Bayshore Village Sewage Works

Annual Wastewater Performance Report

Prepared For: The Township of Ramara

Reporting Period of January 1st – December 31st, 2024

Issued: March 17, 2025

Revision: 0

Operating Authority:

OCWA

ONTARIO CLEAN WATER AGENCY
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Background:

The Ontario Clean Water Agency (OCWA) operates and maintains the Bayshore Village Sewage Works on behalf of the Township of Ramara. During the reporting period January 1st, 2024-December 31st, 2024 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 2024 was 269.16 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. Two extension requests were 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 April 24, 2024 and September 10, 2024. The spray season was extended with an approved early start date of April 29, 2024 and later end date of October 31, 2024. 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.

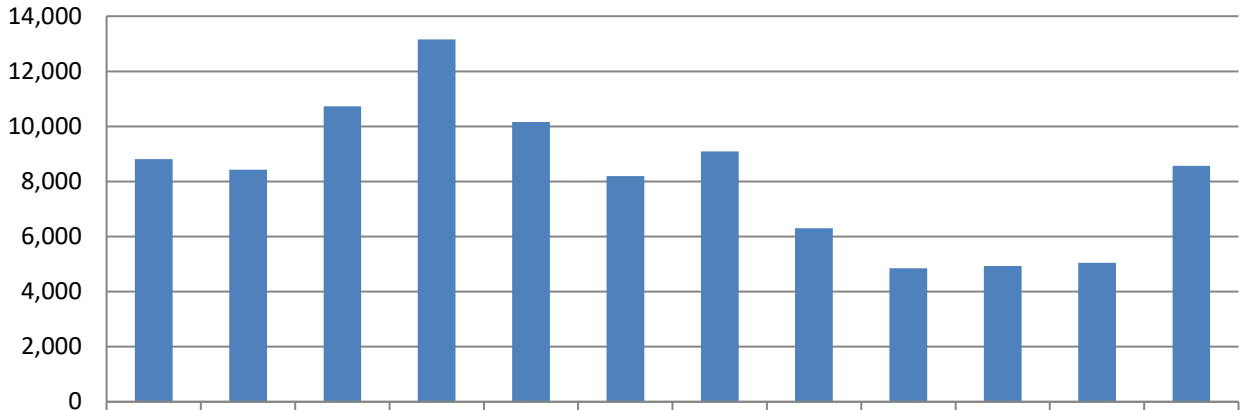
This report will show that the requirements of the facility C of A including effluent monitoring and reporting requirements were consistently met and that effluent quality was consistently within C of A requirements.

Summary of 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 269.16 m^3/day or 67.5 % of the rated capacity in 2024.

The total Influent flow in 2024 was 98, 244.20 m^3

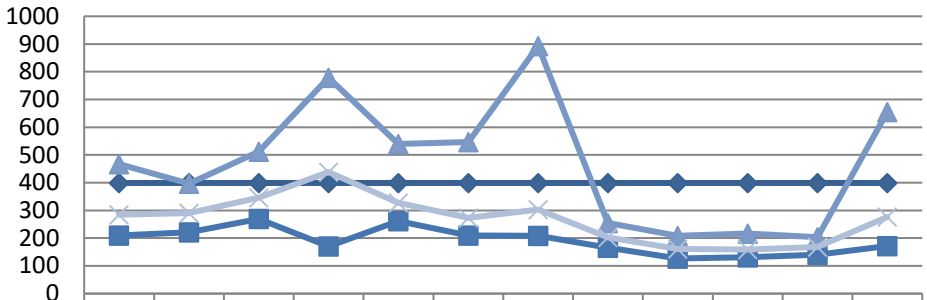
Graph 1: 2024 Influent Flow Monthly Totals



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Flow (m^3)	8,806	8,425	10,727	13,152	10,156	8,199	9,092	6,301	4,846	4,929	5,045	8,569

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

Graph 2: Influent Daily Minimum, Maximum and Average Flows



	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)	210	221	269	170	261	210	209	165	127	131	141	172
Max (m^3/day)	467	397	512	779	540	547	893	255	208	217	204	655
Avg(m^3/day)	284	291	346	438	328	273	303	203	162	159	168	276

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)
2014	319	334	402
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
3 Year Average		264	289

*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.

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 m^3/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 (2022-2024) average sewage generation rate is: 289 L/cap/day. With the committed population of 993, there is a projection of 287 m^3/day of sewage at full build out.

As a result, the reserve capacity at this system is 112 m^3/day.

Effluent Spray Irrigation

Effluent spray irrigation was carried out between May 6 and September 28, 2024. 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.

During the spray irrigation season, approximately 14 ha from the South fields were utilized from May 6-Aug 6, Aug 12, Aug 14, Sept 11, and Sept 21, equalling 29 days. Approximately 26 ha from the North and South fields were utilized on and from Aug 7 –Sept 5, Sept 13-19, and Sept 28 equalling 15 days for a total of 44 days. An effluent volume of 9, 737 m^3 was applied to the South fields (14 ha). An effluent volume of 20, 651 m^3 was applied to both the North and South fields (26 ha).

A total effluent volume of 30, 388 m³ was applied to the spray fields. The average effluent application rate for the reporting period was:

- 23.98 m³/ha/day on the 14 ha utilized for 29 days
- 52.95 m³/ha/day on 26 ha utilized for 15 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.

Lagoon Cell Content Removal

As a result of the conditions limiting sprayfield operation and continuing high cell levels, lagoon cell contents were removed to allow sufficient storage for the estimated volume of sewage that would accumulate prior to the start of the 2025 spray season. From September 11, 2024 to March 1, 2025 a total volume of 108, 108 m3 was removed from the large cell at the Bayshore Village Sewage Works and taken to the Brechin and Lagoon City Wastewater Treatment Facility.

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 Raw Sewage Sampling Requirements

Influent Sampling Point		
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

Influent Sampling Point		
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 lagoons effluent shall take place at the beginning of each spray irrigation season.

Table 4: Minimum Surface Water Parameter Sampling Requirements

Final Effluent Sampling Point		
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

Final Effluent Sampling Point		
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.

Sewage and Effluent Quality

Raw Sewage Characteristics

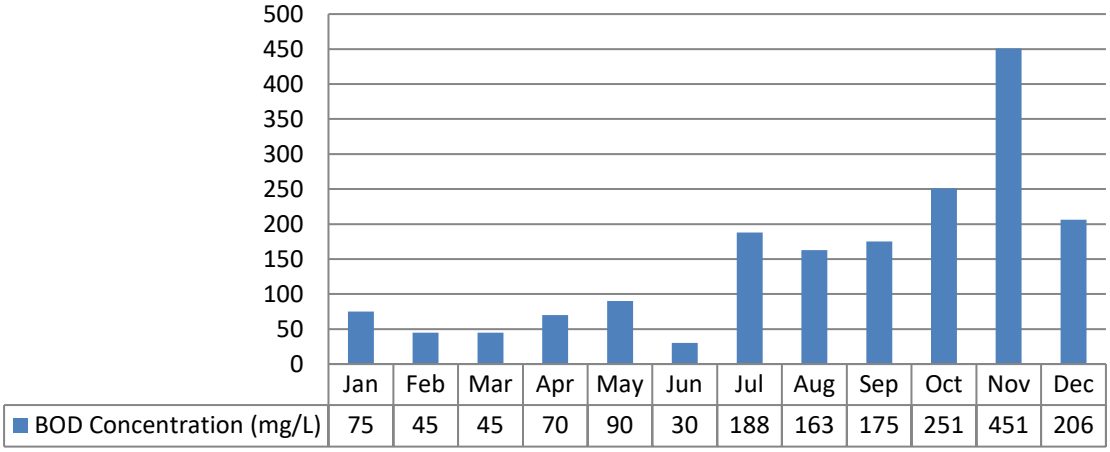
Detailed below are raw sewage characteristics for the 2024 reporting period.

A summary of the 2024 Raw Sewage monitoring data is contained in Appendix II of this report.

Biochemical Oxygen Demand (BOD5)

BOD5 Monthly Average Concentration

Graph 3: 2024 Monthly BOD5 Raw Sewage Concentration

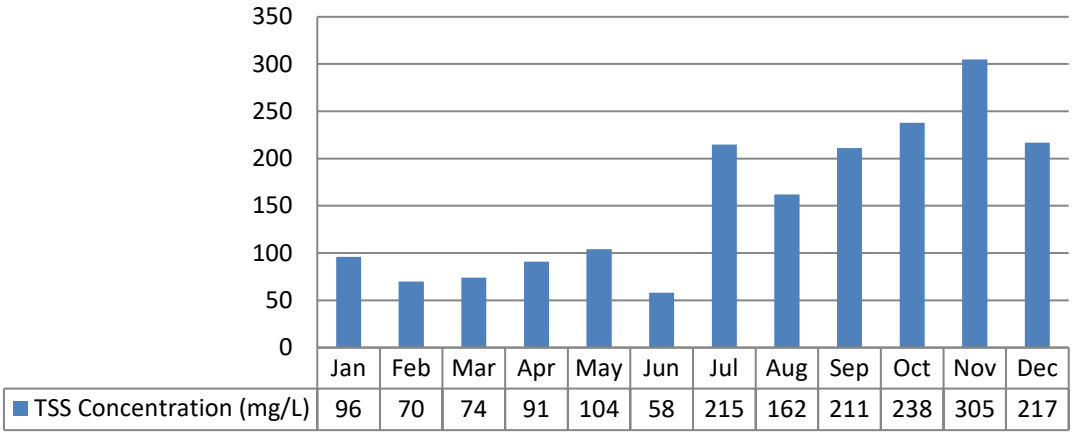


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
BOD Concentration (mg/L)	75	45	45	70	90	30	188	163	175	251	451	206

Total Suspended Solids (TSS)

Total Suspended Solids Monthly Average Concentration

Graph 4: 2024 Monthly TSS Raw Sewage Concentration

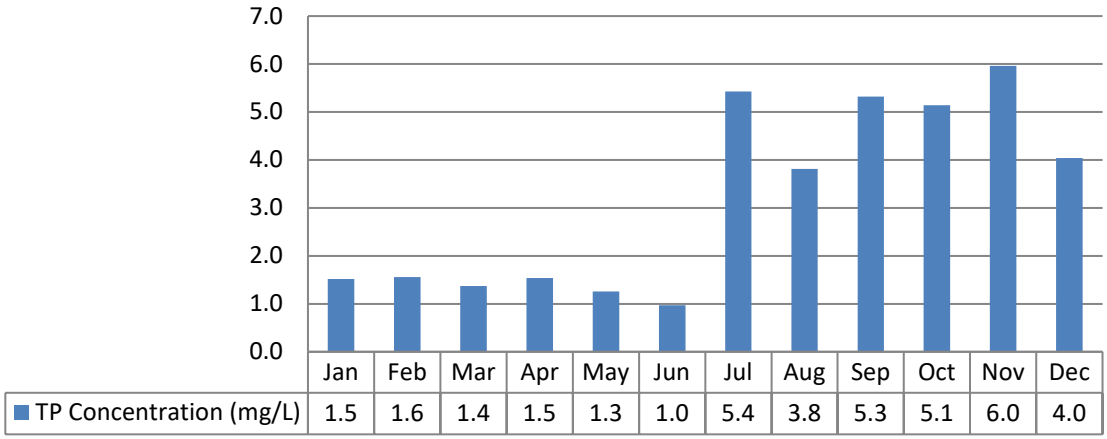


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TSS Concentration (mg/L)	96	70	74	91	104	58	215	162	211	238	305	217

Total Phosphorus (TP)

Total Phosphorus Monthly Average Concentration

Graph 5: 2024 Monthly Total Phosphorus Raw Sewage Concentration

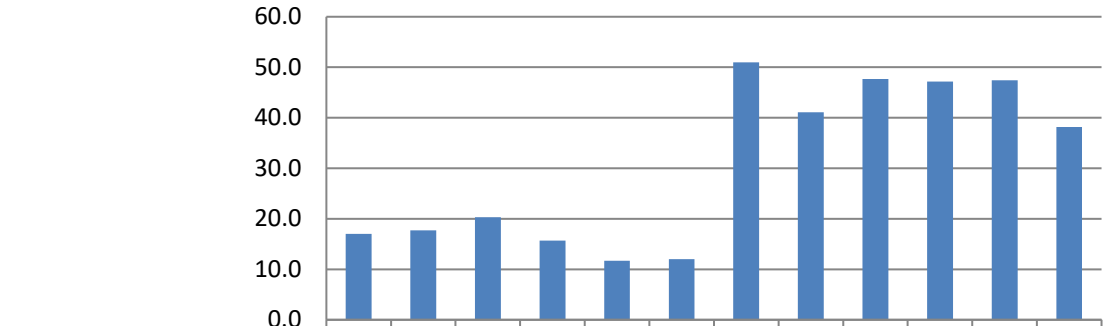


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TP Concentration (mg/L)	1.5	1.6	1.4	1.5	1.3	1.0	5.4	3.8	5.3	5.1	6.0	4.0

Total Kjeldahl Nitrogen TKN (mg/L)

Total Kjeldahl Nitrogen (TKN) Monthly Raw Average Concentration

Graph 6: 2024 Monthly Total Kjeldahl Nitrogen (TKN) Monthly Raw Sewage Concentration Comparison



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TKN Concentration (mg/L)	17.0	17.7	20.3	15.7	11.7	12.0	51.0	41.1	47.7	47.2	47.4	38.2

Effluent Quality

Grab samples were collected from each lagoon prior to the start of the spray irrigation season on April 17 & 18, 2024. 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

Parameter	May		
	Large Lagoon (Cell A- West Location)	*Large Lagoon (Cell A- Dock Location)*	*Small Lagoon (Cell B)*
BOD5 (mg/L)	<4	<4	18
Total Suspended Solids (mg/L)	5	5	38

Total Phosphorus (mg/L)	0.65	0.69	1.54
TKN (mg/L)	1.0	1.6	11.9
TAN (mg/L)	0.3	0.6	10

Effluent Spray Irrigation

Groundwater Monitoring

Groundwater samples were collected in April, 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 13 mg/L to 160 mg/L, which is consistent with levels measured in 2023. Nitrate levels were low, comparable to samples collected in 2023. 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	April 18	August 27	November 05
Diss. Organic Carbon (mg/L)	1-1 (East South Field)	2	2	2
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	<0.06
Chloride (mg/L)	1-1 (East South Field)	160	130	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)	0.09	<0.03	<0.03

Table 8: Groundwater Monitoring - 1-3 (South Field)

Parameter	Location	April 18	August 27	November 05
Diss. Organic Carbon (mg/L)	1-3 (South Field)	2	-	2
Nitrite (mg/L)	1-3 (South Field)	<0.03	-	<0.03
Nitrate (mg/L)	1-3 (South Field)	0.09	-	<0.06
Chloride (mg/L)	1-3 (South Field)	92	-	160
TKN (mg/L)	1-3 (South Field)	<0.5	-	0.5
TAN (mg/L)	1-3 (South Field)	0.1	-	0.1
Total Phosphorus (mg/L)	1-3 (South Field)	0.08	-	0.10

*Unable to collect August sample due to dry well

Table 9: Groundwater Monitoring - 1-4 (North Field)

Parameter	Location	April 18	August 27	November 05
Diss. Organic Carbon (mg/L)	1-4 (North Field)	1	5	2
Nitrite (mg/L)	1-4 (North Field)	<0.03	<0.03	<0.03
Nitrate (mg/L)	1-4 (North Field)	<0.06	<0.06	<0.06
Chloride (mg/L)	1-4 (North Field)	74	130	31
TKN (mg/L)	1-4 (North Field)	0.5	0.5	<0.5
TAN (mg/L)	1-4 (North Field)	<0.1	0.1	<0.1
Total Phosphorus (mg/L)	1-4 (North Field)	<0.03	0.12	0.07

Table 10: Groundwater Monitoring - 1-5 (North Field)

Parameter	Location	April 18	August 27	November 05
Diss. Organic Carbon (mg/L)	1-5 (North Field)	2	2	2
Nitrite (mg/L)	1-5 (North Field)	<0.03	<0.03	<0.03
Nitrate (mg/L)	1-5 (North Field)	<0.06	0.11	<0.06
Chloride (mg/L)	1-5 (North Field)	15	16	75
TKN (mg/L)	1-5 (North Field)	<0.5	<0.5	<0.5
TAN (mg/L)	1-5 (North Field)	<0.1	<.01	<0.1
Total Phosphorus (mg/L)	1-5 (North Field)	<0.03	0.04	0.03

Table 11: Groundwater Monitoring - 1-7 (North Field)

Parameter	Location	April 18	August 27	November 05
Diss. Organic Carbon (mg/L)	1-7 (North Field)	12	2	3
Nitrite (mg/L)	1-7 (North Field)	<0.03	<0.03	<0.03
Nitrate (mg/L)	1-7 (North Field)	0.16	<0.06	<0.06
Chloride (mg/L)	1-7 (North Field)	13	86	86
TKN (mg/L)	1-7 (North Field)	1.6	<0.5	3.1
TAN (mg/L)	1-7 (North Field)	0.1	<0.1	2.9
Total Phosphorus (mg/L)	1-7 (North Field)	0.16	<0.03	0.53

Table 12: Groundwater Monitoring - 1-1 (West North Field)

Parameter	Location	April 18	August 27	November 05
Diss. Organic Carbon (mg/L)	1-1 (West North Field)	1	3	-
Nitrite (mg/L)	1-1 (West North Field)	<0.03	<0.03	-
Nitrate (mg/L)	1-1 (West North Field)	0.7	<0.06	-
Chloride (mg/L)	1-1 (West North Field)	34	88	-
TKN (mg/L)	1-1 (West North Field)	0.7	6.7	-
TAN (mg/L)	1-1 (West North Field)	<0.1	6.4	-
Total Phosphorus (mg/L)	1-1 (West North Field)	<0.03	0.63	-

*Unable to collect November sample due to dry well

Surface Water Monitoring

The surface water monitoring takes place at Wainman Creek, upstream and downstream of the spray fields**.** Samples were taken in April, August and November of 2024. 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	April 17	August 27 & 28	November 05
BOD5 (mg/L)	Wainman's Creek (Upstream)	<4	<4	<4
Total Suspended Solids (mg/L)	Wainman's Creek (Upstream)	18	5	13
pH	Wainman's Creek (Upstream)	7.79	8.10	7.96

Total Kjeldahl Nitrogen (as N mg/L)	Wainman's Creek (Upstream)	<0.5	0.6	0.6
Ammonia+Ammonium (N) (as N mg/L)	Wainman's Creek (Upstream)	<0.1	<0.1	0.2
Nitrite (mg/L)	Wainman's Creek (Upstream)	<0.03	<0.03	<0.03
Nitrate (mg/L)	Wainman's Creek (Upstream)	0.85	<0.06	0.48
Nitrite + Nitrate (mg/L)	Wainman's Creek (Upstream)	0.85	<0.06	0.48
Phosphorus (total) (mg/L)	Wainman's Creek (Upstream)	0.058	0.050	0.045
E.coli (cfu/100mL)	Wainman's Creek (Upstream)	148	30	78
Total Coliforms (cfu/100mL)	Wainman's Creek (Upstream)	420	320	900

Table 14: Surface Water Monitoring- Wainman's Creek (Downstream)

Parameter	Location	April 17	August 27 & 28	November 05
BOD5 (mg/L)	Wainman's Creek (Downstream)	<4	<4	<4
Total Suspended Solids (mg/L)	Wainman's Creek (Downstream)	14	4	16
pH	Wainman's Creek (Downstream)	7.91	8.17	7.81
Total Kjeldahl Nitrogen (as N mg/L)	Wainman's Creek (Downstream)	0.8	0.5	0.6
Ammonia+Ammonium (N) (as N mg/L)	Wainman's Creek (Downstream)	<0.1	<0.1	0.2
Nitrite (mg/L)	Wainman's Creek (Downstream)	<0.03	<0.03	<0.03
Nitrate (mg/L)	Wainman's Creek (Downstream)	0.84	<0.06	0.48
Nitrite + Nitrate (mg/L)	Wainman's Creek (Downstream)	0.84	<0.06	0.48
Phosphorus (total) (mg/L)	Wainman's Creek (Downstream)	0.046	0.052	0.046
E.coli (cfu/100mL)	Wainman's Creek (Downstream)	126	42	86
Total Coliforms (cfu/100mL)	Wainman's Creek (Downstream)	500	520	900

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 2024 reporting period.

Table 15: Soil Core Monitoring- North Field Upper

Parameter	Location	April 17
pH	North Field Upper	6.52
Conductivity (µS/cm)	North Field Upper	214
Chloride (µg/g)	North Field Upper	45
Nitrate + Nitrite as N (µg/g)	North Field Upper	<0.2
TKN (µg/g)	North Field Upper	0.04
TAN (µg/g)	North Field Upper	<0.01
Total Organic Carbon (µg/g)	North Field Upper	3.8
Phosphorus (µg/g)	North Field Upper	420
Sodium (µg/g)	North Field Upper	460

Table 16: Soil Core Monitoring-- North Field Lower

Parameter	Location	April 17
pH	North Field Lower	7.00
Conductivity (µS/cm)	North Field Lower	262
Chloride (µg/g)	North Field Lower	5.5
Nitrate + Nitrite as N (µg/g)	North Field Lower	1.2
TKN (µg/g)	North Field Lower	0.06
TAN (µg/g)	North Field Lower	<0.01
Total Organic Carbon (µg/g)	North Field Lower	3.1
Phosphorus (µg/g)	North Field Lower	560
Sodium (µg/g)	North Field Lower	400

Table 17: Soil Core Monitoring- South Field

Parameter	Location	April 17
pH	South Field	6.85
Conductivity (µS/cm)	South Field	164
Chloride (µg/g)	South Field	5.6
Nitrate + Nitrite as N (µg/g)	South Field	0.13
TKN (µg/g)	South Field	0.13
TAN (µg/g)	South Field	<0.01
Total Organic Carbon (µg/g)	South Field	5.2
Phosphorus (µg/g)	South Field	1600
Sodium (µg/g)	South Field	110

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

Month	Challenges	Corrective Actions
March	Elevated pond levels	Bypass small cell and plug overflow pipe to divert all flow to large cell.
April	Bypass ended	Remove plug from cross culvert.
	Elevated pond levels	Pumping contents from small cell to large cell
May	-	-
June	Pipe leak	Replace gasket
	Gasket leak	Replace 6” section of pipe
	Pipe leak	Repaired 12” main header
July	Weed overgrowth in lagoons	Weed removal by harvester
	Intake cage collapsed	Sent away for repair
	Pipe leaks	Repaired leaks
August	Pipe leaks	Repaired leaks
	Sprinkler head broken	Replaced head
September	Spill due to deteriorated piping in spray system.	Stopped spraying until section is repaired
	Pipe leaks	Repaired leaks
October	Pond levels	Stopped pumping from small cell to large
November	-	-

Summary of Maintenance

Routine maintenance and operation of the Bayshore Village Sewage Works and Collection System in 2024 consisted of the following:

- Install and inspect intake
- Install and inspect bridge and pipe to north field
- Pressure test field piping
- Attended Hydro failures
- Collected samples as per the C of A
- Inflow and infiltration repairs completed in collection system
- Exercised, tested and performed maintenance on East Station generator
- Cleaned pumping stations
- Monitored levels in lagoons
- Monitored weather conditions
- Repaired leaks in pipes
- Repair plugged sprinkler heads
- Increased grass cutting at site
- Effluent flow meter repaired
- Contracted harvester to clean weeds in the lagoons
- Installed flusher drum on intake
- Rebuilt small east field of spray infrastructure
- Winterize system

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.

Summary of Calibration and Maintenance

Calibrations on effluent monitoring equipment were performed by Flowmetrix Technical Services Inc. on May 14, 2024 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 – 2024	
Final Effluent Monitoring Equipment	Date of completion
Final Effluent Spray Fields Flow Meter	May 14, 2024
Bayshore Village East Pump Station	Date of completion
Flow Meter	May 14, 2024

Sludge Accumulation

Sludge measurements were completed on the small and large lagoons through a biosolids volume modeling and distribution survey in April 2022. The average depth of biosolids sludge throughout the Ramara biosolids Cell #1 in April 2022 was approximately 6.2 inches. The average depth of biosolids sludge throughout the Ramara biosolids Cell #2 in April 2022 was approximately 5.9 inches. A few locations within the Cells were a bit higher, there was no recommendation for required cleaning at the time of this survey.

Community Complaints

Date	Issue	Actions Taken
2024/08/13	Resident emailed Ministry to notify of a broken pipe in the spray field earlier in the day and that they had notified the Township of it. Also that they could feel mist from effluent	Township responded to notify that the complaint was logged while OCWA staff were in the field performing the start-up checks.

	spray in their backyard but then the system was shut down.	
2024/08/13	Resident called Township to notify of broken pipe in North spray field.	North field was being commissioned for first use of the year. Staff were in the field pressure testing when the call was received. The field was not in full operation at the time of the complaint.
2024/09/05	Resident left message at Township office to state they feel it is too windy to be spraying in the spray fields. They would like their concern documented but do not want a call back.	Documented concern.
2024/09/05	Resident emailed Ministry and Township to notify that their personal weather station is showing wind speeds exceeding 15km/h while the spray fields are running.	Responded to Ministry with logbook entries as well as wind speed trends for the period in question.
2024/09/13	Resident emailed Ministry to notify of missing fencing along spray field property.	Followed up with Ministry.
2024/11/16	Resident lives beside the spray fields, which the resident said doesn't work and hasn't worked for 30 years. His dad sold part of their property for the spray fields. It floods onto their property. It used to flood worse but has been diverted. Resident wanted the complaint to be recorded.	Documented concern.

Summary of Bypass, Spills or Abnormal Discharge Events

Table 20 summarizes all Bypasses, spills and abnormal discharge events that occurred at the Bayshore Village Sewage Works and Collection System in 2024. All were reported to MOH and MECP. Copies of these reports are provided in Appendix IV.

Table 20: 2024 Summary of Events:

Date 2021	Type of Event	Total Estimated Volume (m^3)	Disinfect (Y/N)	Samples Collected (Y/N)	Reason
March 27 – April 12	Bypass	N/A	N	N *Not required as per the C of A*	The overflow pipe for Cell B was plugged and influent flow directed straight to Cell A in order to maintain the design freeboard in Cell B.

Date 2021	Type of Event	Total Estimated Volume (m^3)	Disinfect (Y/N)	Samples Collected (Y/N)	Reason
September 28	Spill	Unknown	N	N	Sewage effluent running into ditch during use of spray irrigation system.

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.

- Annual budget of $50,000 allocated 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 2025 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. They 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.

MECP Inspections

The Bayshore Village Sewage Works was inspected by the Ministry of Environment, Conservation and Parks on September 12, 2024 and the final report has not been received at the time of report issuance. 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 Ministry inspection reports received during this 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

April 24, 2024

Josh Kavanagh
Director of Infrastructure
Township of Ramara
JKavanagh@ramara.ca

Dear Josh Kavanagh:

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

I have received your request dated April 23, 2024 in which you request an extension to the effluent spray irrigation period for the Bayshore Village Sewage Works (works).

As a result, I have considered your request to begin the spring spray irrigation period early and have decided to approve an extension to the 2024 spring irrigation period per your request.

Please accept this letter as permission to begin the period of effluent spray irrigation at the works on April 29, 2024. During the period of April 29, 2024 to May 18, 2024, 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. Only the South Field may be used during this period. Irrigation on the North Field is prohibited during this period as the full details of the design of the pipe that appears to be draining the low-lying areas have not yet been provided to the ministry as required by the inspection report issued on March 4, 2024.

4. 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 Carly Munce, Water Compliance Officer at (705) 721-3758 or Sheri Broeckel, Water Compliance Supervisor at (705) 716-3712 with any questions or concerns.

Yours truly,

Chris Hyde
District Manager

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 10, 2024

Josh Kavanagh
Director of Infrastructure
Township of Ramara
JKavanagh@ramara.ca

Dear Josh Kavanagh:

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

I have received your letter dated September 6, 2024 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 an extension to the 2024 fall irrigation period to allow for emergency disposal of effluent until weather conditions such as frost or snow arrive.

Please accept this letter as permission to extend the period of effluent spray irrigation at the works until October 31, 2024. During the period of September 29, 2024 to October 31, 2024, 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 Carly Munce, Water Compliance Officer at (705) 721-3758 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 1/1/2024 to 12/31/2024 11:59:59 PM

1616 BAYSHORE VILLAGE LAGOONS 120002264

	1 / 2024	2/ 2024	3/ 2024	4/ 2024	5/ 2024	6/ 2024	7/ 2024	8/ 2024	9/ 2024	10/ 2024	11/ 2024	12/ 2024	<--Total-->	<--Avg-->	<--Max-->	<-Criteria->
Flows																
Raw Flow: Total - Raw Sewage m³/d	8,806.45	8,424.50	10,727.11	13,151.62	10,155.53	8,198.68	9,091.68	6,300.56	4,845.58	4,929.07	5,044.50	8,568.92	98,244.20			0.00
Raw Flow: Avg - Raw Sewage m³/d	284.08	290.50	346.04	438.39	327.60	273.29	303.06	203.24	161.52	159.00	168.15	276.42		269.16		
Raw Flow: Max - Raw Sewage m³/d	467.47	396.68	512.13	778.82	539.78	546.57	893.01	254.67	208.29	216.97	203.55	655.31			893.01	0.00
Raw Flow: Count - Raw Sewage m³/d	31.00	29.00	31.00	30.00	31.00	30.00	30.00	31.00	30.00	31.00	30.00	31.00	365.00			0.00
Eff. Flow: Total - Final Effluent m³/d	0.00	0.00	0.00	0.00	1,790.00	2,459.00	1,926.00	5,314.00	9,180.00	0.00	0.00	0.00	20,669.00			0.00
Eff. Flow: Avg - Final Effluent m³/d	0.00	0.00	0.00	0.00	179.00	307.38	481.50	408.77	1,020.00	0.00	0.00	0.00		217.57		
Eff. Flow: Max - Final Effluent m³/d	0.00	0.00	0.00	0.00	252.00	574.00	1,047.00	695.00	1,649.00	0.00	0.00	0.00			1,649.00	0.00
Eff Flow: Count - Final Effluent m³/d	0.00	0.00	0.00	0.00	20.00	16.00	15.00	26.00	18.00	0.00	0.00	0.00	95.00			0.00
Biochemical Oxygen Demand: BOD5																
Raw: Avg BOD5 - Raw Sewage mg/L	75.00	45.00	45.00	70.00	90.00	30.00	188.00	163.00	175.00	251.00	451.00	206.00		149.08	451.00	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	96.00	70.00	74.00	91.00	104.00	58.00	215.00	162.00	211.00	238.00	305.00	217.00		153.42	305.00	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	1.52	1.56	1.37	1.54	1.26	0.97	5.43	3.81	5.32	5.14	5.96	4.04		3.16	5.96	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	17.00	17.70	20.30	15.70	11.70	12.00	51.00	41.10	47.70	47.20	47.40	38.20		30.58	51.00	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

VeriMaster - Flow Meter Verification Report

Customer Information	
Customer	OCWA Ramara
Verification Download	May-14-24

Meter Information	
Meter Owner	Bayshore Village East PS
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	1223033.88 m3
Reverse	13394.98 m3
Net	1209645.24 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	3516days 11hrs 15mins

Sensor Data	
Coil Current	179.9 mA
Coil Inductance	157.7 mH
Coil Inductance Shift	-0.1%
Coil / Loop Resistance	35.3 ohm

Transmitter Information	
Application Version	V01.05.00 12/07/12
MSP Version	00.00.04
Date of Manufacture	08 Feb 2014
Run Hours	4630days 23hrs 54mins

Transmitter Data	
Tx Gain - Adjustment	0.1%

VeriMaster Information	
Version	01.00.03
Limit Version	01.00.01

Current Output	
4mA Value	Pass : 3.999 mA ; 0.02%
12mA Value	Pass : 11.980 mA ; 0.17%
20mA Value	Pass : 19.995 mA ; 0.03%

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. OCWA #0000343355

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 May-14-24 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

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Fax: +1 215 674 6394
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ABB Australia Pty Ltd.
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Fax: +61-2-9821-0950

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

SCG FLOWMETRIX

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	May 14th 2024		
CAL. FREQUENCY	Annual		
CAL. DUE DATE	May 2025		

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	3.992	-0.20
2	25%	243.32	243.32	0	2	25%	8.000	7.989	-0.14
3	50%	486.64	486.64	0	3	50%	12.000	11.987	-0.11
4	75%	729.96	729.96	0	4	75%	16.000	15.985	-0.09
5	100%	973.28	973.28	0	5	100%	20.000	19.984	-0.08
Average % Error				n/a	Average % Error				-0.10
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.

Appendix IV

Bypass and Spill Event Reporting

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

West Cluster Operations Event Form

Project: Bayshore Village Spray Irrigation Lagoons, 120002264
Location: 3820 Side Road 20, Ramara
Date: March 27, 2024

Nature of Event: Treatment Process Component Bypass

Details of Event: Under normal operation at the Bayshore Village Lagoons, flow is directed to Cell B from the East Pump Station in Bayshore Village. Once Cell B is full, the flow travels by gravity through an oveflow pipe into Cell A, the larger storage cell. The berms on Cell A are higher than Cell B, but as the cells are connected by an overflow pipe, the storage volume of Cell A is limited by the berm height of Cell B. The height of the berms on Cell B are approximately 0.5m less than Cell A.

In order to maintain the design freeboard of 0.6m in Cell B, a bypass was initiated March 27, 2024 at approximately 12:45. The overflow pipe was plugged with two expandable plugs to prevent flow between the Cells. The Cell B isolation valve was closed and the Cell A isolation valve was opened to direct flow from the East Pump Station in Bayshore Village directly into Cell A.

The hope is that this will provide enough storage capacity to maintain the required freeboard in Cell B. Once the spray season begins, the plant will draw from Cell A (normal operation) until the cell is low enough to permit the removal of the plug. At that time the valves will be placed back in their original position and the Cell B bypass will stop.

Call SAC: 1-800-268-6060 **Time SAC notified:** 12:50 **SAC Incident Number:** 1-59LVLU

Name of Person at SAC: Alim

MECP District Manager Barrie Notified 705-309-5874 (time): Left voicemail with MECP District Manager Chris Hyde at 13:10

District Health Unit Notified (time): Left voicemail at 13:13 **Name of Person at Health Unit:** Call Returned 13:45 – Cheryl Walt, Public Health Inspector

All Other Notifications (Managers, Client, MECP, MOH):

OCWA: N. Leroux Sr. Ops. Mgr., R. Smith Team Lead/ORO, M. Lockwood PCT, D. O'Connell Operator, J. Mulligan SPC Mgr, W. Henneberry Regional Mgr, K. Lorente Regional Mgr, & R. Junkin VP Operations.
Township of Ramara: D. Marks Resources Technician & J. Kavanagh Director of Infrastructure / Drainage Superintendent.
MECP: C. Munce, C. Hyde
MOH:

Volume of By-pass or Spill: 6,155 m3 (Calculated using flow data from the East Pump Station)

Bypass Time:

Start: March 27, 2024 – 12:45 **Finish:** April 12, 2024 – 15:15

Duration: 386.5 hours

Samples Taken? Sampling is not required as per the C of A however regularly monthly sampling was conducted at the start of April.

Raw sample collected on April 2, 2024. Certificates of Analysis is attached.

Corrective Action Taken:

The overflow pipe between Cell A and Cell B was plugged on March 27, 2024 to prevent flow between the two cells. Once the plug was installed, flow was directed from the East Pump Station in East Village directly to Cell A. Cell B isolation valve was been opened on April 12, 2024 at 15:15 ending the bypass of Cell B. The overflow pipe between the two cells is still plugged to prevent flow coming back into Cell B from Cell A. Normal operation of the Bayshore Village Spray Irrigation Lagoons has resumed.

Date of Resolution Notification: April 12th, 2024

Call SAC: 1-800-268-6060 **Time SAC Notified:** 15:46 **Name of Person at SAC:** John Kowba

District Health Unit Notified (time): Left message 15:45 **Name of Person at Health Unit:** N/A

All Other Notifications (Managers, Client, MECP, MOH):

OCWA: N. Leroux Sr. Ops. Mgr., R. Smith Team Lead/ORO, M. Lockwood PCT, D. O'Connell Operator, J. Mulligan SPC Manager, W. Henneberry Regional Mgr (A), K. Lorente Regional Mgr, & R. Junkin VP Operations.
Township of Ramara: D. Marks Resources Technician & J. Kavanagh Director of Infrastructure / Drainage Superintendent.
A follow up email summarizing resolution of the bypass was sent to MECP staff C. Munce Inspector, S. Broeckel Supervisor, Drinking Water Inspection Program

Prepared By: Megan Lockwood

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

West Cluster Operations Event Form

Project: Bayshore Spray Irrigation System
Location: 3820 Sideroad 20, Ramara
Date: September 28, 2024

Nature of Event: (By-pass, spill, odor, noise etc…) Spill of sewage effluent running into ditch

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Details of Event: Operator running spray fields for day was notified by neighbours of effluent runoff into ditch on North side of South spray field. Neighbours had already called SAC to report. Operator called SAC to provide follow-up details including that spray field was now shut down. Further investigation found a leak at a coupler beyond the shut-off for the North field. Pipe appears to have rotten around bell end.

Call SAC: 1-800-268-6060

Time SAC notified: 14:51 **SAC Incident Number:** 1-BGY8LK

Name of Person at SAC: Elaine

MECP District Manager Barrie Notified 705-309-5874 (time): 16:17 (left voicemail)

District Health Unit Notified (time): 16:19 (left message with dispatch, Amanda)

Name of Person at Health Unit: Call retuned at 16:35 - Pauline Loo, PHI

All Other Phone calls placed (Managers, Client, MECP, MOH): Email to OCWA Sr. Operations Manager, Nick Leroux, Regional Hub Manager, Karen Lorente, Owner Township of Ramara, MECP Inspector Carly Munce

Volume of By-pass or Spill: Unknown

Spill Time:

Start: Unknown **Finish:** 15:05

Samples Taken? (BOD,TSS,Phos,NH3+NH4, e-coli): None taken

Corrective Action Taken: Spray fields shut down. Closed valve to North field. Pipe will be repaired/replaced before returned to service.

Prepared By: Megan Lockwood
