	5.80	4.90	3.35		3.90	6.74	0.00
Raw: # of samples of TP - Raw Sewage	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00			0.00
Percent Removal: TP - Raw Sewage %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00
Nitrogen Series																
Raw: Avg TKN - Raw Sewage mg/L	27.00	33.00	24.80	23.80	20.10	33.10	43.70	56.90	49.70	58.00	50.90	36.60		38.13	58.00	0.00
Raw: # of samples of TKN - Raw Sewage	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00			0.00

APPENDIX III

Calibration Reports

FLOWMETRIX
TECHNICAL SERVICES

FLOW, PRESSURE and WATER QUALITY INSTRUMENTATION

Verification/Calibration

REPORT

OCWA
ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

- KAWARTHA LAKES – RAMARA TWP -

APRIL/MAY 2025

FLOWMETRIX
TECHNICAL SERVICES

OCWA
ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

May 22nd, 2025

Ontario Clean Water Agency
Kawartha Lakes
Rob Smith
Team Lead
123 East St. S
Bobcaygeon ,ON K0M 1A0
T: 705-623-7273
E: RSmith@ocwa.com

RE: Annual Verification/Calibration for the Township of Ramara

WWTP - AC & WQA

April 30th & May 1st, 2025

Dear Rob,

SCG Flowmetrix appreciates the opportunity to complete your field service and verification/calibration services. This letter of transmittal confirms completion of this service project.

The following service report contains the individual instrument reports for all verification/calibrations as well as an Equipment List Summary.

Note: Equipment List Summary is only included where 5 or more instruments are verified/calibrated for the same client/area. Otherwise, only individual reports are provided.

In addition to the base report, relevant information related to standard approach and methodologies for various instruments verified and/or calibrated, and a statement of qualifications for all verification/calibrations completed by trained, knowledgeable and experienced personnel is found in the section Quality Assurance and Quality Control.

If you have any additional questions or concerns with regards to this report, please do not hesitate to contact me directly.

Kind Regards,

Sarah Cawston

Sarah Cawston
Sales & Service Coordinator
2088 Jetstream Rd.
London, ON N5V 3P6
c. 519-281-9660
scawston@scgflowmetrix.com

FLOWMETRIX
TECHNICAL SERVICES

OCWA
ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

QUALITY ASSURANCE/QUALITY CONTROL

Flowmetrix adheres to a rigid scope of service and deliverables for each client and instrument verified, calibrated, and reported. We follow a standard guideline while performing verification and calibration procedures for each instrument, using original equipment manufacturer (OEM) tools, where possible. The values are field reported and entered in a standard report format for client review. A digital report is completed for each instrument and collated into a single document for client record.

Approach & Methodology

Flowmetrix conducts verification of each instrument and subsequent calibrations on instruments that are outside the expected tolerance of the instrument response, where possible. Manufacturers OEM suggested testing guidelines are used to verify and/or calibrate each instrument. Where, unable to perform the verification or calibration as suggested by the manufacturer, a best management practice is performed to validate the performance of such instruments.

REPORTING

Flowmetrix report is divided into (2) sections. Section (i) identifies an equipment summary of all instruments verified during this service project including instruments that PASS or FAIL; section (ii) identifies individual equipment reports for client review and record and identifies any comments and deficiencies that should be noted for client review and possible response.

Section (i) - Equipment Summary

An equipment summary sheet identifying all instruments; both PASSING and FAILING verification and/or calibration while completed during this service project.

The Summary Equipment List is only included where 5 or more instruments are verified/calibrated for the same client/area. Otherwise, only individual reports are provided.

Section (ii) - Individual Equipment Reports

Individual equipment reports are completed for easy review and are found in Appendix B. These reports outline all specific information pertaining to the equipment be tested; noted as meter under test (MUT). Date, time, location, meter make, model and serial number accompany this report for tracking and identification. Each report identifies a PASS or FAIL comment 'as found' and 'as left' upon completion of the verification and/or calibration.

Where possible, a verification is performed prior to calibration, if the OEM testing procedures allow, otherwise an 'as left' report is provided for such equipment.

Note: If a meter under test (MUT) is (AS FOUND) to be operating outside of the allowable tolerance, the report will indicate "NA". The "NA" statement is NOT suggesting the MUT, or a component of the MUT is not functional or has failed; but simply indicates at the time the test was conducted the verification reported values are found outside the allowable tolerance.

Only if the MUT is failed due to equipment failure and not verification/calibration tolerances, the report will indicate "FAIL" (AS FOUND) and will be commented on in the individual equipment report.

STATEMENT OF QUALIFICATIONS

To comply with our clients DWQMS standards, Flowmetrix adheres to a rigid approach to conducting our equipment verification/calibration services including the training received by our company and our personnel conducting service. A Statement of Qualifications outlining Flowmetrix qualifications to conduct this level of service is available in a separate document upon request.

FLOWMETRIX
TECHNICAL SERVICES

APPENDIX-B

INDIVIDUAL INSTRUMENT REPORTS

FLOWMETRIX
TECHNICAL SERVICES

ABB

VeriMaster - Flow Meter Verification Report

Customer Information

Customer	OCWA Ramara
Verification Download	Wed, Apr 30, 2025

Meter Information

Meter Owner	Bayshore East Station
Meter Type	WaterMaster
Sensor Size	DN150
Pipe Status	Fluid Present
Sensor Type	Fullbore
Sensor Serial No	3K620000157278
Transmitter Serial No	3K620000157278
Tag	EAST PUMP
Location	BSV EAST SPS

Overall Status: Pass

The flowmeter has passed its internal continuous verification and automatic self calibration. It is working within +/ -1% of its original factory calibration

Summary of Results

Coil Group	Passed
Electrode Group	Passed
Sensor Group	Passed
Transmitter Signal	Passed
Transmitter Driver	Passed
Output Group	Passed
Configuration	Passed

Verification History

OIML Accuracy Alarms	0

Totaliser Information

Forward	96969.68 m3
Reverse	13453.36 m3
Net	1306558.62 m3

Sensor Information

Q3	175.00 l/s
Calibration Accuracy	OIML Class 2
Sensor Calibration Factors	136.2%; 0.00 mm/s; 11
Date of Manufacture	08 Feb 2014
Run Hours	3866days 5hrs 5mins

Sensor Data

Coil Current	179.9 mA
Coil Inductance	157.6 mH
Coil Inductance Shift	-0.2%
Coil / Loop Resistance	35.1 ohm

Transmitter Information

Application Version	V01.05.00 12/07/12
MSP Version	00.00.04
Date of Manufacture	08 Feb 2014
Run Hours	5092days 17hrs 44mins

Transmitter Data

Tx Gain - Adjustment	0.0%

VeriMaster Information

Version	01.00.03
Limit Version	01.00.01

Current Output

4mA Value	Pass : 3.994 mA ; 0.15%
12mA Value	Pass : 11.981 mA ; 0.16%
20mA Value	Pass : 19.998 mA ; 0.01%

Pulse Output

Output 1: 1200.0Hz	Not tested
Output 1: 600.0Hz	Not tested
Output 2: 1200.0Hz	Not tested
Output 2: 600.0Hz	Not tested

Installation Comments / Equipment used:

DMM-0 used for mA output check

Configuration Settings

Mains Frequency	60 Hz
Qmax	166.68 l/s
Pulses/Unit	30.000000
Pulses Limit Frequency	1200.0 Hz
Sensor User Span/Zero	100.0%; 0.00 mm/s
User Flow Cutoff/Hysterisis	1.00%; 20%
Meter Mode	Normal operation

Date Wed, Apr 30, 2025 Operator Signature Print

ABB Instrumentation World Flow Technology

ABB Limited
Oldends Lane, Stonehouse
Gloucestershire, GL10 3TA UK
Tel: +44(0) 1453 826661
Fax: +44(0) 1453 821121
instrumentation@gb.abb.com

ABB Automation Inc.
125 East County Line Road
Warminster, PA 18974 USA
Tel: +1 215 674 6000
Fax: +1 215 674 6394
instrumentation@gb.abb.com

ABB Australia Pty Ltd.
Bapaune Rd
Moorebank, NSW 2170
Tel: +61-2-982 1-0111
Fax: +61-2-9821-0950

ABB Automation GmbH
Dransfelder Str.2
37079 Gottingen, GERMANY
Tel: +49 (0) 551 905212
Fax: +1 (215) 674 6394

FLOWMETRIX
TECHNICAL SERVICES

AS FOUND CERTIFICATION

PASS

CLIENT DETAIL		EQUIPMENT DETAIL	
CUSTOMER	OCWA – Kawartha Lakes Hub	[MUT] MANUFACTURER	Greyline
CONTACT	Nick Leroux	MODEL	DFM 6.1
	Senior Operations Manager	CONVERTER SERIAL NUMBER	N/A
	123 East St S		
	Bobcaygeon ON, K0M 1A0		
	P: 705-623-7278	PLANT ID	Bayshore Village
	E: nleroux@ocwa.com	METER ID	Bayshore Spray Fields
		FIT ID	NA
		CLIENT TAG	0000343686
		OTHER	NA
VER. BY - FM	Daniel Kettlewell	GPS COORDINATES	N 44°33.467 W 079°12.436

Quality Management Standards Information - Reference equipment and instrumentation used to conduct this verification test is found in our AC-QMS document at the time this test was conducted.

VERIFICATION DATE	April 30th 2025		
CAL. FREQUENCY	Annual		
CAL. DUE DATE	April 2026		

Chart Recorder/Data Recorder Details

Manufacturer	Greyline	Comparative Readings Check	[Y/N]	n
Model	DFM 6.1	Display Readings Check	[Y/N]	y
Converter S/N:	N/A	Chart Readings Check	[Y/N]	y

CHANNEL INFORMATION	
Meter Input	Raw Flow
Engineering Parameter	M3/h
Display Max. Range	973.276
Chart Max. Range	973.28

….. COMPARATIVE READINGS CHECK NOT PERFORMED …..

COMPARATIVE READINGS	
Meter Input Reading	
Chart/ Recorder Display Reading	
Difference Reading	
PASS/FAIL	

DISPLAY READINGS					mA OUTPUT READINGS		CHANNEL 1		
Test No.	% Max. Range	Calc.	Actual	% Error	Test No.	% Max. Range	Calc.	Actual	% Error
1	0%	0	0	0	1	0%	4.000	3.989	-0.28
2	25%	243.32	243.32	0	2	25%	8.000	7.986	-0.18
3	50%	486.64	486.64	0	3	50%	12.000	11.982	-0.15
4	75%	729.96	729.96	0	4	75%	16.000	15.984	-0.10
5	100%	973.28	973.28	0	5	100%	20.000	19.983	-0.08
Average % Error				n/a	Average % Error				-0.13
PASS/FAIL				PASS	PASS/FAIL				PASS

Results based on simulation not on actual flow.

This verification sheet either identifies exact 0 - 100% signal input comparison or a comparative review between a calibrated field instrument [i.e. flow meter] readings and the chart recorder/data recorder readings.

Level Transmitter
Verification/Calibration Report

FLOWMETRIX
TECHNICAL SERVICES

AS FOUND CERTIFICATION

PASS

CLIENT DETAIL

CUSTOMER OCWA – Kawartha Lakes Hub
CONTACT Nick Leroux
Senior Operations Manager
123 East St S
Bobcaygeon ON, K0M 1A0
P: 705-623-7278
E: nleroux@ocwa.com

VER. BY - FM Daniel Kettlewell

Quality Management Standards Information - Reference equipment and instrumentation used to conduct this verification test is found in our AC-QMS document at the time this test was conducted.

EQUIPMENT DETAIL

[MUT] MANUFACTURER	Siemens
MODEL	LT500
CONVERTER SERIAL NUMBER	PBD-T1106141
PLANT ID	Bayshore East
METER ID	Wet Well Level
FIT ID	n/a
CLIENT TAG	n/a
OTHER	n/a
GPS COORDINATES	n/a
VERIFICATION DATE	May 1st 2025
CAL. FREQUENCY	Annual
CAL. DUE DATE	May 2026

PROGRAMMING PARAMETERS

EMPTY DISTANCE	m	3.048
SPAN	m	3.048
BLANKING DISTANCE	m	0.300
OFFSET	m	0

TEST CRITERIA

AS FOUND CERTIFICATION TEST	Yes
ALLOWABLE [%] ERROR	15

COMPONENTS TESTED

CONVERTER DISPLAY	yes
mA OUTPUT	no
TOTALIZER	yes
ACCURACY BASED ON [% o.r.]	yes

Ultrasonic sensor installed to ensure full scale flow condition

ERROR DOCUMENTED IN THIS REPORT; BASED ON % o.r.

AS FOUND TEST RESULTS

				50.5				**% F.S. Range**
AIR SPACE MEASURED				1.509				**m**
LEVEL EXPECTED				**1.539**				m
MUT [Reading]				1.740				m
MUT [Difference]				0.201				m
MUT [% Error]				13.1				%
mA OUTPUT								
MUT [Reading]	min.	4.000	mA					
MUT [Difference]	max.	20.000	mA					
MUT [% Error]								

COMMENTS

QUALITY MANAGEMENT STANDARDS INFO.

[QMS] INFORMATION	IDENT.	ID #
[REFERENCE] LEVEL	Sim. BOARD	N/A
PROCESS METER	PM	0

RESULTS

TEST	AVG % o.r.	PASS FAIL
DISPLAY	13.06	PASS
mA OUTPUT	N/A	N/A

This report reflects the test results of the overall accuracy for the above flow converter using the specified manufacturers flow tube simulator to within the specified tolerance as identified within this report.

Level Transmitter
Verification/Calibration Report

FLOWMETRIX
TECHNICAL SERVICES

AS FOUND CERTIFICATION

PASS

CLIENT DETAIL

CUSTOMER OCWA – Kawartha Lakes Hub
CONTACT Nick Leroux
Senior Operations Manager
123 East St S
Bobcaygeon ON, K0M 1A0
P: 705-623-7278
E: nleroux@ocwa.com

VER. BY - FM Daniel Kettlewell

Quality Management Standards Information - Reference equipment and instrumentation used to conduct this verification test is found in our AC-QMS document at the time this test was conducted.

EQUIPMENT DETAIL

[MUT] MANUFACTURER	Siemens
MODEL	LT500
CONVERTER SERIAL NUMBER	PBD-T6030208
PLANT ID	Bayshore West
METER ID	Wet Well Level
FIT ID	n/a
CLIENT TAG	n/a
OTHER	n/a
GPS COORDINATES	n/a
VERIFICATION DATE	May 1st 2025
CAL. FREQUENCY	Annual
CAL. DUE DATE	May 2026

PROGRAMMING PARAMETERS

EMPTY DISTANCE	m	2.743
SPAN	m	2.743
BLANKING DISTANCE	m	0.300
OFFSET	m	0

TEST CRITERIA

AS FOUND CERTIFICATION TEST	Yes
ALLOWABLE [%] ERROR	15

COMPONENTS TESTED

CONVERTER DISPLAY	yes
mA OUTPUT	no
TOTALIZER	yes
ACCURACY BASED ON [% o.r.]	yes

Ultrasonic sensor installed to ensure full scale flow condition

ERROR DOCUMENTED IN THIS REPORT; BASED ON % o.r.

AS FOUND TEST RESULTS

		38.0					**% F.S. Range**
AIR SPACE MEASURED		1.700					**m**
LEVEL EXPECTED		**1.043**					m
MUT [Reading]		1.140					m
MUT [Difference]		0.097					m
MUT [% Error]		9.3					%
mA OUTPUT							
MUT [Reading]	min. 4.000 mA						
MUT [Difference]	max. 20.000 mA						
MUT [% Error]							

COMMENTS

QUALITY MANAGEMENT STANDARDS INFO.

[QMS] INFORMATION	IDENT.	ID #
[REFERENCE] LEVEL	Sim. BOARD	N/A
PROCESS METER	PM	0

RESULTS

TEST	AVG % o.r.	PASS FAIL
DISPLAY	9.30	PASS
mA OUTPUT	N/A	N/A

This report reflects the test results of the overall accuracy for the above flow converter using the specified manufacturers flow tube simulator to within the specified tolerance as identified within this report.

APPENDIX IV

Bypass and Spill Event Reporting

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

West Cluster Operations Event Form

Project: Bayshore Village Sewage Works
Location: 3407 Barnstable Drive, Ramara
Date: April 17, 2025

Nature of Event: (By-pass, spill, odor, noise etc…) Bypass of treatment components

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Details of Event: Bypassing the small lagoon cell straight to the large cell. A blockage of the inlet crock of the small lagoon cell caused raw sewage to be discharged onto the bank of the small cell but was contained by the berm around the crock. The incident was reported to the MECP by a resident and then to the after hours response number. The on-call operator responded and identified the issue and implemented a temporary solution to mitigate concerns of a spill.

Call SAC: 1-800-268-6060

Time SAC notified: 18:40 **SAC Incident Number:** 1-NS1GKI

Name of Person at SAC: Jeremy

MECP District Manager Barrie Notified (time): 11:48am (April 16) (written notification)

District Health Unit Notified (time): 19:55

Name of Person at Health Unit: Grant Lafontaine

All Other notifications (Managers, Client, MECP, MOH): OCWA Sr. Operations Manager, Nick Leroux; Email to OCWA Regional Hub Manager, Karen Lorente, OCWA VP of Operations, Richard Junkin, Owner Township of Ramara, Carly Munce, MECP local inspector, Rachel Blackwell, MOH.

Volume of By-pass or Spill: Approximately 518 m3 (calculated using metered influent flow during the event)

Spill Time:

Start: April 15, 2025 at 7:30pm **Finish:** April 17, 2025 at 10:25am

Samples Taken? (CBOD, TSS, TP, NH3+NH4, e-coli): None required

Corrective Action Taken: Removed rags and debris from inlet crock, clearing blockage and allowing normal flow.

Prepared By: Megan Lockwood

APPENDIX V

Survey Drawings

EFFLUENT SPRAY IRRIGATION FIELDS OVERALL PLAN

MUNICPAL ADDRESS: 3407 & 3582 BARNSTABLE DRIVE
LOT DESCRIPTION: -
ROLL#: -

NORTH FIELD
99 SPRINKLER HEADS AS OF OCT 2025
TOTAL SPRAY IRRIGATION FIELD SIZE 107,889 m2 (10.79 HA)

SOUTH FIELD
84 SPRINKLER HEADS AS OF OCT 2025
TOTAL SPRAY IRRIGATION FIELD SIZE 146,048 m2 (14.60 HA)

0 100M 200M
1:8000_METRIC

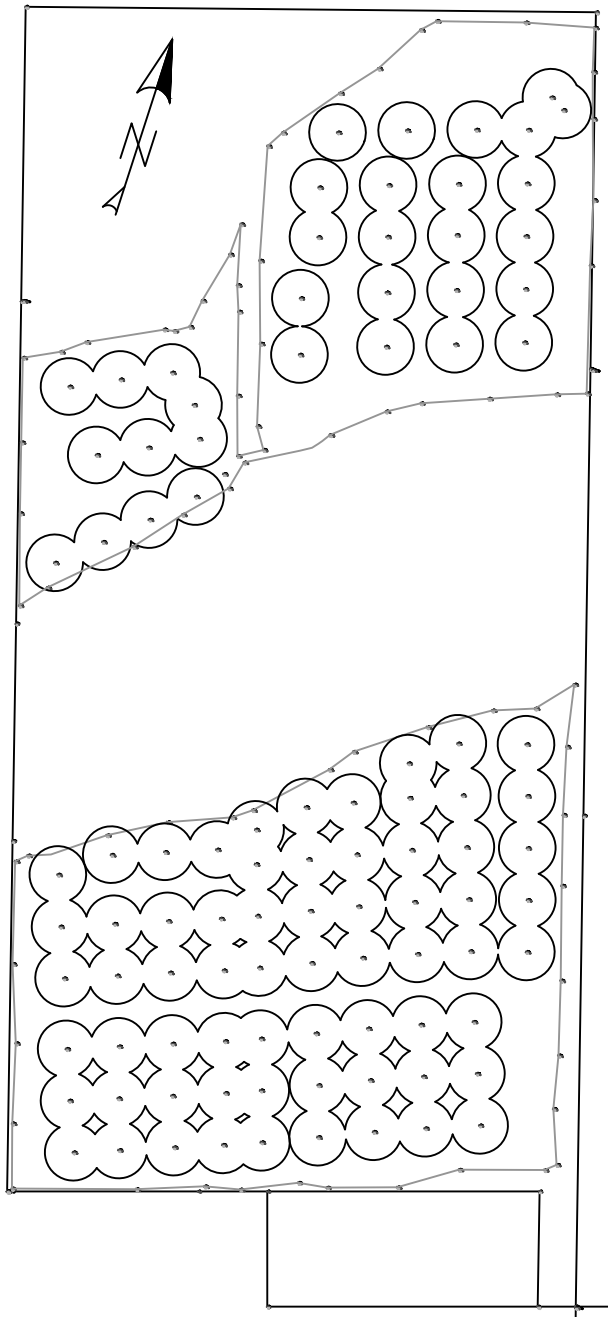
SCALE	SHEET NUMBER
1:8000	1/3
DRAWN BY	PLOT DATE
TD	1/6/2026

TEC
1000840418 ONTARIO INC. o/a TEC SERVICES SCIN 125087

APPLIED SCIENCE TECHNOLOGIST OACETT ONTARIO TIMOTHY DYCK Nº 825417

NORTH EFFLUENT SPRAY IRRIGATION FIELD PLAN

MUNICPAL ADDRESS: 3582 BARNSTABLE DRIVE
LOT DESCRIPTION: PART OF SOUTH 1/2 LOT 22 CONC 8
PIN#: 587100101



NORTH FIELD
99 SPRINKLER HEADS
TOTAL SPRAY IRRIGATION FIELD SIZE 107,889 m2 (10.79 HA)

0 50M 100M
1:4000_METRIC

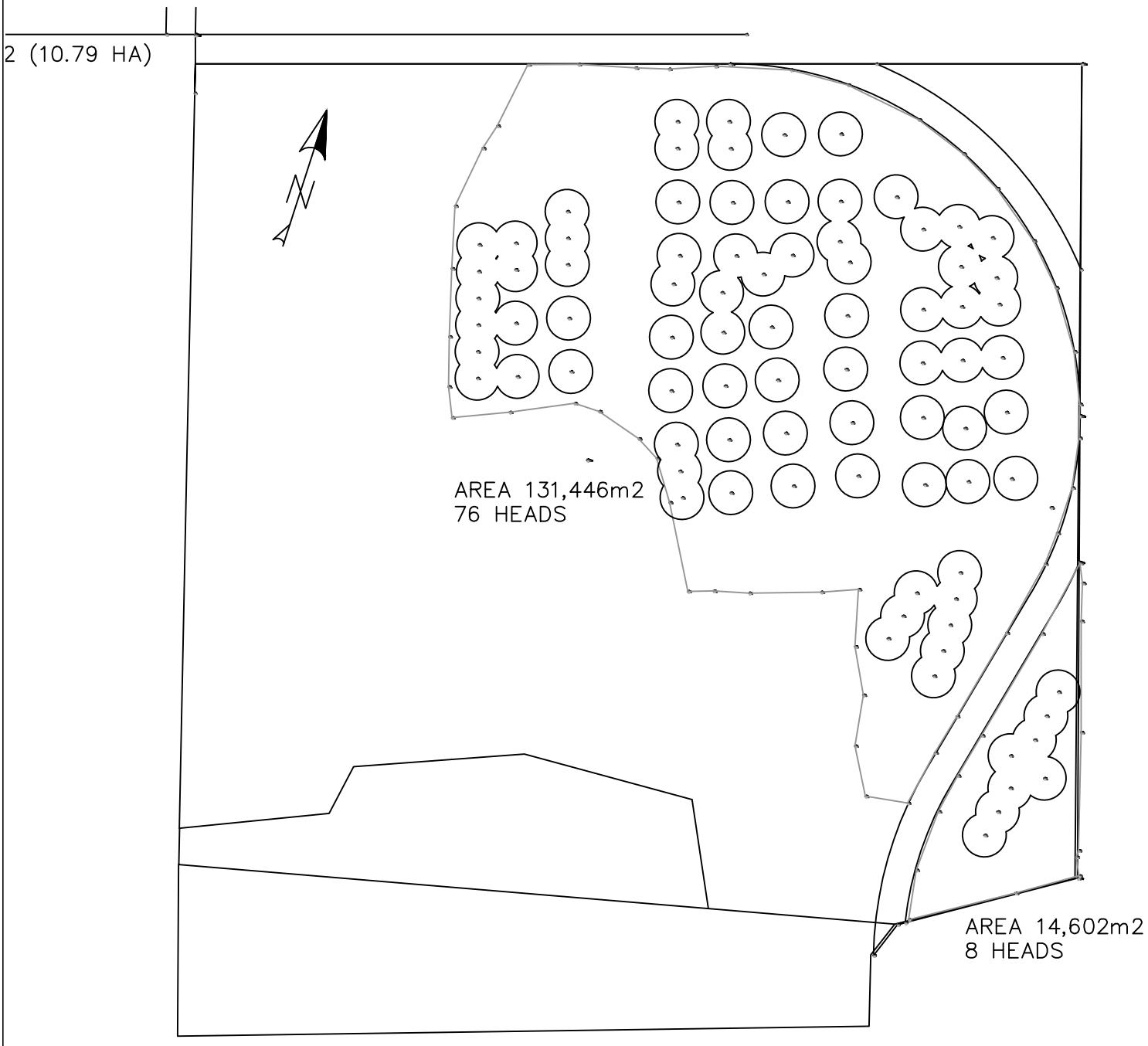
SCALE	SHEET NUMBER
1:4000	2/3
DRAWN BY	PLOT DATE
TD	1/6/2026

TEC
1000840418 ONTARIO INC. o/a TEC SERVICES SCIN 125087

APPLIED SCIENCE TECHNOLOGIST OACETT ONTARIO
TIMOTHY DYCK
No 825417

SOUTH EFFLUENT SPRAY IRRIGATION FIELD PLAN

MUNICPAL ADDRESS: 3407 BARNSTABLE DRIVE
LOT DESCRIPTION: PART OF NORTH 1/2 OF LOT 21 CONC 7
PIN#: 587090119



SOUTH FIELD
84 SPRINKLER HEADS AS OF OCT 2025
TOTAL SPRAY IRRIGATION FIELD SIZE 146,048 m2 (14.60 HA)

0 50M 100M
1:4000_METRIC

SCALE	SHEET NUMBER
1:4000	3/3
DRAWN BY	PLOT DATE
TD	1/6/2026

TEC
1000840418 ONTARIO INC. o/a TEC SERVICES SCIN 125087

APPLIED SCIENCE TECHNOLOGIST OACETT ONTARIO
TIMOTHY DYCK
No 825417