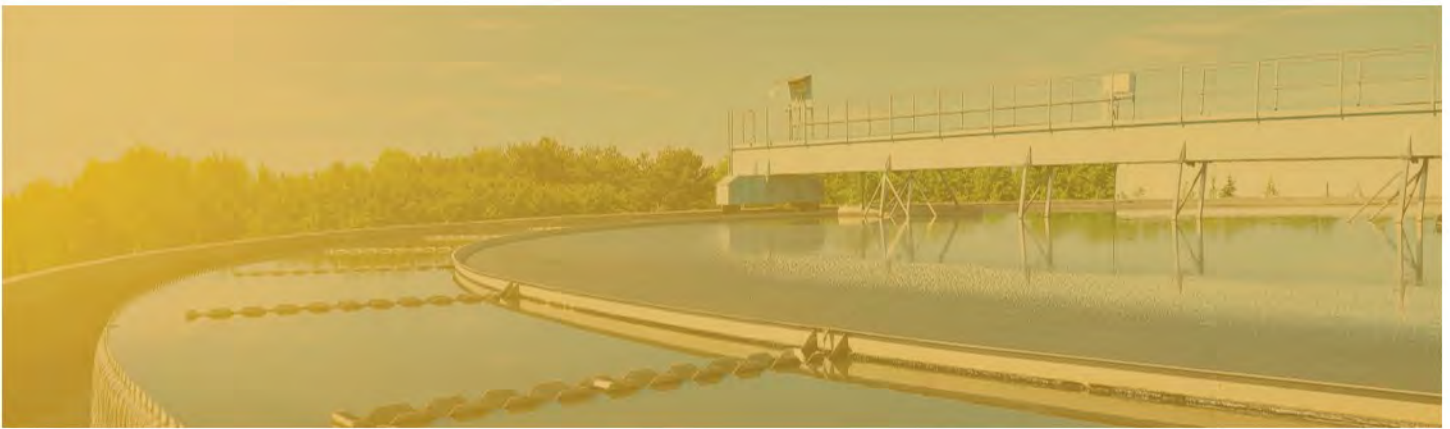




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Bayshore Village Sewage Works Effluent Spray Irrigation



CLASS ENVIRONMENTAL ASSESSMENT PROJECT FILE UPDATE

FINAL REPORT

Township of Ramara

Document Control

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Issue	Date	Description
0	August 7, 2024	Draft Report
1	October 8, 2024	Final Draft Report
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1 Introduction

A Class Environmental Assessment (Class EA) (Schedule B) was completed in 2017 to consider alternatives for the Bayshore Village effluent spray irrigation system. The Class EA was documented in the *Bayshore Village Sewage Works Effluent Spray Irrigation Class Environmental Assessment Phases 1 and 2 Project File* (Tatham, September 2017), referred herein as the 2017 Class EA report.

The Township of Ramara (Township) requested that Tatham Engineering Limited (Tatham) update the Class EA to address the Ministry of the Environment, Conservation and Parks (MECP) comments and consider current conditions and concerns.

This report for the Class EA Update presents relevant information from the 2017 Class EA report, additional studies and consultation, an updated evaluation of alternative solutions, and updated recommendations for addressing the issues with the Bayshore Village effluent disposal system. This report is intended to be a stand-alone report, not an addendum to the 2017 Class EA report.

1.1 BACKGROUND

Bayshore Village is a residential community located on the east shore of Lake Simcoe. It was built by a developer and assumed by the Township in 1991. Figure 1 presents the study area.

The community is almost fully built-out. In 2024, there were 353 built lots of the 372 serviced lots (95% of lots are built). At the Township's average occupancy of 2.6 people per dwelling, the total estimated population currently connected to the municipal sewer system is 918 residents.

The Bayshore Village Sewage Works consist of a gravity sanitary sewer system with a satellite sewage pumping station and a main sewage pumping station, a two-cell waste stabilization pond, referred to as lagoons in this report, and an effluent spray irrigation system on two fields referred to as the South Field and the North Field that are located adjacent to the lagoons near the Lake Simcoe shoreline.



Figure 1: Study Area



1.2 STUDY OBJECTIVES AND PROBLEM STATEMENT

1.2.1 Project History

The Class EA was originally initiated in October 2010 to consider the expansion of the effluent spray irrigation fields serving the Bayshore Village Sewage Works. Over the years, it had been observed that the soils of the spray fields had become compacted, and their infiltrative capacity had deteriorated. Spare spray irrigation capacity was needed to provide operational flexibility to take spray fields out of service for aeration and/or tilling as needed to maintain their capacity for the disposal of the lagoons content.

Following the first Public Information Centre (PIC) in February 2011 and consultation with the Ministry of the Environment and Climate Change (now MECP), the project evolved, and the Township decided to widen the scope of the Class EA to consider alternatives to effluent spray irrigation. The problem statement was revised to:

Bayshore Village effluent spray irrigation fields have been in continuous operation for 25 to 38 years. Soils have become compacted and have reduced absorption capacity. A longer spray irrigation period is often required. There is no spare capacity in the spray irrigation system to temporarily take spray irrigation fields out of service for aerating and/or tilling the soils as needed to restore and maintain their original effluent absorption capacity. The effluent disposal system must have sufficient capacity to adequately dispose of the effluent from the Bayshore Village lagoons. The effluent disposal system should minimize impacts on the environment and on adjacent residents and farms, meet current regulatory requirements, satisfy the Township's operational needs, and be affordable.

Following public and agency consultation, which included numerous meetings and a second PIC in November 2016, the Class EA report and the Notice of Completion were issued in September 2017. The Class EA report recommended that in the short term the Township establish an additional spray field to provide spare capacity and concurrently advance the preferred long-term solution of abandoning spray irrigation and constructing a new tertiary treatment facility with effluent discharge to Lake Simcoe.

The Ministry of the Environment's (now MECP) main comment on the 2017 Class EA Report was that the preferred solution had to fit within the current policy and regulatory requirements, mainly the Lake Simcoe Protection Plan (LSPP) policies, which do not allow a new municipal sewage treatment plant discharging to Lake Simcoe.

The Township pursued their request for the Ministry of the Environment (now MECP) to review the wording of the LSPP policies as part of the 10-year review, and to consider the Bayshore Village sewage works as an existing municipal system that discharge, albeit indirectly, to Lake



Simcoe. This would eliminate the regulatory constraint to establishing the long-term preferred solution.

In 2022, considering the urgent need to address concerns with the effluent spray irrigation system and the unsuccessful discussions with the MECP, the Township resolved to abandon the preferred long-term solution of establishing a tertiary sewage treatment plant with direct discharge to Lake Simcoe, and requested that Tatham update the Class EA to identify an alternate preferred solution for the long term.

1.2.2 Class EA Update Problem Statement

For this Class EA Update, the problem statement is essentially unchanged, as follows:

The Bayshore Village effluent is spray irrigated on fields that have been in continuous operation since the 1980s. Soils have become compacted and have reduced infiltration capacity. It is increasingly difficult to dispose of the effluent from May to October. There are concerns by the adjacent residents about runoff from the spray irrigation operation and potential impacts on humans and farm animals, as well as aerosols and drainage. There is a need to find the most appropriate solution for the disposal of lagoon effluent.

The preferred solution needs to:

- *Provide the required effluent disposal capacity without runoff to adjacent properties, ditches and Wainman Creek/Lake Simcoe.*
- *Provide some spare capacity for operational flexibility.*
- *Involve reasonable level of effort for operation and maintenance.*
- *Address adjacent residents' concerns.*
- *Have reasonable capital costs for construction, equipment and land.*
- *Be acceptable to the MECP so that approval can be obtained.*

Growth beyond the 372 registered lots in Bayshore Village is not planned, considering the limitations of the sewage system. As the sewage system has reserve capacity, there is no need to expand the sewage system beyond its approved capacity of 399 m³/day.

1.3 REPORT ORGANIZATION

This Class EA Update report summarizes the Class EA from its inception in 2010. It presents the relevant information from the 2017 Class EA report and the analysis and consultation completed for the Class EA Update. The report is organized as follows:



- Section 2 presents the existing environmental conditions in the study area that could be impacted by the alternative solutions.
- Section 3 describes the sewage works and effluent spray irrigation system.
- Section 4 outlines the regulatory context in which the Class EA study was completed.
- Section 5 presents the alternative solutions that were considered during the 2017 Class EA and Class EA Update, and their assessment.
- Section 6 summarizes the public and review agency consultation and the comments that were received.
- Section 7 presents the final evaluation and recommendations.

1.4 REFERENCES

The following documents were referred to in the preparation of the Class EA Update report:

- Preliminary Report for the Proposed Bayshore Village Waste Water Spray Irrigation Site, Beak Consultants Limited, November 1988.
- Hydrogeological and Spray Lands Operation Report for the Proposed Bayshore Village Waste Water Spray Irrigation Site, Beak Consultants Limited (undated).
- Bayshore Village Sewage Treatment System Spray Irrigation Pilot Study, Totten Sims Hubicki Associates, March 1996.
- Subsurface Investigation, Proposed Expansion Areas, Bayshore Village Sewage Treatment Works, Concession 7, Lot 22 and Concession 7 Lot 20, Township of Ramara, Ontario, Terraprobe Inc., May 3, 2010.
- Approved Assessment Report: Lake Simcoe and Couchiching-Black River Source Protection Area, Part 1: Lake Simcoe Watershed, South Georgian Bay - Lake Simcoe Source Protection Committee, January 2015.
- Bayshore Village Sewage Works Annual Performance Reports.
- Township of Ramara Staff Reports.



2 Environmental Conditions

The Bayshore Village effluent spray fields are located at the intersection of Concession Road 8 and Sideroad 20, north of Bayshore Village, as shown on Figure 1.

2.1 NATURAL ENVIRONMENT

The Bayshore Village lagoon and effluent spray fields are surrounded by the Barnstable Bay wetland, which is a Class 2 Provincially Significant Wetland on the shore of Lake Simcoe. Barnstable Bay is noted to have significant fisheries.

There is also a regionally significant Area of Natural and Scientific Interest (McGinnis Point ANSI) to the south and west of the spray fields. The ANSI is a 200-ha shoreline swamp; no specific species occurrences are noted for this area.

The Bayshore Village spray irrigation fields are approximately 1.2 km to 1.6 km east of the Lake Simcoe shoreline. They are located on both sides of Wainman's Creek, which flows from upstream wetlands and agricultural areas to Barnstable Bay in Lake Simcoe. Wainman's Creek crosses Concession Rd. 8 between the South Field and the North Field. Stream flows have not been measured. Stream water quality upstream and downstream of the Bayshore Village spray irrigation fields has been monitored since 1994.

A small ditch drains the northern portion of the North Field to a central wooded and low-lying area. Two small ditches drain this central area: one flows south to the Concession Rd. 8 ditch, which drains to Wainman's Creek, and one flows east to another low-lying area connected to Wainman's Creek. The South Field drains towards the northwest to Wainman's Creek and to the east into the Sideroad 20 ditch.

Ground elevations on the spray irrigation lands range from 220 m to 222 m in the North Field and from 220 m to 224 m in the South Field (TSH, 1993, 1995). The areas around the spray fields are similarly flat with lower areas in proximity to Wainman's Creek. The spray fields are located on lands that have slopes that are less than 3%.

2.2 ADJACENT LAND USES

As per the Township of Ramara zoning map, the Bayshore Village Sewage Works site is designated Rural. It is surrounded by Natural Areas and other lands designated Rural. Lands outside of the wetlands to the east, north and west of the spray irrigation lands are mostly in active agricultural use, except for some low-lying areas covered in bush or small trees.



There are residences and farm operations in proximity to the spray irrigation fields on Concession Rd. 8: one residence is immediately north of the South Field; the other residences are west of the North Field.

2.3 GEOLOGY AND HYDROGEOLOGY

2.3.1 1988 Investigations

Boreholes drilled for the design of the Bayshore Village spray fields (Beak, 1988) indicated the soils on the existing site are varved and compact glacio-lacustrine clays overlying glacial till, which in turn lies on bedrock. The soils in the North Field are slightly heavier than in the South Field. The clay type soils are moderately well to poorly drained. Depth to the groundwater table is low in the spring in both the South and North Fields but increases in the summer. Upward vertical gradients were greater than horizontal gradients; as such, water moving from the site is not expected to enter the deep groundwater.

The soil's saturated hydraulic conductivities were measured in May 1988 using a Guelph Permeameter. In the South Field, they ranged between 2.1×10^{-6} cm/s and 2.1×10^{-4} cm/s at 15 cm depth and were lower at 50 cm depth (1.3×10^{-6} to 8.6×10^{-6} cm/s). In the North Field, the saturated hydraulic conductivities ranged between 1.9×10^{-6} to 5.4×10^{-5} cm/s at shallow depth and were lower at 50 cm depth (8.6×10^{-7} to 2.5×10^{-5} cm/s).

2.3.2 2009 Subsurface Investigation

Terraprobe conducted in 2009 a subsurface investigation of two areas adjacent to the Bayshore Village lagoons and spray fields: the area immediately to the west of the lagoons, and the area east of the South Field.

Drilled boreholes showed the presence of sandy or clayey silt over sandy silty gravel. Depth to bedrock ranged from 2.5 m to 7.9 m below ground surface. The soil's hydraulic conductivity was estimated based on the grain size distribution to range between 1×10^{-7} to 2×10^{-5} cm/s. Static groundwater level in the west area was 0.3 m to 1.4 m below ground, and in the east area, was 0.2 m to 0.8 m below ground, in November.

2.3.3 2023 Infiltration Testing

Tatham conducted a field investigation of the South Field and of the area immediately west of the lagoons in December 2023 to determine if the hydraulic conductivity of the soils in the South Field had changed since 1988 and to determine the hydraulic conductivity of the soils in the area west of the lagoons, where a future effluent disposal system could potentially be established.

In situ Guelph Permeameter testing was carried out in hand-augured holes, 0.4 m to 0.6 m below surface. The field saturated hydraulic conductivities in the South Field were found to range



between 9.5×10^{-5} to 5.7×10^{-4} cm/s, indicating the near surface infiltration capacity of the soils has not changed significantly since 1988. The west area's saturated hydraulic conductivities ranged between 1.9×10^{-4} and 3.8×10^{-4} cm/s, slightly higher than in the South Field.

2.4 ARCHAEOLOGY AND HERITAGE RESOURCES

An archaeological assessment of the field immediately west of the Bayshore Village sewage lagoons and spray irrigation fields was conducted to evaluate its archaeological potential and determine if further archaeological assessment is required.

The Stage 1 Archaeological Assessment (Archeoworks Inc, January 2024) attached in Appendix A indicated that the background research on the area's geography and history identified features in proximity to the study area that contribute to establishing the site's archaeological potential, including water sources, i.e., wetlands associated with creeks draining to Lake Simcoe, and 19th century settlement. Review of mapping and aerial imagery from the 20th and 21st centuries revealed observable changes in the study area, but the depth and extent of these alterations could not be confirmed to fully classify the study area as being fully disturbed.

Accordingly, a Stage 2 archaeological assessment, in the form of a pedestrian survey of the field immediately west of the sewage lagoons, was conducted on August 2, 2024, after the field had been plowed and disced multiple times. During the survey, a collection of 174 historic artifacts was encountered that suggest a mid-19th century habitation. The material recovered was determined to likely be associated with a Euro-Canadian domestic structure built in the 1850s and utilized through the 1860s into the 1870s.

As the site has further cultural heritage value and interest, a Stage 3 archaeological assessment was completed to determine the full extent and characteristics of the site. The field work for the Stage 3 archaeological assessment was completed in November 2024. The Stage 3 Archaeological Assessment report indicates that a comprehensive Stage 4 archaeological excavation must be completed prior to any construction activity.

There is low potential for built heritage resources and cultural heritage landscapes in the study area, based on a screening completed in accordance with the Ministry of Tourism, Culture and Sport Form, attached in Appendix A.



3 Existing Sewage Works

3.1 APPROVALS

The Bayshore Village Sewage Works were originally constructed under Certificate of Approval (C of A) No. 3-0304-77-006, dated June 1, 1977. They were upgraded under C of A No. 3-1337-81-827, dated November 25, 1982, and amended by notices dated June 6, 1985, July 7, 1992, April 18, 1994, and November 1, 1995. The system currently operates under C of A No. 3-1337-81-968 issued July 17, 1996. The C of A is attached in Appendix B.

The C of A limits the sewage average daily flow to 399 m³/day. The C of A describes the sewage works as they were designed, lists the monitoring requirements and the conditions under which the system must operate, including the maximum effluent application rate (55 m³/ha/day averaged over the number of spray days each season), the allowed spray period (May 18 to September 28), and that it should preclude ponding, runoff and aerosol drift beyond the property.

3.2 SYSTEM DESCRIPTION

3.2.1 Wastewater Collection and Pumping

Two pumping stations collect the wastewater generated in Bayshore Village: the West Sewage Pumping Station (SPS), which serves approximately 30% of the development, and the East SPS, which serves the entire development. Two 16.7 L/s submersible pumps (one duty, one stand-by) in the East SPS convey wastewater via a 150 mm forcemain to the lagoons. Raw wastewater flows to the lagoons are measured at the East SPS.

3.2.2 Wastewater Treatment

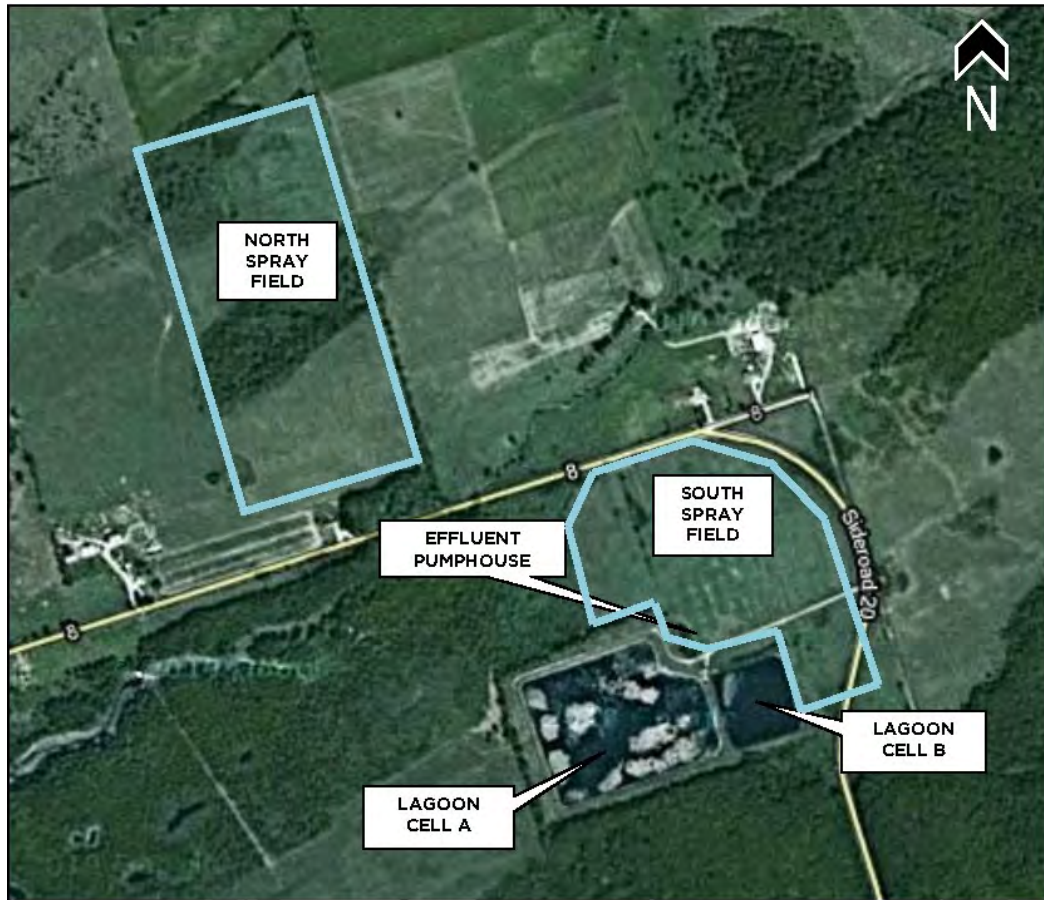
The wastewater treatment system consists of a two-cell facultative waste stabilization pond, located 2.5 km north of Bayshore Village on Sideroad 20, on Lot 21, Concession 7.

The average daily flow rated capacity of the wastewater treatment system is 399 m³/day.

Raw wastewater is pumped from the East SPS to Cell B (small lagoon) from where it flows by gravity to Cell A (large lagoon). The lagoons provide biological treatment of the wastewater, and storage during the winter months when the effluent spray irrigation system is not in operation.

An aerial view of the existing sewage works is shown on Figure 2.



Figure 2: Existing Sewage Works

One lagoon cell was constructed in 1977, and the second lagoon cell was constructed in 1982. Cell A was relined with imported clay in 1995 (TSH, 1996).

The effective volume (excluding freeboard and sludge storage) of Cell B was estimated at 30,000 m³ in 2014. The effective volume of Cell A was estimated at 110,000 m³ in 1995. A hydrographic acoustic sonar survey of the two lagoon cells conducted in April 2022 indicated the average depth of sludge was 150 mm in both cells.

3.2.3 Effluent Disposal

During the spray irrigation season, effluent from Cell A is drawn from a concrete sump via a 250 mm diameter pipe to the effluent pump house. The pipe is equipped with a rotating self-cleaning strainer.



The effluent pump house consists of a 3 m by 3.6 m wood frame building that houses a 132 L/s effluent pump with variable speed drive, a pressure reducing valve, and a magnetic flow meter on a 150 mm diameter discharge line.

The lagoon effluent is spray irrigated on the South Field and the North Field, adjacent to the lagoons. The fields are equipped with above-ground irrigation piping and sprinklers.

From the late 1980s to 1993, the Township utilized the South Field only for effluent spray irrigation. A two-year pilot testing program on the North Field was conducted in 1994 and 1995. As of 2024, the South Field has been in operation for approximately 35 years, and the North Field has been in operation for 30 years.

The South Field covers an area of approximately 23 ha immediately north of the lagoons on Lot 21, Concession 7. The North Field has an approximate area of 18 ha and is north of Concession Rd. 8 on Lot 22, Concession 8. Not all the land on these fields is used for spray irrigation.

The original design (Beak, TSH) determined that a total of 26 ha could be used for spray irrigation (14 ha on the South Field and 12 ha on the North Field), as described in the C of A. The 2017 Class EA and the Class EA Update have been based on the Township utilizing 25 ha for spray irrigation (13.6 ha in the South Field and 11.4 ha in the North Field), based on aerial photography. The Township determined in April 2024 (Staff Report ID-25-24) that the current spray areas covered 10.5 ha on the South Field and 10 ha on the North Field, and that piping to a 3.7 ha area in the South Field had been disconnected in 2020. Therefore, the total available spray irrigation area is 24.2 ha. However, the adjacent residents who have lived beside the spray fields since their installation have noted that the spray irrigation piping and spigot layout has been altered numerous times over the years, and the actual area that is sprayed is less than the total available spray area. Confirmation of the current area used for spray irrigation is required to verify that the volume of effluent applied meets the C of A requirements.

3.3 SPRAY IRRIGATION SYSTEM DESIGN AND PILOT TESTING

The effluent spray irrigation system was designed in 1988, following a hydrogeological study by Beak Consultants Limited (1988). Beak recommended that the South and North spray fields be divided into four management zones for the purposes of designing and operating the spray irrigation system. These zones were established based on the soil's ability to accommodate the application of effluent and on the depth to the water table. Beak suggested a schedule of application rates as a starting point for the design, subject to further pilot testing and soil moisture measurements. The application rates, which included precipitation, ranged between 3.75 mm to 9.4 mm per application period. The suggested total volume of effluent applied per year over 100 spray days was 157,800 m³.



In 1994, Totten Sims Hubicki (TSH) conducted a spray irrigation pilot study as requested by the MOE (now MECP) prior to the use of the North Field. Their pilot study report (TSH, 1996), relying extensively on Beak's hydrogeological investigation, established maximum hourly effluent application rates based on the soils' unsaturated hydraulic conductivities. These maximum hourly application rates ranged from 0.072 mm/hr to 3.6 mm/hr. The pilot study concluded a volume of 132,000 m³ could be disposed of on the available 26 ha of spray lands over 98 spray days at the suggested spray irrigation rates. TSH recommended that the effluent be sprayed at the design maximum rates for a short period of time, ranging from 1.5 hour to 4.1 hour, on each of these 98 days, so as not to exceed the maximum allowable rate of 55 m³/ha/day specified in the C of A.

With 134 available days between the May 18 to September 28 spray season, this approach included 36 days for drying up the soil between applications and for rainy and/or windy days when spraying is not permitted.

During the 1994-1995 pilot study, instances of aerosol drift, ponding and runoff to the ditches along Sideroad 20 were observed and recorded. The Township addressed these issues by hiring a full-time inspector, whose responsibilities were to monitor and control the spray irrigation program closely. If ponding was observed, the area was allowed to dry up before spraying was resumed.

The TSH pilot study report also recommended annual aeration of the spray fields to improve the absorption capacity of the surficial soils and prevent consolidation with time, which would promote runoff.

3.4 SPRAY IRRIGATION SYSTEM OPERATION

At the time, Township staff found the TSH-recommended part-time operation of the Bayshore spray irrigation system difficult to implement. Spraying for short periods of time daily and varying the spraying duration between the various spray areas was difficult because of the labour involved and the pumping/piping design. Operators found that shutting off sprinklers in some areas caused excessive pressure in the piping in other areas resulting in breaks. The operating practice evolved to a system whereby the operators typically spray irrigated for 7 or 8-hour days over most of the available spraying land but allowed longer drying and recuperation periods between spray days.

The typical method of operation of the spray irrigation system is as follows:

- Spray irrigation piping, including the piping across Wainman's Creek, and the spray nozzles are installed and pressure-tested in May.



- Spray irrigation fields are inspected daily to determine whether conditions are favourable for spray irrigation. Spray irrigation is carried out when there is good weather (i.e., no rain and wind velocity less than 15 km/hr), no ponding of surface water on site, and sufficiently dry soil.
- If spraying is possible, the operator starts the effluent pump. A further inspection of the field is made to verify that sprinkler heads are operational. If problems are found such as broken pipes, clogged sprinkler heads, surface ponding, and aerosol drift, then the spray operation is modified, discontinued or repairs are completed as needed.
- Operation staff maintain a daily log of the spray irrigation operation.

During periods when the fields are left to dry, the grass is cut to promote evapotranspiration. The grass is not removed from the fields.

The typical spray irrigation season is from May 18 to September 28 each year.

It has become increasingly difficult for Township operators to spray irrigate the entire content of lagoon Cell A within the allowed 4.5-month spray irrigation period while meeting the operational guidelines to minimize runoff and the average effluent application rate specified in the C of A. Requests to extend the spray period to the end of October or early November to dispose of the lagoon content were approved by MECP six times in the past 10 years. Runoff from less permeable areas occurs more frequently. During rainy summers when there is a limited opportunity to let the fields dry up between spray irrigation days, the effluent has been sprayed when the soils are still wet and saturated, which reduces significantly their infiltration capacity, and when the weather conditions were unfavourable, resulting in runoff to adjacent properties, drainage ditches and Wainman's Creek, and/or aerosols.

In the past 10 years, the number of favourable days for spray irrigation appears to have diminished: the spray fields were used 65 days per season on average, compared with the design basis of 98 days.

The spray fields were not aerated in many years. In 2016, deep aeration was completed on the South Field. No significant improvement in the soil's ability to infiltrate the effluent applied was noted.

During the 2023 winter, 55,000 m³ of effluent was removed from Cell A and hauled to the Lagoon City STP for final treatment and disposal because the lagoon liquid level had not been sufficiently lowered through the 2023 spray season to ensure there would be sufficient volume to store the effluent over the winter and spring months before the start of the 2024 spray season.



3.5 PERFORMANCE MONITORING

3.5.1 Influent Wastewater Flows and I/I Control

The Bayshore Village lagoons received on average 312 m³/day of wastewater in the 5-year period of 2020 to 2024. This represents 78% of the system’s rated capacity of 399 m³/day. Wastewater flows have decreased since 2022, with a 3-year average of 264 m³/day because of reductions in inflow and infiltration into the sanitary sewer system.

The Bayshore Village sewage works are designed to serve 343 residential lots in Bayshore Village and 29 residential lots on Southview Drive, for a total of 372 lots. According to the 2024 Annual Report, there were 353 connected lots in 2024. Considering the influent flow data for the 5-year period of 2020 to 2025 that show an average wastewater generation rate of 347 L/person/day, the sewage works have an uncommitted residual capacity of 18% or 77 lots at 2.6 ppu.

The Township developed and implemented an inflow and infiltration control program for the Bayshore Village sewage collection system. Video inspections of the sewers and lateral pipes, maintenance hole inspections, and property inspections, were completed in 2022. Findings included active infiltration in some sewer sections, laterals and maintenance holes, as well as evidence, and potential sources, of infiltration at joints and in laterals. Sump pumps connected to the sanitary sewers were also found. To date, the Township has repaired the laterals and disconnected the sump pumps. Repairs on the main sewer lines are planned to be completed concurrently with road replacement work.

3.5.2 Raw Wastewater and Lagoon Effluent Quality

The raw (influent) wastewater quality, the Cell B (small lagoon) quality, and the Cell A (effluent) quality for the past 10 years (2015 to 2024) are summarized in Table 1. The data shows that the Bayshore Village lagoons produce effluent typical of secondary treatment facilities.

Table 1: Raw Wastewater and Effluent Characteristics (2015-2024 Averages)

PARAMETER	QUALITY (mg/L)			REMOVAL (%)
	Raw Wastewater	Cell B (Small Lagoon)	Cell A (Large Lagoon)	
BOD ₅	144	27	15	90%
Total Suspended Solids	152	28	32	79%
Total Phosphorus	2.5	2.3	0.8	68%
Total Kjeldahl Nitrogen	28	15	3	89%
Total Ammonia		12	2	



3.5.3 Groundwater, Surface Water and Soil Quality

The impact of the effluent disposal on groundwater quality, surface water quality and soil characteristics is monitored by the following sampling program, which has been in place since 1995, in accordance with the C of A:

- groundwater samples taken in six boreholes in and around the North and South fields;
- water samples taken in Wainman's Creek upstream and downstream of the spray fields; and,
- soil samples taken in the North and South fields.

Samples are taken:

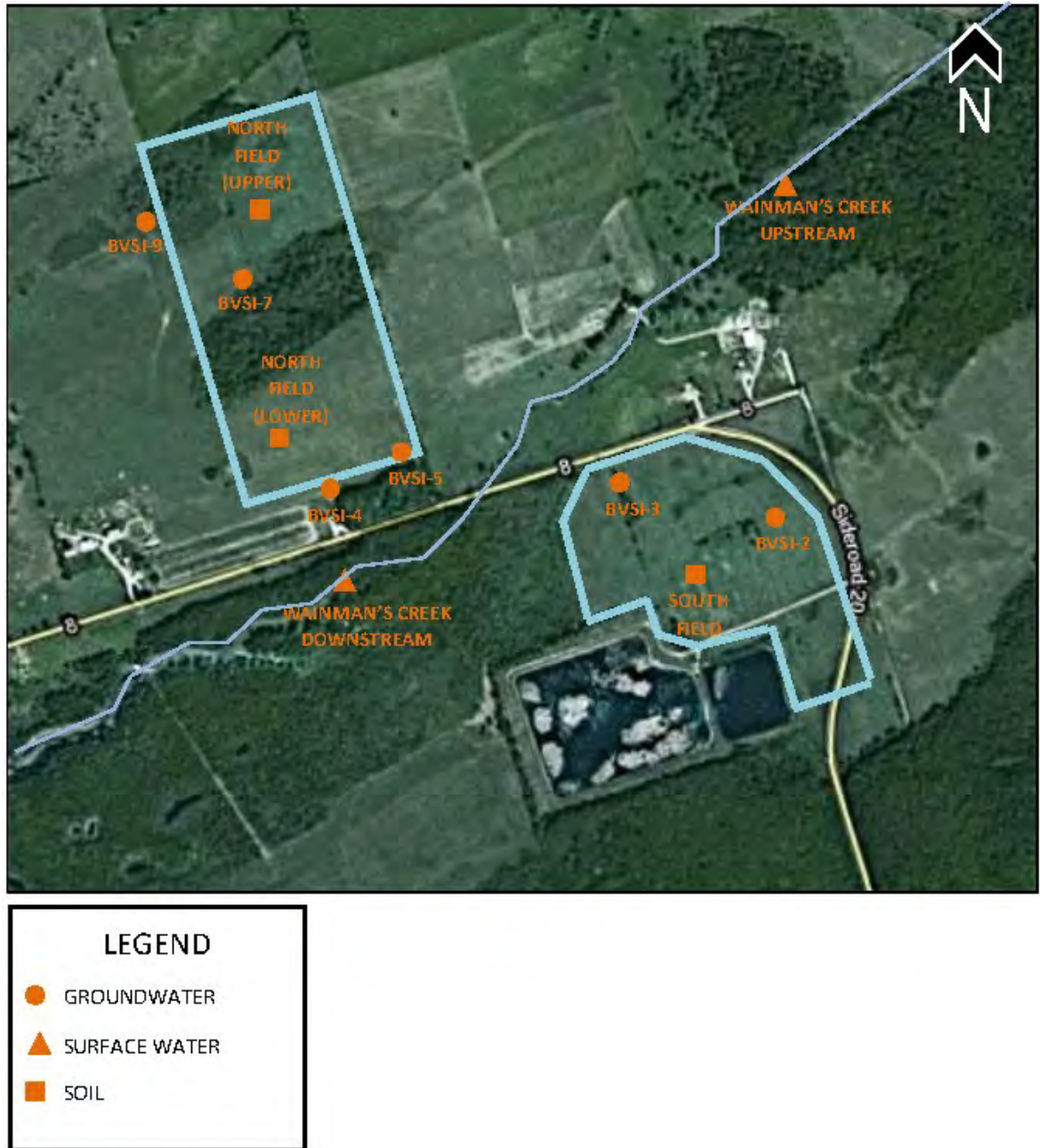
- In May, before the start of the spray irrigation season;
- In August, during spraying; and,
- In October, after spraying is completed.

The locations of the sampling points are shown on Figure 3. All laboratory results from the monitoring program are tabulated and presented in graphs attached in Appendix C.

Groundwater quality is compared annually with the Ontario Drinking Water Standards, Objectives and Guidelines (ODWS) and with previous monitoring data to assess potential impacts and trends. High chloride levels have been noted, particularly at locations close to the road in the South Field. Concentrations of nitrogen, including TKN and TAN, are mostly undetectable during and after the spray irrigation season. Nitrate levels are very low. Effluent spray irrigation during the growing season does not add nitrogen because of the plants' nitrogen uptake. The overall average Total Phosphorus concentration in groundwater is 0.2 mg/L.



Figure 3: Spray Irrigation System Monitoring Locations



Wainman's Creek water quality has frequently exceeded the phosphorus Provincial Water Quality Objective (PWQO) for streams of 0.03 mg/L. The data shows very consistent water quality between the upstream and downstream sampling locations, indicating no measurable impact from the spray irrigation operation. Using the ammonia results obtained from the upstream and downstream samples, unionized ammonia concentrations in Wainman's Creek are below the PWQO. Surface water quality does not appear to have been impacted by the spray irrigation operation.

Soil core samples show localized increases in the concentration of some contaminants during the spray irrigation season. However, the concentration levels are consistent with levels recorded in previous years, and therefore do not show increases over the years. Higher concentrations of phosphorus are measured in the South Field than in the North Field.



4 Regulatory Context

4.1 LAKE SIMCOE PROTECTION PLAN

The construction and operation of sewage treatment facilities in Ontario are regulated under the *Ontario Water Resources Act, 1990* (OWRA).

As the Bayshore Village Sewage Works are located within the Lake Simcoe watershed, they are also governed by the *Lake Simcoe Protection Act, 2008* (LSPA), which provides the framework for the development of the Lake Simcoe Protection Plan (LSPP). The LSPP, issued in June 2009, is a watershed-based plan that established objectives to protect and enhance the Lake Simcoe water quality, including reducing loadings of phosphorus and other nutrients of concern to Lake Simcoe and its tributaries.

The LSPP sets out policy 4.3-DP to prohibit the establishment of new municipal sewage treatment plants in the Lake Simcoe watershed unless: the new plant replaces an existing municipal sewage treatment plant, or it services a development where one or more subsurface sewage systems are failing.

The Lake Simcoe Phosphorus Reduction Strategy, issued in 2010, was developed in the first year of the LSPP to achieve the reductions in phosphorus loadings that are required to restore Lake Simcoe's water quality and ecological health. The Lake Simcoe Phosphorus Reduction Strategy lists in Table A2 the 15 municipal and industrial sewage treatment plants in the watershed for which phosphorus compliance limits and loads were established. The Bayshore Village Sewage Works are not listed in Table A2 as one of the existing municipal sewage treatment plants in the Lake Simcoe watershed. This is because the facility does not have a direct effluent discharge to the lake.

However, the LSPP objectives and policies to protect the lake's water quality and reduce phosphorus loadings, apply to the Bayshore Village Sewage Works as they are within the watershed and near Lake Simcoe.

4.2 SOURCE WATER PROTECTION

Under the *Clean Water Act, 2006*, source water protection plans were developed to protect municipal water supplies from various threats including sewage works. The Source Protection Plan for the South Georgian Bay Lake Simcoe Protection Region has defined the Well Head Protection Areas (WHPA) for the Bayshore Village municipal wells.

The groundwater vulnerability for the Bayshore Village water supply was delineated, and the areas determined to contribute groundwater to the wells within the 25-year capture zone were



defined as WHPA. The Bayshore Village municipal sanitary sewer system was identified as a potential Significant Drinking Water Threat. The existing sewage lagoons and part of the South Field are within the WHPA-C 5-year capture zone. The North Field, the area west of the lagoons, and Wainman Creek are outside of the WHPA.



5 Alternative Solutions

This section lists the alternative solutions previously considered in the 2017 Class EA Report. For the Class EA Update, these alternative solutions were updated and screened, and the updated short list of alternative solutions were evaluated. The updated alternative solutions are described and assessed in the following sections.

5.1 2017 CLASS EA LIST OF ALTERNATIVE SOLUTIONS CONSIDERED

At the first PIC in February 2011, two alternative solutions were presented to address the original Problem Statement:

- Do Nothing
- Acquire additional land for effluent spray irrigation

Following the receipt of comments and concerns with the operation of the spray fields (see Chapter 6), the Problem Statement was expanded and as a result, new alternative solutions were considered, and alternatives were modified. The long list of all alternatives considered during the 2017 Class EA study was as follows:

- 2017 Alt. 1 Do nothing
- 2017 Alt. 2 Alter spray irrigation practices
- 2017 Alt. 3A Establish one new spray irrigation field
- 2017 Alt. 3B Establish two new spray irrigation fields and abandon the North Field
- 2017 Alt. 4 Build an effluent disposal bed and abandon the North Field only
- 2017 Alt. 5 Discontinue spray irrigation and build an effluent disposal bed
- 2017 Alt. 6 Discontinue spray irrigation, upgrade sewage treatment and discharge to Wainman's Creek
- 2017 Alt. 7 Pump sewage or effluent to the Lagoon City STP
- 2017 Alt. 8 Plant trees on the spray fields

5.2 CLASS EA UPDATE LONG LIST OF ALTERNATIVE SOLUTIONS

For this Class EA Update, the following long list of alternative solutions was considered, then screened:

- Do Nothing



- Alt. 1: Reduce Inflow and Infiltration in Bayshore Village sewers
- Alt. 2: Increase spray irrigation rate on existing spray fields, and add effluent UV disinfection
- Alt. 3: Establish 1 new spray irrigation field (West), and add effluent UV disinfection
- Alt. 4: Establish 1 new spray irrigation field (West), decommission North Field, and add effluent UV disinfection
- Alt. 5: Establish 2 new spray irrigation fields (West and other), decommission North Field, and add effluent UV disinfection
- Alt. 6: Build effluent disposal bed on West field, continue spray irrigation on South Field, decommission North Field and add effluent UV disinfection
- Alt. 7: Build effluent disposal bed on the South Field, establish spray irrigation on West field, decommission North Field and add effluent UV disinfection
- Alt. 8: Discontinue spray irrigation, and build effluent disposal bed on the West field
- Alt. 9: Discontinue spray irrigation, pump lagoon effluent to Lagoon City STP, and expand Lagoon City STP
- Alt. 10: Discontinue spray irrigation, upgrade lagoons with tertiary sewage treatment plant with effluent discharged to Wainman's Creek to Lake Simcoe

A brief description of each of the above alternative solutions is provided below.

Only one alternative from the 2017 Class EA was not carried forth in this Class EA Update: planting trees on the spray fields. Although trees can uptake nutrients, it was determined that the evapotranspiration rate achieved with a willow or poplar plantation only results in a small increase in effluent disposal capacity. Further, the trees do not grow well in clay soils, and there is no market for the wood once it is harvested.

5.2.1 Do Nothing

Do Nothing is considered for comparison purposes. Do Nothing at the Bayshore Village Sewage Works would involve continuing with the current spray irrigation operation with the existing equipment on the existing spray fields. The issues and concerns with the capacity and operation of the spray irrigation system would continue and likely worsen over time as the system ages. The Township would need to haul lagoon effluent to the Lagoon City STP if the weather during the spray season does not provide sufficient favourable spray days. Do Nothing would incur additional operating costs for hauling, as well as ongoing maintenance and replacement costs.



5.2.2 **Alternative 1: Reduce Inflow and Infiltration**

This alternative consists of continuing with the ongoing efforts to monitor and control inflow and infiltration (I/I) into the Bayshore Village sanitary sewers. Measurable reductions in wastewater flows have been noted in the past two years, however, are not sufficient to consistently address the concerns with the spray irrigation system capacity. Monitoring and controlling I/I requires annual budgets for sewer system inspections, repairs and rehabilitation.

5.2.3 **Alternative 2: Increase Spray Irrigation Rate and Add UV Disinfection**

Alternative 2 involves increasing the spray irrigation application rate on the existing spray fields such that all the annual effluent volume could be disposed on the typically available number of good spray days within the allowed May to October spray season. All existing spray fields and equipment would be maintained. The spray irrigation scheduling would be modified to provide more time between spray irrigation events to allow the soils to dry up between applications to maximize infiltration. Lagoon effluent UV disinfection would be implemented at the spray irrigation pumping station to mitigate concerns with the health impacts of aerosols from the spraying of effluent.

Assuming the number of available spray days per season is 65 days, the application rate would need to be 90 m³/ha/day over 25 ha, to dispose of the annual volume of effluent. This application rate is 60% higher than the currently allowed rate of 55 m³/ha/day and would likely result in more runoff from the spray fields. The estimated project cost to upgrade the effluent pumping station to implement UV disinfection is \$500,000.

5.2.4 **Alternative 3: Establish One New Spray Irrigation Field (West) and Add UV Disinfection**

This alternative involves establishing one additional spray irrigation area of 16 ha on the field west of the sewage lagoons, which the Township owns. With the existing South and North Fields, a total of 41 ha would be available for effluent spray irrigation. The entire annual effluent volume could be disposed by spray irrigation over this area assuming there are 65 favourable spray days per season. With an extended season, which on average provides 75 spray days, there could be a 15% buffer that would allow part of a field to be taken out of service on a rotational basis for a year, to till it and rebuild its infiltration capacity. UV disinfection of the lagoon effluent prior to spray irrigation would be provided, and tree buffers would be planted along Concession Road 8 and Sideroad 20 to mitigate aerosols from the spray irrigation operation.

This alternative would maintain and expand the current effluent disposal approach in a manner that provides some spare capacity and reduces runoff to adjacent properties and Wainman's Creek. However, if the weather conditions during a spray season are not favourable for infiltration and evapotranspiration, and fields cannot dry sufficiently between spray applications,



surface runoff may still occur and hauling of effluent from the lagoons to the Lagoon City STP would still be needed. The estimated project cost of this alternative is \$1.6 million.

5.2.5 Alternative 4: Establish One New Spray Irrigation Field (West), Decommission North Field, and Add Effluent UV Disinfection

Alternative 4 is like Alternative 3, with the exception that the North Field is taken out of operation due to the immediately adjacent residents' concerns with the impacts on their properties. The existing South field (13.6 ha) plus a new 16 ha spray field would provide 29.6 ha of available irrigation area. At the maximum allowable application rate of 55 m³/ha/day, it would take 89 spray days per season to dispose of the total annual effluent volume. Historically, considering the past 10 years, the number of favourable spray days per season has been much lower. This alternative would not provide adequate effluent disposal capacity at the MECP-allowed spray irrigation rate.

5.2.6 Alternative 5: Establish Two New Spray Irrigation Fields (West and Other), Decommission North Field, and Add Effluent UV Disinfection

With Alternative 5, spray irrigation would continue on the South Field and be discontinued on the North Field, and two additional spray fields would be established, 16 ha on the West field and one other field at a location to be determined. The second additional field would need to have a spray area of at least 13 ha to provide the required disposal capacity at the MECP-allowed application rate. The closest agricultural lands that are not environmentally protected (wetland areas) and that could potentially be used for spray irrigation are 3 to 4 km from the Bayshore Village lagoons via existing roads. The project would include expanding the effluent pumping station to provide the capacity to pump to the remote field and a 3 to 4 km long forcemain. The effluent would be UV-disinfected before spraying and tree buffers would be planted where required. The estimated project cost is \$11.3 million, excluding land acquisition costs.

5.2.7 Alternative 6: Build Effluent Disposal Bed on West Field, Maintain South Spray Field, Decommission North Field, and Add Effluent UV Disinfection

This alternative involves utilizing two effluent disposal approaches: spray irrigation and subsurface disposal. Spray irrigation would continue on the South Field. The spray irrigation equipment on the North Field would be removed. A fully raised effluent disposal bed would be constructed on the Township-owned field west of the sewage lagoons.

During the summer months, lagoon effluent, disinfected by UV, would be sprayed on the South Field at a reduced spray irrigation frequency that provides a drying period between spray irrigation events. Tree buffers would be planted along Concession Road 8 and Sideroad 20.



The effluent disposal bed, with a capacity of 292 m³/day, would receive pumped lagoon effluent, after the required minimum lagoon retention time (30 days), year-round. Due to the clay soils and high groundwater table, the bed would be raised and have a large sand mantle, covering a total area of about 4 ha.

This approach would be designed to provide approximately 20% spare spray irrigation capacity so that spray irrigation areas could be rotated. As this alternative would reduce the volume of effluent that is spray irrigated, the potential for effluent runoff and negative impacts on the adjacent residents would be reduced. However, there would remain the potential for effluent breakout from a fully raised bed built on relatively impermeable soils. As the life of a disposal bed is limited, the bed may need to be rehabilitated or replaced in 30 to 40 years. The estimated project cost of this alternative is \$6.2 million.

5.2.8 Alternative 7: Build Effluent Disposal Bed on South Field, Establish Spray Irrigation on West Field, Decommission North Field, and Add Effluent UV Disinfection

Alternative 7 is like Alternative 6 in that it combines two effluent disposal approaches, and the North spray field is decommissioned. In this alternative however, the new effluent disposal bed would be constructed on the South Field, and new spray irrigation equipment would be installed on the new West field. As the West field is larger, more of the effluent could be disposed by spray irrigation, and the effluent disposal bed could be slightly smaller than in Alternative 6. The disposal bed would have a capacity of 274 m³/day and a total loading area of 4.4 ha.

Alternative 7 would take longer to be implemented than Alternative 6 as the project would need to be phased: spray irrigation equipment on the West field would need to be installed and commissioned before the new effluent disposal bed could be constructed on the South Field. The estimated project cost of this alternative is \$8.3 million.

5.2.9 Alternative 8: Discontinue Spray Irrigation and Build Effluent Disposal Bed on the West Field

Alternative 8 involves abandoning spray irrigation for the disposal of the effluent and replacing it with a large (399 m³/day to match the existing sewage works' rated capacity) raised disposal bed built on the Township-owned West field. The treated lagoon effluent would be pumped year-round to the disposal bed, which would have a total loading area of 6 ha. All spray irrigation equipment would be removed from the South and North Fields.

This approach would eliminate the restriction of weather on effluent disposal capacity and the runoff and negative impacts of spray irrigation on the adjacent residents. However, there would remain the potential for effluent breakout from a fully raised bed built on relatively impermeable soils. As the life of a disposal bed is limited, the bed may need to be rehabilitated or replaced in 30 to 40 years. The estimated project cost of Alternative 8 is \$7.3 million.



5.2.10 Alternative 9: Discontinue Spray Irrigation and Discharge Effluent to the Lagoon City STP

Alternative 9 involves abandoning spray irrigation as the effluent disposal method and pumping all the treated lagoon effluent to the Lagoon City STP for tertiary treatment and discharge to Lake Simcoe. This alternative would require the construction of an effluent pumping station, the installation of a 150 mm diameter forcemain, and a 399 m³/day expansion of the Lagoon City STP. Although there is currently available capacity at the STP, this capacity is allocated for growth in Brechin.

Two effluent forcemain routes were assessed from the Bayshore Village lagoons to the Lagoon City STP, as follows:

- Route follows Concession Road 7 and the abandoned railway line to the STP site. The approximate length of forcemain is 7,300 m.
- Route follows Concession Road 7, Highway 12, Simcoe Road, and Laguna Parkway to the STP site. The approximate length of forcemain is 15,000 m.

This alternative would eliminate the restriction of weather on effluent disposal capacity and the runoff and negative impacts of spray irrigation on the adjacent residents, but would require extensive construction, either through a wetland area, or through existing roads. The estimated project cost if the effluent forcemain is constructed along the short route is \$21 million. The estimated project cost for the long forcemain route is \$36 million.

5.2.11 Alternative 10: Discontinue Spray Irrigation and Upgrade Lagoons with STP with Effluent Discharged to Wainman's Creek to Lake Simcoe

This alternative involves abandoning effluent spray irrigation and replacing it with the discharge of tertiary treated effluent to Wainman's Creek, which drains to Lake Simcoe. It would require upgrading the Bayshore Village lagoon system to a 399 m³/day tertiary sewage treatment facility. LSPP Policy 4.3DP prohibits new municipal sewage treatment plants in the Lake Simcoe watershed, unless it replaces an existing plant, or it services a development where one or more subsurface sewage systems are failing. Further, the phosphorus load to Lake Simcoe from the new effluent discharge would need to be less than from the spray irrigation effluent disposal system. Further, an assimilative capacity of Wainman's Creek would be required to determine if the provincial surface water quality objectives could be met. Consultation with MECP confirmed that a surface effluent discharge from the Bayshore Village sewage system would not be approved because of the LSPP policies. The project cost of this alternative was estimated at \$10.2 million in 2022.



5.3 SCREENING OF ALTERNATIVE SOLUTIONS

5.3.1 Screening Assessment

The alternatives were screened to identify the ones that meet the following criteria:

- Must meet the Problem Statement.
- Must conform to current MECP guidelines and policies.
- Must be financially feasible, which was considered for this screening as having an estimated project cost less than \$10 million.

As shown in Table 2, seven alternatives and Do Nothing were screened out. Four alternatives were short-listed for further assessment.

Table 2: Alternative Screening Summary

ALTERNATIVES	MEETS PROBLEM STATEMENT	COULD BE APPROVED BY MECP	FINANCIALLY VIABLE	SCREENED OUT
Do Nothing	No	No	Yes	X
1 Reduce I/I only	No	Yes	Yes	X
2 Increase Spray Irrigation Rate	No	No	Yes	X
3 Add West Spray Field	Yes	Yes	Yes	
4 Add West Spray Field & Decommission North Field	No	No	Yes	X
5 Add West Spray Field & Additional Field, and Decommission North Field	Yes	Yes	No	X
6 Build Bed on West Field, Keep South Field & Decommission North Field	Yes	Yes	Yes	
7 Build Bed on South Field, Add West Field & Decommission North Field	Yes	Yes	Yes	
8 Build Bed on West Field & Decommission All Spray Fields	Yes	Yes	Yes	
9 Decommission Spray Fields & Pump Effluent to Lagoon City STP	Yes	Yes	No	X
10 Decommission Spray Fields & Treat Effluent at Tertiary STP to Lake	Yes	No	No	X



The main rationales for screening out seven of the 10 alternatives are summarized as follows:

- Do Nothing: It does not meet the Problem Statement because it does not provide a solution for the disposal of the annual volume of effluent within the typically available number of favourable spray days at the allowed spray irrigation rate and does not address issues with the existing spray irrigation system.
- Alternative 1: Reduce I/I. On its own, I/I reduction in the sanitary sewers cannot reduce the wastewater flows to the point that the effluent spray irrigation capacity issues are resolved. However, measures to monitor and control I/I must continue and be part of the recommended solution.
- Alternative 2: Increase the spray irrigation rate of application. This option is expected to exacerbate the existing issues with the spray irrigation operation.
- Alternative 4: Use the South Field, add a West spray field and abandon the North Field. This option does not provide sufficient spray irrigation area to dispose of the effluent volume within the typically available number of good spray days and at the allowed spray irrigation rate and does not address issues with the existing spray irrigation system.
- Alternative 5: Establish two new spray irrigation fields, one at a remote location. This alternative was screened out because potentially suitable land for spray irrigation is distant from the lagoons, resulting in a high project cost, and because of the uncertainty in finding available and suitable land.
- Alternative 9: Pump the effluent to Lagoon City STP. This option has a very high project cost mainly due to the length and construction of the forcemain and the need to expand the Lagoon City STP.
- Alternative 10: Build a tertiary STP and discharge to Lake Simcoe. This alternative cannot be implemented under the LSPP policies and would not be approved by the MECP.

5.4 ASSESSMENT OF SHORT LIST OF ALTERNATIVE SOLUTIONS

Following the screening, four alternatives were considered for further comparative assessment:

- Alternative 3: Establish an additional spray irrigation area in the West field and maintain the existing South and North Fields.
- Alternative 6: Build an effluent disposal bed on the West field, maintain the South Field, and decommission the North Field.
- Alternative 7: Build an effluent disposal bed on the South Field, establish a new spray irrigation area on the West field, and decommission the North Field.



- Alternative 8. Discontinue spray irrigation and build an effluent disposal bed on the West field.

5.4.1 Comparative Assessment

The alternative solutions on the short list were assessed against the evaluation criteria listed in Table 3.

Table 3: Alternative Solutions Evaluation Criteria

EVALUATION CRITERIA	
<p>Technical</p> <ul style="list-style-type: none"> ▪ Provides Required Effluent Disposal Capacity? ▪ Provides Operational Flexibility? ▪ Operation and Maintenance Requirements ▪ Construction Timeline ▪ Permits and Approval Requirements 	<p>Socio-Economic Environment Impacts</p> <ul style="list-style-type: none"> ▪ Public Health ▪ Adjacent Land Uses and Property Values ▪ Air Quality Impacts ▪ Aesthetic Impacts (Noise, Visual, Odour) ▪ Temporary Construction Impacts ▪ Estimated Capital Costs ▪ Land Acquisition ▪ Estimated Operating and Maintenance Costs
<p>Natural Environment and Cultural/Heritage Impacts</p> <ul style="list-style-type: none"> ▪ Surface Water Quality ▪ Groundwater Quality ▪ Woodlands, Wetlands and Vegetation ▪ Wildlife and Habitat ▪ Archaeological and Heritage Resources 	

Air quality impacts of Alternative 3 and Alternative 6 were determined by air quality modelling and compared with Do Nothing. This analysis is presented in Appendix D. Under existing conditions (Do Nothing), the spray irrigation operation’s modelled emissions for ammonia, hydrogen sulphide and suspended solids are all below the MECP criteria at the property limits. The emissions of all three parameters for Alternatives 3 and 6 are lower than for Do Nothing.

Project construction cost estimates for the short list of alternative solutions are enclosed in Appendix E.

Table 4 overleaf presents the comparative assessment of the alternative solutions. The Do Nothing alternative is included in this table for comparative purposes. The following summarizes the conclusions of the assessment of alternative solutions:

- Alternative 3, which involves continuing with effluent spray irrigation by expanding the spray irrigation area, is the lowest capital cost alternative, however it offers the least protection



against the risk that all the lagoon effluent cannot be disposed of every year due to unfavourable weather conditions for spray irrigation. The additional land would allow a reduction in the spray application rate and/or the application frequency, however, there remains the potential for runoff from the spray fields if the spray operation is not very closely monitored to ensure it meets all the MECP approval conditions. This runoff is a significant issue for the adjacent residents and as a potential source of pollutants to the environment.

- Alternatives 6 and 7, which involve utilizing one spray irrigation field seasonally, as well as an effluent disposal bed year-round, have significantly higher capital costs than Alternative 3. However, they result in a much lower risk of insufficient disposal capacity if the weather is unfavourable for spray irrigation, and of runoff from the spray field, because the spray irrigation rate and the application frequency would be reduced. The disadvantage of these alternatives includes the increase in the operation and maintenance requirements associated with running two effluent disposal systems, which translates into the highest total costs over 20 years.
- Alternative 6 offers the advantage over Alternative 7 of potentially phasing the project, such that over time, the South Field could be abandoned, and the new disposal bed could be expanded.
- Alternative 7 offers the advantage over Alternative 6 of moving the spray irrigation operation further from adjacent residents and in a new area where adequate buffers could be provided. However, as this alternative involves establishing a new spray field with new equipment, it has the highest capital costs and would have a longer implementation period.
- Alternative 8, which consists of replacing seasonal spray irrigation with year-round effluent disposal in a large bed, provides a solution with the required capacity without being affected by weather conditions. It addresses the issues with effluent runoff to adjacent properties and Wainman's Creek. The capital costs are high, due to the large amount of imported sand that will be required to build the raised bed, however, the annual operating costs will be less than for a spray irrigation system. Over a 20-year period, the total costs are estimated to be lower than for Alternatives 6 and 7.



Table 4: Assessment of Alternative Solutions

	Do Nothing	Alternative 3 Establish One New Spray Irrigation Field (West) and Maintain North and South Fields	Alternative 6 Build Effluent Disposal Bed on West Field, Keep South Spray Field only	Alternative 7 Build Effluent Disposal Bed on South Field, Establish Spray on West Field only	Alternative 8 Build Effluent Disposal Bed and Discontinue Spray Irrigation
Description	Continue with current spray irrigation operations on existing fields.	Maintain existing spray fields. Establish 16 ha spray field (West). Add effluent UV disinfection and tree buffers.	Decommission North spray field. Maintain South spray field. Build raised effluent disposal bed on West field. Add UV disinfection and tree buffers.	Decommission North and South spray fields. Establish spray field (West). Build raised effluent disposal bed on South field. Add UV disinfection.	Discontinue spray irrigation. Build raised effluent disposal bed on West field.
TECHNICAL CRITERIA					
Provides Required Effluent Disposal Capacity?	Insufficient spray area considering typical available spray days.	Total spray area is sufficient if the effluent can be irrigated over 65 days or more.	Effluent disposal bed + spray field would be designed to meet total effluent disposal capacity	Effluent disposal bed + spray field would be designed to meet total effluent disposal capacity.	Effluent disposal bed would be designed to meet total effluent disposal capacity.
	No	Improved	Yes	Yes	Yes
Provides Operational Flexibility?	Does not improve operational flexibility.	If 75 spray irrigation days are available, could provide 16% spare capacity to take areas out of service for aerating or tilling.	System would be designed to provide spare capacity to take out of service spray areas for aerating or tilling, or disposal bed cells for a rest.	System would be designed to provide spare capacity to take out of service spray areas for aerating or tilling, or disposal bed cells for a rest.	System would be designed to provide spare capacity to take disposal bed cells out of service for a rest.
	No	Improved	Yes	Yes	Yes
Operation and Maintenance Requirements	O&M to set-up and maintain existing piping/nozzles and pump station, supervise spray days, and harvest hay.	O&M to set-up and maintain existing piping/nozzles, pump station, and new irrigation system, supervise spray days. O&M for UV system.	Less O&M of existing irrigation system (smaller). O&M for UV system and new pump station to disposal bed, and inspection of bed.	Less O&M of irrigation system (new). O&M for UV system and new pump station to disposal bed, and inspection of bed.	O&M for new pump station to disposal bed, and inspection of bed.
	High	Higher	Highest	Highest	Less
Construction Timeline	Not applicable	Short timeline to install new spray irrigation equipment	Longer timeline to construct new pumping station and disposal bed.	Adds one year to construction timeline for new bed then installation of new equipment on South Field.	Longer timeline to construct new pumping station and disposal bed.
	Not applicable	Short	Longer	Longest	Longer
Permits and Approval Requirements	Continue with existing C of A.	Amended ECA required for additional field and UV equipment.	Amended ECA required for UV equipment, new pumping station and disposal bed.	Amended ECA required for new spray field, UV equipment, new pumping station and disposal bed.	ECA required for new pumping station and disposal bed.
	None	Obtainable	Obtainable	Obtainable	Obtainable
NATURAL ENVIRONMENT AND CULTURAL/HERITAGE IMPACTS					
Surface Water Quality	Potential contamination of ditches, Wainman's Creek and Lake if runoff occurs during spray irrigation.	Lower spray application rate and/or frequency would reduce potential for surface water contamination from spray field runoff.	Lower spray application rate and/or frequency would reduce potential for surface water contamination from spray field runoff. Low potential for effluent breakout from disposal bed.	Lower spray application rate and/or frequency would reduce potential for surface water contamination from spray field runoff. Low potential for effluent breakout from disposal bed.	Eliminates potential for surface water contamination from spray field runoff. Low potential for effluent breakout from disposal bed.
	Potential Negative Impact	Less Potential Negative Impact	Lower Potential Negative Impact	Lower Potential Negative Impact	Least Potential Negative Impact

	Do Nothing	Alternative 3 Establish One New Spray Irrigation Field (West) and Maintain North and South Fields	Alternative 6 Build Effluent Disposal Bed on West Field, Keep South Spray Field only	Alternative 7 Build Effluent Disposal Bed on South Field, Establish Spray on West Field only	Alternative 8 Build Effluent Disposal Bed and Discontinue Spray Irrigation
Groundwater Quality	Spray irrigation of treated effluent has low potential for contamination of groundwater.	Spray irrigation of treated effluent has low potential for contamination of groundwater.	Spray irrigation and in-bed disposal of treated effluent has low potential for contamination of groundwater.	Spray irrigation and in-bed disposal of treated effluent has low potential for contamination of groundwater.	In-bed disposal of treated effluent has low potential for contamination of groundwater.
	Low Potential Negative Impact	Low Potential Negative Impact	Low Potential Negative Impact	Low Potential Negative Impact	Low Potential Negative Impact
Woodlands, Wetlands and Vegetation	Existing spray fields are near but outside a wetland area.	West field is near but outside wetland area and has no significant woodlands or vegetation.	West field is near but outside wetland area and has no significant woodlands or vegetation.	West field is near but outside wetland area and has no significant woodlands or vegetation.	West field is near but outside wetland area and has no significant woodlands or vegetation.
	Low Potential Negative Impact	Low Potential Negative Impact	Low Potential Negative Impact	Low Potential Negative Impact	Low Potential Negative Impact
Wildlife and Habitat	Existing spray fields are near but outside potential wildlife habitat of wetland and Barnstable Bay ANSI.	West field is near but outside potential wildlife habitat of wetland and Barnstable Bay ANSI.	West field is near but outside potential wildlife habitat of wetland and Barnstable Bay ANSI.	West field is near but outside potential wildlife habitat of wetland and Barnstable Bay ANSI.	West field is near but outside potential wildlife habitat of wetland and Barnstable Bay ANSI.
	Low Potential Negative Impact	Low Potential Negative Impact	Low Potential Negative Impact	Low Potential Negative Impact	Low Potential Negative Impact
Archaeological and Heritage Resources	No proposed change.	Stage 2 archaeological assessment found artifacts from an early pioneer site on west field. Full mitigation will be completed. No built heritage resources.	Stage 2 archaeological assessment found artifacts from an early pioneer site on west field. Full mitigation will be completed. No built heritage resources.	Stage 2 archaeological assessment found artifacts from an early pioneer site on west field. Full mitigation will be completed. No built heritage resources.	Stage 2 archaeological assessment found artifacts from an early pioneer site on west field. Full mitigation will be completed. No built heritage resources.
	No Potential Impact	Low Potential Negative Impact	Low Potential Negative Impact	Low Potential Negative Impact	Low Potential Negative Impact
SOCIO-ECONOMIC ENVIRONMENT IMPACTS					
Public Health	Runoff causes localized bacterial contamination of adjacent wells, ditches, creek and lake. Potential wind dispersion of microbiological aerosols.	Lower public health risk because reduced potential for ponding and runoff, and effluent disinfection.	Lower public health risk because significantly reduced potential for ponding and runoff, and effluent disinfection.	Lower public health risk because significantly reduced potential for ponding and runoff, and effluent disinfection. Spray field further from residences and road.	Minimal public health risk as potential for ponding, runoff off site and aerosols is eliminated.
	Potential Negative Impact	Low Potential Negative Impact	Low Risk	Low Risk	No Risk
Adjacent Land Uses and Property Values	Potential negative impact to existing farming operations. Adjacent property values affected by effluent spray operation.	Minor reduction in impacts to adjacent properties from improved effluent spray operation.	Change to existing land use on West field: used for effluent disposal bed. Reduction in impact to adjacent properties from reduced effluent spray operation.	Change to existing land use on West field: used for effluent spray irrigation. More reduction in impact to adjacent properties because of reduced and further effluent spray operation.	Change to existing land use on West field: used for effluent disposal bed. Adjacent property values not expected to be affected by effluent disposal bed.
	Potential Negative Impact	Potential Negative Impact	Less Potential Negative Impact	Low Potential Negative Impact	Improvement
Air Quality Impacts	No change to air quality impacts. Dispersion modelling shows levels of contaminants in aerosols are below MECP limits at property line.	Improvements to air quality. Dispersion modelling shows lower levels of contaminants, all below MECP limits at property line.	Further improvements to air quality. Dispersion modelling shows lower levels of contaminants, all below MECP limits at property line.	Improvements to air quality. Dispersion modelling shows lower levels of contaminants, all below MECP limits at property line.	No aerosols associated with an effluent disposal bed.
	Low Potential Negative Impact	Low Potential Negative Impact	Lower Potential Negative Impact	Lower Potential Negative Impact	Improvement

	Do Nothing	Alternative 3 Establish One New Spray Irrigation Field (West) and Maintain North and South Fields	Alternative 6 Build Effluent Disposal Bed on West Field, Keep South Spray Field only	Alternative 7 Build Effluent Disposal Bed on South Field, Establish Spray on West Field only	Alternative 8 Build Effluent Disposal Bed and Discontinue Spray Irrigation
Aesthetic Impacts (Noise, Visual, Odour)	Odours associated with lagoons or effluent spray irrigation operation noted by adjacent residents. Sprinklers visible from road & adjacent properties.	Visual impacts from sprinklers minimized by proposed tree buffers. New West field less visible to adjacent residents. No change to potential for odours.	Visual impacts from sprinklers minimized by tree buffer. Reduced extent of spray area would decrease potential for odours and visual impacts. Disposal bed doesn't cause noise or have odours. Bed on West field less visible to adjacent residents.	Spraying on West field less visible to adjacent residents. Reduced extent of spray area would decrease potential for odours. Disposal bed doesn't cause noise or have odours. Bed on South field would be visible to adjacent residents.	Disposal bed doesn't cause noise or have odours. Bed on West field less visible to neighbouring residents.
	Potential Negative Impact	Potential Negative Impact	Less Potential Negative Impact	Low Potential Negative Impact	Improvement
Temporary Construction Impacts	No construction required.	Installation of piping and equipment for West spray field would cause very minor disruption to residents or traffic.	Construction of disposal bed, incl. hauling of septic sand, would cause some temporary disruption to residents or traffic along the haul route.	Construction of disposal bed, incl. hauling of septic sand, would cause some temporary disruption to residents or traffic along the haul route.	Construction of disposal bed, incl. hauling of septic sand, would cause some temporary disruption to residents and traffic along the haul route. More impact due to longer construction period.
	No Potential Impact	Very Minor Potential Impact	Less Temporary Impact	Less Temporary Impact	Most Potential Temporary Impact
Estimated Capital Costs	None.	Irrigation equipment, piping and UV equipment in pump house expansion. Estimated capital cost: \$1.6 M	Disposal bed, piping and pumps to bed, plus UV equipment in pump house expansion. Estimated capital cost: \$6.2 M	Disposal bed, piping and pumps to bed, plus new irrigation equipment & piping, Estimated capital cost: \$8.3 M	Disposal bed, and piping and pumps to bed. Estimated capital cost: \$7.3 M
	None	Lower Cost	High Cost	Highest Capital Cost	High Cost
Land Acquisition	None	None	None	None	None
	None	None	None	None	None
Estimated Operating and Maintenance Costs	Approx. \$150k/year + haulage costs (\$700k in 2023)	Costs to pump to new field. Labour costs to operate and maintain additional irrigation field and equipment. Approx. \$230k/year + potential haulage costs	Costs to pump to new bed. Labour costs for additional dosing equipment and for cutting grass. Less labour for O&M of spray irrigation equipment and fields. Approx. \$150k/year	Costs to pump to new bed. Labour costs for additional dosing equipment and for cutting grass. Less labour for O&M of spray irrigation equipment and fields. Approx. \$150k/year	Costs to pump to new bed. Labour costs for additional dosing equipment, bed maintenance and inspection, and grass cutting. Eliminates O&M of spray irrigation equipment and fields. Approx. \$80k/year
	No Change	Increase	Net Decrease	Net Decrease	Most Decrease
Total Estimated Costs over 20 years (Capital + O&M)	\$3M, plus equipment replacement and haulage	\$6.2 M, plus equipment replacement	\$9.2 M, plus equipment replacement	\$11.3 M	\$8.9 M
	No Change	Lower Cost	High Cost	Highest Total Cost	High Cost

5.4.2 Preliminary Preferred Solution

Following the comparative assessment described above, **Alternative 8 - Replace effluent spray irrigation with an effluent disposal bed operated year-round**, was identified as the preliminary preferred solution, and presented at the PIC.

Continuing to monitor and control extraneous flows from inflow and infiltration into the sanitary sewers, was also recommended to maintain the incoming wastewater flows well within the capacity of the treatment and disposal system.



6 Public and Agency Consultation

6.1 SUMMARY OF CONSULTATION PROCESS UP TO 2017 CLASS EA REPORT

The public and agency consultation process that was completed for the 2017 Class EA is presented in detail in the 2017 Class EA Report. It is summarized below:

- A Notice of Study Commencement was mailed on October 1, 2010, and published in the Orillia Packet and Times on October 14, 2010.
- A Notice of PIC and Comments Invited was mailed on February 10, 2011, and published in the Orillia Packet and Times on February 10 and 17, 2011.
- A PIC was held on February 24, 2011 at the Joyland Beach Community Centre in the Township of Ramara. The PIC open house was attended by 18 residents and Township councillors.
- Comments were received from residents indicating concerns with the spray irrigation capacity and operation, runoff to Wainman's Creek, flooding, odours, aerosols during spraying, proximity to Wainman's Creek, and impact on the water quality in Wainman's Creek and Lake Simcoe.
- A meeting was held on March 25, 2011, with Township staff, three residents and Tatham (then CCTA), to obtain clarifications on the adjacent residents' concerns and discuss how these could be addressed. Concerns with observed surface runoff and the quality of the effluent sprayed onto the fields, and property values, were discussed.
- The Township authorized a topographic survey and assessment of the overall drainage in the area, and the remedial of the municipal drainage ditches and culverts and some private drainage channels. This work was completed in 2011 and 2012.
- The Township asked Tatham (then CCTA) to develop a list of alternatives to effluent spray irrigation and assess their feasibility.
- Meetings were held with MOECC (now MECP) and the Lake Simcoe Region Conservation Authority (LSRCA) to discuss potential alternatives for effluent disposal and establish their feasibility, and presentations were made to Township Council to provide updates on the Class EA study, as follows:
 - Meeting with MOECC on May 9, 2013, to discuss the alternative solution of building a wastewater treatment plant with a direct discharge to Lake Simcoe. MOECC stated the policies of the Lake Simcoe Protection Plan prohibit new municipal STPs discharging to Lake Simcoe.



- Deputation to Ramara Council on September 15, 2014, to provide an update on the Class EA; present the revised Problem Statement, the new list of alternative solutions and their assessment and identify the preliminary preferred solution; and obtain the Township's concurrence on the next steps.
- Meeting with LSRCA on November 25, 2014, to present the issues at the Bayshore Village spray irrigation fields and the alternatives under consideration. Specific input was requested on the alternative of a direct effluent discharge to Lake Simcoe. The LSRCA considered a direct effluent discharge to the lake a viable and preferable option to the status quo.
- Conference call with MOECC and LSRCA on July 29, 2015, to present the alternatives under consideration and discuss the legal status of the Bayshore Village Sewage Works. MOECC indicated that amendments to the LSPP and/or O. Reg.130/09 would be required to obtain approval for a new discharge to Lake Simcoe and it would need to be demonstrated that the phosphorus load will not increase.
- Meeting with the MOECC Barrie District Office on November 27, 2015, to discuss potential other alternatives to improve or replace the effluent spray irrigation system. MOECC suggested consideration of planting hydrophilic plants such as poplars, and of short-term measures such as adding organic material. MOECC confirmed that sub-drains were not allowed.
- Meeting on February 26, 2016 between the Township's Mayor and Deputy Mayor with MOECC Minister, Assistant Deputy Minister and Senior Policy Advisor, to discuss the Bayshore Village STP effluent disposal Class EA and request changes to the LSPP and/or O. Reg. 60/08 as amended by O. Reg. 130/09. MOECC expressed the importance of the LSPP, and indicated a long-term solution needs to be resolved through the Class EA in consultation with MOECC. A benefit to Lake Simcoe must be firmly realized to rationalize and justify a new point source discharge to Lake Simcoe.
- Presentation to Ramara Council on September 19, 2016, to provide an update on the Class EA and the consultation meetings to date, and to present the preliminary preferred long-term solution and the recommended short-term solution. Township authorized CCTA to proceed with a second PIC to obtain public comments.
- Letter submitted by the Township of Ramara to the MOECC Minister on October 24, 2016 to respond to questions from the February 2016 delegation; express their concern with the difficulty in finding a solution that is acceptable to MOECC; present a resolution of Ramara Council to request amendments to LSPP policies and regulations; and invite the Minister to visit the Bayshore Village spray irrigation site. The MOECC responded



on April 5, 2017 that the preferred solution must fit within existing policy and regulatory requirements.

- A Notice of PIC and Comments Invited for PIC No. 2 was mailed to the updated mailing list on October 27, 2016, and published in the Packet and Times on October 27, November 3, and November 10, 2016.
- PIC No. 2 was held on November 15, 2016 at the Township Council Chambers. The PIC was attended by 36 residents, Township councillors and staff. A summary of the questions and answers at the PIC was posted on the Township's website. The PIC presentation material was sent to the Bayshore Village Association for distribution to members.
- The questions and comments expressed by the PIC attendees reflected a wide range of opinions on the preferred approach to resolving the effluent spray irrigation issue, from preferring a STP with direct discharge to Lake Simcoe to total opposition to any effluent discharge to Wainman's Creek and Lake Simcoe due to concerns with water quality, and from strong concerns with the operation of the existing spray fields to preferring the status quo. Overall, residents expressed the need to protect the lake's water quality.
- A presentation was made to the Township of Ramara Committee of Council on September 18, 2017, to present the conclusions of the Class EA.
- The Notice of Completion of the Class EA Study was issued on October 11, 2017. It was posted on the Township of Ramara website, in the Packet and Times, and mailed to all on the updated mailing list, as well as to the Regional MOECC EA Coordinator.

6.2 COMMENTS ON 2017 CLASS EA REPORT

Comments were received from the LSRCA and the MECP following the issue of the Notice of Completion in October 2017. These comments are summarized in Table 5. Correspondence is attached in Appendix F.



Table 5: Comments Received Following 2017 Class EA Report

DATE	FROM	COMMENT	RESPONSE
Oct. 23, 2017	Jim and June Newlands	Agree with report recommendation to build a STP. It is unfortunate that considerable sum of taxpayers' money needs to be spent on a temporary fix. Noted water in pasture east of North Field and across from South Field from spray irrigation activity. Looking to Township to address runoff issue through ditch improvements.	No letter response required.
Nov. 9, 2017	Mike Wilson, LSRCA	A portion of the South Field is within the WHPA for the Bayshore Village Well Supply. The policies of the South Georgian Bay Lake Simcoe Source Protection Plan and the circumstances and vulnerability score for the effluent discharge to be considered a significant drinking water threat should be reviewed to ensure the proposed activity will be permitted.	Letter response on Oct. 3, 2018
Nov. 28, 2017	Paul Martin, MOE	<p>As it is impossible to determine if or when the preferred long-term solution could be implemented, MOE recommends that a solution that fits within the existing policy and regulatory requirements be identified as the long-term solution.</p> <p>The costs of implementing a new STP and outfall need to be reviewed. Capital and operating costs of pumping sewage to the Lagoon City STP should be reconsidered.</p> <p>MOE does not have any objection in principle to the proposed short-term solution but will require a hydrogeological study to confirm spray irrigation meets the MOECC Reasonable Use policy.</p> <p>Recommends an air quality impact assessment to ensure the short-term solution will not result in odour impacts off-site, and to identify mitigating measures.</p> <p>Anticipates that adding spray fields will alleviate problems with the many requests for extending the spray season, and with other concerns.</p> <p>Recommends an evaluation of the spray irrigation system and operations to ensure integrity and that established procedures are followed.</p> <p>MOE comments should be addressed, and studies completed before completion of the Class EA.</p>	Letter response on October 3, 2018
Nov. 21, 2018	Paul Martin, MECF	As the additional West spray field is no longer available, the preferred option must be revised to include lands that will be identified for use as spray fields. Without this info, the EA process is not complete. Impacts from the proposed solution must be evaluated and a hydrogeological study must be completed at the EA stage. A contingency plan is required to address potential exceedance of the system's rated capacity.	No response letter submitted



6.3 PUBLIC AND AGENCY CONSULTATION DURING CLASS EA UPDATE

Following a deputation to Township Council on December 11, 2023, the public and agency consultation for the Class EA Update was initiated, as described below.

6.3.1 Deputation to Council – December 2023

Tatham made a deputation to Township Council on December 11, 2023 to provide an update on the Class EA. Following this deputation, the residents adjacent to the spray irrigation fields sent Tatham correspondence (emails and letters) that had been previously submitted to the MECP, to the Township Mayor and Councilors, and to OCWA. The letter sent to the Minister of the MECP in January 2024 expressed their significant concerns with the operation of the spray irrigation fields and to indicate their support for abandoning effluent spray irrigation, particularly on the North Field, and replacing it with an effluent disposal bed. All correspondence received from the adjacent residents is attached in Appendix H.

In summary, their concerns, expressed to Township Council and to Tatham during the 2017 Class EA and the Class EA Update, are:

- Recurrent and frequent effluent spills onto their properties, which they attribute to runoff from over spraying, spraying in a manner that does not follow the conditions of the Certificate of Approval, and to problems with inefficient and faulty equipment.
- The actual spray application rate is higher than the calculated and reported rate because the actual spray irrigation area is less than the original area due to changes in the piping and sprinkler layout and numbers.
- Effluent runoff flows through their properties and to ditches that drain to Lake Simcoe.
- One drinking water well has high bacteriological counts during the spray season.
- Spray irrigation near the property lines has caused spraying of effluent onto their properties.
- Effluent spraying, ponding and runoff on their properties has caused the loss of useable farmland.
- The spray irrigation system has been operated without due consideration and concern for their health, the health of the animals, and the farms, which are their livelihood.
- The lagoon effluent is not disinfected or adequately treated before spraying. Also, concern with bypassing of flow from the small lagoon into the large lagoon in 2023, as this may cause untreated sewage to be sprayed.
- Odours from the lagoons and spray irrigation.



6.3.2 Public Information Centre for Class EA Update

A Notice of Public Information Centre was posted on May 6, 2024 on the Township of Ramara website as well as in the online newspaper Orillia Matters from May 8 to May 22, 2024, and mailed and e-mailed to an updated mailing list on May 6, 2024. The Notice and the PIC mailing list are attached in Appendix G.

Invitations to the PIC were sent to 16 First Nations and Metis Councils that are in proximity to Bayshore Village and/or that have treaty or other rights. They are listed in the mailing list in Appendix G.

The PIC was held on May 22, 2024, at the Township Council Chambers and was also available via a Zoom link. The PIC consisted of a PowerPoint presentation, followed by a question-and-answer period from in-person and virtual attendees. There were 57 residents at the PIC. The presentation and the sign-in sheets are attached in Appendix G. The presentation as well as the recording of the presentation are available on the Township website.

6.3.3 Comments Received

Comments from Public

Comments were received verbally and in writing at the PIC, in letters to the Township, and by email during the two-week review period. All received comments supported the preliminary preferred solution of abandoning spray irrigation and implementing an effluent disposal bed (Alternative 8). In summary, the main points made in the comments received were:

- Spray irrigation should not be considered as a viable option because of past and current issues and impacts on adjacent families and properties.
- Spray irrigation system should be decommissioned to address the adjacent residents' concerns and their witnessing of ponding, runoff and other problems.
- Concern that MECP may shut down the spray irrigation system.
- Urgency to address the issues with effluent disposal.
- Township needs to seek grants to assist with construction costs.

The adjacent residents to the Bayshore Village spray irrigation fields provided numerous and extensive letters and emails, with photos, videos and other documents, to express their concerns with the spray irrigation operation, and dissatisfaction that spray irrigation was considered as an alternative solution considering the harm it has caused.

From June 1 to June 5, 2024, similar emails were received from 41 Bayshore Village households, all stating their support for Alternative 8 and requesting that the Township seek provincial and



federal grants to assist with construction costs and that the project move rapidly so that it is shovel-ready by the end of the current term of Council.

Table 6 summarizes the comments received from the public. All correspondence received and responses are attached in Appendix H.

Table 6: Class EA Update PIC – Summary of Public Comments Received

DATE	FROM	COMMENT	RESPONSE
May 11, 2024	Jim and June Newlands	Asking Tatham opinion re operation, management and effectiveness of spray irrigation system and request that options that include spray irrigation be screened out. Over spraying has resulted in effluent flooding on their beef farm, causing lost productivity and undue stress and concern. They reported spills to MECP. Referring to deputation to Council of Dec 11, 2023: concerns are real not just potential. Spray area is much less than 26 ha. How important is the 55 m3/ha/day? Could Tatham recommend a safe and effective amount that could be sprayed until a permanent solution can be implemented? Only viable option is #8. Concern that sewage is not adequately treated and of bypass of flow from small lagoon to large lagoon. Concern that effluent sprayed when windy, rainy and when there is ponding. Concern that lagoons are in WHPA for Bayshore municipal wells. Spray system has always been operated from an economically efficient priority without considering the safety and concerns of the two adjacent families. Spray spigots are very close to the property lines. Continuing with spray irrigation would require minimum setbacks. Extremely concerned that spray irrigation will continue to cause harm to their farms, their health, their animals’ health, and their livelihood.	Letter response on Sept. 5, 2024
May 13, 2024	Greg Mclsaac	Witnessed ponding on land surrounding the ponds and creating its path to lower ground. Will be watching with care how the Township handles this.	Thank you email
May 16, 2024	Anna Bourgeois (Concerned Citizens of Ramara), Margaret Prophet (Simcoe County Greenbelt Coalition), Claire Malcomson (Rescue Lake Simcoe Coalition)	Recommend that Ramara Council pursue Option 8. Spray fields should not be an option. Can’t afford to ship wastewater.	



DATE	FROM	COMMENT	RESPONSE
May 19, 2024	Mark Wainman	If operators had met operating conditions 3.1, 3.2 and 3.3 of C of A and reported spills when they occurred to ditches and surrounding properties, there would have been fewer days than the number of spray days used in the calculations.	Letter response on Sept. 5, 2024
May 20, 2024	Jamie Wainman	Lives on property that borders the spray fields and has seen the damage they are causing. Constant overspray and broken pipes result in property being flooded from 4 sides. Concerned when unable to walk through our fields due to large amounts of ponding effluent from the spray fields. It makes parts of our property and field completely unusable for farming. Extremely concerned about the safety of our well. The spray fields do not operate safely. Fears they have caused irreversible damage to our property.	
May 20, 2024	Michael Douglas	The most viable long-term solution is Alt. 8. All spray fields must be decommissioned.	
May 21, 2024	Neil Wainman	Cell B (small lagoon) was bypassed for at least April 5 to June 22, 2023, meaning that untreated sewage was pumped into Cell A (large lagoon), which was then pumped out to the spray fields. Cell B was also bypassed recently to Cell A. Please explain.	Letter response on Sept. 5, 2024
May 22, 2024	Michael Douglas	No more spraying. Build effluent disposal bed on west field. Advantages: used year-round, can dispose of annual volume of effluent, eliminates current constant runoff contaminating local properties and Lake Simcoe, out of sight, out of mind, minimizes potential impacts on groundwater quality. Township has had opportunity to find funding. Alt. 8 finally attempts to address surrounding area residents' concerns. Township residents must not continue to be subjected to substandard method of handling effluent. Alt. 8 is the most cost effective. Spray fields and Township adherence to approved management practices cannot be trusted.	
May 22, 2024	Anna Bourgeois	Timeline for archaeology study? Will materials for the construction of a disposal bed need to be brought in? Timeline for MECP approval? Why consider spray field alternatives if apparent that climate is unreliable factor in success of dealing with effluent?	
May 24, 2024	Kathy Guillemette and J. Tom Hamilton	Effluent disposal bed and discontinue spray irrigation appears to solve disposal problem and address concerns of persons living near the fields. Question re potential for effluent breakout, O&M for dosing system. Township missed out on grant opportunities.	



DATE	FROM	COMMENT	RESPONSE
May 24, 2024	Ross Fidler	Agree with Alt. 8. Concern that if spray fields become more ineffective, MECP will shut it down. Need a decision this June.	
May 25, 2024	Jamie Wainman	Lives on property that borders North field. Overspray constantly floods our property. Has witnessed things, including broken pipes spraying up in the air that go unfixed for days, and lawn mower stuck that required backhoe to assist. Supports option 8. Additional action must be taken in mean time to address concerns with spray irrigation system.	
May 25, 2024	Mark Wainman	Disappointed that spray irrigation still presented as a viable option, which shows a total disregard for all the problems the systems has experienced in the past 30 years. Answers to questions were weak or inaccurate, including about treatment, bypass, future trucking of effluent.	Letter response on Sept. 5, 2024
May 26, 2024	Konrad Brenner	Alternative of disposal in a tile field and abandoning spray irrigation is reasonable, if accepted that a STP will not be approved by the Province.	Thank you email
June 1, 2024	Jim and June Newlands	Disappointed and angry that their comments expressed in the May 11 letter not addressed in the PIC. PIC refers to treated effluent, ignoring the bypasses of the small lagoon that occur regularly. How could the sewage be partially treated? Soils are compacted. They cannot absorb 55 m ³ /ha/day. Land area used for spray irrigation is overstated. Considers that the spray alternatives should have been screened out because of their lack of capacity and that MECP would not approve them based on past poor performance. Spray irrigation area calculation by Township is not accurate. Do not believe in Township commitment to operate system in compliance with approval, based on past and on May 31 when conditions were not favourable.	Letter response on Sept. 5, 2024
June 1 to June 5, 2024	41 households in Bayshore Village	Support Alt. 8. Request that Township seek provincial and federal grants to support construction costs. Hopeful that project be shovel ready by end of current term of this Council.	Thank you emails
June 3, 2024	Ken Szijarto	Township should abandon any option that would invest in expanding the use of the spray field technology. The best option is one that prevents effluent runoff, can be expanded, and minimizes O&M costs.	Thank you email



DATE	FROM	COMMENT	RESPONSE
June 3, 2024	Jim and June Newlands	Although 55 m ³ /ha/day (5.5 mm/day) is a small amount, soils cannot absorb it because they are compacted. Also, the spray area is much less than used in calculations. Township, in Staff Report ID24-25, calculates 20 ha, but that is land area available, not area sprayed on, which he calculates at 10 ha, based on number of spray heads used. This results in a much higher volume of effluent sprayed per ha.	Letter response on Sept. 5, 2024
June 4, 2024	Joseph and Laura Lee	Only Alt 8 is viable. Spray irrigation options are not. They should have been screened out. Land area is incorrect. Would not meet C of A. Need to address the concerns of the adjacent farm owners. Timeline is unacceptable. Need to fast track the project.	Email on Aug. 20, 2024
June 4, 2024	Margaret Sharpe	Suggest that wastewater system be moved across Sideroad 8 and utilize a tertiary treatment plant.	by Dyana Marks, Township of Ramara
June 5, 2024	Pat and Linda Richardson	Why has this problem not been corrected years ago? Concerns about impacts on two neighbouring farms and on wildlife, health of the lake. Concern about bypasses between the lagoons caused untreated sewage to be sprayed. Alt 8 is the only option. Alt 3,6 and 7 should be removed from consideration. Object to proposed timeline.	Email on Aug. 20, 2024
June 5, 2024	Jim and June Newlands	Email from veterinarian about health and environmental risks associated with effluent from Bayshore Village spray fields. Have previously been forced to take pasture and cropland out of production for safety of cattle and ourselves, reduce the size of herd., and buy hay from other farmers.	
June 5, 2024	Geraldine Toebes	Totally opposed to expanding effluent spray irrigation. Concerns with depending on weather, clay soils, risk of lagoons overwhelmed by sewage, Wainman Creek water quality, more building permits in Bayshore Village, impacts on adjacent property owners, costs to taxpayers. In favour of Alt. 8.	Thank you email
June 5, 2024	Rick Matthews	It is time to replace the spray irrigation fields. Supports Alt. 8. The effluent disposal bed should be Council's priority and this issue be resolved before the term of this council. Urges Township to lobby for funds for construction. A task force of Council, engineer and support staff should be formed, and a project plan should be developed. A single individual should be responsible to make this project happen.	



DATE	FROM	COMMENT	RESPONSE
June 6, 2024	Drew Fulford	If phosphorus from private septic systems is more concentrated than in treated effluent, wouldn't it be best for Lake Simcoe to implement the most environmentally beneficial solution to reduce phosphorus loading? Could the chosen solution include capacity for additional connections and reduce the financial burden?	Email on Aug. 20, 2024
June 6, 2024	Neil Wainman	Request clarification of bypass of small lagoon. Was raw sewage being pumped directly into the large lagoon?	Township responded verbally
June 7, 2024	Mark Wainman	Concern with recent operation of spray irrigation system: spills from North field occur daily across his property when spraying, then to ditches, creek and lake. 2023 Annual Report mentions many non-compliance items. 2023 MECP inspection report presents more issues, including 2 spills that were not reported and that caused effluent to enter creek. Requests that Township not spray in the North field.	Letter response on Sept. 5, 2024
June 7, 2024	Jim and June Newlands	Sent letter to MECP Barrie District Office regarding inspection report of March 4, 2024. The Bayshore system had not been inspected since 2018. Concern that spills had not been reported. Requested that no further exemptions be issued. Spray irrigation should not continue in any form.	
June 7, 2024	Jim and June Newlands	Re Staff Report ID-25-24: Area of South and North Fields were estimated at 20 ha plus 3.7 ha at south end of South Field that has not been used in many years. Challenges these calculations. Estimates it is 10 ha. If pipes had been evenly spaced, it would not change the volume sprayed but it would reduce over spraying on the North Field and would show runoff at SR 20 for all to see. Township is spraying directly on half the available land, therefore over spraying, operating over the design capacity, out of compliance with C of A and spraying on their property. Request that MECP or a third-party survey the spray fields currently in use to determine actual acreage used not just available for use.	
June 7, 2024	Jim and June Newlands	Township calculations of spray area in Staff Report ID24-25 include portions of the fields that do not have pipes so can't be receiving effluent. There is also overlap between the spray circles, which compounds the amount of effluent applied in some areas. Would the spray irrigation option operate effectively as built? Would the new area have a similar layout? As spray irrigation will have to continue for foreseeable future, the area used for spray irrigation is paramount to	



DATE	FROM	COMMENT	RESPONSE
		<p>determine the safe application rate. Rows of pipes have been added in the North Field even though the soils have less capacity. Changing the piping distribution between the North Field and the South Field would help distribute the spraying more evenly and reduce the effluent load near the property lines and drinking water well. Alternatives that include spray irrigation are not acceptable. Do nothing is not an option. Waiting 3 years for implementing a proper solution is not acceptable.</p>	
<p>July 1, 2024</p>	<p>Jim and June Newlands</p>	<p>As of July 1, there has been minimal spraying on South Field and none on North Field. Concerned there will be excessive spraying at the end of the season. Township has been digging a ditch on east side, during which drainage pipe has been found. This ditch may lessen spills on their property but will not solve overspraying, mismanagement, and non-compliance. Waiting for response on calculations of spray areas.</p>	
<p>July 9, 2024</p>	<p>Jim and June Newlands</p>	<p>Email to MECP re OCWA presentation of Staff Report ID-33-24 to Council and request clarification about exemptions in 2024. Staff Report states the content of the sewage lagoons will need to be hauled to Lagoon City STP because levels are high. Challenges in trying to use the spray fields this year support the position that the spray fields are not a feasible, economical or efficient system to lawfully dispose of Bayshore Village sewage. Wants to know if applications for exemptions or relief have been requested, as there is concern they may exacerbate the problems.</p>	

Comments from Agencies and First Nations

The agencies and indigenous communities listed on the mailing list in Appendix G were invited to attend the PIC and submit comments on the Class EA Update. Comments received are summarized in Table 7.

A draft of the Project File Update Report was submitted to MECP on October 25, 2024. All comments received have been addressed in this Final Report.



Table 7: Class EA Update – Summary of Agency Comments Received

DATE	FROM	COMMENT	RESPONSE
May 14, 2024	Georgia Lumley, Historic Saugeen Metis	The project is well beyond the boundaries of the traditional harvesting territory of the Historic Saugeen Metis and cannot comment.	
May 21, 2024	Krish Selvakumar, MECP	Acknowledged receipt of Notice of PIC	
June 5, 2024	Liam Smythe, Ministry of Citizenship and Multiculturalism	Acknowledges receipt of Stage 1 archaeological assessment report and that Stage 2 assessment has been recommended. Requests confirmation that study area has been screened for built heritage resources or cultural heritage landscapes. Include screening check list in EA report.	
June 7, 2024	Dave Ritchie, Simcoe County Federation of Agriculture	Effluent spray irrigation is causing significant negative impacts on neighbouring farmers and this cannot be permitted to continue. The most environmentally sound long-term solution is to process the sewage in an appropriate wastewater treatment plant with a tertiary level or greater treatment system. The system must include assurances that oversight and monitoring will be critical components. Request that hydrogeological studies be completed. Time is of the essence.	
June 7, 2024	Thomas Brandstetter, Beef Farmers of Ontario	Our members with farms neighbouring the effluent spray fields have communicated their serious concerns and the negative impacts. Continuing with current effluent spray process is unacceptable. The most environmentally sound long-term solution is to process the sewage in an appropriate wastewater treatment plant with a tertiary level or greater treatment system. The chosen solution must ensure long term protection from pollution to neighbouring properties, ground and surface water and the environment.	
June 13, 2024	Chief Taynar Simpson, Alderville First Nation	Study area is within the Traditional Territory of Alderville First Nation, within the Williams Treaties Territory. The First Nations within this Territory have had their harvesting rights legally reaffirmed. Provide a Notice of Request to Consult with relevant information to assist in preparing a meaningful response. There may be burial or archaeological sites in the study area. An Archaeological Liaison must be involved in any Stages 2 to 4 assessments.	Township communications for involvement during Stage 2 AA



6.3.4 Deputation to Council – August 12, 2024

At a presentation to Council on August 12, 2024, Tatham summarized the comments received at and following the PIC and presented the preferred and recommended solutions (as described in the following Section 7) and a preliminary schedule to implementation.

Council concurred with the findings of the Class EA Update.



7 Conclusions and Recommendations

7.1 FINAL ASSESSMENT

The comments received during the Class EA Update consultation were reviewed and considered in the final assessment of the alternative solutions to identify the preferred solution that is recommended to be advanced to design, approvals, and implementation.

The responses from the residents of the properties adjacent to the spray irrigation fields, Bayshore Village, and neighbouring areas, indicate their strong support for abandoning seasonal spray irrigation as the means of effluent disposal and transitioning to a subsurface effluent disposal system utilized year-round (Alternative 8).

The technical evaluation and impact assessment also lead to the same conclusion to ensure the Bayshore Village effluent disposal system has sufficient capacity and can be operated in a manner that has acceptable impacts on adjacent residents and properties and on the natural environment.

The estimated costs for the implementation of a large subsurface disposal system are significant. However, considering the spray irrigation system's operational difficulties and impacts on adjacent residents over the past 35-40 years, and the expected ongoing costs to haul excess effluent to the Lagoon City STP for further treatment and discharge, the benefits outweigh the costs. Further, there is no other viable alternative for effluent disposal considering the site location and the policies of the LSPP.

In summary, the preferred solution is:

- Alternative 8, Discontinue Spray Irrigation and Build Effluent Disposal Bed on the West Field.

In conjunction, continuing efforts to reduce inflow and infiltration into the Bayshore Village sanitary sewers is essential to minimize the flows to the sewage lagoons and thus reduce the volume of effluent that needs to be disposed.

7.2 DESCRIPTION OF THE PREFERRED SOLUTION

7.2.1 Effluent Disposal Bed

The design concept for the recommended effluent disposal bed consists of the following:

- Retain Cell B (small lagoon) for secondary treatment of sewage from Bayshore Village. With an operating volume of 30,000 m³, and at the design flow of 399 m³/day, Cell B provides 75 days of retention, which exceeds the minimum treatment requirement of 30 days for facultative stabilization ponds. Sewage treatment through Cell B provides an effluent quality



that meets the pre-treatment criterion (cBOD₅: 30 mg/L) of the Design Guidelines for Sewage Works (MOE, 2008) for applying higher loading rates in the design of large subsurface disposal systems.

- Retain Cell A (large lagoon) to provide some additional treatment and significant effluent storage (up to 110,000 m³) for flow equalization prior to disposal and for contingency in the event of operational issues or unexpected changes.
- Construct a new effluent pumping station with multiple duty/stand-by pumps to dose the lagoon effluent to the new disposal bed. The effluent will be pumped from an intake structure and intake pipe with a strainer in Cell A.
- Construct a fully-raised conventional disposal bed with distribution pipes on the field west of the lagoons. The bed will be designed in accordance with the Design Guidelines for Sewage Works (MOE, 2008) and OBC (2024). The design criteria are:
 - Average daily design flow: 399 m³/day plus a minimum 10% contingency
 - Native soil T-time: 50 min/cm
 - Imported sand fill T-time of 8 min/cm
 - Maximum hydraulic loading rate for the contact area: 8 L/m²/day
 - Maximum hydraulic loading rate for the gravel distribution area: 18 L/m²/day

The conceptual design consists of constructing two fully raised conventional disposal beds with distribution pipes in a stone layer, divided into 10 zones, each with 6 cells. Each bed will include one extra zone for contingency. Effluent distribution to the cells in each bed will be through multiple automatic distribution valves. The imported sand fill will have a minimum height of 1.7 m to maintain a minimum of 600 mm unsaturated soil above the calculated mounding height. The beds will have 15 m mantle areas. The total contact area will be approximately 6.5 ha.

- Decommission and remove all spray irrigation equipment and piping from the South and North Fields.
- Decommission the effluent irrigation pumping station.

7.2.2 Hydrogeological Assessment of the Proposed Effluent Disposal Bed

In response to comments from MECP, a hydrogeological assessment of the proposed effluent subsurface disposal bed on the West Field was completed. The assessment, included in Appendix I, concluded that the 22 ha West Field can accommodate the proposed large effluent subsurface disposal bed with 300 m offsets to Lake Simcoe and Wainman's Creek, that the



proposed conservative loading rates are appropriate for the low permeability native soils, and that if the proposed bed is constructed with sand with a high aluminosilicate content, the phosphorus loading to Wainman Creek and Lake Simcoe is expected to be lower than with the existing effluent spray irrigation system.

7.2.3 Inflow and Infiltration Control

The recent reduction in wastewater flows from Bayshore Village needs to be maintained or improved to reduce to the extent possible the loading on the treatment and disposal system to extend its life. It is recommended that the Township:

- Repair the main sewers, maintenance holes and laterals to remove known and potential sources of inflow and infiltration.
- Continue annual monitoring and disconnecting illegal sump pump discharges to the sanitary sewer system.
- Set up a regular schedule of video inspections of the sewer system to identify any new potential sources of inflow and infiltration.
- Maintain an annual sanitary sewer system repair budget.

7.3 INTERIM OPERATION AND MITIGATING MEASURES FOR SPRAY IRRIGATION SYSTEM

Until the effluent disposal bed is designed, approved and constructed, the Township must continue to operate the spray fields in a manner that meets all conditions of the C of A. This includes:

- inspection prior to starting a spray day to verify that the conditions are favourable for spray irrigation (no ponding indicating the soils are saturated, and no rain or high wind); and
- supervision of the spray irrigation operation so that if ponding and/or runoff is observed, the spray irrigation in the affected area is shut-off to allow the area to dry.

To prepare for the 2025 spray season, the following measures are recommended to mitigate issues and concerns with the past operation of the spray irrigation system:

- Thorough inspection of the spray area piping to identify required repairs.
- Confirmation/survey of the piping and spigot layout, preparation of a plan of the existing layout, and determination of the existing spray area.
- Relocate spigots that are close to adjacent properties and adjust the location of piping as required and feasible to optimize the spray area and minimize the potential for runoff.



- Determine the revised actual spray area, which should be used to calculate and verify that the actual average spray irrigation rate meets the C of A allowed rate.
- Update the O&M manual to include as a minimum:
 - clear description of the conditions and measures to be taken for spray irrigation;
 - spill reporting and management instructions; and
 - triggers for initiating the contingency plan.
- Enter a contract for provisional hauling of effluent to Lagoon City.

In addition, it is recommended that the Township develop an odour mitigation and management plan for the sewage lagoons and effluent spray irrigation operation (in the interim) and effluent disposal beds (recommended solutions).

To mitigate air impacts during construction and hauling of fill for the beds, dust mitigation measures should be included in the construction contract requirements.

7.4 CONFIRMATION OF CLASS EA SCHEDULE

The construction of a large subsurface disposal system is considered a Schedule B undertaking under the MEA Class EA process. No further Class EA activity is required.

7.5 NEXT STEPS AND SCHEDULE

Upon completion of the Class EA Update, advancing the design and implementation of the preferred solution will involve the following steps:

- Detailed topographic survey of the proposed bed area.
- Stages 3 and 4 archaeological assessments of the early pioneer site and mitigation by excavation and removal of the artifacts.
- Geotechnical and hydrogeological investigations as needed for design purposes.
- Preliminary design and pre-consultation with MECP.
- Detailed design.
- Application for MECP approval and request for accelerated review.
- Applications for government funding.
- Preparation of drawings for tendering.
- Tendering and construction.



A preliminary schedule up to construction of the new effluent disposal bed is presented in Table 8, starting from the issuing of the Notice of Completion of the Class EA. The schedule is contingent on the timelines to obtain an ECA for the wastewater system and to complete the Stage 4 archaeological excavation and mitigation.

Table 8: Preliminary Implementation Schedule

	COMPLETED BY END OF
Class EA 30-day Public Review	April 2025
Preliminary design and application for MECP approval	June 2025
Detailed design and tendering	September 2025
Stage 4 archaeological excavation and report	Summer/Fall 2025
Construction period (contingent on receipt of ECA and completion of Stage 4 archaeological excavation)	Late Fall 2025 to end of 2026



Appendix A: Archaeological Report and Heritage Screening

ARCHEOWORKS INC.

**Stage 1 Archaeological Assessment for the
Proposed West Spray Irrigation Field as Part of the
Bayshore Village Effluent Spray Irrigation
Class Environmental Assessment Update
Within Lots 22 and 23, Concession 7
In the Geographic Township of Mara
Historic County of Ontario
Now in the Township of Ramara
County of Simcoe
Ontario**

**Project #: 258-RA9591-23
Licensee (#): Cassandra Aldridge (P439)
PIF #: P439-0197-2024**

Original Report

February 8, 2024

Presented to:

Tatham Engineering

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EXECUTIVE SUMMARY

Archeoworks Inc. was retained to conduct a Stage 1 Archaeological Assessment (AA) for the proposed West Spray Irrigation Field (the “study area”) within the property municipally addressed 3700 Concession Road 8, Township of Ramara, County of Simcoe, as part of the Bayshore Village Effluent Spray Irrigation Class Environmental Assessment Update. The study area is located within parts of Lots 22 and 23, Concession 7, Geographic Township of Mara, historic County of Ontario.

The objectives of this Stage 1 AA are to provide information about the study area’s geography, history, previous archaeological fieldwork and current land conditions, to evaluate the archaeological potential of the study area, and to recommend appropriate strategies for further archaeological assessment consistent with the 2011 *Standards and Guidelines for Consultant Archaeologists* (‘2011 S&G’) produced by the *Ministry of Citizenship and Multiculturalism (MCM)*.

The background research identified a number of different features in proximity to the study area that contribute to establishing archaeological potential, including water sources (i.e., wetlands associated with creeks draining into Lake Simcoe) and 19th century settlement. The County of Simcoe’s Archaeology Management Plan also identifies archaeological potential within the majority of the study area.

Further review of mapping and aerial imagery from 20th and 21st centuries was conducted to determine if the archaeological potential classification is relevant across the study area. This review revealed that observable changes within the study area appeared to accompany the developments happening in the nearby Bayshore Village sewage treatment facility, but the depth and extent of these alterations cannot be confirmed to fully classify the study area as being fully disturbed.

Based on the collected background research, the entirety of the study area has been identified as retaining archaeological potential and requires a Stage 2 AA in the form of pedestrian survey, or, if not viable or feasible, test pit survey.

No construction activities shall take place within the study area prior to the *MCM* (Archaeology Programs Unit) confirming in writing that all archaeological licensing and technical review requirements have been satisfied.

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PROJECT PERSONNEL

Project Director..... Kassandra Aldridge – MCM licence P439

Historical and Archival Research..... Lee Templeton

Graphics Lee Templeton
Jay Allen Villapando

Report Preparation Jay Allen Villapando

Report Review..... Kim Slocki – MCM licence P029

1.0 PROJECT CONTEXT

1.1 Objectives

The objectives of a Stage 1 Archaeological Assessment (AA), as outlined by the 2011 *Standards and Guidelines for Consultant Archaeologists* ('2011 S&G') published by the *Ministry of Citizenship and Multiculturalism (MCM)* (2011), are as follows:

- To provide information about the property's geography, history, previous archaeological fieldwork and current land condition;
- To evaluate in detail the property's archaeological potential, which will support recommendations for a Stage 2 survey for all or parts of the property; and
- To recommend appropriate strategies for a Stage 2 survey.

1.2 Development Context

Archeoworks Inc. was retained to conduct a Stage 1 AA for the proposed West Spray Irrigation Field within the property municipally addressed 3700 Concession Road 8, in the Township of Ramara, County of Simcoe, Ontario (*see Appendix A – Map 1*). This land will be the subject of the report documented herein and referred to as the "study area." The study area is located within part of Lots 22 and 23, Concession 7, Geographic Township of Mara, historic County of Ontario.

The establishment of the West Spray Irrigation Field, and the construction of an Effluent Disposal Bed in the same area, both form part of several solutions being explored as part of the Bayshore Village Effluent Spray Irrigation Class Environmental Assessment (EA) Update, which seeks to find the most appropriate solution for the disposal of lagoon effluent from nearby Bayshore Village sewage treatment facility.

This study was triggered by the *Environmental Assessment Act* in support of the Municipal Class Environmental Assessment regulatory process. The Stage 1 AA was conducted under the project direction of Ms. Cassandra Aldridge, under the archaeological consultant licence number P4399, in accordance with the *Ontario Heritage Act* (1990; amended 2022) and 2011 S&G. Permission to investigate the study area was granted by *Tatham Engineering* on January 8th, 2024.

1.3 Historical Context

To establish the historical context and archaeological potential of the study area, *Archeoworks Inc.* conducted a comprehensive review of Indigenous and Euro-Canadian settlement history, and a review of available historical mapping, topographic mapping and orthophotographs. The results of this background research are documented below and summarized in **Appendix B – Summary of Background Research**.

The pre-contact period of Southern Ontario includes numerous Indigenous groups that continually progressed and developed within the environment they inhabited (Ferris, 2013, p.13). **Table 1** includes a brief overview and summary of the pre-contact Indigenous history of Southern Ontario.

Table 1: Pre-Contact Period

Periods	Date Range	Overview and Attributes
PALEO-INDIAN (Early)		
Early	ca. 11000 to 8500 BC	Small groups of nomadic hunter-gatherers who utilized seasonal and naturally available resources; sites are rare; hunted in small family groups who periodically gathered into larger groups/bands during favourable periods in the hunting cycle; campsites used during travel episodes and found in well-drained soils in elevated situations; sites also found along glacial features (e.g., glacial lake shorelines/strandlines) due to current understanding of regional geological history; artifacts include fluted and lanceolate stone points, scrapers and dart heads. - Gainey, Barnes, Crowfield Fluted Points (Early Paleo-Indian) - Holcombe, Hi-Lo, Lanceolates (Late Paleo-Indian) (Ellis and Deller, 1990, pp.37-64; Ellis, 2013, p.37; Wright, 1994, p.25).
Late	ca. 8500 to 7500 BC	
ARCHAIC (Middle)		
Early	ca. 7800 to 6000 BC	Descendants of Paleo-Indian ancestors; lithic scatters are the most commonly encountered site type; trade networks appear; artifacts include reformed fluted and lanceolate stone points with notched bases to attach to wooden shaft; ground-stone tools shaped by grinding and polishing; stone axes, adzes and bow and arrow; Shield Archaic in Northern Ontario introduced copper tools. - Side-notched, corner-notched, bifurcate projectile points (Early Archaic) - Stemmed, Otter Creek/Other Side-notched, Brewerton side and corner-notched projectile points (Middle Archaic) - Narrow Point, Broad Point, Small Point projectile points (Late Archaic) (Dawson, 1983, pp.8-14; Ellis et al., 1990, pp.65-124; Ellis, 2013, pp.41-46; Wright, 1994, pp.26-28).
Middle	ca. 6000 to 2000 BC	
Late	ca. 2500 to 500 BC	
<i>Oral Traditions</i>		
Oral traditions of the Algonquian-speaking <i>Michi Saagiig</i> (Mississauga Anishinaabeg) assert that they, “are the descendants of the ancient peoples who lived in Ontario during the Archaic and Paleo-Indian periods” (Gitiga Migizi and Kapyrka, 2015, p.1).		
WOODLAND (Late)		
Early	ca. 800 to AD 1	Evolved out of the Late Archaic Period; introduction of pottery (ceramic) where the earliest were coil-formed, under fired and likely utility usage; two primary cultural complexes: Meadowood (broad extent of occupation in southern Ontario) and Middlesex (restricted to Eastern Ontario); poorly understood settlement-subsistence patterns; artifacts include cache blades, and side-notched points that were often recycled into other tool forms; primarily Onondaga chert; intensive exploitation of quarries in southeastern Ontario; commonly associated with Saugeen and Point Peninsula complexes. - Meadowood side-notched projectile points (Dawson, 1983, pp.15-19; Ferris and Spence, 1995, pp.89-97; Gagné, 2015; Spence et al., 1990, pp.125-142; Williamson, 2013, pp.48-61; Wright, 1994, pp.29-30).

**STAGE 1 AA FOR BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION CLASS EA
TOWNSHIP OF RAMARA, SIMCOE COUNTY, ONTARIO**

Periods	Date Range	Overview and Attributes
Middle	ca. 200 BC to AD 700	<p>Three primary cultural complexes in Southern Ontario: Point Peninsula (generally located throughout south-central and eastern Southern Ontario), Saugeen (generally located southwestern Southern Ontario), and Couture (generally located in southwestern-most part of Ontario); “given the dynamics of hunter-gatherer societies, with high levels of interaction and intermarriage among neighbouring groups, one would not expect the existence of discrete cultures” and the “homogeneity of these complexes have been challenged” (Ferris and Spence, 1995, p.98); introduction of large “house” structures and substantial middens; settlements have dense debris cover indicating increased degree of sedentism; incipient horticulture; burial mounds present; shared preference for stamped, scallop-edged or tooth-like decoration, but each cultural complex had distinct pottery forms; Laurel Culture (ca. 500 BC to AD 1000) established in boreal forests of Northern Ontario.</p> <ul style="list-style-type: none"> - Saugeen Point projectile points (Saugeen) - Vanport Point projectile points (Couture) - Snyder Point projectile points - Laurel stemmed and corner-notched projectile points <p>(Dawson, 1983, pp.15-19; Ferris and Spence, 1995, pp.97-102; Gagné, 2015; Hessel, 1993, pp.8-9; Spence et al., 1990, pp.142-170; Williamson, 2013, pp.48-61; Wright, 1994, pp.28-33; Wright, 1999, pp.629-649).</p>
Late Woodland		
Late (Transitional)	ca. AD 600 to 1000	<p>Earliest Iroquoian development in Southern Ontario is Princess Point which exhibits few continuities from earlier developments with no apparent predecessors; hypothesized to have migrated into Ontario, but more recent research of ceramic data from the Rice Lake-Trent River region determined early Iroquoian development to be an <i>in situ</i> cultural development (Curtis, 2014, p.190); the settlement data is limited, but oval houses are present; introduction of maize/corn horticulture; artifacts include ‘Princess Point Ware’ vessels that are cord roughened, with horizontal lines and exterior punctation; smoking pipes and ground stone tools are rare; continuity of Princess Point and Late Woodland Iroquoian groups.</p> <ul style="list-style-type: none"> - Triangular projectile points <p>(Ferris and Spence, 1995, pp.102-106; Fox, 1990, pp.171-188; Gitiga Migizi and Kapyrka, 2015, pp.1-3).</p>
Early	ca. AD 900 to 1300	<p>Two Iroquoian cultures in Southern Ontario: Glen Meyer (located primarily in southwestern Ontario from Long Point on Lake Erie to southwestern shore of Lake Huron) and Pickering (encompassed north of Lake Ontario to Georgian Bay and Lake Nipissing); the abandonment of these two phases “were expressed early on, with the recognition that local site sequences were more or less continuous through what has been classified as distinct phases” (Birch, 2015, p.271); early houses were small and elliptical; developed into multi-family longhouses and some small, semi-permanent palisade villages; adoption of greater variety of harvest goods; increase in corn-yielding sites; well-made and thin-walled clay vessels with stamping, incising and punctation; crudely made smoking pipes, and worked bone/antler present; evolution of ossuary burials; grave goods are rare and not usually associated with a specific individual.</p> <ul style="list-style-type: none"> - Triangular-shaped, basally concave projectile points with downward projecting corners or spurs <p>(Ferris and Spence, 1995, pp.106-109; Williamson, 1990, pp.291-320).</p>
Middle	ca. AD 1300 to 1400	<p>Two Iroquoian cultures in Southern Ontario: Uren and Middleport; increase in village sizes (0.5 to 1.7 hectares) and campsites (0.1 to 0.6 hectares) appear; some with palisades; classic longhouse takes form; increasing reliance on maize and other cultigens such as beans and squash; intensive exploitation of locally available land and</p>

**STAGE 1 AA FOR BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION CLASS EA
TOWNSHIP OF RAMARA, SIMCOE COUNTY, ONTARIO**

Periods	Date Range	Overview and Attributes		
		<p>water resources; decorated clay vessels decrease; well-developed clay pipe complex that includes effigy pipes; from Middleport emerged the Huron-Wendat, Petun, Neutral Natives and the Erie.</p> <ul style="list-style-type: none"> - Triangular and (side of corner or corner removed) notched projectile points - Middleport Triangular and Middleport Notched projectile points <p>(Dodd et al., 1990, pp.321-360; Ferris and Spence, 1995, pp.109-115).</p>		
Late	ca. AD 1400 to 1600	<p>Two major Iroquoian groups: the Neutral Natives to the west of the Niagara Escarpment and the Huron-Wendat to the east; traditionally, the Huron-Wendat territory stretched “from the Gaspé Peninsula in the Gulf of Saint Lawrence and up along the Saint Lawrence Valley on both sides of the Saint Lawrence River all the way up to the Great Lakes. Huronia, included in Wendake South, represents a part of the ancestral territory of the Huron-Wendat Nation in Ontario. It extends from Lake Nipissing in the North to Lake Ontario in the south and Île Perrot in the East and Owend [sic] Sound in the West” and they “formed alliances and traded goods with other First Nations among the networks that stretched across the continent” (per.comm. R.Gaudreau-Couture, 21 June 2022); within this large area, Huron-Wendat “concentrations of sites occur in the areas of the Humber River valley, the Rouge and Duffin Creek valleys, the lower Trent valley, Lake Scugog, the upper Trent River and Simcoe County” (Ramsden, 1990, p.363); longhouses; villages enlarged to 100 longhouses clustered together as horticulture (maize, squash and beans) gained importance in subsistence patterns; villages chosen for proximity to water, arable soils, available fire wood and defensible position; diet supplemented with fish; ossuaries; tribe/band formation; gradual relocation to north of Lake Simcoe.</p> <p>(Ferris and Spence, 1995, pp.115-122; Heidenreich, 1978, pp.368-388; Ramsden, 1990, pp.361-384; Warrick, 2000, p.446; Warrick, 2008, p.15).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; padding: 2px;">Oral Traditions</th> </tr> </thead> <tbody> <tr> <td style="padding: 2px;"> <p>According to their oral traditions, the north shore of Lake Ontario in Southern Ontario was occupied throughout the entire Late Woodland Period by the <i>Michi Saagiig</i> (Mississauga Anishinaabeg); their traditional territory extended north where they would hunt and trap during the winter months, followed by a return to Lake Ontario in the spring and summer; “the traditional territories of the Michi Saagiig span from Gananoque in the east, all along the north shore of Lake Ontario, west to the north shore of Lake Erie at Long Point. The territory spreads as far north as the tributaries that flow into these lakes, from Bancroft and north of the Haliburton highlands” (Gitiga Migizi and Kapyrka, 2015, p.1); oral traditions speak of people (the Iroquois) coming into their territory between AD 500-1000 who wished to establish villages and grow corn; treaties were made allowing the Iroquois to stay in their traditional territories (Gitiga Migizi and Kapyrka, 2015, pp.1-3); the Algonquian-speaking groups of the Anishinaabeg (e.g., Ojibway/Chippewa, Odawa, Mississaugas, Algonquin, and others) maintained stable relations with Iroquoian-speaking groups (e.g., Huron-Wendat, Neutral, Petun) who continued to establish settlements in Southern Ontario, according to <i>Michi Saagiig</i> oral tradition (Gitiga Migizi and Kapyrka, 2015, p.1).</p> <p>This oral tradition is contrary to other First Nation communities, particularly the Huron-Wendat, based on both archaeological evidence and their oral traditions (see Appendix C).</p> </td> </tr> </tbody> </table>	Oral Traditions	<p>According to their oral traditions, the north shore of Lake Ontario in Southern Ontario was occupied throughout the entire Late Woodland Period by the <i>Michi Saagiig</i> (Mississauga Anishinaabeg); their traditional territory extended north where they would hunt and trap during the winter months, followed by a return to Lake Ontario in the spring and summer; “the traditional territories of the Michi Saagiig span from Gananoque in the east, all along the north shore of Lake Ontario, west to the north shore of Lake Erie at Long Point. The territory spreads as far north as the tributaries that flow into these lakes, from Bancroft and north of the Haliburton highlands” (Gitiga Migizi and Kapyrka, 2015, p.1); oral traditions speak of people (the Iroquois) coming into their territory between AD 500-1000 who wished to establish villages and grow corn; treaties were made allowing the Iroquois to stay in their traditional territories (Gitiga Migizi and Kapyrka, 2015, pp.1-3); the Algonquian-speaking groups of the Anishinaabeg (e.g., Ojibway/Chippewa, Odawa, Mississaugas, Algonquin, and others) maintained stable relations with Iroquoian-speaking groups (e.g., Huron-Wendat, Neutral, Petun) who continued to establish settlements in Southern Ontario, according to <i>Michi Saagiig</i> oral tradition (Gitiga Migizi and Kapyrka, 2015, p.1).</p> <p>This oral tradition is contrary to other First Nation communities, particularly the Huron-Wendat, based on both archaeological evidence and their oral traditions (see Appendix C).</p>
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1.3.2 Contact Period

The contact period of Southern Ontario is defined by European arrival, interaction and influence with the established Indigenous communities of Southern Ontario. **Table 2** includes an overview of some of the main developments that occurred during the contact period of Southern Ontario.

Table 2: Contact Period

Periods	Date Range	Overview and Attributes		
European Contact	ca. AD 1600s	<p>The Anishinaabeg (i.e., Algonquin, Chippewa, Mississauga, Odawa, Ojibway, and others) continued to inhabit Ontario, alongside Iroquoian-speaking groups such as the Huron-Wendat north of Lake Simcoe; inter-marriage between Algonquian- and Iroquoian-speaking groups; numerous Huron-Wendat villages north of Lake Simcoe in and around the City of Barrie (“Huronion”); French arrival into Ontario; in 1615, Samuel de Champlain is believed to have traveled through the southern limits of the Township of Mara, along the Talbot River, on his way to Huron-Wendat villages north of Lake Simcoe; extensive trade relationship with Huron-Wendat and French established; trade goods begin to replace traditional tools/items; Jesuit and Récollets missionaries; epidemics (Fox and Garrad, 2004, p.124; Gitiga Migizi and Kapyrka, 2015, pp.1-3; Heidenreich, 1978, pp.368-388; Ritchie, 1952, p.27; Trigger, 1994, pp.47-55; Warrick, 2008, pp.12, 245).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><i>Oral Traditions</i></th> </tr> </thead> <tbody> <tr> <td>Mississauga Anishinaabeg oral traditions tell of Algonquian-speaking groups wintering with Iroquoian neighbours, resulting in a complex archaeological record; oral traditions also speak of Anishinaabeg “paddling away” to their northern hunting territories to escape disease and warfare in southern Ontario at this time (Gitiga Migizi and Kapyrka, 2015, pp.1-3).</td> </tr> </tbody> </table>	<i>Oral Traditions</i>	Mississauga Anishinaabeg oral traditions tell of Algonquian-speaking groups wintering with Iroquoian neighbours, resulting in a complex archaeological record; oral traditions also speak of Anishinaabeg “paddling away” to their northern hunting territories to escape disease and warfare in southern Ontario at this time (Gitiga Migizi and Kapyrka, 2015, pp.1-3).
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Five Nations of Iroquois (Haudenosaunee)	ca. AD 1650s	<p>The Five (later Six) Nations (Cayuga, Mohawk, Oneida, Onondaga and Seneca; later included the Tuscarora) of Iroquois (or Haudenosaunee), originally located south of the Great Lakes, engaged in warfare with Huron-Wendat neighbours as their territory no longer yielded enough furs; the Five Nations, armed with Dutch firearms, attacked and destroyed numerous Huron-Wendat villages in 1649-50; the groups that remained became widely dispersed throughout the Great Lakes region but remained an independent Nation; the Huron-Wendat ultimately resettled near Quebec City (forming the oldest First Nations community in Canada), in southwestern Ontario and in America (per.comm. R.Gaudreau-Couture, 21 June 2022); the Five Nations established settlements along the northern shoreline of Lake Ontario at strategic locations along canoe-and-portage routes and used territory for extensive fur trade; Five Nations believed to have established a settlement near Orillia after driving out the Huron-Wendat, but this is unconfirmed; European fur trade and exploration continues (Abler and Tooker, 1978, p.506; Gitiga Migizi and Kapyrka, 2015, p.2; Hunter, 1909a, p.10; Robinson, 1965, pp.15-16; Schmalz, 1991, pp.12-34; Trigger, 1994, pp.53-59; Warrick, 2008, p.208; Williamson, 2013, p.60).</p>		
Anishinaabeg Return (and Arrival)	ca. AD 1650s to 1700s	<p>Some narratives tell of Anishinaabeg groups either returning (Gitiga Migizi and Kapyrka, 2015, p.2) or moving by military conquest (MCFN, 2017) to southern Ontario in the 1690s; “some writers have asserted that these Algonquin tribes came from the north shore of Georgian Bay and spread over the abandoned country of the Hurons’ but one should not forget the populous tribes of Algonquins who, in the time of the early Jesuits had a mission among them,</p>		

**STAGE 1 AA FOR BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION CLASS EA
TOWNSHIP OF RAMARA, SIMCOE COUNTY, ONTARIO**

Periods	Date Range	Overview and Attributes
		<p>lived in the Townships of North and South Orillia” (Hunter, 1909a, p.10); “there are no existing records to show that these tribes were ever completely displaced from their ancient possessions, although it is natural to suppose the massacres perpetrated by the Iroquois in their neighbourhood would inspire them to fear and cause them to retreat for at least a brief period” (Hunter, 1909a, p.10); an alternative oral tradition states communities within the Anishinaabe, particularly the Mississaugas, had migrated from north of Lake Superior and Georgian Bay area during this time and had arrived following the dispersal of the Huron-Wendat people (MCFN, 2017); battles fought throughout, ultimately resulting in most of the Five Nations being driven out of Southern Ontario and returning to their lands south of the Great Lakes (some remained in parts of Southern Ontario); the English referred to those Algonquian-speaking groups that settled in the area bounded by Lakes Ontario, Erie, and Huron as Chippewas or Ojibwas (Smith, 2002, p.107); the Ojibway and Chippewa settled in the County of Simcoe by the 18th century; ‘<i>Mississauga</i>’ term applied to Anishinaabeg bands living on the north shore of Lake Ontario (Gibson, 2006, pp.35-41; Hathaway, 1930, p.433; Hunter, 1909a, p.10; Johnston, 2004, pp.9-10; Smith, 2013, pp.16-20; Trigger, 1994, pp.57-59; Williamson, 2013, p.60).</p>
Trade, Peace and Conflict	ca. AD 1700 to 1770s	<p>Great Peace negotiations of 1701 in Montreal established peace around the Great Lakes; collectively referred to the Anishinaabeg and Five Nations of Iroquois as the First Nations; European commerce and exploration resumed; the Anishinaabeg continued to trade with both the English and the French; beginnings of the Métis and their communities; skirmishes between France and Britain as well as their respective First Nations allies erupt in 1754 (“French and Indian Wars”) and forms part of the larger Seven Years’ War; French defeat transferred the territory of New France to British control; Treaty of Paris (1763); Royal Proclamation of 1763 “states explicitly that Indigenous people reserved all land not ceded by or purchased from them” (Hall, 2019a); the Proclamation established framework for how treaties were negotiated (by only the King or an assigned representative of the King, and only at a public meeting called for this specific purpose) and established the “constitutional basis for the future negotiations of Indigenous treaties in British North America” (Hall, 2019a); the Proclamation established the British administration of North American territories ceded by France to Britain; uprising by several First Nations groups against British (“Pontiac’s War”); fur trade continued until Euro-Canadian settlement (Abler and Tooker, 1978, pp.505-517; Hall, 2019a; Jaenen, 2013; Johnston, 2004, pp.13-14; Schmalz, 1991, pp.35-62, 81; Surtees, 1994, pp.92-97; Tooker, 1978, pp.418-441).</p>
Early British Administration and Euro-Canadian Settlement	ca. AD 1770s to 1790s	<p>American Revolutionary War (1775-1783) drove large numbers of United Empire Loyalists (those who were loyal to the British Crown), military petitioners, and groups who faced persecution in the United States to re-settle in Upper Canada; Treaty of Paris (1783) formally recognized the independence of the United States; Province of Quebec divided in 1791 into sparsely populated Upper Canada (now southern Ontario) and culturally French Lower Canada (now southern Quebec); Jay’s Treaty of 1795 establishes American/Canadian border along the Great Lakes; large parts of Upper Canada opened to settlement from the British Isles and continental Europe after land cession treaties were negotiated by the British Crown with various First Nations</p>

Periods	Date Range	Overview and Attributes
		groups (Government of Ontario, 2021; Hall, 2019b; Jaenen, 2014; Surtees, 1994, p.110; Sutherland, 2014).

1.3.3 Euro-Canadian Settlement Period (1800s to present)

1.3.3.1 Land Treaties

After the War of 1812, the second wave of immigration from British Isle occurred and the population of Euro-Canadians doubled in Upper Canada (Surtees, 1994, p.112). The land situated between the Ottawa River and Lake Erie and inland was sought after by the British Government to secure internal waterway transportation routes should another war occur with America as well as providing land to new settlers. “The Crown believed that all of this land had been included in the Crawford Purchased back in 1783-84, but this was disputed by the Mississauga, and it was decided to simply make a new Treaty with them to avoid any doubts arising” (Shanahan, 2020). In 1818, William Claus, on behalf of the British Crown, assembled several Anishinaabe peoples at Smith’s Creek (Port Hope) to purchase the land situated around Rice Lake (Government of Ontario, 2021; Surtees, 1994, p.113). Treaty No. 20, also known as the ‘Rice Lake Purchase,’ was ceded to the British Government on the 5th of November 1818 and included the Township of Mara (Government of Ontario, 2021; Department of Indian Affairs, 1891, p.xxxvii). This tract of land included 1,951,00 acres, and the Rice Lake Mississauga were to receive, “the yearly sum of the seven hundred and forty pounds Province currency in goods at the Montreal price to be well and truly paid yearly, and every year, by His said Majesty to the said Chippewa Nation” (Shanahan, 2020). At a subsequent meeting, William Claus clarified that the “£740 would be distributed on a per capita basis, each man, woman and child receiving \$10” (Shanahan, 2020).

The study area also fell within the Williams Treaties (1923) lands. The “territory covered by the Williams Treaties stretched from the northern shore of Lake Ontario to Lake Nipissing, and together cover approximately 52,000km²” (Government of Ontario, 2021).

1.3.3.2 Township of Mara

The Township of Mara was partially surveyed by J.G. Chewitt in 1821 and completed in 1836 by Robert Ross. The township is believed to have been, “named after Madam Mara, a favourite public singer in England at the time” (Armstrong, 1930, pp.179-180). Until after the Rebellion in 1837, there were few settlements along the Lake Simcoe shore since the soil at that time had the appearance of a cedar swamp. With drainage, the Township of Mara contained fertile farmland of excellent quality soil (J.H. Beers & Co., 1877, p.xi; Farewell, 1907, p.58).

The central portion of the township largely consisted of Irish and Catholic settlers and the north and south portions were occupied by Scottish Highlanders. The first settler in the township was Patrick Corrigan, from Ireland, who settled on Lot 15, Concession 7 in 1823. By 1839, 112 individuals resided in the Township of Mara. Within five years, 278 individuals resided in the Township of Mara, which was united with the Township of Rama. The Township of Mara was described as, “a new township not long settled, but it contains some very good land, and on the

lake shore there are some good clearings” (Smith, 1846, p.110). By 1850, the population had increased in the Township of Mara to 966 individuals, a sawmill had been erected and 1,832 acres were under cultivation (Farewell, 1907, p.58; Mika and Mika, 1981, pp.611-612; Smith, 1851, p.34).

By the late 1870s, the Midland Railway (now part of the Canadian National Railway) was completed through the Township and eventually, four additional railways were built through the Township. However, some of these railways have ceased to operate as modern highways have replaced their purpose (J.H. Beers & Co., 1877, p.xi; Mika and Mika, 1981, pp.611-612; County of Ontario, 1955, pp.12-13).

For purpose of administration, the Township of Mara and the Township of Rama were united from 1850 to 1868-69. After 1869, the two townships were separated. In 1974, the Township of Mara was annexed by the County of Simcoe and in 1994, the Township of Ramara was formed after the amalgamation of the Township of Rama and Mara (Mika and Mika, 1983, p.277; Township of Ramara, 2020).

1.3.3.3 Village of Uptergrove

The hamlet of Uptergrove was located northwest of the study area at the intersection of the Trans-Canada Highway/Highway 12 and Side Road 25/Plum Point Road. A post office was established in 1870 and the first postmaster was Thomas Byrne (LAC, 2024). In 1873, Uptergrove was described as “a post village in Ontario co., Ont. 2½ miles from Atherley. It contains 4 stores. Pop. 185” (Crossby, 1873, p.344). By 1900, the population of the community had decreased to 100 individuals (Union Publishing Co., 1900, p.181).

1.3.4 Study Area Land Use History (AD 1800s to present)

1.3.4.1 Pre-1900 Land Use

Several documents were reviewed to gain an understanding of the land use history and of the study area’s potential for the recovery of historic pre-1900 remains, namely J. Shier’s 1860 *Tremaine’s Map of the County of Ontario*, J.H. Beers & Co.’s 1877 *Illustrated Historical Atlas of the County of Ontario*, and C.E. Goad’s 1895 *Atlas of Ontario County* (**see Maps 2-4; Table 3**).

Table 3: Summary of Structures and Property Owners/Occupants documented in Historical Maps

Con.	Lot	Owner/Occupant			Structure(s) in the Study Area		
		1860	1877	1895	1860	1877	1895
7	22	(not listed)	Peter Thompson		(not depicted)	1 homestead within 300m of study area	(not depicted)
	23	(not listed)			(not depicted)		

The 1860, the study area was depicted within land owned by an unnamed individual, and no structures (i.e., homesteads, schoolhouses, churches, etc.) were depicted in or within 300 metres of the study area. The west end of the study area appears to encompass part of Lake Simcoe.

By 1877, the study area was depicted in land owned by Peter Thompson, who was a farmer from Scotland and arrived in the township in 1855 (McGill University Library, 2001). He was an owner of multiple lots in the township that, in addition to the lots noted above, also included 200 acres of Lot 23, Concession 8 and 100 acres of Lot 22, Concession 8. According to the *Abstract Land Indexes*, the Thompson family first settled on the south half of Lot 23, Concession 8 in 1855 (Abstract Index Books, ca. 1800-1958, Ontario County (Ontario): Mara Township: film 179174). One of Peter Thompson's homesteads is depicted within 300 metres of the study area, on the south part of Lot 22, Concession 7.

The 1895 *Atlas of Ontario County* only gives information on landowners and their acreage owned but does not depict private structures. The study area is depicted on lands owned by Peter Thompson on Lots 22 and 23, Concession 7 of Mara Township.

In Ontario, the 2011 *S&G* considers areas of early Euro-Canadian settlements (e.g., pioneer homesteads, isolated cabins, farmstead complexes, early wharf or dock complexes, pioneer churches, and early cemeteries), early historic transportation routes (e.g., trails, passes, roads, railways, portage routes), and properties that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations, as features or characteristics that indicate archaeological potential (per *Section 1.3.1*). While the study area is not located within 100 metres of an early historic transportation route established during the survey of Mara Township, it is located within 300 metres of a historic homestead. Therefore, based on the proximity of early Euro-Canadian settlement, this feature contributes to establishing the archaeological potential of the study area.

1.3.4.2 Post-1900 Land Use

To facilitate further evaluation of the established archaeological potential within the study area, a detailed review of a topographic map from 1914 (*see Map 5*), and aerial imagery from 1945 to 2023 (*see Maps 6-14*) was undertaken.

The study area appears to have remained clear of vegetation since at least the early 20th century. The 1914 military topographic map depicts the study area as encompassing land which had been cleared of overgrown vegetation flanked by marsh areas. No structures were depicted in the study area.

Aerial imagery from the rest of the 20th century, as well as the early 21st century, show that the study area has remained clear of vegetation till the present day, although there appears to be aerially observable changes to the surface that may be related to the changes in the nearby Bayshore Village sewage treatment facility.

1.3.5 Present Land Use

The present land use of the study area is categorized as Natural Area Protection and Shoreline Residential in the Township of Ramara Official Plan (Township of Ramara, 2022).

1.4 Archaeological Context

To establish the archaeological context and further establish the archaeological potential of the study area, *Archeoworks Inc.* conducted a comprehensive review of the municipal archaeological management plan, designated and listed cultural heritage resources, heritage conservation districts, commemorative markers and pioneer churches and early cemeteries in relation to the study area. Furthermore, an examination of registered archaeological sites and previous AAs within proximity to the study area limits, and a review of the physiography of the study area were performed. The results of this background research are documented below and summarized in **Appendix B – Summary of Background Research.**

1.4.1 Archaeological Management Plan

Per *Section 1.1, Standard 1* of the *2011 S&G*, when available, an archaeological management plan (AMP) or other archaeological potential mapping must be reviewed. Per the County of Simcoe's AMP, the entirety of the study area has archaeological potential (County of Simcoe, 2023; *see Map 15*).

1.4.2 Designated and Listed (or Non-Designated) Cultural Heritage Resources

Per *Section 1.3.1* of the *2011 S&G*, properties listed on a municipal register or designated under the *Ontario Heritage Act*, or that is a federal, provincial, or municipal historic landmark or site are considered features or characteristics that indicate archaeological potential. The study area is not located within 300 metres of designated or listed heritage properties (OHT, 2024). Therefore, this feature does not contribute to establishing the archaeological potential of the study area.

1.4.3 Heritage Conservation Districts

Per *Section 1.3.1* of the *2011 S&G*, heritage resources listed on a municipal register or designated under the *Ontario Heritage Act*, are considered features or characteristics that indicate archaeological potential. The study area is not located in or within 300 metres of a Heritage Conservation District (OHT, 2024). Therefore, this feature does not contribute to establishing the archaeological potential of the study area.

1.4.4 Commemorative Plaques or Monuments

Per *Section 1.3.1* of the *2011 S&G*, commemorative markers of Indigenous and Euro-Canadian settlements and history, which may include local, provincial, or federal monuments, cairns or plaques, or heritage parks, are considered features or characteristics that indicate archaeological potential. There are no such markers within 300 metres of the study area (Read the Plaque, 2024). Therefore, this feature does not contribute to establishing the archaeological potential of the study area.

1.4.5 Pioneer/Historic Cemeteries

Per *Section 1.3.1* of the *2011 S&G*, pioneer churches and early cemeteries are considered features or characteristics that indicate archaeological potential. No pioneer churches or early cemeteries

are located in or within 300 metres of the study area (OGS, 2024). Therefore, this feature does not contribute to establishing the archaeological potential of the study area.

1.4.6 Registered Archaeological Sites

Per *Section 1.1, Standard 1* and *Section 7.5.8, Standard 1* of the 2011 S&G, the *Ontario Archaeological Sites Database (OASD)* maintained by the MCM was consulted in order to provide a summary of registered or known archaeological sites within a minimum one-kilometre distance of the study area limits. According to the OASD there are no archaeological sites within a one-kilometre radius of the study area (MCM, 2024).

Per *Section 1.3.1* of the 2011 S&G, previously registered archaeological sites in close proximity are considered to be features or characteristics that indicate archaeological potential. Therefore, given the absence of registered archaeological sites within 300 metres of the study area, this feature does not contribute to establishing the archaeological potential of the study area.

1.4.7 Previous Archaeological Assessments

Per *Section 1.1, Standard 1* and *Section 7.5.8, Standards 4-5* of the 2011 S&G, to further establish the archaeological context of the study area, a review of previous AAs carried out within the limits of, or immediately adjacent (i.e., within 50 metres) to the study area (as documented by all available reports) was undertaken. No reports were identified.

1.4.8 Physical Features

An investigation of the study area's physical features was conducted to aid in the development of an argument for archaeological potential. Environmental factors such as close proximity to water, soil type, and nature of the terrain, for example, can be used as predictors to determine where human occupation may have occurred in the past.

1.4.8.1 Physiographic Region

The study area is located within the Lake Simcoe Basin of the Simcoe Lowlands physiographic region of Southern Ontario. The Lake Simcoe Basin is characterized by the lowlands surrounding Lake Simcoe and is separated from the Nottawasaga Basin to the west by the uplands of Simcoe County. The lowlands were flooded by glacial Lake Algonquin and are bordered by shorecliffs, beaches and boulder terraces, and floored by sand, silt and clay. On the northern and western shores of Lake Simcoe, the lowland consists of a narrow bouldery terrace for the most part confined by a low bluff cut by the highest stage of Lake Algonquin. On the south and east shores of Lake Simcoe are broader plains. Directly south of Lake Simcoe a low, swampy, sandy plain covers most of Georgina. The Black River and Pefferlaw Creek are important streams in this area although they have failed to provide good drainage. Overall, the Lake Simcoe Basin is a poorer farming district than the Nottawasaga Basin. Extensive areas of bogs and wet sand permeate the basin, but the soils could be useful if drained and developed for vegetables, like the Holland Marsh (Chapman & Putnam, 1984, pp.177-182).

1.4.8.2 Soil Type and Topography

Two native soil types are found within the study area. Lovering clay loam forms the majority of the study area; it is characterized as a Grey-Brown Podzolic, with imperfect drainage, gently undulating to level and stonefree topography. The southern edge of the study area encompasses Muck, which is bog soil composed of well-decomposed organic deposits with very poor drainage and on depressional and stonefree topography (Ontario Agricultural College and Dominion Department of Agriculture, 1979).

The topography within the study area is generally level, with an elevation of 220 metres above sea level.

1.4.8.3 Water Sources

Hydrological features such as primary water sources (e.g., lakes, rivers, creeks, streams) and secondary water sources (e.g., intermittent streams and creeks, springs, marshes, swamps) would have helped supply plant and food resources to the surrounding area and are indicators of archaeological potential (per *Section 1.3.1* of the *2011 S&G*). The study area is flanked by the wooded wetlands of short creeks that drain directly into Lake Simcoe. Therefore, this feature contributes to establishing the archaeological potential of the study area.

1.4.9 Current Land Conditions

The study area is situated in a rural area north of the Bayshore Village subdivision. The study area encompasses a vacant land flanked to the north and south by wooded wetlands, to the east by the secondary lagoon of the extant Bayshore Village sewage treatment facility, and to the west by a narrow strip of mixed wooded and cleared land by the shores of Barnstable Bay of Lake Simcoe.

1.4.10 Dates of Desktop Review

A desktop review of field conditions using past and current maps and imagery was undertaken on January 26th, 2024.

1.5 Confirmation of Archaeological Potential

Based on the information gathered from the background research documented in the preceding sections, elevated archaeological potential has been established within the study area limits. Features contributing to archaeological potential are summarized in **Appendix B**. Further assessment of conditions within the study area will be addressed in **Section 2.0**.

2.0 ANALYSIS AND CONCLUSIONS

In combination with data gathered from the background research, including a review of mapping and aerial imagery (*see Sections 1.3 and 1.4*), an evaluation of the established archaeological potential of the study area was performed. The results of this evaluation are presented in **Map 16**.

2.1 Analysis

2.1.1 Identified Areas of Archaeological Potential

The study area consists of a clearing flanked by wooded wetlands to the north and south. The land has been clear of vegetation since at least 1914 (*see Map 5*). The establishment of the nearby Bayshore Village sewage treatment facility's primary lagoon cell (sometime between 1965 and 1978) and secondary lagoon cell (sometime between 1978 and 1989) appears to have resulted in aerially visible surface changes to the study area (*see Maps 8-10*). There also appears to have been some landscaping-related alterations performed in the 2010s (*see Map 13*). However, the depth and extent of the actual impacts to the soil as a result of these activities cannot be confirmed.

2.2 Conclusions

In the absence of information confirming that the clearing within which the study area is situated has been deeply and extensively disturbed by previous developmental activities related to the establishment and expansion of the nearby Bayshore Village sewage treatment facility, the entirety of the study area is therefore considered to retain the established archaeological potential, and a Stage 2 property survey will be required.

Given that the land within the study area appears to have been ploughed historically, a pedestrian survey at five-metre intervals must be carried out throughout the study area in accordance with the standards outlined in *Section 2.1.1* of the *2011 S&G*. However, should the nature of the terrain (presence of buried utilities/alignments, high rock content, etc.) make ploughing not possible or viable, a systematic Stage 2 test pit survey at five-metre intervals can instead be performed, in accordance with the standards outlined in *Section 2.1.2* of the *2011 S&G*.

3.0 RECOMMENDATIONS

Considering the findings outlined within this report, the following recommendations are presented:

1. The entire study area, identified as retaining archaeological potential, must be subjected to a Stage 2 AA, specifically a pedestrian survey at five-metre intervals in accordance with the standards outlined in *Section 2.1.1* of the *2011 S&G*. However, should the nature of the terrain (presence of buried utilities/alignments, high rock content, etc.) make ploughing not possible or viable, a systematic Stage 2 test pit survey at five-metre intervals can instead be performed, in accordance with the standards outlined in *Section 2.1.2* of the *2011 S&G*.

No construction activities shall take place within the study area prior to the *MCM* (Archaeology Programs Unit) confirming in writing that all archaeological licensing and technical review requirements have been satisfied.

4.0 ADVICE ON COMPLIANCE WITH LEGISLATION

1. This report is submitted to the *MCM* as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c. 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the *MCM*, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.
2. It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
3. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
4. The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and the Registrar at the *Ministry of Public and Business Service Delivery*.

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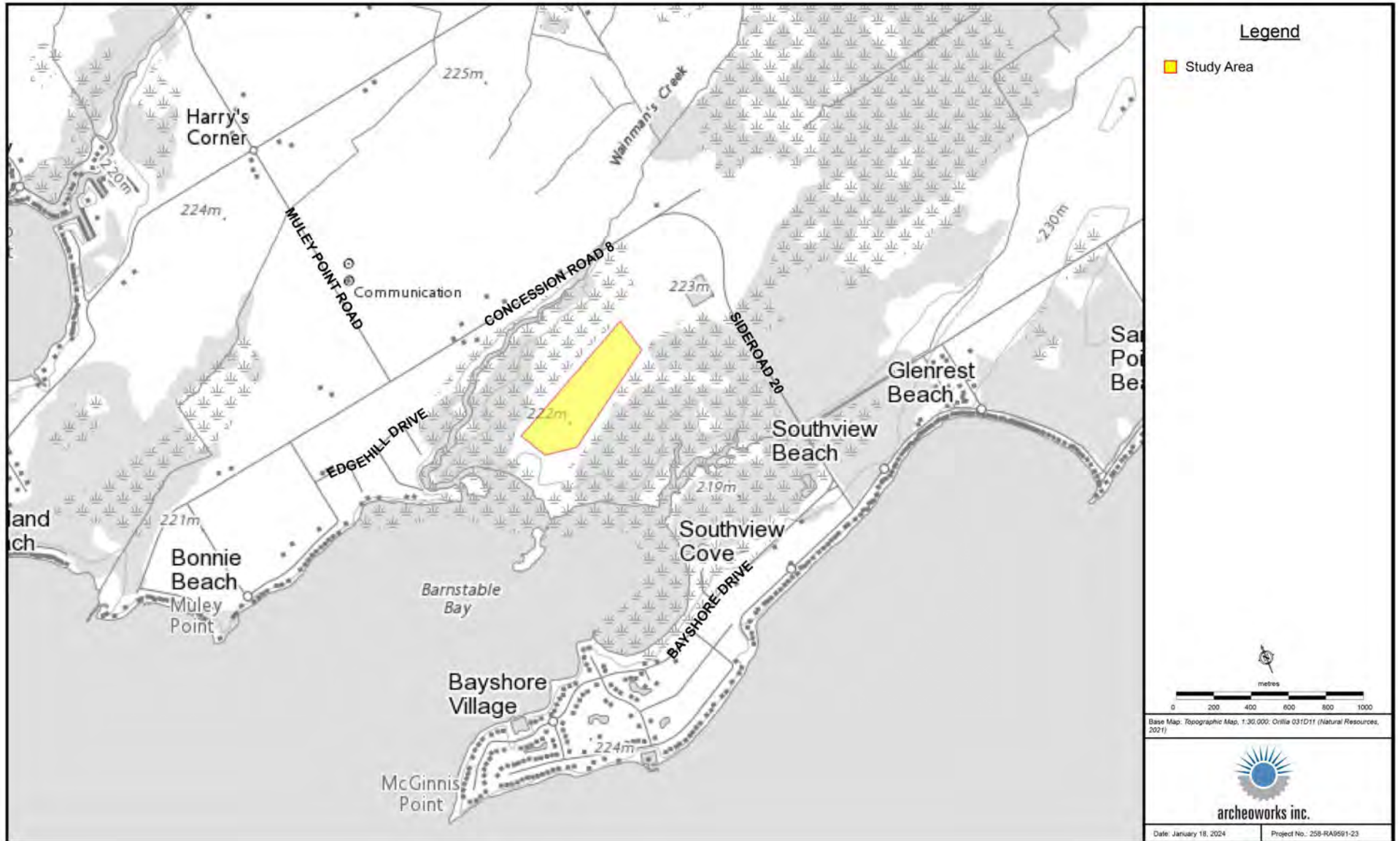
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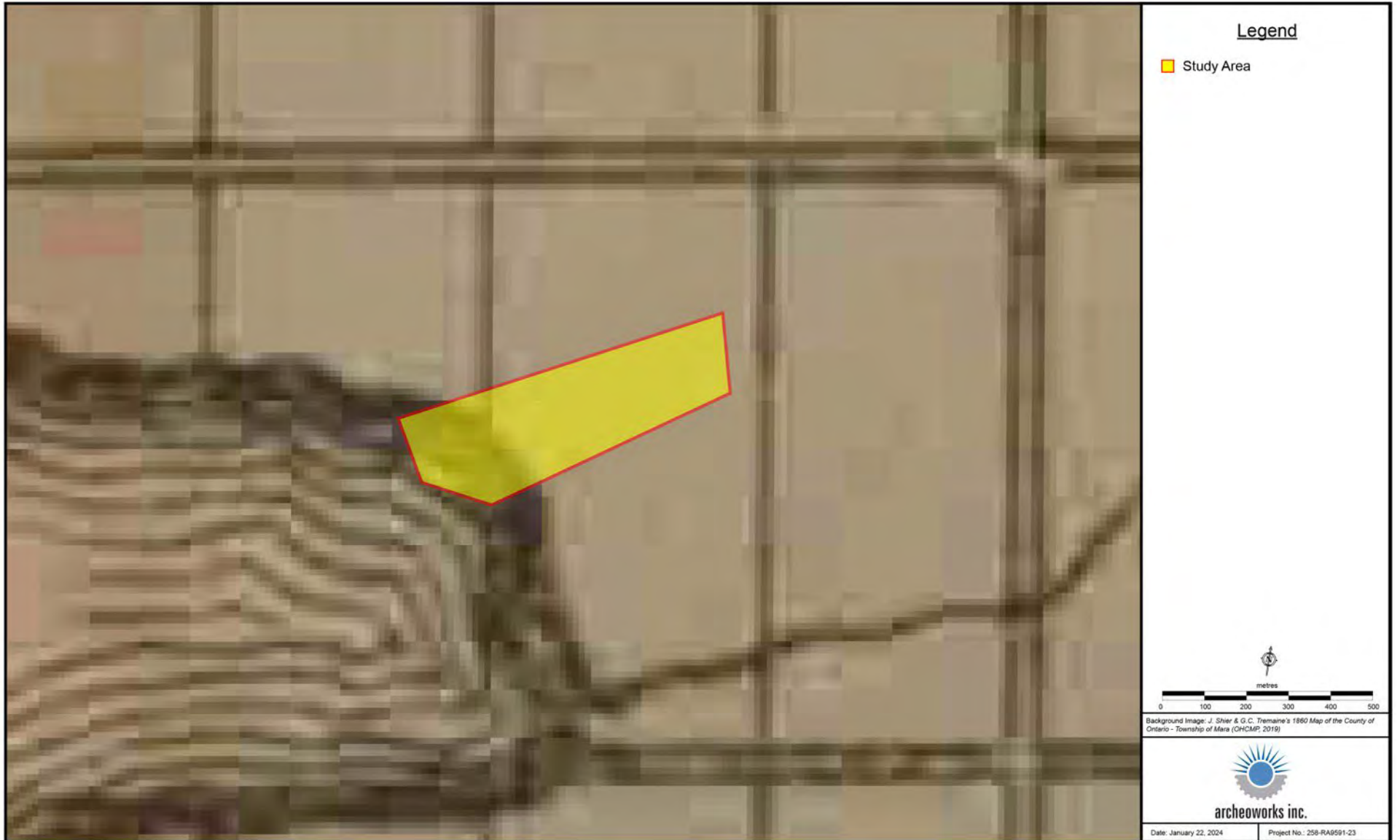
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APPENDICES

APPENDIX A: MAPS



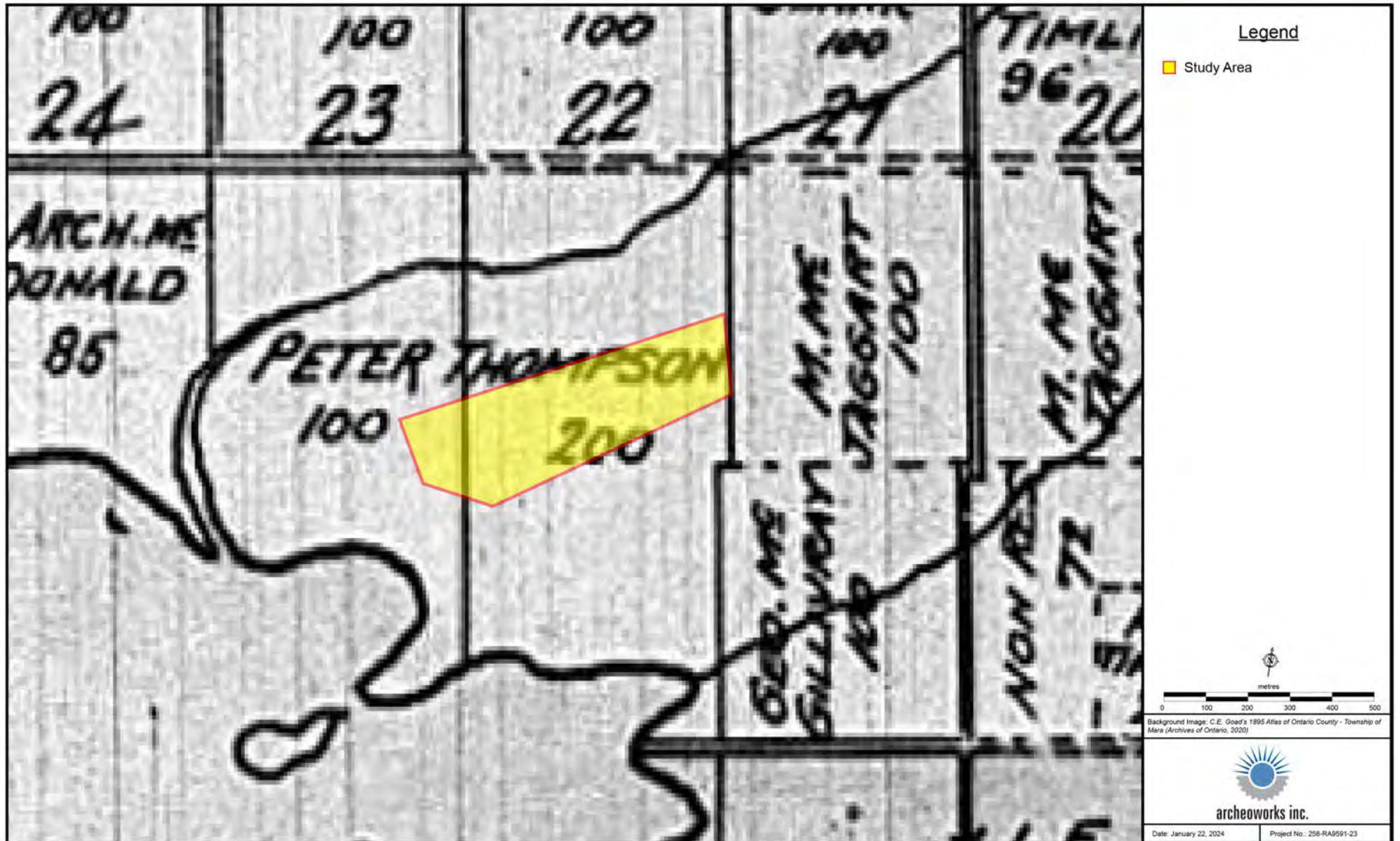
Map 1: National Topographic Map, 1:30,000, identifying the Stage 1 AA study area.



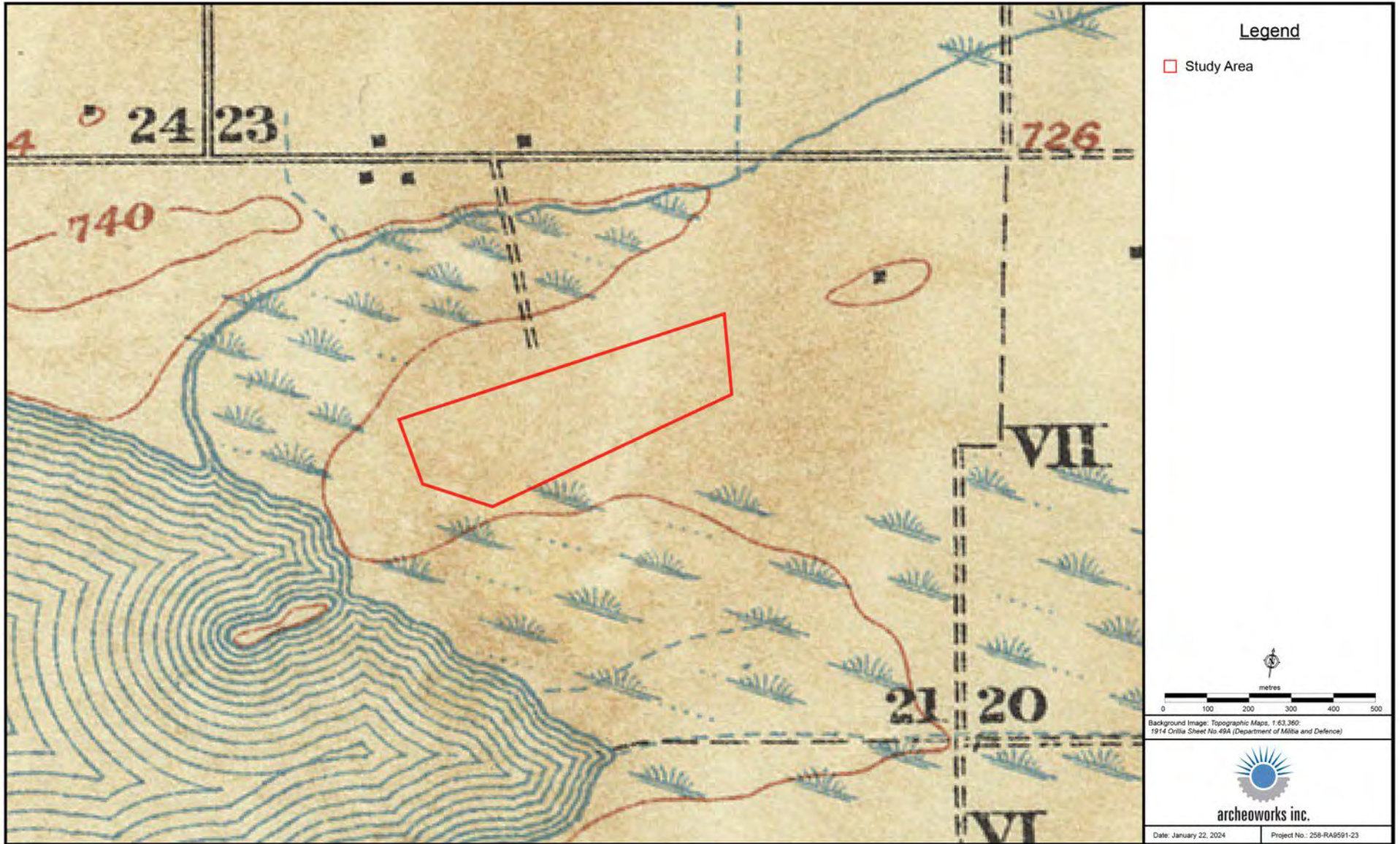
Map 2: Stage 1 AA study area within the 1860 *Tremaine's Map of the County of Ontario*.



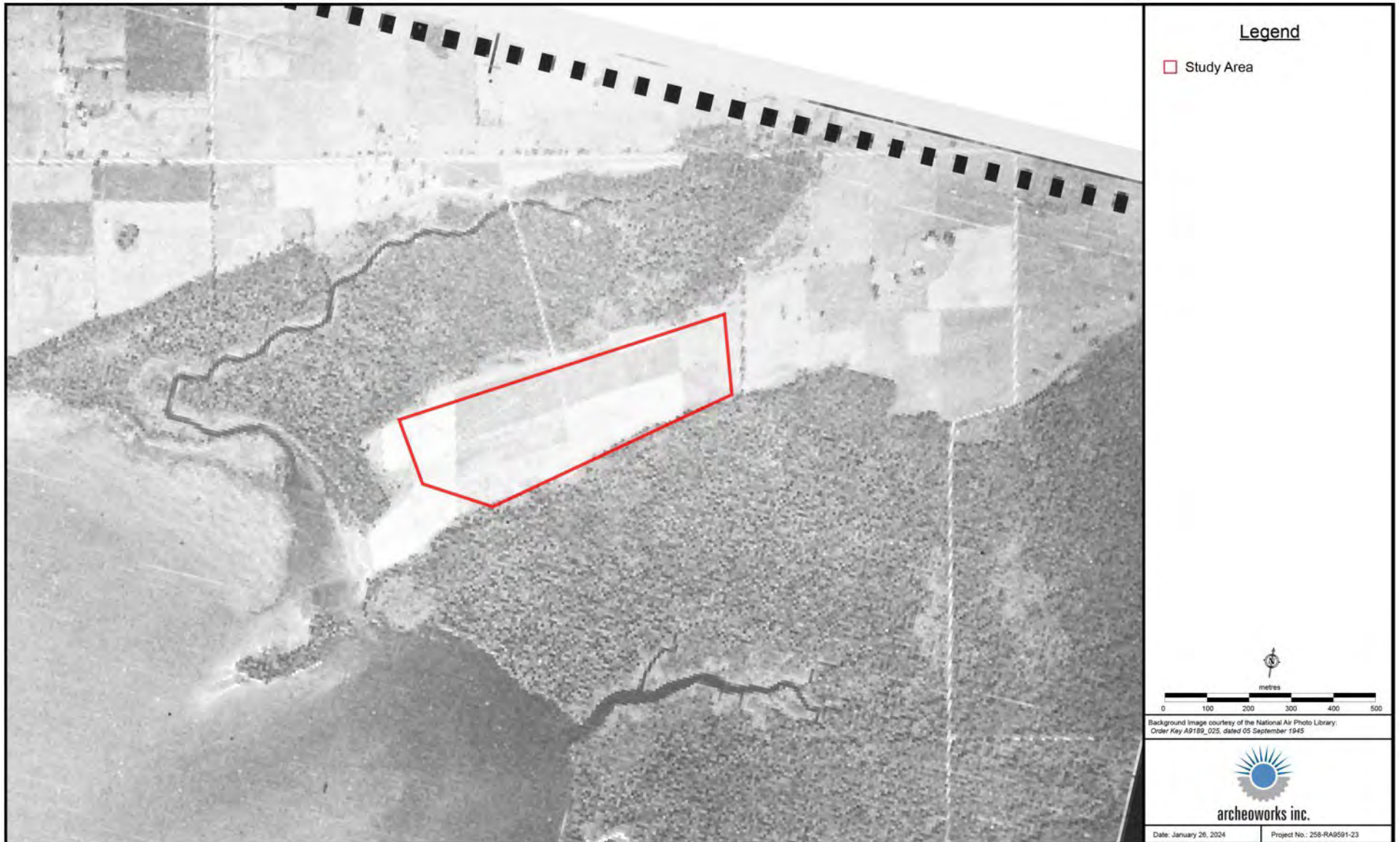
Map 3: Stage 1 AA study area within the 1877 *Illustrated Historical Atlas of the County of Ontario*.



Map 4: Stage 1 AA study area within the 1895 Atlas of the County of Ontario.



Map 5: Stage 1 AA study area within a 1914 military topographic map.



Map 6: Stage 1 AA study area within a 1945 aerial photograph.



Map 7: Stage 1 AA study area within 1954 aerial orthoimagery.



Map 8: Stage 1 AA study area within a 1965 aerial photograph.



Map 9: Stage 1 AA study area within 1978 aerial orthoimagery.



Map 10: Stage 1 AA study area within 1989 aerial orthoimagery.



Map 11: Stage 1 AA study area within 1997 aerial orthoimagery.



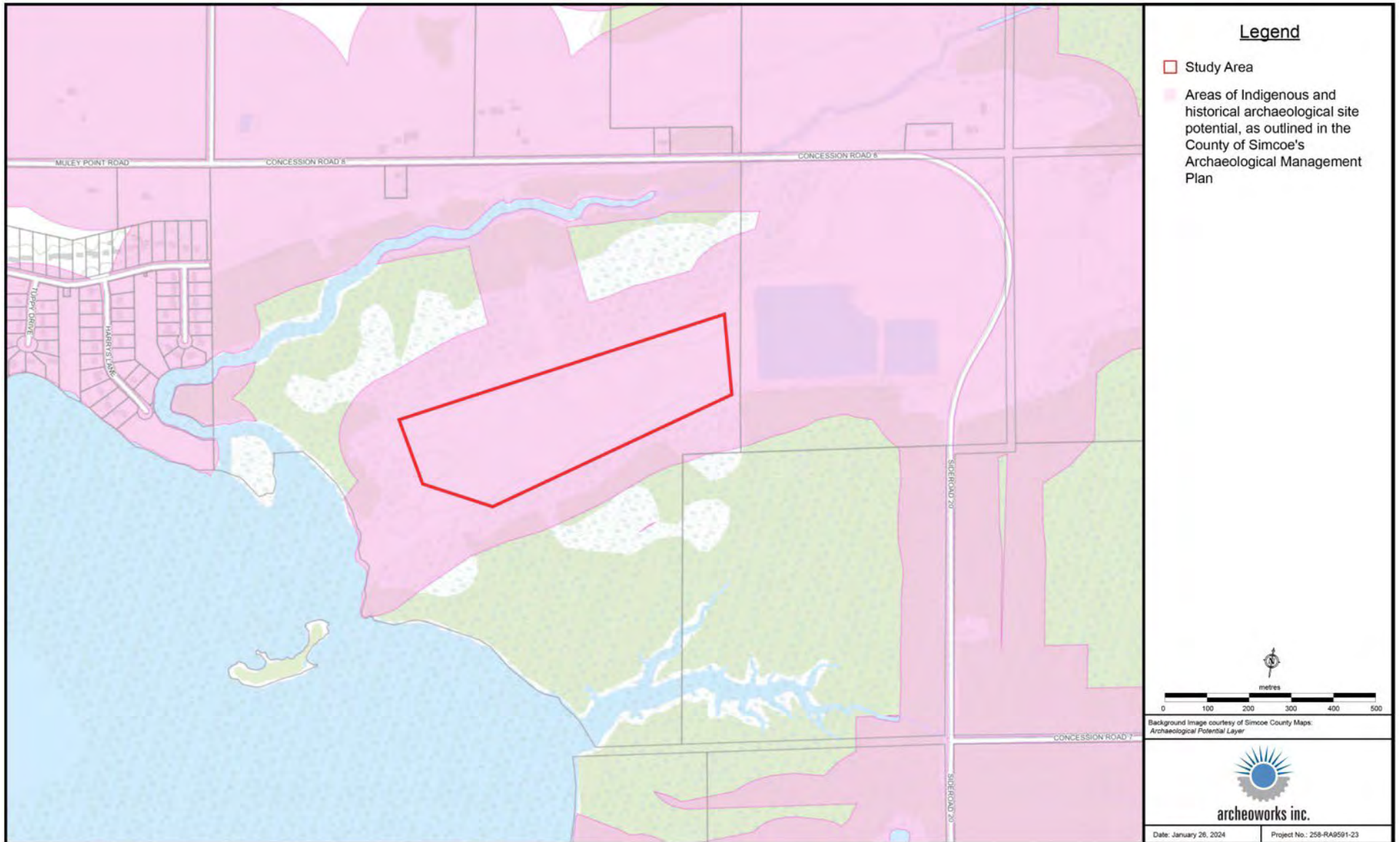
Map 12: Stage 1 AA study area within 2008 aerial orthoimagery.



Map 13: Stage 1 AA study area within 2016 aerial orthoimagery.



Map 14: Stage 1 AA study area within 2023 aerial orthoimagery.



Map 15: Stage 1 AA study area within the County of Simcoe's official archaeological potential mapping.



Map 16: Stage 1 AA results.

APPENDIX B: SUMMARY OF BACKGROUND RESEARCH

Feature of Archaeological Potential		Results			
Physical Features		Yes	No	Unknown	Comment
1	Water on or adjacent to the study area	X			If Yes, potential confirmed
1a	Presence of primary water source within 300 metres of the study area (lakes, rivers, streams, creeks)	X			If Yes, potential confirmed
1b	Presence of secondary water source within 300 metres (intermittent creeks and streams, springs, marshes, swamps)	X			If Yes, potential confirmed
1c	Features indicating past presence of water source within 300 metres (former shorelines, relic water channels, beach ridges, etc.)		X		If Yes, potential confirmed
1d	Accessible or inaccessible shoreline within 300 metres (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.)		X		If Yes, potential confirmed
2	Elevated topography (eskers, drumlins, knolls, plateaus, etc.)		X		If Yes to two or more of 2-4 or 7-10, potential confirmed
3	Pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground		X		If Yes to two or more of 2-4 or 7-10, potential confirmed
4	Distinctive land formations (mounds, caverns, waterfalls, peninsulas, etc.)		X		If Yes to two or more of 2-4 or 7-10, potential confirmed
Cultural Features		Yes	No	Unknown	Comment
5	Previously identified archaeological site(s) within 300 metres		X		If Yes, potential confirmed
6	Known burial site or cemetery on or directly adjacent to the property		X		If Yes, potential confirmed
7	Associated with resource areas related to food or medicinal plants, scarce raw materials, early Euro-Canadian industry		X		If Yes to two or more of 2-4 or 7-10, potential confirmed
8	Indications of early Euro-Canadian settlement (monuments, cemeteries, structures, etc.) within 300 metres	X			If Yes to two or more of 2-4 or 7-10, potential confirmed
9	Historic transportation route (historic road, trail, portage, rail area, etc.) within 100 metres		X		If Yes to two or more of 2-4 or 7-10, potential confirmed
10	Property listed on a municipal register or designated under the <i>Ontario Heritage Act</i> or that is a federal, provincial or municipal historic landmark or site within 300 metres		X		If Yes to two or more of 2-4 or 7-10, potential confirmed
Property-specific Information		Yes	No	Unknown	Comment
11	Contains property listed or designated (under the <i>Ontario Heritage Act</i>) by the municipality		X		If Yes, potential confirmed
12	Local knowledge (Indigenous communities, heritage organizations, municipal heritage committees, etc.)		X		If Yes, potential confirmed
13	Archaeological Management Plan (AMP) illustrating archaeological potential for all or parts of the study area			X – no AMP	If Yes, potential confirmed
14	Recent ground disturbance, not including agricultural cultivation (post-1960, extensive and deep land alterations)		X		If Yes, low archaeological potential is determined

APPENDIX C: HURON-WENDAT NATION HISTORY

ANNEX

History of the Nation Huronne-Wendat

As an ancient people, traditionally, the Huron-Wendat, a great Iroquoian civilization of farmers and fishermen-hunter-gatherers and also the masters of trade and diplomacy, represented several thousand individuals. They lived in a territory stretching from the Gaspé Peninsula in the Gulf of Saint Lawrence and up along the Saint Lawrence Valley on both sides of the Saint Lawrence River all the way to the Great Lakes. Huronia, included in Wendake South, represents a part of the ancestral territory of the Huron-Wendat Nation in Ontario. It extends from Lake Nipissing in the North to Lake Ontario in the South and Île Perrot in the East to around Owend Sound in the West. This territory is today marked by several hundred archaeological sites, listed to date, testifying to this strong occupation of the territory by the Nation. It is an invaluable heritage for the Huron-Wendat Nation and the largest archaeological heritage related to a First Nation in Canada.

According to our own traditions and customs, the Huron-Wendat are intimately linked to the Saint Lawrence River and its estuary, which is the main route of its activities and way of life. The Huron-Wendat formed alliances and traded goods with other First Nations among the networks that stretched across the continent.

Today, the population of the Huron-Wendat Nation is composed of more than 4000 members distributed on-reserve and off-reserve.

The Huron-Wendat Nation band council (CNHW) is headquartered in Wendake, the oldest First Nations community in Canada, located on the outskirts of Quebec City (20 km north of the city) on the banks of the Saint Charles River. There is only one Huron-Wendat community, whose ancestral territory is called the Nionwentsïo, which translates to "our beautiful land" in the Wendat language.

The Huron-Wendat Nation is also the only authority that have the authority and rights to protect and take care of her ancestral sites in Wendake South.

APPENDIX D: INVENTORY OF DOCUMENTARY AND MATERIAL RECORD

Project Information:				
Project Number:		258-RA9591-23		
Licensee:		Kassandra Aldridge (P029)		
MCM PIF:		P439-0197-2024		
Document/ Material		Details		Location
1.	Research/ Analysis/ Reporting Material	Digital files stored in: /2023/258-RA9591-23 - Bayshore Village Effluent Spray Irrigation Class EA Update/Stage 1		Archeoworks Inc., 16715-12 Yonge Street, Suite 1029, Newmarket, ON, Canada, L3X 1X4 Stored on Archeoworks network servers

Under Section 14 of the Terms and Conditions for Archaeological Licences issued under the Ontario Heritage Act, "the licensee shall hold in safekeeping all artifacts and records of archaeological fieldwork carried out under this licence, except where those artifacts and records are transferred by the licensee to His Majesty the King in right of Ontario or the licensee is directed to deposit them in a public institution in accordance with subsection 66(1) of the Act." The collections are being stored at *Archeoworks Inc.* on the licensee's behalf.

ARCHEOWORKS INC.

**Stage 2 Archaeological Assessment for the
Proposed West Spray Irrigation Field as Part of the
Bayshore Village Effluent Spray Irrigation
Class Environmental Assessment Update
Located Within Part of 3700 Concession Road 8
Within Part of Lots 22 and 23, Concession 7
In the Geographic Township of Mara
Historic County of Ontario
Now in the Township of Ramara
County of Simcoe
Ontario**

**Project #: 258-RA9591-23
Licensee (#): Ian Boyce (P1059)
PIF #: P1059-0151-2024**

Original Report

September 21, 2024

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EXECUTIVE SUMMARY

Archeoworks Inc. was previously retained to conduct a Stage 1 Archaeological Assessment (AA) in support of the proposed West Spray Irrigation Field within a portion of the property municipally addressed 3700 Concession Road 8 (the “property boundary”), in the Township of Ramara, County of Simcoe, Ontario. The Stage 1 AA identified archaeological potential, and a Stage 2 AA was recommended (*Archeoworks Inc.*, 2024 – P439-0197-2024) as required by the *2011 Standards and Guidelines for Consultant Archaeologists* (‘2011 S&G’) published by the *Ministry of Citizenship and Multiculturalism (MCM)*.

Archeoworks Inc. was subsequently retained to conduct the Stage 2 AA of an area of proposed impact within the larger property boundary, totalling approximately 16.37 hectares. This land will be the subject of the report documented herein and referred to as the “study area.” The study area is located within part of Lots 22 and 23, Concession 7, in the Geographic Township of Mara, historic County of Ontario, now in the Township of Township of Ramara, County of Simcoe, Ontario.

A Stage 2 property survey of the study area was conducted under ideal weather and lighting conditions. Two minor areas of saturated soil conditions were identified within the study area. The systematic survey of these areas was not undertaken due to their low to no archaeological potential classification. The remainder of the study area, comprising a large, cultivated field, was subjected to a pedestrian survey at five-metre intervals. One collection of historic artifacts – designated as **H1** – was encountered during the pedestrian survey within part of Lot 22, Concession 7.

A total of 174 artifacts were recovered from 105 findspots spread across an area measuring 84 metres north-south by 101 metres east-west in size. Most material recovered suggests a mid-19th century peak habitation. It is likely that the material is associated with a domestic structure built in the 1850s and utilized through the 1860s into the 1870s. The first two owners of the lot were non-residents, and the first documented settlement is of tenant James Carey and his wife Mary Steele from ca. 1869 to 1876. By 1876, Peter Thomson is listed as the owner with a homestead depicted south of the site area in the 1878 *Illustrated Historical Atlas*. Peter Thomson owned 500 acres in this area, however, is not documented to have resided on Lot 22, Concession 7.

The H1 site, registered under the Borden number **BdGt-30**, has further cultural heritage value and interest (CHVI) and requires a Stage 3 AA, per *Section 2.2, Standard 1.c* of the *2011 S&G* and per *Section 2.3, RHF Standard 2.a* of the draft *2021 19th Century Rural Historical Farmstead (RHF) Sites Standards for Consultant Archaeologists*.

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PROJECT PERSONNEL

Project Director..... Ian Boyce – MCM licence P1059

Field Director..... Kim Slocki – MCM licence P029

Field Archaeologists Billy Derlis
Chloe Lawson
James Lawson

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Artifact Analysis Emily Anson – MCM licence P482

Graphics Cassandra Lamoureux
Lee Templeton

Report Preparation Cassandra Lamoureux

Report Review..... Kim Slocki

1.0 PROJECT CONTEXT

1.1 Objectives

The objectives of a Stage 2 Archaeological Assessment (AA), as outlined by the 2011 *Standards and Guidelines for Consultant Archaeologists* ('2011 S&G') published by the *Ministry of Citizenship and Multiculturalism (MCM)* (2011), are as follows:

- To document all archaeological resources on the property;
- To determine whether the property contains archaeological resources requiring further assessment; and,
- To recommend appropriate Stage 3 assessment strategies for archaeological sites identified.

1.2 Development Context

Archeoworks Inc. was previously retained to conduct a Stage 1 AA for the proposed West Spray Irrigation Field within a portion of the property municipally addressed 3700 Concession Road 8, in the Township of Ramara, County of Simcoe, Ontario. The establishment of the West Spray Irrigation Field, and the construction of an Effluent Disposal Bed in the same area, both form part of several solutions being explored as part of the Bayshore Village Effluent Spray Irrigation Class Environmental Assessment (EA) Update, which seeks to find the most appropriate solution for the disposal of lagoon effluent from the nearby Bayshore Village sewage treatment facility. The Stage 1 AA identified archaeological potential on the property, thereby necessitating a Stage 2 AA (*Archeoworks Inc.*, 2024 – P439-0197-2024).

Archeoworks Inc. was subsequently retained by *Tatham Engineering* to conduct the Stage 2 AA of a portion of 3700 Concession Road 8. The approximately 16.37 hectares wherein there are proposed impacts will be the subject of the report documented herein and referred to as the “study area”; the larger property will herein be referred to as the “property boundary” and will be discussed as relevant. The study area is located within part of Lots 22 and 23, Concession 7, in the Geographic Township of Mara, historic County of Ontario, now in the Township of Township of Ramara, County of Simcoe, Ontario (*see Appendix A – Map 1*).

This study was triggered by the Ontario *Environmental Assessment Act* in support of the Municipal Class Environmental Assessment regulatory process. The Stage 2 AA was conducted pre-submission under the project direction of Mr. Ian Boyce, under the archaeological consultant licence number P1059, in accordance with the *Ontario Heritage Act* (1990; amended 2024) and *2011 S&G*. Permission to investigate the study area was granted by *Tatham Engineering* on January 8th, 2024.

1.3 Historical Context

To establish the historical context and archaeological potential of the study area, *Archeoworks Inc.* previously conducted the Stage 1 AA (2024). This report included a comprehensive review of Indigenous and Euro-Canadian settlement history, available historical mapping, topographic mapping, aerial photographs and orthophotographs. The results of this background research, along with additional archival research pertaining to the one historic archaeological site (named H1) discovered during the Stage 2 property survey, are summarized below.

1.3.1 Euro-Canadian Settlement Period (AD 1800s to present)

1.3.1.1 Land Treaties

After the War of 1812, the second wave of immigration from the British Isles occurred and the population of Euro-Canadians doubled in Upper Canada (Surtees, 1994, p.112). The lands situated between the Ottawa River and Lake Erie and inland were sought after by the British Government to secure internal waterway transportation routes should another war occur with America as well as providing land to new settlers. “The Crown believed that all of this land had been included in the Crawford Purchase back in 1783-84, but this was disputed by the Mississauga, and it was decided to simply make a new Treaty with them to avoid any doubts arising” (Shanahan, 2020). In 1818, William Claus, on behalf of the British Crown, assembled several Anishinaabe peoples at Smith’s Creek (Port Hope) to purchase the land situated around Rice Lake (Government of Ontario, 2024; Surtees, 1994, p.113). Treaty No. 20, also known as the ‘Rice Lake Purchase,’ was ceded to the British Government on the 5th of November 1818 and included the Township of Mara (Government of Ontario, 2024; Department of Indian Affairs, 1891, p.xxxvii). This tract of land included 1,951,00 acres, and the Rice Lake Mississauga were to receive, “the yearly sum of the seven hundred and forty pounds Province currency in goods at the Montreal price to be well and truly paid yearly, and every year, by His said Majesty to the said Chippewa Nation” (Shanahan, 2020). At a subsequent meeting, William Claus clarified that the “£740 would be distributed on a per capita basis, each man, woman and child receiving \$10” (Shanahan, 2020).

The study area also falls within the Williams Treaties (1923) lands. The “territory covered by the Williams Treaties stretched from the northern shore of Lake Ontario to Lake Nipissing, and together cover approximately 52,000km²” (Government of Ontario, 2024).

1.3.1.2 Township of Mara

The Township of Mara was partially surveyed by James Grant (J.G.) Chewitt in 1821 and completed in 1836 by Robert Ross. The township is believed to have been, “named after Madam Mara, a favourite public singer in England at the time” (Armstrong, 1930, pp.179-180). Until after the Rebellion in 1837, there were few settlements along the Lake Simcoe shore since the soil at that time had the appearance of a cedar swamp. With drainage, the Township of Mara contained fertile farmland of excellent quality soil (J.H. Beers & Co., 1877, p.xi; Farewell, 1907, p.58).

The central portion of the township largely consisted of Irish and Catholic settlers and the north and south portions were occupied by Scottish Highlanders. The first settler in the township was Patrick Corrigan, from Ireland, who settled on Lot 15, Concession 7 in 1823. By 1839, 112 individuals resided in the Township of Mara. Within five years, 278 individuals resided in the Township of Mara, which was united with the Township of Rama. The Township of Mara was described as, “a new township not long settled, but it contains some very good land, and on the lake shore there are some good clearings” (Smith, 1846, p.110). By 1850, the population had increased in the Township of Mara to 966 individuals, a sawmill had been erected and 1,832 acres were under cultivation (Farewell, 1907, p.58; Mika and Mika, 1981, pp.611-612; Smith, 1851, p.34).

By the late 1870s, the Midland Railway (now part of the Canadian National Railway) was completed through the township and eventually, four additional railways were built through the township. However, some of these railways have ceased to operate as modern highways have replaced their purpose (J.H. Beers & Co., 1877, p.xi; Mika and Mika, 1981, pp.611-612; County of Ontario, 1955, pp.12-13).

For purposes of administration, the Township of Mara and the Township of Rama were united from 1850 to 1868-69. After 1869, the two townships were again separated. In 1974, the Township of Mara was annexed by the County of Simcoe and in 1994, the Township of Ramara was formed after the official amalgamation of the Township of Rama and Mara (Mika and Mika, 1983, p.277; Township of Ramara, 2020).

1.3.1.3 Village of Uptergrove

The hamlet of Uptergrove is located northwest of the study area at the intersection of the Trans-Canada Highway/Highway 12 and Side Road 25/Plum Point Road. A post office was established in 1870, and the first postmaster was Thomas Byrne (LAC, 2024). In 1873, Uptergrove was described as “a post village in Ontario co., Ont. 2½ miles from Atherley. It contains 4 stores. Pop. 185” (Crossby, 1873, p.344). By 1900, the population of the community had decreased to 100 individuals (Union Publishing Co., 1900, p.181).

1.3.2 Land Use History of the Study Area (AD 1800s to present)

1.3.2.1 Pre-1900 Land Use – Historic Map Review

Several documents were reviewed to gain an understanding of the land use history and of the study area’s potential for the recovery of historic pre-1900 remains, namely J. Shier’s 1860 *Tremaine’s Map of the County of Ontario*, J.H. Beers & Co.’s 1877 *Illustrated Historical Atlas of the County of Ontario*, and C.E. Goad’s 1895 *Atlas of Ontario County* (**see Maps 2-4; Table 1**).

Table 1: Summary of Structures and Property Owners/Occupants Documented in Historical Maps

Con.	Lot	Owner/Occupant			Structure(s) in the Study Area		
		1860	1877	1895	1860	1877	1895
7	22	(not listed)	Peter Thompson		(not depicted)		(not depicted)

Con.	Lot	Owner/Occupant			Structure(s) in the Study Area		
		1860	1877	1895	1860	1877	1895
	23	(not listed)			(not depicted)	1 homestead within 300m of study area	

In 1860, the study area was depicted within land owned by an unnamed individual, and no structures (e.g., homesteads, schoolhouses, churches, etc.) were depicted in or within 300 metres of the study area. The west end of the study area appeared to encompass part of Lake Simcoe.

By 1877, the study area was depicted in land owned by Peter Thompson, who was a farmer from Scotland and arrived in the township in 1855 (McGill University Library, 2001). He was an owner of multiple lots in the township that, in addition to the lots noted above, also included 200 acres of Lot 23, Concession 8 and 100 acres of Lot 22, Concession 8. According to the *Abstract Land Indexes*, the Thompson family first settled on the south half of Lot 23, Concession 8 in 1855 (Abstract Index Books, ca. 1800-1958, Ontario County (Ontario): Mara Township: film 179174). One of Peter Thompson’s homesteads was depicted within 300 metres of the study area on the 1877 map, in the south part of Lot 22, Concession 7.

The 1895 *Atlas of Ontario County* only gives information on landowners and their acreage owned but does not depict private structures. In this map the study area was depicted in lands owned by Peter Thompson, in Lots 22 and 23, Concession 7.

The study area is not located within 100 metres of an early historic transportation route established during the survey of the Township of Mara.

1.3.2.2 Pre-1900 Land Use – Archival Data Review

In accordance with *Section 3.1, Standard 1* of the 2011 S&G, a review of available archival data pertaining to the H1 site area was conducted via various online sources, at the *Archives of Ontario* and at the *Simcoe County Archives* (**see Appendix B – Table 1**). After discussions with the Archivist at the *Simcoe County Archives*, many of the early pre-1850s records of the Township of Mara were lost likely during the amalgamation of the Townships of Rama and Mara, and the incorporation into Simcoe County. The H1 site area is located within historic Lot 22, Concession 7 in the Township of Mara.

SUMMARY: Lot 22, Concession 7, Township of Mara

Lot 22, Concession 7 (L22C7) in the Township of Mara, in the County of Ontario originally encompassed 200 acres.

James Grant Chewett, who had surveyed the Township of Mara and was a resident of the Town of York, received the crown patent for all 200 acres of L22C7 in April 1826. This crown patent included a total of 2,484 acres throughout the township as payment for his surveying duties.

In 1833, all 200 acres of L22C7 was sold to Henry Vansittart. A total of 1,045 acres in the Township of Mara was also included in this purchase, all situated around McGinnis Point (present-day Bayshore Village and Lagoon City). Henry Vansittart, the Rear-Admiral of the Blue (the British Royal Army) was born in England in 1777 and entered the British Royal Navy in 1791. He served on numerous ships during the French Revolution, Napoleonic Wars and War of 1812 before moving near Woodstock in Oxford County in 1834. He resided in the village of Eastwood with his sister, Caroline A. East, until his death in 1843. In 1838, likely as a means to support his daughter should she be widowed young, he issued a marriage settlement which transferred all 1,045 acres of land in the Township of Mara to his daughter, Mary Charity Vansittart, when she married her husband, Spencer MacKay, that same year.

In 1843, Henry Vansittart died and was buried in Woodstock. After his death, Mary Charity and Spencer MacKay appear to have returned to England by 1849, and in 1860 Spencer MacKay died. Mary Charity died in 1866. After their deaths, her landholdings (which included all 1,045 acres in the Township of Mara and additional lands in the Township of Mariposa) were bequeathed to her children. In 1876, all 200 acres of L22C7 was sold to Peter Thomson, a resident of the Township of Mara who lived on Lot 23, Concession 8.

During Henry Vansittart and Mary Charity MacKay's ownership of L22C7, the land remained vacant. No occupants were noted in the 1837, 1846 and 1850-1 County Directories and unfortunately, the *Agricultural Census* of the 1851 *Census Record* did not survive. Additionally, no early *Tax Assessment and Collectors Rolls* that date earlier than 1894 have survived. By 1869, a tenant, James Carey, was noted to occupy the south half of L22C7 and appears to have resided there until about 1876. Since he was a tenant, no structural details of the house occupied are available. James Carey was a settler from Ireland who had married Mary Steele in 1860. Mary Steele and her family occupied Lot 26, Concession 10 in the Township of Mara and they appear to have resided there with her father until relocating to L22C7 by 1869.

Peter Thomson arrived from Scotland in the Township of Mara in 1855 with his father, George, mother, Barbara, and sister, Bothia, and settled on Lot 23, Concession 8. During Peter Thomson's ownership of L22C7, the land appears to have been vacant. He lived initially on Lot 23, Concession 8 before constructing a large homestead across the street in Lot 23, Concession 7. L22C7 appears to have been used as additional farmland with only 40 acres cleared in 1894 which had decreased to 20 acres by 1900.

The complete timeline of recorded occupation of L22C7 associated with the site area to the year 1906 is presented in **Table 2** below.

Table 2: Historic Ownership of All of Lot 22, Concession 7 up to 1906

Year	Name of Owner	Name of Tenant	Site Affiliation	Details
All of Lot 22, Concession 7 (L22C7), Township of Mara, County of Ontario – 200 acres				
1826-1833	James Grant Chewett ▪ resident of Town of York		<u>Site area:</u> <i>vacant</i>	<p>* According to the <i>Land Patent Index</i>, on the 8th of March 1826, James Grant Chewett received 2,484 acres of land in the Township of Mara as compensation for surveying the Township of Mara. His residence was noted as the Township of York (Index to Land Patents Arranged by Township 1793-1852, RG 53-55: microfiche 041: 01 C13 033 043, MS 693, reel 46).</p> <p>* According to the Abstract Land Indexes, on the 5th of April 1826, James Grant Chewett had obtained the crown patent for all 200 acres of L22C7.</p> <p>* James Grant Chewett was born in New Johnston (present-day Cornwall) in 1793 and died in Toronto in 1862. In 1797, James Grant Chewett and his family moved to the Town of York (present-day Toronto) and in 1810, he entered the surveyor general's office where his father, William Chewett, was deputy surveyor general. After his service during the War of 1812, in 1819 he became the deputy surveyor and after his father retired in 1832, became the deputy surveyor general. James Grant Chewett was "responsible for the surveys of several townships located north and west of York, around Lake Simcoe, and near Kingston" (Burns, 1976). In 1841, he retired from surveying and turned his interests to Toronto's financial developments (Burns, 1976).</p> <p>* In June 1833, James Grant Chewett (who was of the Town of York) sold all of L22C7 to Henry Vansittart (who was of Bisham Abbey in the County of Berks, England and the Rear-Admiral of the Blue) (Instrument and Deed, No.711: GS 5500). This transaction also included a total of 1,045 acres in the Township of Mara valued at £500: Lot 15, Concession 4; Lots 21, 22, 23, 24 and 25, Concession 6; Lots 22, 23, 24, 26 and 27, Concession 7. This land encompasses McGinnis Point (present-day Bayshore Village), and part of present-day Lagoon City.</p>
1833-1877	Henry Vansittart (1833 to 1838) ▪ resident of the Eastwood Farm, Oxford County, Upper Canada			<p>* Henry Vansittart was born in Hanover Square, England in 1777 to George Vansittart and Sarah Stonhouse. He entered the British Royal Navy in 1791, served during the French Revolution, Napoleonic Wars and the War of 1812. In 1809, he married Mary Charity Pennefather. In 1830, he was appointed Rear-Admiral, and in 1841, Vice-Admiral. In 1834, Henry Vansittart moved to Eastwood, a village eight kilometres east of Woodstock, in the County of Oxford. A year earlier, Caroline A. East, a wealthy widow and sister to Henry Vansittart had arrived in the area. "The admiral took up a large area of land on the north side of the road and built extensive buildings. The wife of Admiral Vansittart, died on route to Canada and Mrs. East came to supervise his servants and household and to maintain the dignity of the family" (Ingersoll Times, 1978). In 1843, Vice-Admiral Henry Vansittart died and is buried in the Old St. Paul's graveyard (Ingersoll Times, 1978; Stephen, 1899, p.140).</p> <p>* Between June 1837 and November 1838, Henry Vansittart (who was now listed of Eastwood in the County of Oxford, District of London, Upper Canada and Rear-Admiral of the Blue) sold all 1,045 acres of Lot 15, Concession 4, Lots 21, 22, 23, 24 and 25, Concession 6 and Lots 22, 23, 24, 26 and 27, Concession 7 of the Township of Mara to Caroline A. East (who was also of Eastwood) for £500, who then sold it back to Henry Vansittart (Instrument and Deeds, No.2689, 2786: GS 5502).</p> <p>* No individuals are listed on L22C7 in Walton's 1837 <i>The City of Toronto and the Home District Commercial Directory and Register</i> (p.100). Furthermore, only 153 individuals resided in the Township of Mara at this time.</p> <p>* In June 1838, a settlement on the intended marriage of Spencer MacKay and Mary Charity Vansittart was made between Henry Vansittart (who was of Eastwood Park in the Township of Blandford, County of Oxford in Upper Canada, Rear-Admiral of the Red), Spencer MacKay (of Eastwood Farm), Mary Charity Vansittart (the 18-year-old daughter of Henry Vansittart), Robert Riddle of the Township of Yonge, Henry Vansittart (Junior) and Roger Rollo Hunter (Instrument and Deeds, No.2946: GS 5502). This marriage settlement included land in the Township of Mariposa and all 1,045 acres of Lot 15, Concession 4, Lots 21, 22, 23, 24 and 25, Concession 6 and Lots 22, 23, 24, 26 and 27, Concession 7 of the Township of Mara.</p>
	MacKay Estate (1838 to 1876) ▪ residents of Oxford County, Upper Canada and England			

Year	Name of Owner	Name of Tenant	Site Affiliation	Details
		James Carey (ca. 1869 to 1876)	<u>Site Area:</u> <i>dwelling house (unknown structural type) occupied by James Carey</i>	<ul style="list-style-type: none"> - In 1838, Spencer MacKay and Mary Charity Vansittart married and together they had five children: Mary L. MacKay (born 1839), Elizabeth L. MacKay (born 1845), Rosa M. MacKay (born 1846), Gertrude MacKay (born 1847) and Edward Vansittart MacKay (born 1849). Mary L. was born in England, Elizabeth L., Rosa M., and Gertrude were born in Canada, and Edward was born in England. It appears that by the late 1840s, Spencer and Mary Charity MacKay had returned to England (ancestry.ca, 2024a). - Mary Charity died in Devon, England in 1866 and Spencer died in France in 1860 (ancestry.ca, 2024a). - This marriage settlement was completed in lieu of and bar of dower in the event that Mary Charity survived her husband, and he did not provide her with sufficient funds when he died. <p>* No individuals are listed on L22C7 in Brown’s 1846-7 <i>Toronto-City and Home District Directory</i> (pp.55-56).</p> <p>* No individuals are listed on L22C7 in Rowsell’s 1850-1 <i>City of Toronto and County of York Directory</i> (pp.52-54). - Due to the small population size of the Townships of Mara and Rama, this resource combined both townships.</p> <p>* The agricultural portion of the 1851 <i>Census Record</i> for the Township of Mara did not survive and therefore, no direct correlations between land owned and the owners of that land can be made from this resource (1851 Census Record, Township of Mara and Rama: microfilm c-11743).</p> <p>* Review of the 1860 <i>Tremaine’s Map of the County of Ontario – Township of Mara (see Map 2)</i> depicts the site area within lands owned by an individual who is not depicted. No structures are depicted in or within 300 metres of the site area.</p> <p>* No farms were listed on L22C7 in the 1861 <i>Census Record</i> (1861 Census Record, Township of Mara, Agricultural Census, Enumeration District No.1 and 2, pp.14-19: microfilm c-1059). Consequently, as there are no farms noted in the <i>Agricultural Census</i>, determining who resided on L22C7 and the details contained within the <i>Personal Census</i> is not possible.</p> <p>* One individual was listed on L22C7 in Conner & Coltson’s 1869-70 <i>County of Ontario Directory</i>: James Carey, a householder on part of the south half (p.113).</p> <p>* James Carey, a settler who was born in Ireland in 1836, married Mary Steele in 1860 (ancestry.ca, 2024b). They are listed in the Township of Mara in the 1861 <i>Census Record</i> with her father, John Steele. However, John Steele was listed in the <i>Agricultural Census</i> on Lot 26, Concession 10 (1861 Census Record, Township of Mara, Agricultural Census, Enumeration District No. 2, p.16, line 23: microfilm c-1059) and is depicted on Lot 26, Concession 10 in the 1877 <i>Illustrated Historical Atlas</i>. - It is likely that prior to moving onto the south half of L22C7 ca. 1869, James and Mary Steele lived with her father on Lot 26, Concession 10.</p> <p>* Only one farm was listed on L22C7 in the 1871 <i>Census Record</i>: 100 acres occupied (as a tenant) by James Carey (1871 Census Record, Township of Mara, Schedule No. 4, Division No.1, p.10, line 17: microfilm c-9977). - James Carey was listed as a 32-year-old farmer born in Ireland, who lived with his 40-year-old wife, Mary, and their two children (Joseph and Catherine) (1871 Census Record, Township of Mara, Schedule No.1, Division No.1, p.57, lines 16-20: microfilm c-9976). - Of the 100 acres occupied, 20 acres were improved, and three acres were in pasture. He farmed wheat, oats, potatoes, and maple sugar (1871 Census Record, Township of Mara, Schedule No.4, Division No.1, p.10, line 17: microfilm c-9977). - Since James Carey was listed as a tenant, he was not listed as owning any land or dwelling structures (1871 Census Record, Township of Mara, Schedule No.3, Division No.1, p.10, line 16: microfilm c-9977).</p>

Year	Name of Owner	Name of Tenant	Site Affiliation	Details
				<p>* One individual was listed on L22C7 in Crawford’s 1876 <i>Gazetteer and Directory of the County of Ontario</i>: James Carry (a freeholder on the south half) (pp.146).</p> <p>* Between 1870 and 1876, members of the MacKay family, particularly Mary L. and Edward MacKay, attempted to sell L22C7, likely as a means to resolve the wills of Henry Vansittart and Mary Charity MacKay (née Vansittart).</p> <ul style="list-style-type: none"> - In April 1870, Edward MacKay (who was temporarily staying at 20 Ryder Street, St. James, Middlesex in England) sold L22C7 to Mary L. MacKay (his sister who was residing in Torquay, England) (Instrument and Deeds, No.418: film 179178). This transaction included 1,400 acres in the Township of Mariposa, and 1,045 acres of Lot 15, Concession 4, Lots 21, 22, 23, 24 and 25, Concession 6 and Lots 22, 23, 24, 26 and 27, Concession 7 of the Township of Mara. - In 1872, Spencer H. MacKay (who resided at 6 Ryder Street, St. James, Middlesex in England) sold L22C7 to Elizabeth L. MacKay (who resided at 4 Victoria Road, St. Leonards in the County of Sussex in England) (Instrument and Deed, No.520: film 179178). This transaction includes the same acreage as was noted in Deed No. 418. - In 1872, Roger Rollo Hunter (who was of Auchterarder, County of Perthshire in Scotland but residing at 4 West Mall Clifton near Bristol in England) and the sole surviving Trustee of the marriage settlement between Spencer MacKay and Mary Charity MacKay, issued a power of attorney over the lands owned by Mary Charity MacKay at the time of her death (Instrument and Deed, No.1209: film 179179). This included all the land in the Township of Mariposa and the Township of Mara and was transferred to Frederick D. Barwick, a barrister of the City of Toronto. - In 1875, Arthur H. Bowles (who resided in Killarney in the County of Kerry, Ireland), and was the husband of Gertrude MacKay, issued a power of attorney to Frederick D. Barwick. - In April 1876, Mary L. MacKay and members of her family, sold all of L22C7 to Peter Thomson (Instrument and Deed, No.1657).
1876-1906	Peter Thomson (1876 to 1906)		<p><u>Site Area:</u> likely vacant, possibly returned to farmland</p>	<p>* Peter Thomson arrived with his father, George Thomson, from Aberdeenshire, Scotland in the spring of 1855 and arrived in the Township of Mara by summer of 1855. George Thomson, his wife Barbara (née Smith), and children Peter and Bothia, settled on the south half of Lot 23, Concession 8 in 1855 and lived there for many years. Peter Thomson married Amelia Giles in 1860 (ancestry.ca, 2024c; The Corporation of the Township of Mara, 1993, pp.866-867).</p> <p>* Review of the 1877 <i>Illustrated Historical Atlas of the County of Ontario – Township of Mara</i> depicts the site area in property owned by the P[eter] Thomson (spelled Thompson) (see Map 3). No historic homesteads are depicted at the site area, while one homestead is depicted south of the site area in the same lot. It is possible this depiction is incorrect due to the hand-drawn nature of the map.</p> <ul style="list-style-type: none"> - Additionally, Peter Thomson was depicted across 500 acres that included L22C7 (200 acres), Lot 23, Concession 7 (100 acres) and the southern halves of Lots 22 and 23, Concession 8 (100 acres each). Two houses, the farmstead of Peter Thomson, were depicted fronting along Concession Road 8 in Lot 23, Concession 8. <p>* Peter Thomson was listed in the 1881 <i>Census Record</i> as a 46-year-old farmer, who was born in Scotland, and lived with his 44-year-old wife, Amelia, their 12 children (George, James M., Peter Joshua, William, Charles J., Donald, Isabella, Hector, Margaret, Christina, James and John), and 82-year-old Hector Thomson and 80-year old Isabella Thomson (1881 Census Record, Township of Mara, Division No.1, p.68, lines 19-25; p.69, lines 1-9, lines 4-5: microfilm c-13245).</p> <p>* In an article included in <i>The Orilla Packet</i> from May 25, 1883, Peter Thomson’s farmstead operation was described in detail: “Mr. Thomson’s beautiful farm contains six hundred acres, two hundred of which are highly cultivated. The large barn, which is almost new, is 72 x 48 feet, with 20 foot posts and heavy stone foundation. The roof is constructed in the now popular double angle or hip roof, and is surmounted by a bell tower, in which Mr. Thomson intends to have a bell hung, which at the height of about sixty feet will be sufficient to announce the dinner hour to half the township. From the floor of the barn to the top of the</p>

Year	Name of Owner	Name of Tenant	Site Affiliation	Details
				<p>roof is 49 feet...in the western end of this barn is the stable...at the eastern end, running north and south, is the cow stable, 100 feet long, capable of holding thirty cattle. Then there is the storeroom and the chopping room, underneath which is the stone-roof cellar in which can be stored thousands of bushels of roots. The total cost of this barn was \$1,500...the hay barn is separated from the others by a lane, and is specially for the storing of hay. The size is 60x36 feet...Here also is another fine stable...Both the barns have tramways a few feet from the roofs inside, running the entire length of the [sic] each barn” (The Corporation of the Township of Mara, 1993, p.871).</p> <ul style="list-style-type: none"> - This resource further describes Peter Thomson’s residence as, “at present, is in an unfinished state. The kitchen is a frame building 20x22, marking the total size of the finished building 47x22, all sheeted off outside with clapboards tongued and grooved and painted white. A beautiful piazza is on the west side, running from the north end, and will be constructed around the three sides of the front building. The latter will be of white brick, 32x34, with spacious dinning-room, halls, etc., and will be two storeys high. The parlour, bed-rooms, and closets, are in the upper storey of the present building, where magnificent views of the surrounding country can be had on one side, while on the other hand the vision meets the waters and matchless scenery of Lake Simcoe. This handsome pile of buildings will all be on stone foundations” (The Corporation of the Township of Mara, 1993, p.371). - This house is located within Lot 23, Concession 7, northwest of the site area, located on the south side of Concession Road 8 across the street of the original farmstead on Lot 23, Concession 8. <p>* No individuals are listed on L22C7 in Union Publishing Co.’s 1884-5 <i>Farmers’ and Business Directory of the Counties of Ontario, Peel and York</i> (pp.52-58).</p> <ul style="list-style-type: none"> - Peter Thomson was listed on Lot 23, Concession 8 (p.58). <p>* No individuals are listed on L22C7 in Union Publishing Co.’s 1886-7 <i>Farmers’ and Business Directory of the Counties of Ontario, Peel and York</i> (pp.82-88).</p> <ul style="list-style-type: none"> - Peter Thomson was listed on Lot 23, Concession 8 (p.87). <p>* Peter Thomson was listed in the 1891 <i>Census Record</i>. He was listed as a 56-year-old farmer who was born in Scotland and lived with his 53-year-old wife, Amelia, their six children (George, Murison, Joshua, Willie, Charlie and Barbara), Effie who is married to George, and John Robinson, a domestic labourer from Ontario, in a 15-room, one-and-a-half storey brick house (1891 Census Record, Township of Mara, p.37, lines 24-25; p.38, lines 1-8: microfilm t-6486).</p> <p>* One individual is listed on L22C7 in Union Publishing Co.’s 1893 <i>Farmers and Business Directory for the Counties of Ontario, Peel and York</i> (pp.62-69).</p> <ul style="list-style-type: none"> - Peter Thomson was listed on Lot 23, Concession 7 (p.69). <p>* According to the <i>Tax Assessment and Collector’s Rolls</i> from 1894 to 1900, Peter Thomson was listed as the freeholder of all 200 acres of L22C7 where the total value of real property of L22C7 was listed at \$1,300. Peter Thomson was also listed on 100 acres of Lot 23, Concession 7 valued at \$1,200, 100 acres of Lot 22, Concession 8 valued at \$3,400 and 100 acres of Lot 23, Concession 8 valued at \$3,500, and his sons (Charles, George and Murison) were listed with him.</p> <ul style="list-style-type: none"> - Since the total value of real property for Lots 23 and 22, Concession 8 were significantly higher than L22C7, it is likely that there was no structural development within L22C7 and the Thomson family constructed their homes in Lots 22 and 23, Concession 8. - in 1894, only 40 acres were cleared of the total 200 acres, and in 1900, only 20 acres were cleared of timber resources.

Year	Name of Owner	Name of Tenant	Site Affiliation	Details
				<p>* Review of the 1895 <i>Atlas of Ontario County</i> (see Map 4) depicts the site area in 200 acres of land owned by Peter Thompson. No structures are depicted within the site area; however, this resource only depicts the name of those property owners and does not depict private structures. At this time, 100 acres of Lot 23, Concession 7 was also depicted under the ownership of Peter Thompson, while the 100-acre parcels in the south halves of Lots 22 and 23, Concession 8 were depicted under the ownership of G. & M. Thompson, likely Peter's eldest sons.</p> <p>* No individuals are listed on L22C7 in Union Publishing Co.'s 1896 <i>Farmer's and Business Directory for the Counties of Bruce, Grey, Muskoka, Ontario and Simcoe</i> (pp.A12-19). - Peter Thomson was listed on Lot 23, Concession 7 (p.A19).</p> <p>* No individuals are listed on L22C7 in Union Publishing Co.'s 1900 <i>Farmers' and Business Directory of the Counties of Dufferin, Ontario, Peel and York</i> (pp.A58-67). - Peter Thomson was listed on Lot 23, Concession 7 (p.A66).</p> <p>* No farms were enumerated on L22C7 in the 1901 <i>Census Record</i>. However, although Peter Thomson was listed on Lot 23, Concession 7, his total acreage held included 600 acres, which likely encompassed all 200 acres of L22C7 (1901 Census Record, Township of Mara, Schedule No. 1, Enumeration District No.3, p.3, line 41: microfilm t-6486). - Peter Thomson was listed as a 67-year-old farmer who was born in Scotland and lived with his 65-year-old wife, Amelia, and two of their children (James and Peter). He owned 600 acres where a two-storey brick house with 11 rooms that was inhabited was located, and he also had a second dwelling house and five barns/stables/outbuildings (1901 Census Record, Township of Albion, Schedule No. 2, Enumeration District No.3, p.14, lines 38-41; Schedule No. 1, Enumeration District No.3, p.3, line 41: microfilm t-6486).</p> <p>* In March 1905, William H. Beatty (a trustee of the Estate of James Gooderham Worts) entered into an agreement with Peter Thomson to extend the mortgage of \$5,800 he took out against his property in 1893 to construct his new house in Lot 23, Concession 7 (Instrument and Deeds No. 6305). A collateral security charge for \$5,000 was charged to Peter Thomson the following year (Instrument and Deeds, No.6517).</p> <p>* In December 1906, by way of conveyance, Peter and Amelia Thomson sold all 200 acres of L22C7 to their son, Charles J. Thomson for \$1.00 (Instrument and Deed, No. 6955).</p>

1.3.2.3 Post-1900 Land Use

To facilitate further evaluation of the post-1900 land use within the study area, a detailed review of a topographic map from 1914 (*see Map 5*), and orthophotographs from 1945 to 2023 (*see Maps 6-14*) was undertaken.

The study area appears to have remained clear of vegetation since at least the early 20th century. The 1914 military topographic map depicts the study area as encompassing land which had been cleared of overgrown vegetation flanked by marsh areas. No structures were depicted in the study area. A trail was located travelling across the river and wetland from Concession Road 8 to the north and four structures are depicted fronting along this roadway.

Aerial imagery from the rest of the 20th century, as well as the early 21st century, show that the study area has remained clear of vegetation till the present day, although there appears to be aerially observable changes to the surface that may be related to the changes in the nearby Bayshore Village sewage treatment facility.

1.3.3 Present Land Use

The present land use of the study area is categorized as Natural Area Protection and Shoreline Residential in the Township of Ramara Official Plan (Township of Ramara, 2022).

1.4 Archaeological Context

To establish the archaeological context and further establish the archaeological potential of the study area, *Archeoworks Inc.* previously conducted a comprehensive review of the municipal archaeological management plan, designated and listed cultural heritage resources, heritage conservation districts, and pioneer churches and early cemeteries in relation to the study area; furthermore, an examination of registered archaeological sites and previous AAs within proximity to the study area limits, and a review of the physiography of the study area were performed (*Archeoworks Inc.*, 2024). The results of this background research are summarized below.

1.4.1 Archaeological Management Plan

Per *Section 1.1, Standard 1* of the *2011 S&G*, when available, an archaeological management plan (AMP) or other archaeological potential mapping must be reviewed. Per the County of Simcoe's AMP, the entirety of the study area has archaeological potential (County of Simcoe, 2024).

1.4.2 Designated and Listed (or Non-Designated) Cultural Heritage Resources

Per *Section 1.3.1* of the *2011 S&G*, properties listed on a municipal register or designated under the *Ontario Heritage Act*, or that is a federal, provincial, or municipal historic landmark or site are considered features or characteristics that indicate archaeological potential. The study area is not located within 300 metres of any designated or listed heritage properties (OHT, 2024).

1.4.3 Heritage Conservation Districts

Per *Section 1.3.1* of the *2011 S&G*, heritage resources listed on a municipal register or designated under the *Ontario Heritage Act*, are considered features or characteristics that indicate archaeological potential. The study area is not located in or within 300 metres of a Heritage Conservation District (OHT, 2024).

1.4.4 Commemorative Plaques or Monuments

Per *Section 1.3.1* of the *2011 S&G*, commemorative markers of Indigenous and Euro-Canadian settlements and history, which may include local, provincial, or federal monuments, cairns or plaques, or heritage parks, are considered features or characteristics that indicate archaeological potential. There are no such markers within 300 metres of the study area (Read the Plaque, 2024).

1.4.5 Pioneer/Historic Cemeteries

Per *Section 1.3.1* of the *2011 S&G*, pioneer churches and early cemeteries are considered features or characteristics that indicate archaeological potential. No pioneer churches or early cemeteries are located in or within 300 metres of the study area (OGS, 2024).

1.4.6 Registered Archaeological Sites

Per *Section 1.3.1* of the *2011 S&G*, previously registered archaeological sites in close proximity are considered to be features or characteristics that indicate archaeological potential. In accordance with *Section 1.1, Standard 1* and *Section 7.5.8, Standard 1* of the *2011 S&G*, the *Ontario Archaeological Sites Database (OASD)* maintained by the *MCM* was consulted in order to provide a summary of registered or known archaeological sites within a minimum one-kilometre distance of the study area limits. According to the *OASD* there are no archaeological sites within a one-kilometre radius of the study area (MCM, 2024).

1.4.7 Previous Archaeological Assessments

Per *Section 1.1, Standard 1* and *Section 7.5.8, Standards 4-5* of the *2011 S&G*, to further establish the archaeological context of the study area, a review of previous AAs carried out within the limits of, or immediately adjacent (i.e., within 50 metres) to the study area (as documented by all available reports) was undertaken. Only one report was identified (*see Table 3*).

Table 3: Previous Archaeological Assessments Within Proximity to the Study Area

Company, Report Date	Stage of Work	Relation to Current Study Area	Details and Recommendations
Archeoworks Inc., 2024	1 AA	Encompasses entire study area.	Stage 2 AA recommended.

1.4.8 Physical Features

1.4.8.1 Physiographic Region

The study area is located within the Lake Simcoe Basin of the Simcoe Lowlands physiographic region of Southern Ontario. The Lake Simcoe Basin is characterized by the lowlands surrounding Lake Simcoe and is separated from the Nottawasaga Basin to the west by the uplands of Simcoe

County. The lowlands were flooded by glacial Lake Algonquin and are bordered by shorecliffs, beaches and boulder terraces, and floored by sand, silt and clay. On the northern and western shores of Lake Simcoe, the lowlands consist of a narrow bouldery terrace for the most part confined by a low bluff cut by the highest stage of Lake Algonquin. On the south and east shores of Lake Simcoe are broader plains. Directly south of Lake Simcoe a low, swampy, sandy plain covers most of Georgina. The Black River and Pefferlaw Creek are important streams in this area although they have failed to provide good drainage. Overall, the Lake Simcoe Basin is a poorer farming district than the Nottawasaga Basin. Extensive areas of bogs and wet sand permeate the basin, but the soils could be useful if drained and developed for vegetables, like the Holland Marsh (Chapman & Putnam, 1984, pp.177-182).

1.4.8.2 Soil Types and Topography

Two native soil types are found within the study area. Lovering clay loam forms the majority of the study area; it is characterized as a Grey-Brown Podzolic, with imperfect drainage, gently undulating to level and stonefree topography. The southern edge of the study area encompasses Muck, which is bog soil composed of well-decomposed organic deposits with very poor drainage and on depressional and stonefree topography (Ontario Agricultural College and Dominion Department of Agriculture, 1979).

The topography within the study area is generally level, with an elevation of 220 metres above sea level.

1.4.8.3 Water Sources

Hydrological features such as primary water sources (e.g., lakes, rivers, creeks, streams) and secondary water sources (e.g., intermittent streams and creeks, springs, marshes, swamps) would have helped supply plant and food resources to the surrounding area and are indicators of archaeological potential (per *Section 1.3.1* of the *2011 S&G*). The study area is flanked by the wooded wetlands of short creeks (Wainman's Creek) that drain directly into Lake Simcoe at Barnstable Bay.

1.4.9 Current Land Conditions

The study area is situated in a rural area north of the Bayshore Village subdivision. The study area encompasses vacant land flanked to the north and south by wooded wetlands, to the east by the secondary lagoon of the extant Bayshore Village sewage treatment facility, and to the west by a narrow strip of mixed wooded and cleared land by the shores of Barnstable Bay of Lake Simcoe.

1.4.10 Dates of Fieldwork

The Stage 2 AA of the study area was undertaken on August 2nd, 2024.

1.4.11 Stage 2 Fieldwork Strategy

The recommendations from the Stage 1 AA (Archeoworks Inc., 2024) are as follows:

1. "The entire study area, identified as retaining archaeological potential, must be subjected to a Stage 2 AA, specifically a pedestrian survey at five-metre intervals in accordance with

the standards outlined in *Section 2.1.1* of the *2011 S&G*. However, should the nature of the terrain (presence of buried utilities/alignments, high rock content, etc.) make ploughing not possible or viable, a systematic Stage 2 test pit survey at five-metre intervals can instead be performed, in accordance with the standards outlined in *Section 2.1.2* of the *2011 S&G*.”

2.0 FIELD METHODS

This field assessment was conducted in compliance with the *2011 S&G*. The results of the Stage 2 AA are provided within **Maps 15-16**. A representative sample of photographic images documenting field conditions during the Stage 2 property assessment are presented within **Appendix C** and photographic image locations are presented within **Map 17**. The study area is approximately 16.37 hectares in size.

The weather and lighting conditions – sunny with a few clouds, and a temperature of 29°C – permitted good visibility of all parts of the study area and were conducive to the identification and recovery of archaeological resources (per *Section 2.1, Standard 3* of the *2011 S&G*).

Detailed maps and site location information identifying the exact location of the one encountered archaeological site within the study area are provided in the attached **Supplementary Document – Sections 1.0 and 2.0**, respectively. The supplementary document tables and figures are referred to in this report with the S prefix., e.g., **Table S1** or **Map S2**.

2.1 Indigenous Engagement

Representatives from Alderville First Nation (AFN) were invited to monitor Stage 2 fieldwork within the study area. Details regarding communications with this Indigenous group is provided in the **Indigenous Engagement Document**, per *Section 7.6.2* of the *2011 S&G*.

2.2 Physical Features of No or Low Archaeological Potential

The study area was evaluated for physical features of no or low archaeological potential. *Section 2.1, Standard 2.a* of the *2011 S&G* considers such features to include: permanently wet areas (i.e., saturated soil conditions), exposed bedrock, and steep slopes (greater than 20°) except in locations likely to contain pictographs or petroglyphs.

Physical features of no or low archaeological potential documented within the study area included small areas of saturated soil conditions (wetlands) (**see Image 1**). These areas were documented and photographed; however, a systematic Stage 2 archaeological survey was not required due to their low to no archaeological potential classification.

Saturated soil conditions amounted to approximately 0.21 hectares or 1.28% of the study area.

2.3 Pedestrian Survey

Given the location of the study area on a vacant piece of land surrounded by wooded wetlands, all testable areas within and beyond the study area were cultivated and subjected to a pedestrian form of survey (**see Images 2-6**) as per *Section 2.1.1* of the *2011 S&G*. This form of survey involves

systematically walking the recently ploughed areas, and mapping and collecting any artifacts found on the ground surface. Ploughing was conducted deep enough to provide total topsoil exposure, but not deeper than previous ploughing and was subjected to the appropriate weathering requirements. Greater than 80% of the ploughed ground surface was visible at the time of survey and the ploughed areas were tested at survey transects spaced at five-metre intervals (per *Section 2.1.1, Standards 1-6* of the *2011 S&G*). Approximately 16.16 hectares or 98.72% of the study area was subjected to pedestrian survey at five-metre intervals in clay loam soil. An additional 5.59 hectares were surveyed beyond the limits of the study area within the larger property boundary.

During the pedestrian survey, one historic 19th century artifact scatter (designated as **H1**) was encountered (*see Section 3.0 for Record of Finds*). Upon encountering the initial artifact, survey intervals were reduced to one metre over a minimum 20-metre radius around the find to determine whether it was an isolated find or part of a larger scatter. When additional artifacts were encountered, this intensification was continued until the full extent of the surface scatter was defined within the limits of the study area (per *Section 2.1.1, Standard 7* of the *2011 S&G*). All observed artifacts were collected and recorded by their GPS coordinates (per *Section 2.1.1, Standards 8-9* of the *2011 S&G*).

3.0 RECORD OF FINDS

3.1 H1 Site

3.1.1 Location

A total of 174 artifacts were recovered from 105 findspots during the Stage 2 pedestrian survey at the H1 site within the study area (*see Map 18*). Counts per findspot ranged from one to five per location. The artifacts were all recovered from a single soil layer, the ploughzone. The site was encountered in an agricultural field, with the findspots dispersed over an area measuring approximately 84 metres north-south by 101 metres east-west in size. The site area is situated approximately 220 metres above sea level.

Maps detailing the extent of the H1 site and the location of findspots within the study area are provided within the **Supplementary Document** as **Maps S1-S3**. Photographs of a representative sample of artifacts from the H1 site assemblage are provided in **Appendix C – Images 7-8**. Additional detailed site location information, including GPS coordinates, is provided within **Table S1** in the **Supplementary Document**, and a catalogue of the artifacts collected from the H1 site is provided within **Appendix D – Table 1**. An inventory of the documentary record generated in the field can be found within **Appendix E**. All artifacts are stored within one plastic bin (L: 40.0 cm x W: 31.0 cm x H: 30.0 cm) identified as Box: 258-RA9591-23-ST2-01.

All encountered artifacts were collected, and the GPS readings of each findspot were recorded. A *Trimble GeoExplorer* handheld GPS device was employed, and the North American Datum (NAD) 1983 Canadian Spatial Reference System (CSRS) was utilized to record all GPS readings to an accuracy of less than one metre. A Base Differential Correction method was applied to all GPS data.

3.1.2 Artifact Analysis

The majority of the assemblage appears to represent a mid-19th century domestic habitation.

The *Parks Canada's Database Artifact Inventory Guide* was used as a template during the cataloguing phase of the analysis and was modified accordingly. All artifacts were classified according to specific functional classes. These classes are intended to reflect related behaviour and general functionally related activities. The "Foodways" class, for example, includes all aspects of food preparation, storage and consumption. Likewise, the "Architectural" class is a catch-all category for items such as brick, nails, window pane glass, etc. These Classes are further subdivided into Groups reflecting more specialized activities. The "Architectural" class, for example, includes groups such as construction materials, nails and window pane glass. The Groups are then further refined into Types defined by attributes that are either functionally or temporally diagnostic, and so on. By classifying archaeological material in this manner, general trends on how an area was used may be discernible. Breakdown of the artifacts by artifact class is shown in **Table 4** below.

Table 4: H1 Site Stage 2 Artifacts by Class

Class	FQ	% of Total
Architectural	24	14
Clothing	1	<1
Faunal	15	9
Foodways	86	49
Furnishings	1	<1
Smoking	11	6
Unassigned	36	21
Total:	174	100

Architectural Class

The Architectural Class (n=24) recovered at H1 consists of six nails (five machine cut and one too corroded to identify), 17 sherds of thick pane glass and one sherd of coarse ceramic drainage tile.

Machine cut nails became available ca. 1790 to 1820, with hand-made heads (often a 'rose' head as on a wrought nail). While sprigs and brads (trim nails) were completely machine cut ca. 1805, completely machine cut common nails were not in production until ca. 1815. The difference between the 'early' machine cut (ca. 1815 to late 1830s) and 'modern' (post- late 1830s to early 20th century) machine cut nails is sometimes discernible (Nelson, 1968, pp.6-7; Phillips, 1994). All of the cut nails in this assemblage appear to be of this later variety. Machine cut nails were still in use into the 20th century, preferred by many builders because they did not split the wood on entry as the wire nails were apt to do.

Sheet glass underwent technological improvements in the 19th century, ultimately enabling the development of thicker, larger windows. This change allows us to make statements regarding the relative date of window glass depending on its thickness (Pacey, 1981). The average thickness prior to 1850 was less than 1.55 mm. All pane glass in this assemblage is of the post-1850 variety.

Clothing Class

The Clothing Class (n=1) in this assemblage is made up of one 20th century plastic button.

Faunal Class

The Faunal Class (n=15) in this assemblage consists of mammal bone and tooth fragments, avian bone, fish bone, unsorted calcined bone and one piece of a mussel or clam shell. All are most likely related to historic food consumption in the area.

Foodways Class

The Foodways Class (n=86) is, in general, one of the largest and most temporally diagnostic artifact classes in the material culture assemblage recovered from a domestic site. It is the best-represented class in this collection, making up 49% of the entire historic assemblage. The Foodways Class at this site consists of ceramic tableware (n=64), ceramic utilitarian ware (n=20), and glass beverage containers (n=2).

Foodways Ceramics

Of the ceramic utilitarian ware recovered from H1, all were sherds of lead glazed and unglazed coarse red and buff earthenware. The breakdown of ceramic tableware by type is as follows: Refined White Earthenware (n=51) and Ironstone (n=13).

White-bodied tablewares developed as British potters in the 18th and 19th centuries were seeking to duplicate the appearance of the expensive Chinese export porcelains. It was through these efforts that the general tablewares of the period developed. Refined white earthenware (RWE) became the most popular white-bodied tableware in Ontario in the 1830s when it supplanted pearlware as the most common tableware type in households, and is still manufactured today (Kenyon, 1995). Ironstone, a harder and stronger white-bodied ware than RWE, was first created in the late 1840s and reached peak popularity during the 1870s in Ontario (*ibid.*).

Decorated tablewares (n=28) make up approximately 44% of the tableware ceramics on this site. Decorative styles by style and ware are listed below in **Table 5**.

Table 5: H1 Site Stage 2 Decorated Tableware Ceramics by Style and Ware

Decorative Style	IRO	RWE	Subtotal	Total by Style
Edged		3	3	3
Moulded	2		2	2
Sponged, stamped		11	11	11
Slip, banded	3		3	3
Transfer, blue	2	5	7	9
Transfer, flow black		1	1	
Transfer, flow blue		1	1	
Total:				28

Edged ware was introduced in the mid-1770s and variations on that theme can still be found today. Blue edge was popular throughout the 19th century, with variation on the style of edging from rococo to scalloped and impressed to unscalloped and unmoulded that are an aid to dating and/or quality of manufacture. The edged sherds in this assemblage, blue and seen on RWE, are unscalloped and impressed, a style manufactured ca. 1840-1890 (Miller and Hunter, 1990; Miller, 1988).

Moulding as a technique is not diagnostic, although moulded patterns, such as were popular on Ironstone, are sometimes recognizable. Moulding became quite popular on tablewares with the rise of Ironstone in the latter half of the 19th century. Moulded patterns observed in this collection are seen on Ironstone and are too fragmented to identify. One of these sherds is a moulded jug handle.

Slipwares produced during the first half of the 19th century tended to be more elaborately decorated and more varied in colour, often earthen colours, compared to those from the mid-to-late 19th century. The slipped ware in this assemblage is of the simple banded variety that was common post-1850 (Sussman, 1997), seen on Ironstone.

In 1842, sponged ware was introduced to Ontario, increasing in popularity post-1850 (Kenyon, 1995; Majewski and O'Brien, 1987). Stamping (with a sponge) was introduced in 1843 as an alternative to hand-painting and overall sponging, and continued until 1920 (Kenyon, 1995), however it was not generally popular in Ontario until ca. 1850. Stamping is quite prominent in the decorative tableware assemblage at the H1 site.

Transfer printing was a common decorative technique from 1800 onwards, and is still used today (Kenyon, 1995). Blue transfer prints were available from the end of the 18th century onwards. Black, brown, purple, and red were all available ca. 1830. Brown and black were not produced for a period of years: brown, ca. 1860-1880s, and black, ca. 1845-1900 (*ibid.*). Flow-blue, was available in 1845 to the 1920s, and flow mulberry between 1851 and 1868 (*ibid.*). This assemblage includes floral and Chinoiserie transfer motifs.

A few cross matches, where the sherds do not physically mend but are extremely similar suggesting they may belong to the same vessel, were noted in the ceramic tableware assemblage. No actual physical mends between sherds were discernible. The edged, sponged and slip-decorated earthenwares recovered were some of the cheapest types of decorated ceramics available throughout the 19th century, and were stocked by most local stores even in the most rural of areas. These inexpensive tableware varieties comprise around two thirds of the decorated tableware type assemblage in terms of sherd numbers. The costlier transfer printed wares and moulded Ironstones make up most of the rest.

Foodways Glass

Foodways Glass in this assemblage consists of two glass bottle sherds: one mould blown and one unidentifiable to manufacture.

Manufacturing technique and design are the two main methods for dating glassware. In the 19th century, mould blown glass was a standard method of manufacture for bottle and container glass. The glass was mouth blown into the mould to form the vessel shape, and then "finished" by hand (the finish is that part of a bottle or container from the top of the neck to the top of the lip). Some of the early moulds, such as the dip-mould, required free-blowing for the shoulder and finish, thus small sherds from the same vessel may indicate different manufacturing techniques. A standard mould blown bottle has a broad date range from the 19th into the early 20th century (Jones and Sullivan, 1989).

Furnishings Class

The Furnishings Class (n=1) in this assemblage consists of a sherd of oil lamp chimney glass.

Though they did exist prior to 1860, oil lamps and lamp chimneys experienced a production surge in 1859 due to the sudden oil boom and consequent availability of affordable kerosene (Miller et al, 2000, p.15).

Smoking Class

The Smoking Class in this assemblage (n=11) consists of a marked white clay pipe bowl sherd, six unmarked white clay pipe bowl sherds and four plain white clay pipe stem sherds. The long-term usage of the clay pipe (pre-19th into the early 20th centuries) limits its usefulness as a diagnostic artifact without makers' marks or patterns of any kind. The marked bowl is too fragmentary to identify any specific decorative style.

Unassigned Class

This class (n=36) is a catch-all for those items that do not easily fit into the other categories, and for glass fragments that are not identifiable to purpose (i.e., is it a beverage bottle, pharmaceutical jar, decorative lighting?). The Unassigned Class in this assemblage is made up of container glass (n=26, including 23 mould blown sherds, one hand-applied finish and one tooled finish, and one sherd unidentifiable to manufacture), miscellaneous items (n=2, including a ferrous bucket rim and metal plate) and miscellaneous material (n=8, including ferrous scrap and strapping).

One manufacturing technique useful for dating or identification of bottle glass is the method of 'finishing' the bottle. The quality of the finish is a reflection both of advanced tool capabilities and of the bottle's purpose. Finishing tools came into use in Britain during the 1820s, and continued, with modifications, until machine-made production took over (Jones and Sullivan, 1989, p.43). Though there is some variation by bottle type, it has been observed that the switch from hand-applied to tooled finishes took place sometime after 1870, peaking in the 1880s (*ibid.*). This places the hand-applied finish in this assemblage prior to 1870 approximately, and the tooled finish in the 1870s to 1880s approximately.

Container glass prior to the 1840s in Canada was all imported, as the first glassmaking factories on Canadian soil were not built until 1845 (the Canada Glass Works at St Jean, Canada East) and 1847 (the Ottawa Glass Works at Como) (Holmes, 2013). Average households in the 19th century thus did not utilize large amounts of pricey glass. The relatively low amount of glass on this site thus corroborates a mid-19th century habitation.

Analysis and Conclusions

The assemblage at H1 contains domestic and architectural material associated with a structure near the site area. Aside from the plastic button, the assemblage is discretely 19th century in origin. With the cut nails, smoking pipes, lamp glass, tableware assemblage dominated by RWE and Ironstone as well as mid-19th century decorative styles such as sponging and sponge stamping and a relatively low amount of container glass, a mid-19th century peak habitation is likely. The lack of any particularly early or late material also corroborates this. Material recovered during the Stage 2 survey at H1 suggests a nearby structure for domestic use. Based on the material in the assemblage, it is likely that this structure was built in the 1850s, and utilized through the 1860s into the 1870s.

4.0 ANALYSIS AND CONCLUSIONS

The assemblage at H1 suggests a mid-19th century domestic habitation in the area. The pre-1850s archival records available for Lot 22, Concession 7 where the site area lies are quite limited. The first two owners of the lot were non-residents. James Grant Chewett initially received the crown patent to the lot in 1826, which was included in a total of 2,484 acres of land in the Township of Mara, as compensation for surveying the township. He resided in the Town of York (present-day Toronto) and sold all of Lot 22, Concession 7, which was included in a total of 1,045 acres in the Township of Mara, to Henry Vansittart in 1833. Henry Vansittart resided in Oxford County, Upper Canada and issued a marriage settlement to his daughter Mary Charity Vansittart in 1838, which transferred all 1,045 acres in the Township of Mara upon her marriage to Spencer MacKay. The marriage settlement was completed in the case that Mary Charity survived her husband and he did not provide her sufficient funds when he died. The MacKay's were also residents of Oxford County and eventually moved back to England.

During the ownership of the MacKay's/MacKay Estate, historical records list tenant James Carey and his wife Mary Steele on the south half of Lot 22, Concession 7 from ca. 1869 to 1876. James Carey and Mary Steele were the first recorded occupants of the lot. They resided with their two children and had improved 20 of the 100 acres, with three acres in pasture, and were farming wheat, oats, potatoes, and maple sugar. By 1876 Peter Thomson is listed as the owner with a homestead depicted south of the site area in the 1878 *Illustrated Historical Atlas*. Peter Thomson owned 500 acres in this area, spread across Lot 22, Concession 7 (200 acres), Lot 23, Concession 7 (100 acres) and the southern halves of Lots 22 and 23, Concession 8 (100 acres each). He is not documented to have resided on Lot 22, Concession 7, but rather built his home on Lot 23, Concession 8, and later Lot 23, Concession 7.

Although James Carey and Mary Steele are listed on the south half of Lot 22, Concession 7 and the structure depicted on the 1878 map is also located in the south part of the lot, it is likely that the H1 site is associated with the initial occupation by James and Mary on the lot. Aside from the study area, surrounding lands on the lot to the north and south consist of swamp lands and, therefore, not suitable for settlement. Given the timeframe of the artifact assemblage, it is also quite likely that their homestead was built prior to their listed occupation; the area of this homestead corresponding to a slight rise identified in the field which would have been the most suitable area of settlement given the surrounding wetlands. It is also noteworthy that the area containing the heaviest concentration of artifacts was also mixed with a dense scattering of small stones, possibly placed underneath the cabin to facilitate drainage.

In accordance with *Section 2.2 (Determining the requirement for Stage 3 assessment)*, *Standard 1.c* of the 2011 S&G, as a post-contact site containing at least 20 artifacts that date the period of use to before 1900, the H1 site has further CHVI and therefore requires a Stage 3 AA. A Stage 3 AA is also required for this site in accordance with *Section 2.3, RHF Standard 2.a*, given that the analysis of historical documentation and artifacts has determined that at least 80% of the site's occupation dates to before 1900.

At this stage the site does also exhibit evidence of a high level of CHVI, and a Stage 4 mitigation will likely be required, in accordance with *Section 3.4.2 (Determining whether a domestic archaeological site dating after 1830 requires mitigation of development impacts)* of the 2011 S&G, and *Section 3.4, RHF Standard 2*. Based on the archival data consulted and the results of artifact analysis, the time span of H1 site's occupation corresponds to the mid-19th century and is also associated with the first documented settler on the lot.

As a collection of ten or more 19th century artifacts found within a ten-metre radius, the H1 site was registered with the MCM under the Borden number **BdGt-30**, in accordance with *Section 7.12, Standard 1.b* of the 2011 S&G.

5.0 RECOMMENDATIONS

Considering the findings outlined within this report, the following recommendations are presented:

1. **H1 (BdGt-30):** As per *Section 2.2, Standard 1.c* of the *2011 S&G* and per *Section 2.3, RHF Standard 2.a*, this site is considered to have cultural heritage value and interest; a comprehensive Stage 3 AA must be undertaken in accordance with the *2011 S&G* prior to any intrusive activity that may result in the destruction or disturbance to the archaeological site documented in this assessment.

The primary objectives of the Stage 3 AA are to: collect a representative sample of artifacts, determine the extent of the site and characteristics of recovered artifacts, determine any patterning within the site, and assess the cultural heritage value or interest of the site and the potential need for mitigation of development impacts. Although H1 was initially documented through a pedestrian survey, additional Stage 3 controlled-surface pick-up (CSP) is not necessary since the intensified Stage 2 CSP survey with GPS recording meets the requirements of *Section 3.2.1* of the *2011 S&G*. Therefore, the Stage 3 AA must commence with the establishment of a site datum at the centre of the site (or the centres of any localities or concentrations identified from the Stage 2 CSP) and grid system, followed by test unit excavation in accordance with *Section 3.2.2* of the *2011 S&G*.

The Stage 3 AA should include the hand excavation of a series of one-metre by one-metre test units, to gather a larger sample of artifacts and determine the nature and extent of the cultural deposit. The level of cultural heritage value and interest is evident that this site will likely require a Stage 4 mitigation of development impacts. Therefore, the Stage 3 AA should include excavation of a series of test units within a ten-metre grid across the site, in accordance with the methodology outlined in *Section 3.2.3, Table 3.1, Standard 3* of the *2011 S&G*. Furthermore, additional test units, amounting to 40% of the grid unit total, need to be hand-excavated, focusing on areas of interest within the site extent (*Section 3.2.3, Table 3.1, Standard 4* of the *2011 S&G*). Should it become evident during the Stage 3 AA that the site will not result in a recommendation for Stage 4 mitigation of development impacts, the Stage 3 strategy may be amended as per the *2011 S&G*.

All test units must be excavated by systematic levels into five centimetres of sterile subsoil, unless cultural features are encountered, and all excavated soil must be screened through six-millimetre wire mesh to facilitate artifact recovery. The exposed subsoil must be cleaned by shovel or trowel and all soil profiles examined for undisturbed cultural deposits. If test unit excavation uncovers a cultural feature, the exposed plan of the feature must be recorded, and geotextile fabric is to be placed over the unit floor prior to backfilling the unit.

A thorough photographic record of on-site investigations must be maintained. Finally, a report documenting the methods and results of excavation and laboratory analysis, together with an artifact inventory, all necessary cartographic and photographic documentation must be produced in accordance with the licensing requirements of the *MCM*.

No construction activities shall take place within the study area prior to the *MCM* (Archaeology Programs Unit) confirming in writing that all archaeological licensing and technical review requirements have been satisfied.

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

1. This report is submitted to the *MCM* as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c. 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the *MCM*, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.
2. It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
3. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
4. The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and the Registrar of Burial Sites at the *Ministry of Public and Business Service Delivery*.
5. Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

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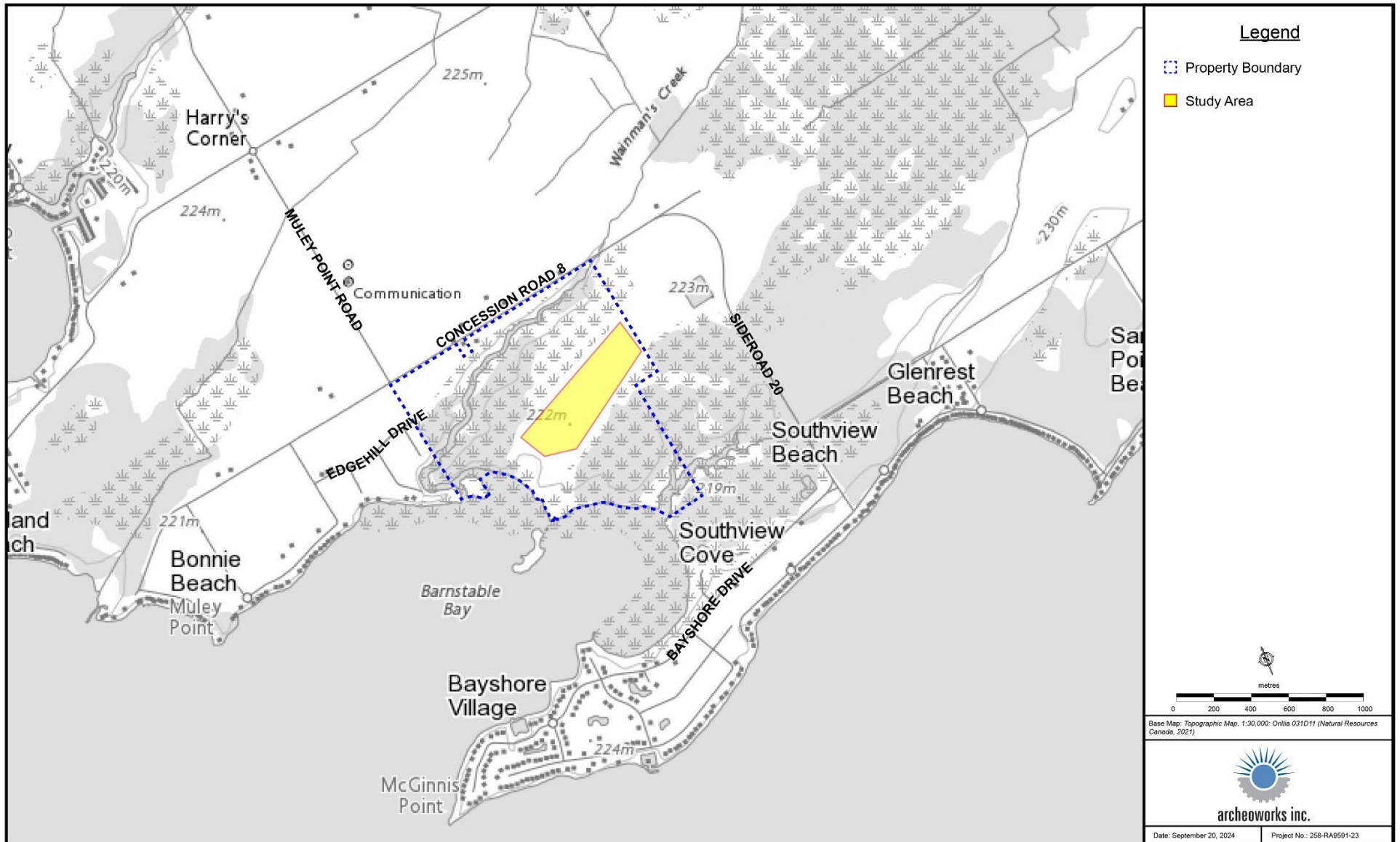
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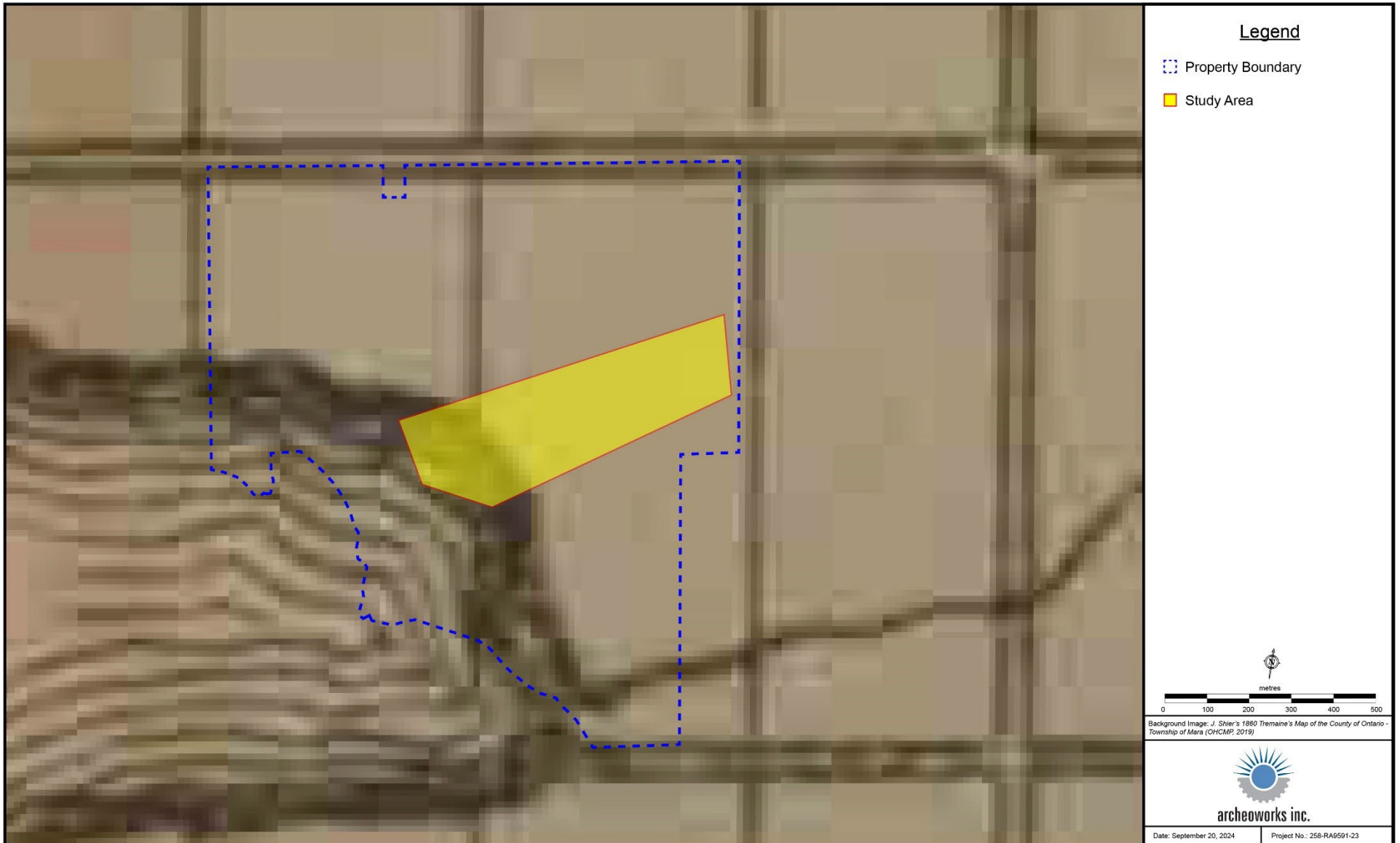
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APPENDICES

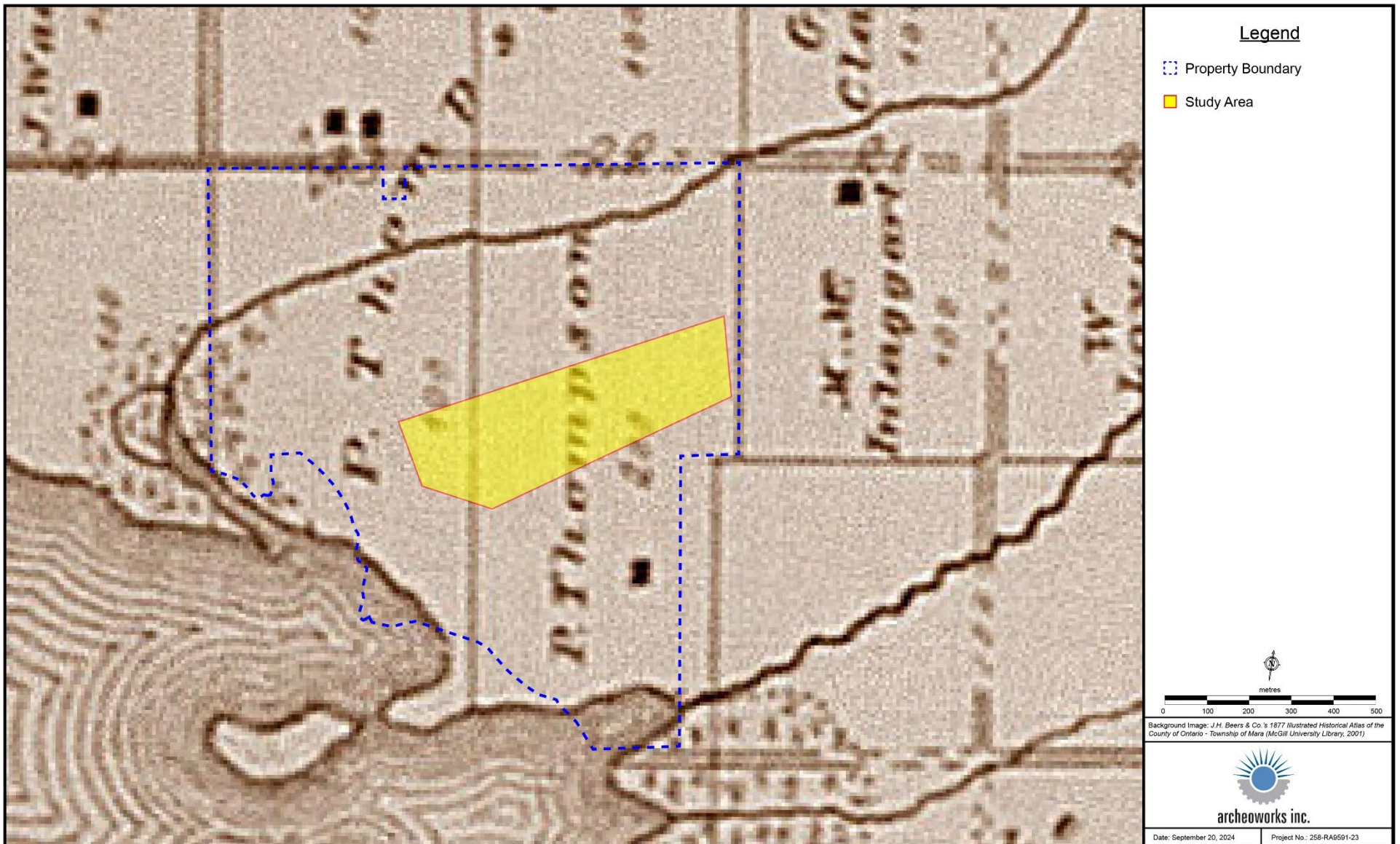
APPENDIX A: MAPS



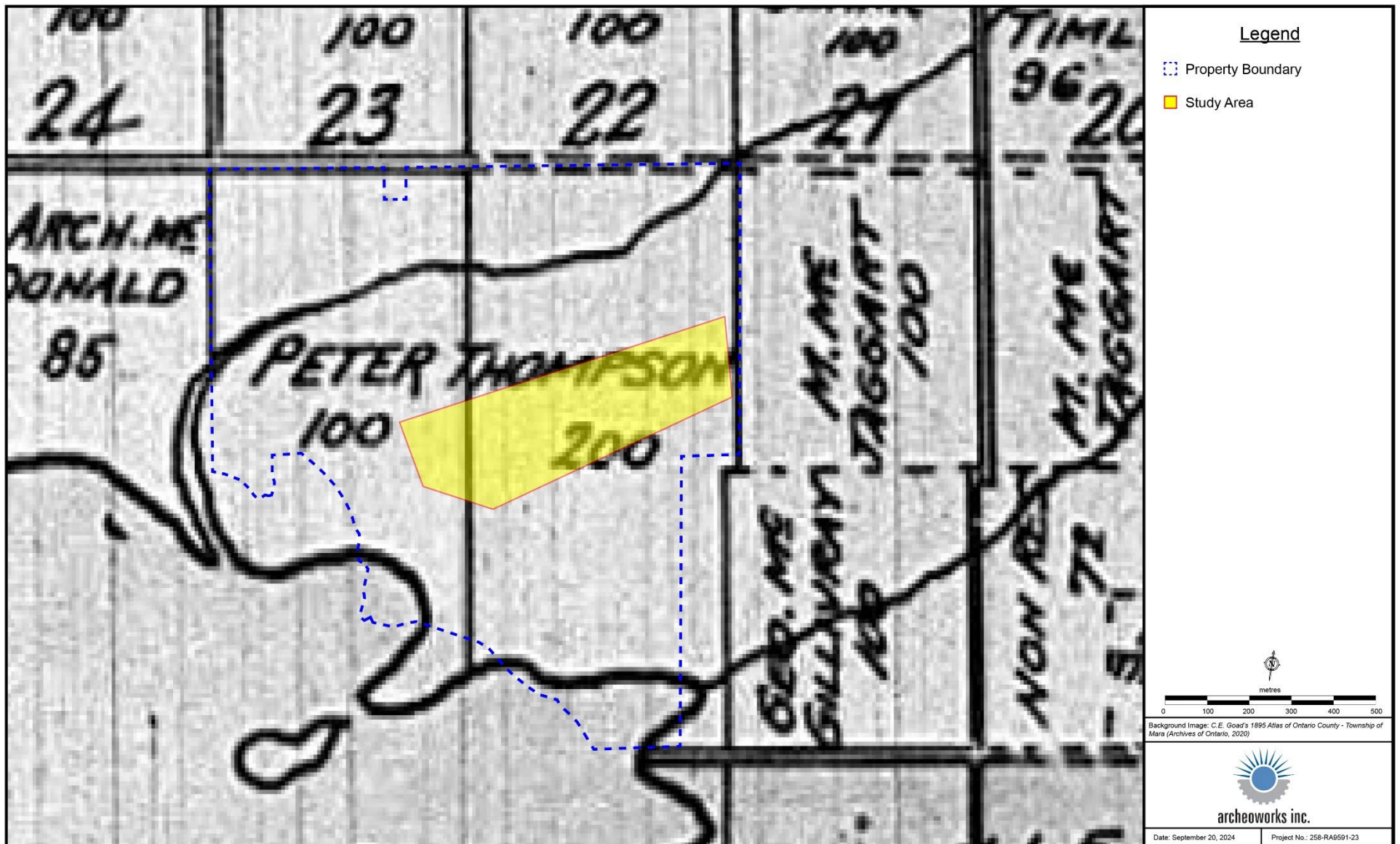
Map 1: National Topographic Map, 1:30,000, identifying the Stage 2 AA study area.



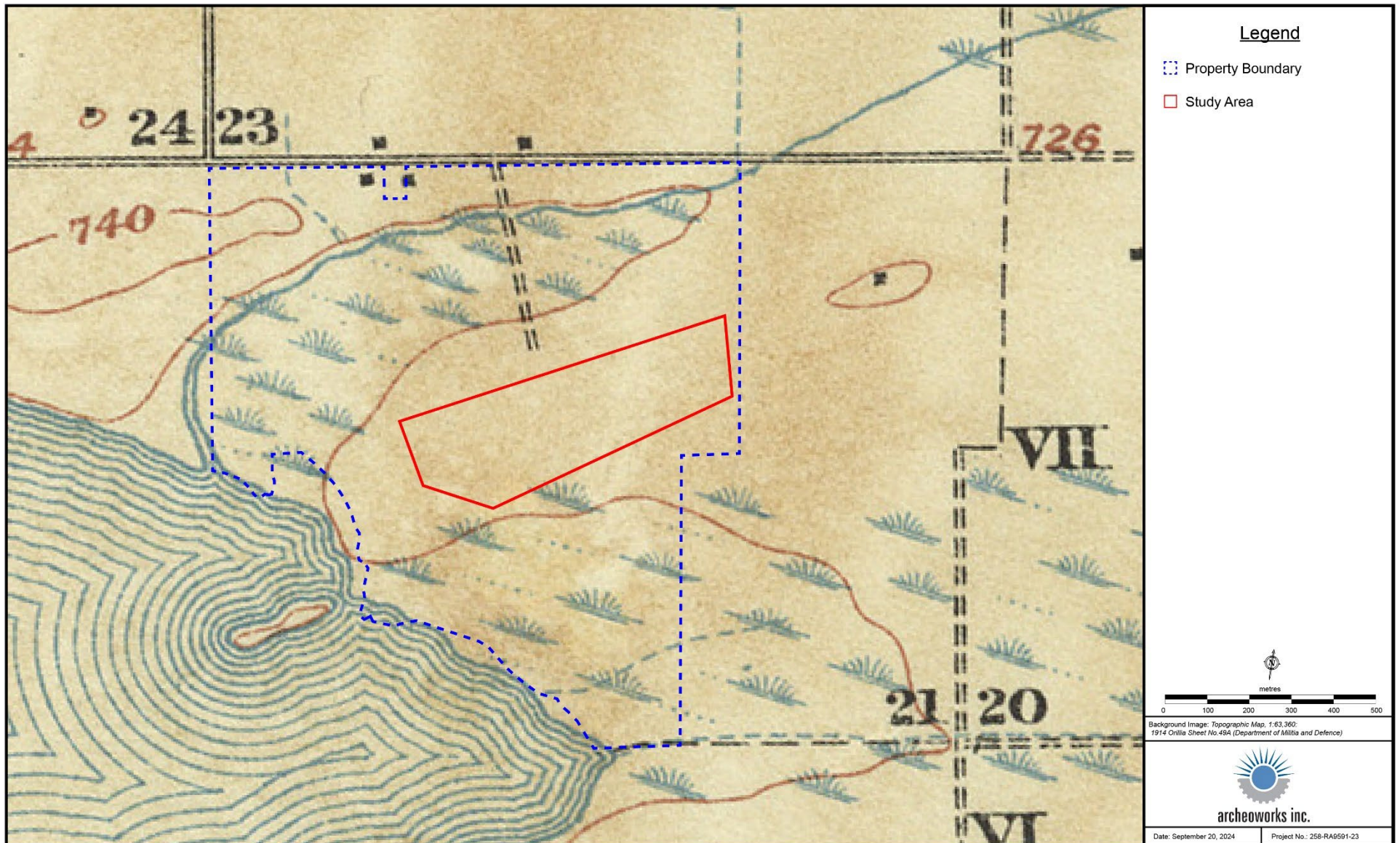
Map 2: Stage 2 AA study area within the 1860 Tremaine's Map of the County of Ontario.



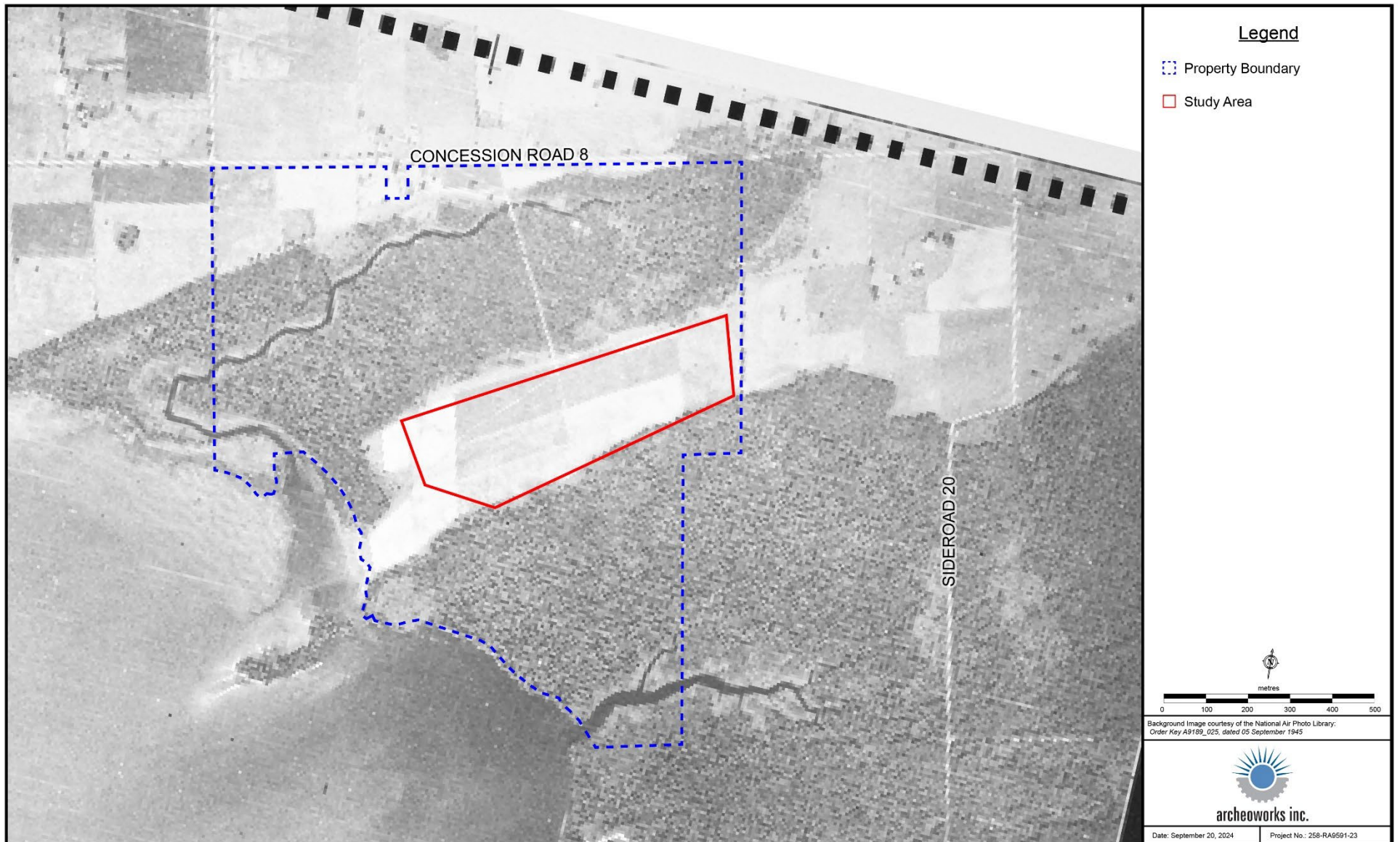
Map 3: Stage 2 AA study area within the 1877 *Illustrated Historical Atlas of the County of Ontario*.



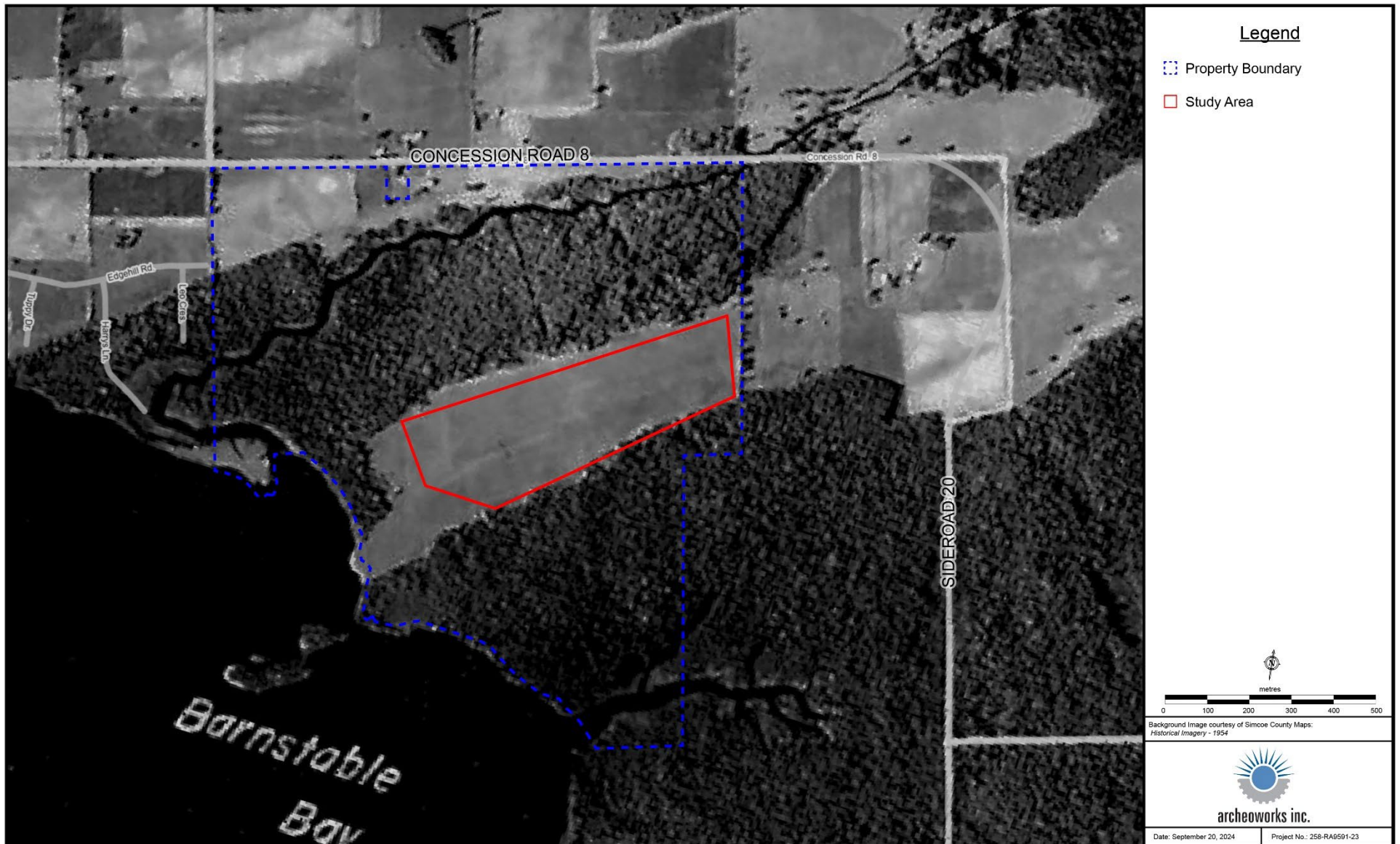
Map 4: Stage 2 AA study area within the 1895 Atlas of Ontario County.



Map 5: Stage 2 AA study area within a 1914 military topographic map.



Map 6: Stage 2 AA study area within a 1945 aerial photograph.



Map 7: Stage 2 AA study area within a 1954 aerial orthophotograph.



Map 8: Stage 2 AA study area within a 1965 aerial photograph.



Map 9: Stage 2 AA study area within a 1978 aerial orthophotograph.



Map 10: Stage 2 AA study area within a 1989 aerial orthophotograph.



Map 11: Stage 2 AA study area within a 1997 aerial orthophotograph.



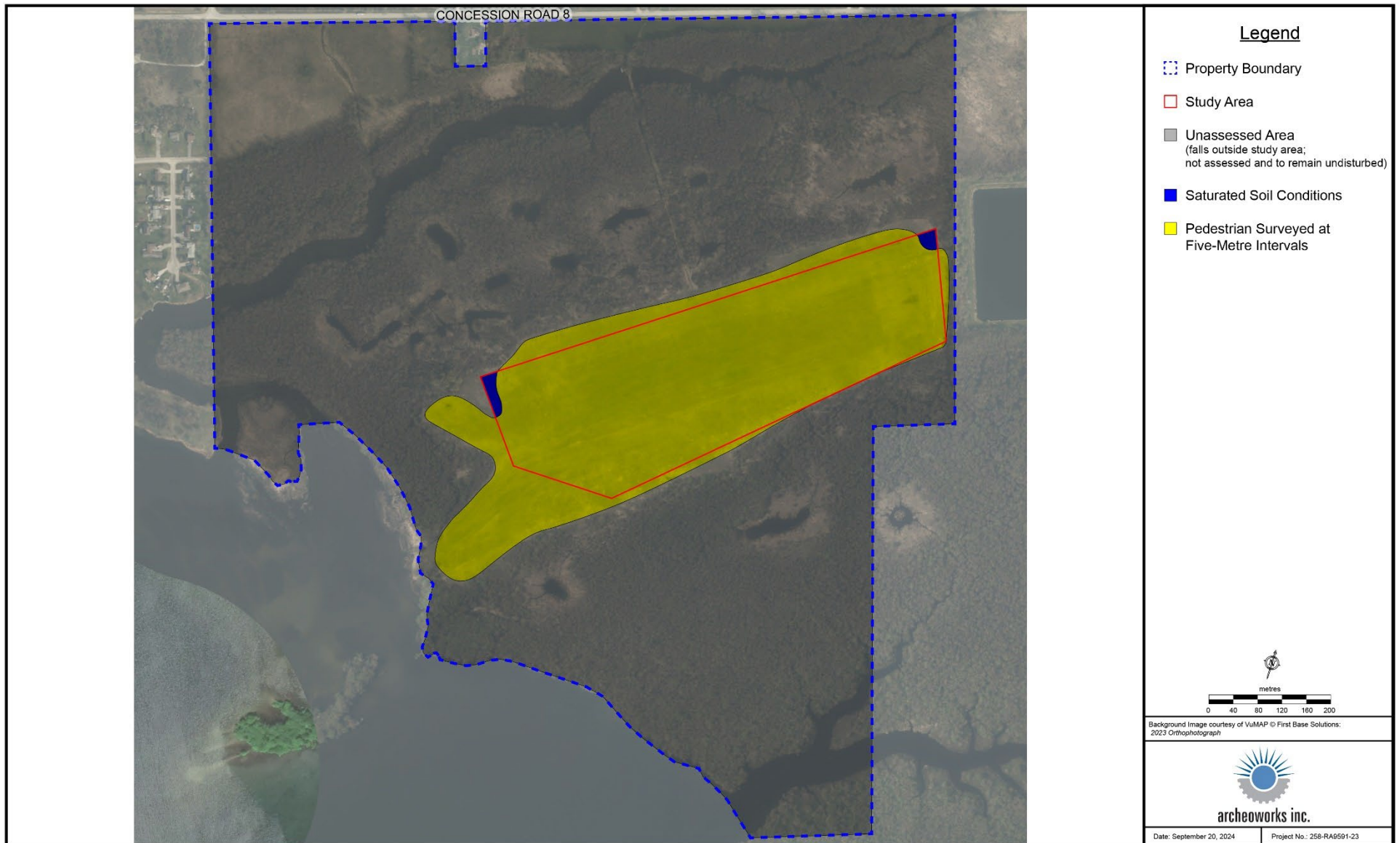
Map 12: Stage 2 AA study area within a 2008 aerial orthophotograph.



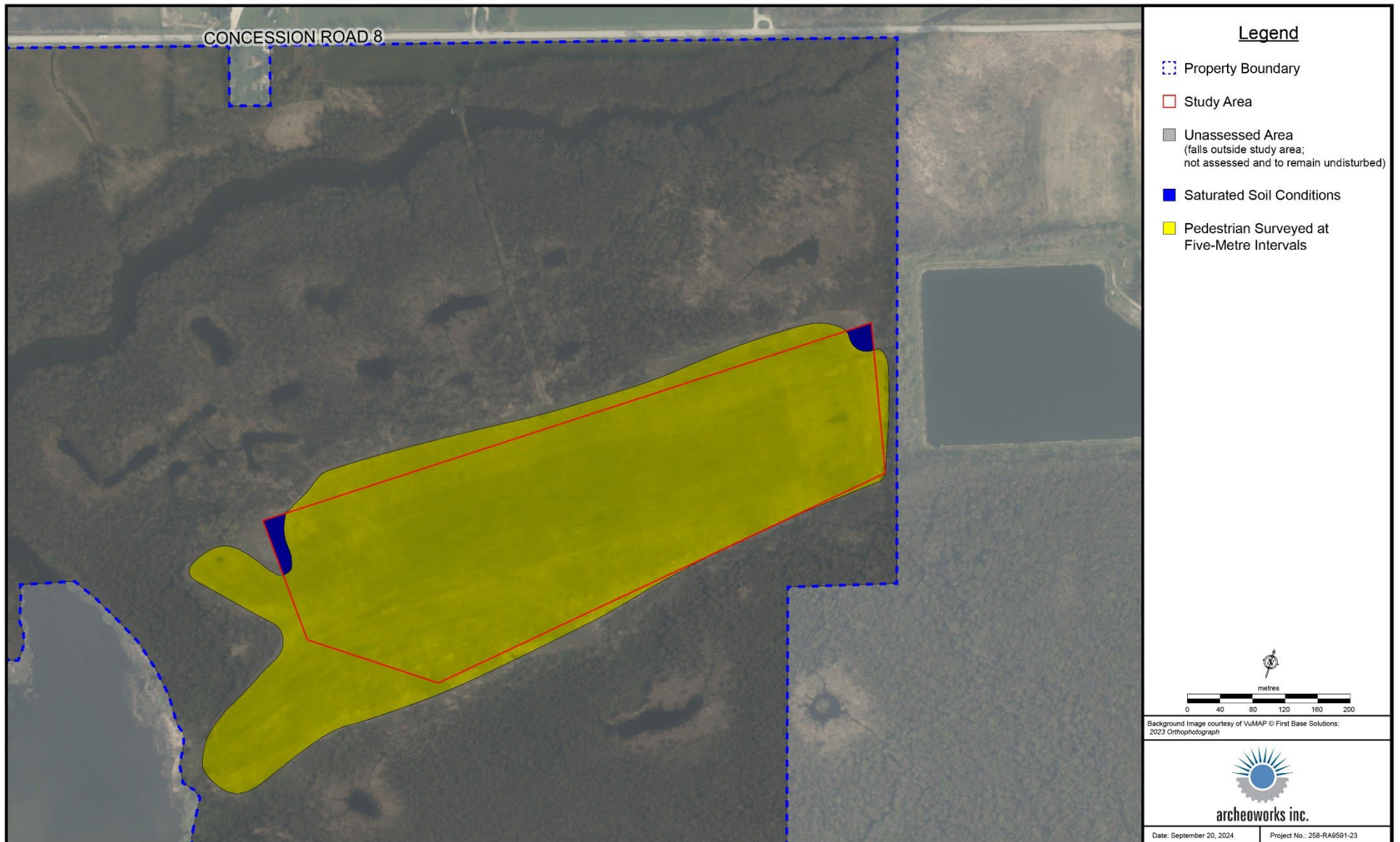
Map 13: Stage 2 AA study area within a 2016 aerial orthophotograph.



Map 14: Stage 2 AA study area within a 2023 aerial orthophotograph.



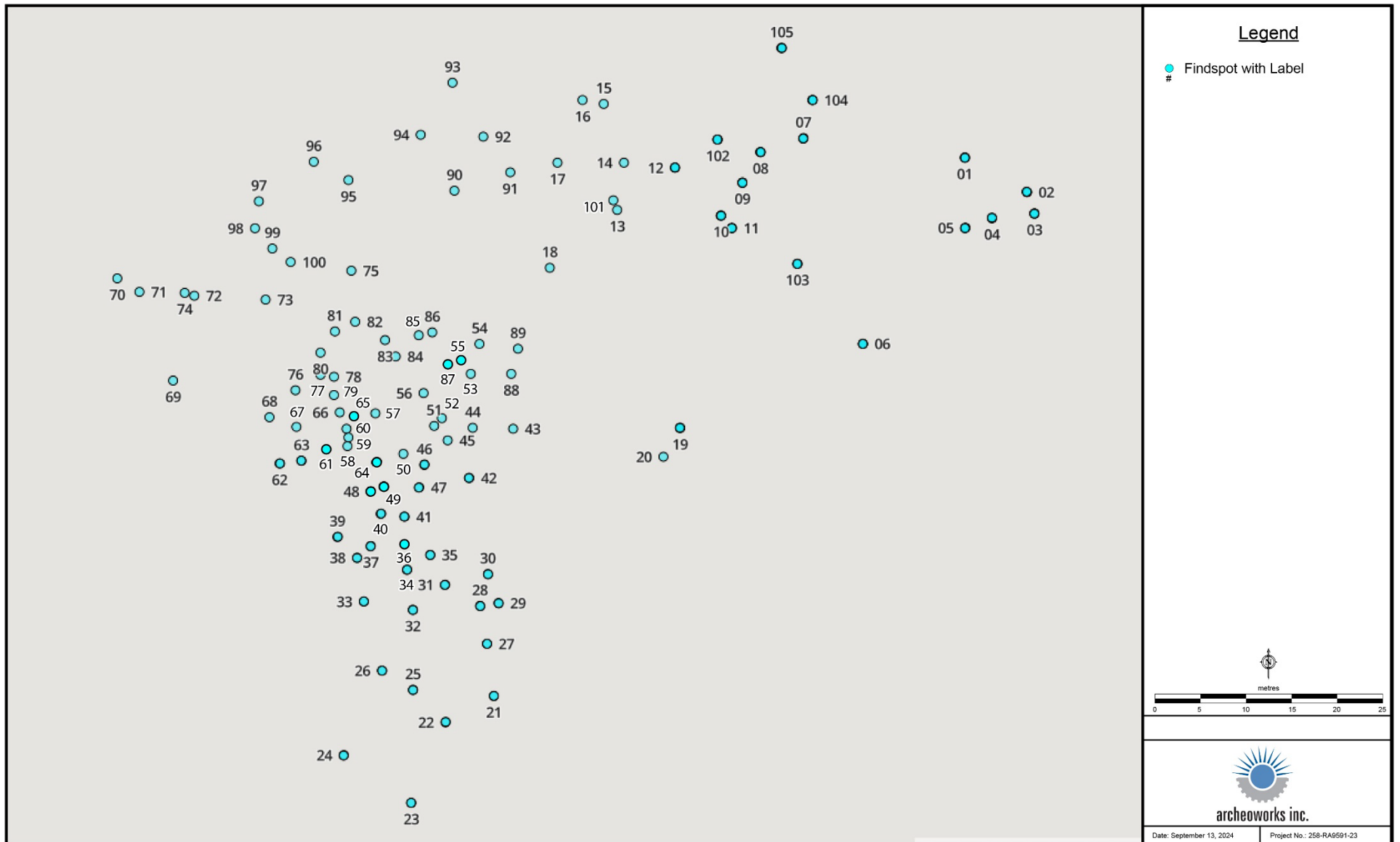
Map 15: Stage 2 AA results of the study area within the larger property boundary.



Map 16: Stage 2 AA results.



Map 17: Stage 2 AA results with photo locations.



Map 18: Locations of findspots at the H1 site.

APPENDIX B: ARCHIVAL DATA

Table 1: Abstract Index Books, ca. 1820-1902 – Lot 22, Concession 7, Township of Mara, County of Ontario

No. of Instrument	Instrument	Its Date	Date of Registry	Grantor	Grantee	Quantity of Land	Consideration of Amount of Mortgage	Remarks
	Patent	5Apr1826			James G. Chewett	All		
711	B&S	27June1833	1Aug1833	James G. Chewett	Henry Vansittart	All		
2689	B&S	18June1837	17Oct1838	Henry Vansittart	Caroline A. East	All		
2786	B&S	8Nov1838	25Jan1839	Caroline A. East	Henry Vansittart	All		
2946	Marriage Sett	8June1838	25May1839	Henry Vansittart	Robt. Reddie & others	All		
418	B&S	8Apr1870	17May1871	Edw. MacKay, et al	Mary L. MacKay	All		
520	B&S	2Jan1872	13Feb1872	Spencer K. MacKay	Elizabeth J. MacKay, et al	All		
1209	P. of Attorney	31Dec1872	8Jan1876	R. Rollo Hunter, et al	Frederick D. Barwick	All		
1215	P. of Attorney	4Mar1875	18Jan1876	Arthur H. Bowles	Frederick D. Barwick	All		
1657	B&S	1Apr1876	26Apr1877	Mary L. MacKay, et al	Peter Thomson	All		
1658	Mort	1Apr1876	26Apr1877	Peter Thomson	Mary L. MacKay, et al	All	\$1,600	disd by No.3599
3581	Mort	5May1886	7May1886	Peter Thomson	Thomas Holcroft	All	\$1,200	disd by No.5077
3599	Dis of Mort	29Mar1886	7May1886	Mary L. MacKay, et al	Peter Thomson	All		dis of No.1658
4835	Mort	5Dec1893	11Dec1893	Peter & Geo. Thomson	Wm. H. Beatty, et al (trustee)	All	\$5,800	disd of No.6939
4876	Assg of Mort	1Mar1894	3Mar1894	Wm. M. Holcroft, et ux	Henry S. Holcroft	All		assg of No.3581
4906	Mort	21Mar1894	5Apr1894	Peter & Geo. Thomson	Charlotte L. Beatty	All	\$1,300	disd of no.6938
5077	Dis of Mort	22Apr1895	27Apr1895	Henry S. Holcroft	Peter Thomson	All		dis of No.3581
6304	Assg of Mort	3Mar1904	6Apr1904	Charlotte L. Beatty	Wm. H. Beatty, et al (trustee)	All		assg of No.4906
6305	Agreement	5Mar1904	6Apr1904	Wm. H. Beatty, et al (trustee)	Peter Thomson	All		extending mortgages
6517	Agreement	4Nov1905	25Nov1905	Peter Thomson	Wm. H. Beatty, et al (trustee)	All		charged by way of collateral security for \$5000
6938	Dis of Mort	18Nov1907	6Dec1907	Wm. H. Beatty, Edward S. Cox, Robert Myles: Trustees of Will of James Gooderham Worts, deceased	Peter & George Thomson	All		dis of No.4976
6939	Dis of Mort	18Nov1907	6Dec1907	Wm. H. Beatty, Edward S. Cox, Robert Myles: Trustees of Will of James Gooderham Worts, deceased	Peter & George Thomson	All		dis of No.4835

STAGE 2 AA FOR BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION CLASS EA UPDATE
TOWNSHIP OF RAMARA, COUNTY OF SIMCOE, ONTARIO

No. of Instrument	Instrument	Its Date	Date of Registry	Grantor	Grantee	Quantity of Land	Consideration of Amount of Mortgage	Remarks
6955	Conveyance	5Dec1906	31Dec1907	Peter Thomson & wife	Charles J. Thomson	All	premise & \$1.00	subject to annuity

APPENDIX C: IMAGES



Image 1: View of an area of saturated soil conditions.



Image 2: View of excellent field conditions during pedestrian survey.



Image 3: View of excellent field conditions during pedestrian survey.



Image 4: View of excellent field conditions during pedestrian survey.



Image 5: View of excellent field conditions during pedestrian survey.



Image 6: View of pedestrian survey conducted at five-metre intervals.



Image 7: Representative sample of artifacts from the H1 site. Top row: edged RWE unscaloped impressed, edged RWE unscaloped "chickenfoot", stamped RWE, stamped RWE, stamped RWE, blue transfer RWE, blue transfer ironstone; Bottom row: slip banded ironstone, moulded ironstone jug handle.



Image 8: Representative sample of artifacts from the H1 site. Top row: tooled bottle finish, hand applied bottle finish, white clay pipe stem, white clay pipe bowl, decorated white clay pipe bowl, cut nail.

APPENDIX D: ARTIFACT CATALOGUE¹

Table 1: H1 Site Artifact Catalogue

Cat. #	Provenience	FQ	Material	Class	Group	Object	Datable Attribute	Colour	Alt.	Comments
01	FS52	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red unglazed			
02	FS52	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
03	FS53	1	Plastic	Clothing	Fasteners	Button	20th Century			
04	FS51	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
05	FS69	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Ironstone			
06	FS69	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
07	FS69	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, stamped	brown		
08	FS49	2	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
09	FS49	2	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
10	FS49	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
11	FS89	1	Ceramic	Foodways	Ceramic Tableware	Hollowware	IRO, banded			
12	FS67	2	Glass	Architectural	Window Glass	Pane Glass	Thick			
13	FS67	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
14	FS68	1	Ferrous	Architectural	Nails	Nail	Machine Cut			
15	FS68	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
16	FS76	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
17	FS76	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, stamped	green		
18	FS87	1	Ceramic	Smoking	Smoking Pipes	White Clay, Plain Stem				
19	FS85	1	Bone	Faunal/Floral	Bone	Mammal Bone				
20	FS85	1	Bone	Faunal/Floral	Bone	Fish Bone				
21	FS85	2	Glass	Architectural	Window Glass	Pane Glass	Thick			
22	FS73	3	Glass	Architectural	Window Glass	Pane Glass	Thick			
23	FS71	1	Bone	Faunal/Floral	Bone	Mammalian Tooth				
24	FS71	1	Bone	Faunal/Floral	Bone	Avian Long Bone				
25	FS100	1	Ceramic	Foodways	Ceramic Tableware	Jug Handle	IRO, moulded			
26	FS103	1	Ceramic	Foodways	Ceramic Tableware	Tableware	IRO, blue transfer			Chinoiserie
27	FS103	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
28	FS92	1	Ferrous	Architectural	Nails	Nail	Machine Cut			
29	FS96	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
30	FS96	1	Ceramic	Foodways	Ceramic Tableware	Hollowware	IRO, banded			
31	FS07	1	Ceramic	Smoking	Smoking Pipes	White Clay, Plain Bowl				
32	FS07	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW		B	
33	FS07	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
34	FS45	2	Glass	Architectural	Window Glass	Pane Glass	Thick			
35	FS46	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
36	FS41	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, stamped			
37	FS41	1	Bone	Faunal/Floral	Bone	Mammalian Tooth				
38	FS40	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Ironstone			
39	FS40	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
40	FS31	1	Bone	Faunal/Floral	Bone	Mammalian Tooth				

¹ All artifacts are stored within one plastic bin (L: 40.0 cm x W: 31.0 cm x H: 30.0 cm), identified as Box: 258-RA9591-23-ST2-01.

STAGE 2 AA FOR BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION CLASS EA UPDATE
TOWNSHIP OF RAMARA, COUNTY OF SIMCOE, ONTARIO

Cat. #	Provenience	FQ	Material	Class	Group	Object	Datable Attribute	Colour	Alt.	Comments
41	FS56	2	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
42	FS56	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, flow black			
43	FS54	1	Glass	Unassigned	Unid.Glass Containers	Bottle	Hand Applied Finish	aqua		
44	FS54	2	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
45	FS54	1	Glass	Architectural	Window Glass	Pane Glass	Thick			
46	FS37	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
47	FS81	1	Shell	Faunal/Floral	Bone	Mussel				
48	FS81	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
49	FS11	1	Glass	Architectural	Window Glass	Pane Glass	Thick			
50	FS88	2	Ferrous	Unassigned	Misc. Material	Scrap Metal				
51	FS42	2	Glass	Architectural	Window Glass	Pane Glass	Thick			
52	FS57	1	Glass	Architectural	Window Glass	Pane Glass	Thick			
53	FS57	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
54	FS59	1	Ceramic	Smoking	Smoking Pipes	White Clay, Plain Stem				
55	FS64	1	Ceramic	Smoking	Smoking Pipes	White Clay, Plain Bowl				
56	FS64	1	Ceramic	Smoking	Smoking Pipes	White Clay, Marked Bowl				
57	FS61	1	Bone	Faunal/Floral	Bone	Mammal Bone				
58	FS72	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
59	FS72	1	Ceramic	Architectural	Construction Materials	Drainage Tile	CEW, red unglazed			
60	FS32	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, edged	blue		Unscalped, impressed
61	FS32	1	Ceramic	Foodways	Ceramic Tableware	Tableware	IRO, blue transfer			Chinoiserie
62	FS32	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, blue transfer			
63	FS91	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, blue transfer			
64	FS91	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, stamped	blue		
65	FS91	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Unidentifiable	colourless		
66	FS10	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, stamped			
67	FS10	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
68	FS86	3	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
69	FS95	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
70	FS95	1	Ceramic	Smoking	Smoking Pipes	White Clay, Plain Bowl				
71	FS04	2	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
72	FS05	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, glazed			
73	FS05	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
74	FS05	1	Ceramic	Smoking	Smoking Pipes	White Clay, Plain Bowl				
75	FS12	1	Ceramic	Smoking	Smoking Pipes	White Clay, Plain Bowl				
76	FS12	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Ironstone			
77	FS12	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, edged	blue		Unscalped
78	FS97	1	Ceramic	Smoking	Smoking Pipes	White Clay, Plain Stem				
79	FS97	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Ironstone			
80	FS65	3	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
81	FS63	2	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
82	FS14	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, flow blue			
83	FS14	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
84	FS75	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Ironstone			
85	FS75	1	Ceramic	Foodways	Ceramic Tableware	Hollowware	IRO, banded			
86	FS99	1	Ceramic	Foodways	Ceramic Tableware	Tableware	IRO, moulded			
87	FS99	1	Ceramic	Smoking	Smoking Pipes	White Clay, Plain Bowl				

STAGE 2 AA FOR BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION CLASS EA UPDATE
TOWNSHIP OF RAMARA, COUNTY OF SIMCOE, ONTARIO

Cat. #	Provenience	FQ	Material	Class	Group	Object	Datable Attribute	Colour	Alt.	Comments
88	FS35	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, blue transfer			Chinoiserie
89	FS20	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, glazed			
90	FS26	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
91	FS27	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
92	FS23	2	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
93	FS25	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
94	FS21	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
95	FS19	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, stamped	brown		
96	FS22	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, blue transfer			Chinoiserie
97	FS22	1	Bone	Faunal/Floral	Bone	Mammal Bone				
98	FS29	1	Bone	Faunal/Floral	Bone	Unsorted Bone			B	
99	FS29	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
100	FS24	2	Bone	Faunal/Floral	Bone	Unsorted Bone			B	
101	FS28	1	Bone	Faunal/Floral	Bone	Unsorted Bone			B	
102	FS30	1	Bone	Faunal/Floral	Bone	Unsorted Bone			B	
103	FS101	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
104	FS02	1	Glass	Furnishings	Lighting Devices	Oil Lamp Chimney		colourless		
105	FS03	2	Glass	Architectural	Window Glass	Pane Glass	Thick			
106	FS36	1	Glass	Architectural	Window Glass	Pane Glass	Thick			
107	FS90	1	Glass	Unassigned	Unid.Glass Containers	Bottle	Tooled Finish	aqua		
108	FS39	2	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
109	FS38	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
110	FS17	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
111	FS33	2	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
112	FS47	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
113	FS66	2	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
114	FS82	2	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
115	FS70	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
116	FS83	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
117	FS83	1	Glass	Foodways	Glass Bev.Containers	Bottle	Mould blown	olive		
118	FS44	1	Glass	Foodways	Glass Bev.Containers	Bottle	Unidentifiable	green		
119	FS105	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	cobalt		
120	FS09	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	amber		
121	FS09	1	Ferrous	Architectural	Nails	Nail	Unidentifiable			
122	FS58	2	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
123	FS62	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, blue transfer			
124	FS50	2	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, stamped	blue, red		
125	FS50	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, stamped	red and green		
126	FS18	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, stamped	brown		
127	FS16	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, edged			Unscaloped, impressed "chickenfoot"
128	FS77	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
129	FS77	1	Ceramic	Foodways	Ceramic Tableware	Tableware	RWE, stamped	green		
130	FS43	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Ironstone			
131	FS43	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
132	FS94	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red glazed			
133	FS15	1	Ceramic	Foodways	Ceramic Util. Ware	Hollowware	CEW, red unglazed			
134	FS08	1	Ceramic	Smoking	Smoking Pipes	White Clay, Plain Stem				

STAGE 2 AA FOR BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION CLASS EA UPDATE
TOWNSHIP OF RAMARA, COUNTY OF SIMCOE, ONTARIO

Cat. #	Provenience	FQ	Material	Class	Group	Object	Datable Attribute	Colour	Alt.	Comments
135	FS08	1	Ferrous	Unassigned	Misc. Material	Scrap Metal				
136	FS06	1	Glass	Unassigned	Unid.Glass Containers	Unid. Bottle/Cont. Glass	Mould blown	aqua		
137	FS06	1	Bone	Faunal/Floral	Bone	Mammal Bone				
138	FS34	1	Ferrous	Architectural	Nails	Nail	Machine Cut			
139	FS98	1	Ferrous	Architectural	Nails	Nail	Machine Cut			
140	FS79	1	Ferrous	Architectural	Nails	Nail	Machine Cut			
141	FS55	1	Ceramic	Foodways	Ceramic Tableware	Tableware	Refined White EW			
142	FS55	1	Ferrous	Unassigned	Misc. Material	Strapping				
143	FS93	1	Ferrous	Unassigned	Misc. Material	Strapping				
144	FS78	1	Ferrous	Unassigned	Misc. Material	Strapping				
145	FS13	1	Ferrous	Unassigned	Misc. Material	Strapping				
146	FS80	1	Ferrous	Unassigned	Misc. Material	Strapping				
147	FS80	1	Ferrous	Unassigned	Misc. Items	Metal Plate				
148	FS60	1	Ferrous	Unassigned	Misc. Items	Bucket Rim				

APPENDIX E: INVENTORY OF DOCUMENTARY AND MATERIAL RECORD

Project Information:				
Project Number:		258-RA9591-23		
Licensee:		Ian Boyce (P1059)		
MCM PIF:		P1059-0151-2024		
Document/ Material		Details	Location	
1.	Research/ Analysis/ Reporting Material	Digital files stored in: /2023/258-RA9591-23 - Bayshore Village Effluent Spray Irrigation Class EA Update/Stage 2	Archeoworks Inc., 16715-12 Yonge Street, Suite 1029, Newmarket, ON, Canada, L3X 1X4	Stored on Archeoworks network servers
2.	Written Field Notes/ Annotated Field Maps	Field Notes/Maps: two (2) pages	Archeoworks Inc., 16715-12 Yonge Street, Suite 1029, Newmarket, ON, Canada, L3X 1X4	Stored on Archeoworks network servers
3.	Fieldwork Photographs	Digital Images: 27 digital photos	Archeoworks Inc., 16715-12 Yonge Street, Suite 1029, Newmarket, ON, Canada, L3X 1X4	Stored on Archeoworks network servers
4.	Artifacts	174 artifacts stored in Box: 258-RA9591-23-ST2-01	Archeoworks Inc., 16715-12 Yonge Street, Suite 1029, Newmarket, ON, Canada, L3X 1X4	Collection may be transferred to one of Archeoworks' secure, off-site storage facilities if deemed necessary.

Under Section 14 of the Terms and Conditions for Archaeological Licences issued under the *Ontario Heritage Act*, "the licensee shall hold in safekeeping all artifacts and records of archaeological fieldwork carried out under this licence, except where those artifacts and records are transferred by the licensee to His Majesty the King in right of Ontario or the licensee is directed to deposit them in a public institution in accordance with subsection 66(1) of the Act." The collections are being stored at *Archeoworks Inc.* on the licensee's behalf.

The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
 - is a recognized heritage property
 - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
 - the main project area
 - temporary storage
 - staging and working areas
 - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – [separate checklist](#)
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

Bayshore Village Sewage Works - Effluent Disposal

Project or Property Location (upper and lower or single tier municipality)

Bayshore Village, Township of Ramara

Proponent Name

Township of Ramara

Proponent Contact Information

Josh Kavanagh

Screening Questions

	Yes	No
1. Is there a pre-approved screening checklist, methodology or process in place?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes, please follow the pre-approved screening checklist, methodology or process.

If No, continue to Question 2.

Part A: Screening for known (or recognized) Cultural Heritage Value

	Yes	No
2. Has the property (or project area) been evaluated before and found not to be of cultural heritage value?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes, do **not** complete the rest of the checklist.

The proponent, property owner and/or approval authority will:

- summarize the previous evaluation and
- add this checklist to the project file, with the appropriate documents that demonstrate a cultural heritage evaluation was undertaken

The summary and appropriate documentation may be:

- submitted as part of a report requirement
- maintained by the property owner, proponent or approval authority

If No, continue to Question 3.

	Yes	No
3. Is the property (or project area):		
a. identified, designated or otherwise protected under the <i>Ontario Heritage Act</i> as being of cultural heritage value?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. a National Historic Site (or part of)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. designated under the <i>Heritage Railway Stations Protection Act</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. designated under the <i>Heritage Lighthouse Protection Act</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes to any of the above questions, you need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report, if a Statement of Cultural Heritage Value has not previously been prepared or the statement needs to be updated

If a Statement of Cultural Heritage Value has been prepared previously and if alterations or development are proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

If No, continue to Question 4.

Part B: Screening for Potential Cultural Heritage Value

	Yes	No
4. Does the property (or project area) contain a parcel of land that:		
a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. has or is adjacent to a known burial site and/or cemetery?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. is in a Canadian Heritage River watershed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. contains buildings or structures that are 40 or more years old?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Part C: Other Considerations

	Yes	No
5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area):		
a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. has a special association with a community, person or historical event?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. contains or is part of a cultural heritage landscape?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes to one or more of the above questions (Part B and C), there is potential for cultural heritage resources on the property or within the project area.

You need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report (CHER)

If the property is determined to be of cultural heritage value and alterations or development is proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

If No to all of the above questions, there is low potential for built heritage or cultural heritage landscape on the property.

The proponent, property owner and/or approval authority will:

- summarize the conclusion
- add this checklist with the appropriate documentation to the project file

The summary and appropriate documentation may be:

- submitted as part of a report requirement e.g. under the *Environmental Assessment Act*, *Planning Act* processes
- maintained by the property owner, proponent or approval authority

Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
 - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's [Ontario Heritage Toolkit](#) or [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

1. Is there a pre-approved screening checklist, methodology or process in place?

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's [Standards & Guidelines for Conservation of Provincial Heritage Properties](#) [s.B.2.]

Part A: Screening for known (or recognized) Cultural Heritage Value

2. Has the property (or project area) been evaluated before and found not to be of cultural heritage value?

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

Note: Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

3a. Is the property (or project area) identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value e.g.:

- i. designated under the *Ontario Heritage Act*
 - individual designation (Part IV)
 - part of a heritage conservation district (Part V)

Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note:** To date, no properties have been designated by the Minister.

Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- [Ontario Heritage Trust](#)
- local land registry office (for a title search)

ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- [Ontario Heritage Trust](#) - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note:** To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- [Ontario Heritage Trust](#)

v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at registrar@ontario.ca.

3b. Is the property (or project area) a National Historic Site (or part of)?

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the [National Historic Sites website](#).

3c. Is the property (or project area) designated under the *Heritage Railway Stations Protection Act*?

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the [Directory of Designated Heritage Railway Stations](#).

3d. Is the property (or project area) designated under the *Heritage Lighthouse Protection Act*?

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the [Heritage Lighthouses of Canada](#) website.

3e. Is the property (or project area) identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office?

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the [Federal Heritage Buildings Review Office](#).

See a [directory of all federal heritage designations](#).

3f. Is the property (or project area) located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – [World Heritage Site website](#).

Part B: Screening for potential Cultural Heritage Value

4a. Does the property (or project area) contain a parcel of land that has a municipal, provincial or federal commemorative or interpretive plaque?

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- [municipal heritage committees](#) or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's [Heritage directory](#) – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a [list of plaques](#) commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a [list of plaques](#) commemorating Canada's history

4b. Does the property (or project area) contain a parcel of land that has or is adjacent to a known burial site and/or cemetery?

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a [database of registered cemeteries](#)
- Ontario Genealogical Society (OGS) – to [locate records of Ontario cemeteries](#), both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to [locate early cemeteries](#)

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

4c. Does the property (or project area) contain a parcel of land that is in a Canadian Heritage River watershed?

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the [Canadian Heritage River System](#).

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

4d. Does the property (or project area) contain a parcel of land that contains buildings or structures that are 40 or more years old?

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

Note: 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide [Heritage Property Evaluation](#).

Part C: Other Considerations

5a. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) is considered a landmark in the local community or contains any structures or sites that are important to defining the character of the area?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

5b. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) has a special association with a community, person or historical event?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

5c. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) contains or is part of a cultural heritage landscape?

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- [municipal heritage committees](#) or local heritage organizations
- Ontario Historical Society's "[Heritage Directory](#)" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

Information specific to trails may be obtained through [Ontario Trails](#).

Appendix B: Certificate of Approval



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JUL 24 1996

TOTTEN, SIMS, HUBICKI ASSOCIATES
WHITBY, ONTARIO

SE-22065
CERTIFICATE OF APPROVAL

SEWAGE

NUMBER 3-1337-81-968

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TOWNSHIP OF RAMARA
Box 130, (Hwy. 12)
Breachin, Ontario
L0K 1B0

You have applied in accordance with Section 53 of the Ontario Water Resources Act for approval of:

upgrading of the existing sanitary sewage treatment and disposal system serving the community of Bayshore Village in the Township of Ramara, located on Lot 21, Concession 7 in the Mara part of the Township of Ramara, consisting of a two-cell sewage lagoon and a spray irrigation field (the South Field), originally constructed under the Certificate of Approval No. 3-0304-77-006, dated June 1, 1977, and subsequently upgraded under the Certificate of Approval No. 3-1337-61-827 dated November 25, 1982, as amended by Notices dated June 6, 1985, July 7, 1992, April 18, 1994, and November 1, 1995, involving establishment of an additional spray irrigation field (the North Field) on Lot 22, Concession 8 in the Mara part of the Township of Ramara, with the existing and proposed facilities consisting of the following:

Sewage Lagoon

a sewage stabilization and storage lagoon system consisting of two (2) cells operated in series, as follows:

- a clay lined settling cell (Cell "B"), receiving sewage from the Village via an existing forcemain in Sideroad 20, having a total area of 1.6 ha, a total depth of 3.1 m (including a 0.3 m sludge storage bottom dead zone and a 0.66 m freeboard), and an effective storage capacity of 21,600 m³, including a cell bottom forcemain inlet structure with a 200 mm diameter valved connection (valve normally open) to the forcemain in Sideroad 20, a 250 mm diameter valved cell outlet pipe to the below described storage cell (Cell "A"), and a 300 mm diameter cell overflow pipe to Cell "A" with a rip-rap berm protection at both (Cell "B" and Cell "A") ends of the pipe;
- a clay lined storage cell (Cell "A"), receiving settled sewage from the above-described Cell "B", having a total area of 6.2 ha, a total depth of 3.1 m (including a 0.3 m sludge storage bottom dead zone and a 0.66 m freeboard), and an effective storage capacity of 109,925 m³, including a cell bottom forcemain inlet structure with a 200 mm diameter valved connection (valve normally closed) to the forcemain in Sideroad 20, and a 1.5 m deep reinforced concrete lagoon effluent intake sump in the bottom of the cell, having walls extending 0.3 m above the bottom of the cell with stop log guides for extension of the walls up to 0.6 m above the bottom of the cell;



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Effluent Spray Irrigation System

a lagoon effluent pumping station consisting of a 3.0 x 3.6 m wood frame building located adjacent to the lagoon, housing one (1) 75 hp electric motor driven centrifugal sewage pump rated at 132 L/s at a TDH of 38. m with a 250 mm diameter suction pipe to the above-described lagoon effluent intake sump in Cell "A" with a self-cleaning rotating intake strainer, and a 300 mm diameter discharge pipe to the below-described South Field effluent distribution system, equipped with a magnetic flowmeter;

a 23.0 ha effluent spray irrigation field (South Field), located immediately to the north and east of the above described sewage lagoon, consisting of four (4) spray irrigation sites equipped with independently operated systems of sprinkler heads serviced by dedicated systems of distribution mains and laterals with valved connections to the above-described pumping station's discharge pipe, with the individual spray irrigation sites sized as follows:

- Site A1: 65,293 m²
- Site B2: 26,855 m²
- Site C2: 36,506 m²
- Site C3: 11,382 m²

an 18.6 ha effluent spray irrigation field (North Field), located northwest of the above-described South Field, consisting of three (3) spray irrigation sites equipped with independently operated systems of sprinkler heads serviced by dedicated systems of distribution mains and laterals with valved connections to an approximately 530 m long 250 mm diameter transmission forcemain from the above-described pumping station's discharge pipe at the north end of the South Field, with the individual spray irrigation sites sized as follows:

- Site B1: 37,643 m²
- Site C1: 65,564 m²
- Site D1: 16,312 m²

all in accordance with application for approval dated April 10, 1996, and supporting documentation prepared by Totten Sims Hubicki Associates, Consulting Engineers.

DEFINITIONS

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

- (1) "certificate" means this entire certificate of approval document, issued in accordance with Section 53 of the Ontario Water Resources Act, and includes any schedules;
- (2) "Director" means any Ministry employee appointed by the Minister pursuant to section 5 of the Ontario Water Resources Act.



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- (3) "Ministry" means the Ontario Ministry of Environment and Energy;
- (4) "Regional Director" means the Regional Director of the Mid-Ontario Region of the Ministry;
- (5) "District Manager" means the District Manager of the Barrie District Office of the Ministry's Mid-Ontario Region;
- (6) "Owner" means the Corporation of the Township of Ramara;
- (7) "works" means the sewage works described in the Owner's application to this certificate and in the supporting documentation referred to herein to the extent approved by this certificate;
- (8) "sewage treatment plant" means the entire sewage treatment system including the effluent disposal facilities;
- (9) "grab sample" means an individual sample of at least 1000 millilitre collected in the appropriate container at a randomly selected time over a period of time not exceeding 15 minutes;
- (10) "average daily flow" means the cumulative total sewage flow to the sewage works during a particular calendar year divided by the number of days within that year during which sewage was flowing to the sewage works;
- (11) "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;
- (12) "spray irrigation season" means the period of time starting on the first and ending on the last day of application of effluent to the spray irrigation field(s) during a particular calendar year;
- (13) "BOD₅" means five day carbonaceous biochemical oxygen demand measured on an unfiltered sample;

TERMS AND CONDITIONS

You are hereby notified that this approval is issued subject to the following terms and conditions outlined below:

1. PERFORMANCE

- 1.1 The Owner shall ensure that the flow of sewage into the sewage treatment plant does not exceed the average daily flow of 399 m³/d for any period of time greater than one (1) calendar year.



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- 1.2 The owner shall ensure that the effluent spray irrigation system is operated in such a manner that the average rate of effluent application to any of the approved spray irrigation fields does not exceed the average effluent application rate of 55 m³/ha/day.
- 1.3 The Owner shall ensure that the effluent spray irrigation system is only operated during frost free periods between May 18 and September 28. Should it be necessary to operate the system prior to May 18 or after September 28 of any year, the Owner shall obtain a prior written approval for such an extended operation from the District Manager on a case-by-case basis.
- 1.4 The Owner shall ensure that the effluent spray irrigation system is operated in a manner that precludes the sprayed effluent ponding, run-off, and aerosol drift beyond the limits of the approved spray irrigation fields at all times.
- 1.5 Any diversion of sewage from any portion of the sewage works is prohibited, except where it is unavoidable in preventing loss of life, danger to public health, personal injury or severe property damage.

2. MONITORING AND RECORDING

- 2.1 The Owner shall ensure that the following monitoring program is carried out upon commencement of operation of the works:
 - (a) Daily quantities of sewage being conveyed to the sewage treatment plant and the lagoon effluent being disposed of by spray irrigation onto individual spray irrigation fields shall be measured or estimated, and recorded.
 - (b) Samples of raw sewage, lagoon effluent ahead of the spray irrigation system, groundwater in monitoring wells within and around the spray irrigation fields, surface water in the Wainmans Creek up-stream and down-stream of the spray irrigation fields, and the soil within the spray irrigation fields shall be collected at locations satisfactory to the District Manager and analyzed for at least the following parameters at the indicated minimum frequencies:

<u>Raw Sewage Parameter</u>	<u>Type of Sample</u>	<u>Minimum Frequency</u>
BOD ₅	grab	monthly
Suspended Solids	grab	monthly
Total Phosphorus	grab	monthly
Total Kjeldahl Nitrogen	grab	monthly



<u>Lagoon Effluent Parameter</u>	<u>Type of Sample</u>	<u>Minimum Frequency</u>
BOD ₅	grab	annually*
Suspended Solids	grab	annually*
Total Phosphorus	grab	annually*
Total Kjeldahl Nitrogen	grab	annually*
(Ammonia + Ammonium) Nitrogen	grab	annually*

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

<u>Surface Water Parameter</u>	<u>Type of Sample</u>	<u>Minimum Frequency</u>
BOD ₅	grab	3 per season**
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**

** 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.

<u>Soil Parameter</u>	<u>Type of Sample</u>	<u>Minimum Frequency</u>
Total Organic Carbon	core	annually***
Total Phosphorus	core	annually***
Total Kjeldahl Nitrogen	core	annually***
Ammonia + Ammonium Nitrogen	core	annually***
Nitrite + Nitrate Nitrogen	core	annually***
Chlorides	core	annually***
Sodium	core	annually***
Conductivity	core	annually***
pH	core	annually***

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

(c) The sampling and analyses required by clause (b) above shall be performed in accordance with the Ministry's Policy No. 08-06; "Protocol for the Sampling and Analysis of Industrial - Municipal Wastewater", Ministry of Environment, July 1993; or as described in "Standard Methods for Examination of Water and Wastewater", 17th Edition, 1990, as amended from time to time by more recently published editions.



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- 2.2 The Owner shall retain for a minimum of three years from the date of their creation, all records and information related to or resulting from the monitoring activities required by this certificate.
- 2.3 Following review of any of the analytical results required by Condition 2.1 or any of the reports required by Condition 4.1 of this certificate, the District Manager may alter the frequencies and locations of sampling and parameters for analysis required by Condition 2.1 if, he/she considers it necessary for proper assessment of the operation of the sewage treatment plant and its impact on the environment or if he/she is requested to do so by the Owner and considers it acceptable by the evidence of information submitted in support of the request.
3. OPERATION AND MAINTENANCE
- 3.1 The Owner should ensure that the application of effluent to individual irrigation sites within the approved spray irrigation field(s) and rotation of the irrigation sites is carried out in a manner that maximizes evapotranspiration and allows the soil to dry out periodically.
- 3.2 The Owner should ensure that whenever ponding or run-off of sprayed effluent occurs, the application of effluent to the affected area of the spray irrigation field is immediately terminated, and adequate time is allowed before resumption of the application of effluent to that area for the area to dry to a degree that would preclude immediate recurrence of ponding or run-off.
- 3.3 The Owner should ensure that no effluent application to the spray irrigation fields takes place during rainfall, when the ground is saturated, and when the wind velocity exceeds 15 km/hr.
- 3.4 The Owner shall provide and maintain:
- permanent fences around the entire spray irrigation fields, and
 - suitably posted signs at all points of access to all spray irrigation fields, indicating that treated sewage effluent is being used to irrigate the field and that trespassing is prohibited.
- 3.5 Based on the performance requirements and operational objectives stipulated above in Conditions 1.1 through 1.4 and 3.1 through 3.3, the Owner shall prepare an operations manual within six (6) months of commissioning of the sewage works and keep it up to date. Upon request, the Owner shall make the manual available for inspection by the Ministry personnel and furnish a copy to the Ministry.



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- 3.6 The Owner shall prepare and make available for inspection by Ministry personnel upon request, a complete set of drawings within one (1) year of substantial completion of the sewage works. The drawings shall show the sewage works as constructed at that time.
- 3.7 A complete set of the record drawings, incorporating any amendments made from time to time, shall be kept by the Owner at the site of the sewage works for as long as the sewage works are kept in operation.
- 3.8 In order to prevent or minimize any unacceptable liquid discharges and gas and odour emissions into the natural environment, the Owner shall ensure that contingency plans and procedures are established and adequate equipment and material are available for dealing with emergency and upset conditions including equipment breakdowns at the sewage works, flooding, overflows of raw and partly treated sewage and spills of sludge into or out of the sewage works. The Owner shall establish notification procedures to be used to contact the District Manager and other relevant authorities in the case of an emergency and upset conditions.
- 3.9 The Owner shall establish procedures for receiving and responding to complaints including a reporting system which records what steps were taken to determine the cause of complaint and the corrective measures taken to alleviate the cause and prevent its reoccurrence.
- 3.10 The Owner shall provide for the overall operation of the sewage treatment plant with an operator who holds a licence that is applicable to that type of facility and that is of the same class as or higher than the class of the facility in accordance with Ontario Regulation 435/93.

4. REPORTING

- 4.1 One week prior to the start up of the operation of the works, the Owner shall notify the District Manager (in writing) of the pending start up date.
- 4.2 The Owner shall prepare, and upon request, submit to the District Manager annual performance reports for the sewage treatment plant. The first such report shall cover the period from the commencement of operation of the sewage works to the end of the calendar year and shall be prepared within the following ninety (90) calendar days. Each subsequent annual report shall be prepared within ninety (90) calendar days following the completion of the calendar year being reported upon. The reports shall contain the following information in a format acceptable to the District Manager:
 - (a) a summary of all monitoring data, including an overview of the success and adequacy of the sewage treatment program;



Ontario

Ministry of
Environment
and Energy

Min. ère de
l'Environnement
et de l'Énergie

AMENDED CERTIFICATE OF APPROVAL
SEWAGE
NUMBER 3-1337-81-968
Page 8 of 9

- (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 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.

The reasons for the imposition of these terms and conditions are as follows:

1. Conditions 1.1 through 1.4 are included to ensure that the flow of sewage to the treatment plant, and the times, manner and rates of effluent application to the spray irrigation fields are within the approved treatment capacity of the works.
2. Conditions 2.1 through 2.2 relating to monitoring and recording the quality and quantity of the effluent from the sewage treatment plant on a continual basis are required to enable the Owner to evaluate the performance of the works and to ensure that it is operated and maintained at a level which is consistent with the design objectives and other requirements of this certificate.
3. Conditions 3.1 through 3.10 are included to ensure that the works will be operated, maintained, funded, staffed and equipped in a manner enabling compliance with the terms and conditions of this certificate, such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented.
4. Conditions 4.1 through 4.2 are included to ensure that all pertinent information is available for the evaluation of the performance of the sewage works.

This Certificate revokes and supersedes Certificate of Approval No. 3-1337-81-827 dated November 25, 1982, as amended by Notices dated June 6, 1985, July 7, 1992, April 18, 1994, and November 1, 1995.

In accordance with Section 100 of the Ontario Water Resources Act, R.S.O. 1990, Chapter O.40, as amended, you may by written notice served upon me and the Environmental Appeal Board within 15 days after receipt of this Notice, require a hearing by the Board. Section 101 of the Ontario Water Resources Act, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.



Ministry of Environment and Energy

Ministère de l'Environnement et de l'Énergie

The Notice should also include:

- 3. The name of the appellant;
- 4. The address of the appellant;
- 5. The Certificate of Approval number;
- 6. The date of the Certificate of Approval;
- 7. The name of the Director;
- 8. The municipality within which the sewage works are located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary,
Environmental Appeal Board,
112 St. Clair Avenue West,
Suite 502,
Toronto, Ontario.
M4V 1N3

AND

The Director,
Section 53, Ontario Water Resources Act,
Ministry of Environment and Energy,
250 Davisville Avenue, 3rd Floor,
Toronto, Ontario.
M4S 1H2

The above noted sewage works are approved under Section 53 of the Ontario Water Resources Act.

DATED AT TORONTO this 17th day of July, 1996.

THIS IS A TRUE COPY OF THE ORIGINAL CERTIFICATE MAILED

ON July 19, 1996

(Signed)

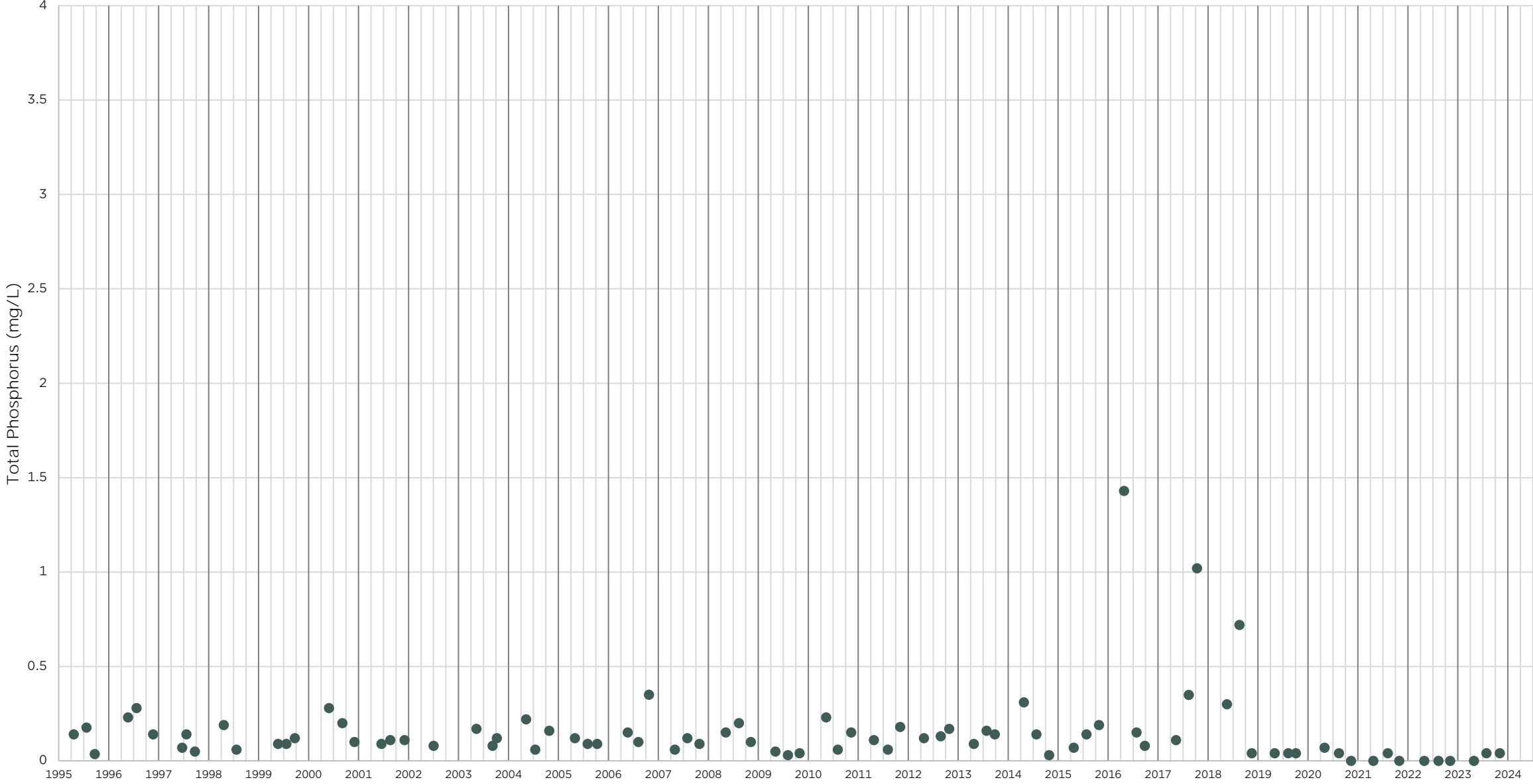
[Signature]
D.F. Carr, P. Eng.,
Director,
Section 53,
Ontario Water Resources Act.

MT/nk

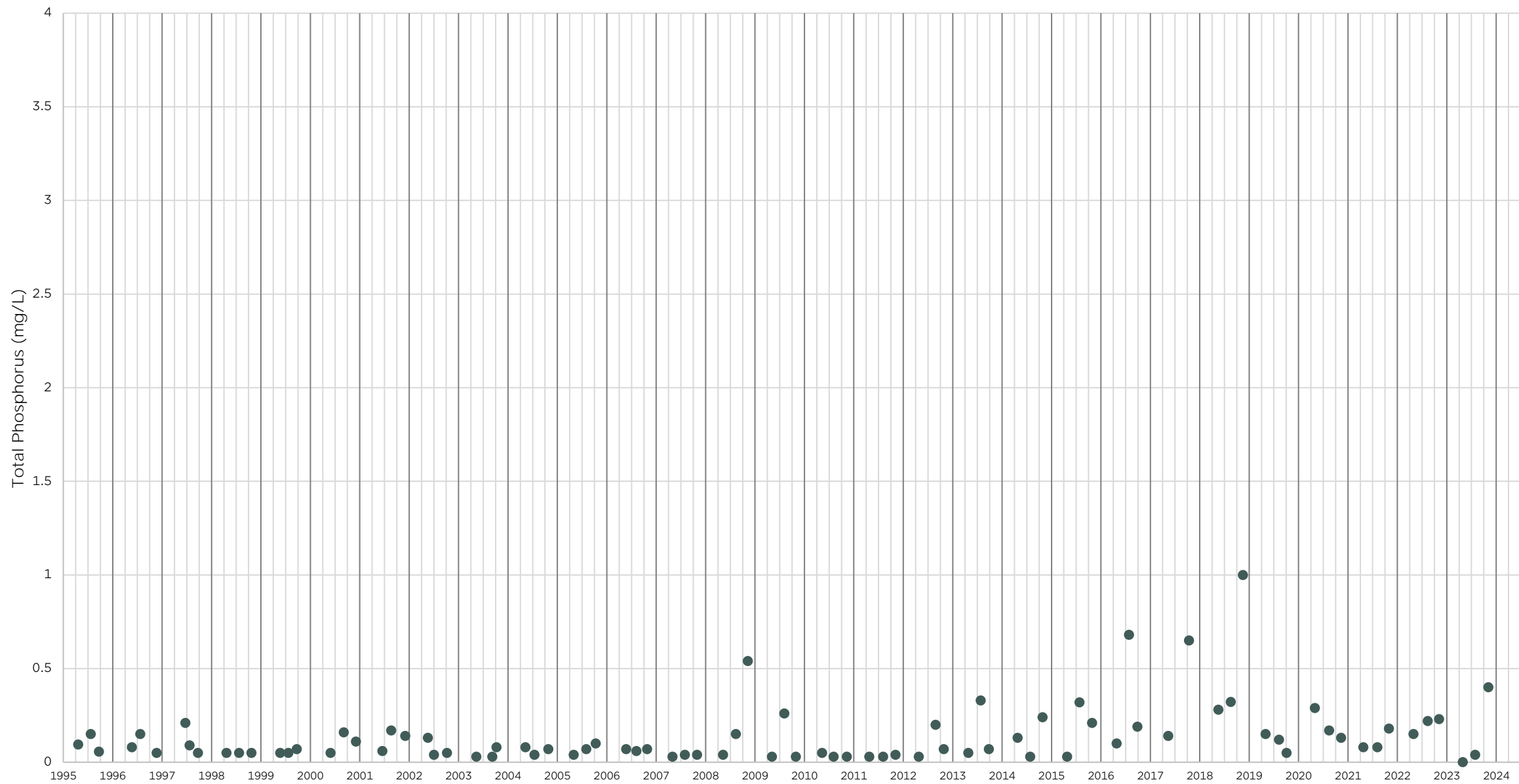
Attn: -F.B. Mangan, Clerk, Township of Ramara
cc: -District Manager, MOEE Barrie District Office
-S. Blakey, P. Eng., Totten Sims Hubicki Associates

Appendix C: Monitoring Data

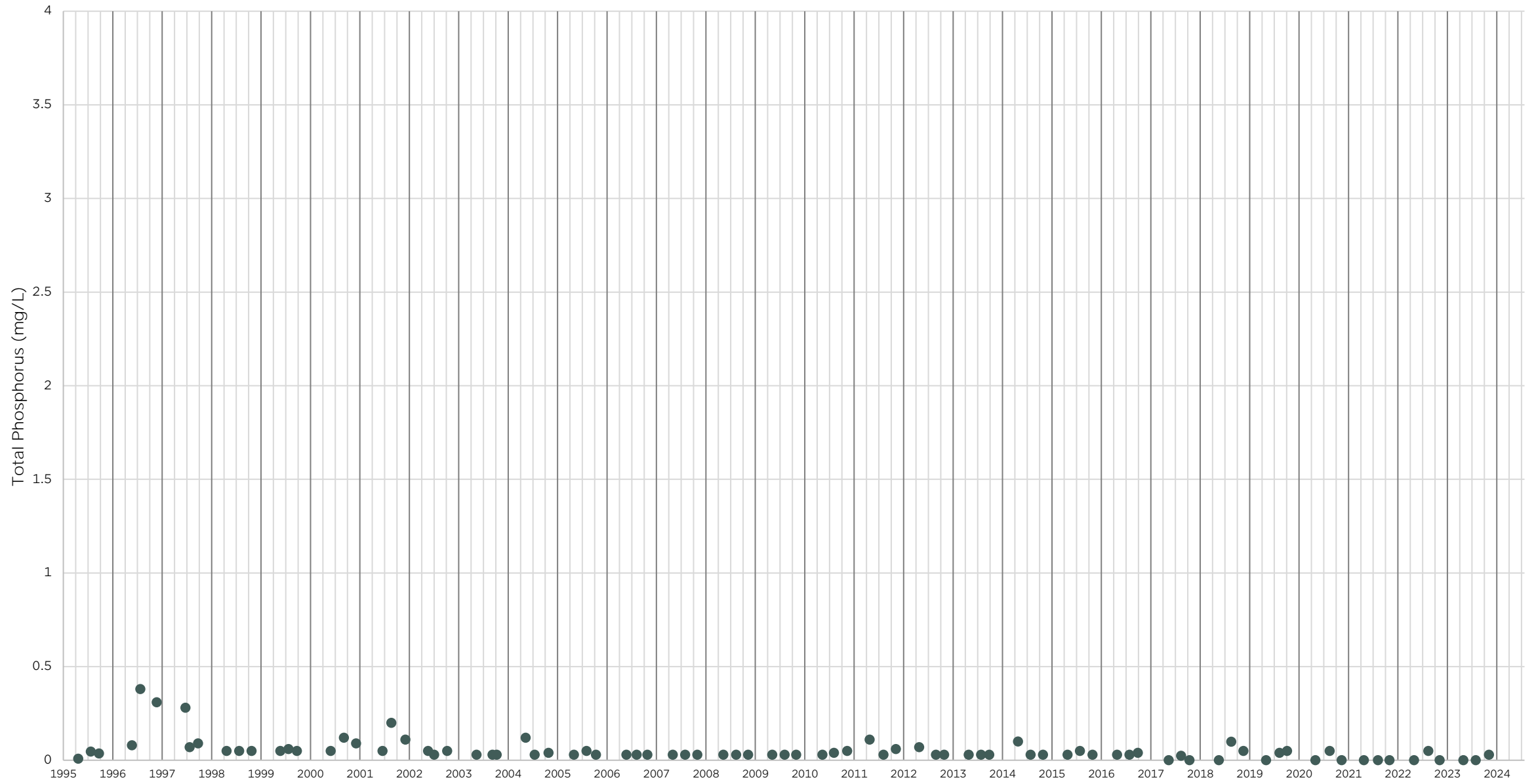
Bayshore Village Effluent Spray Irrigation Groundwater Quality Monitoring
BV SI-2 Total Phosphorus



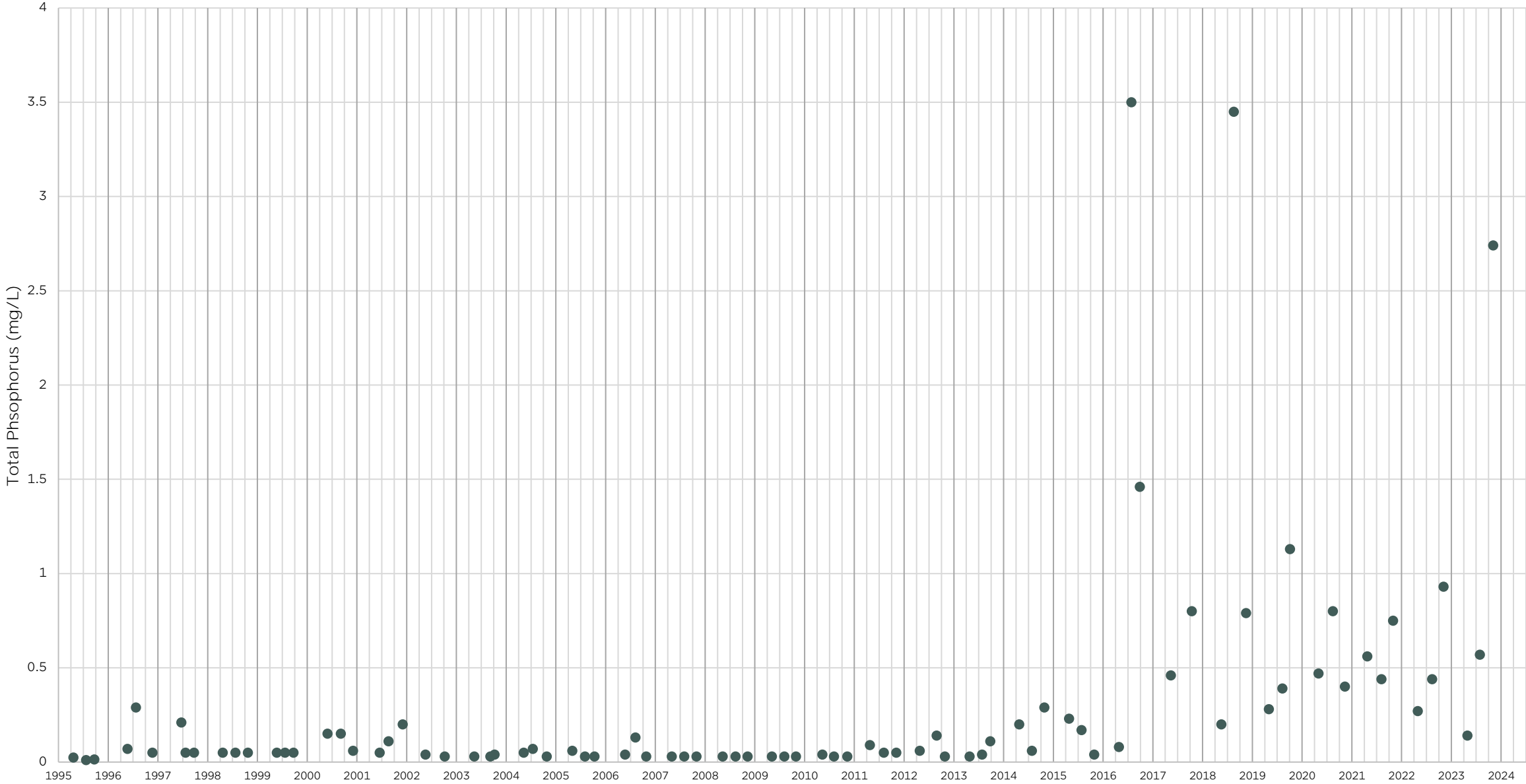
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BV SI-3 Total Phosphorus



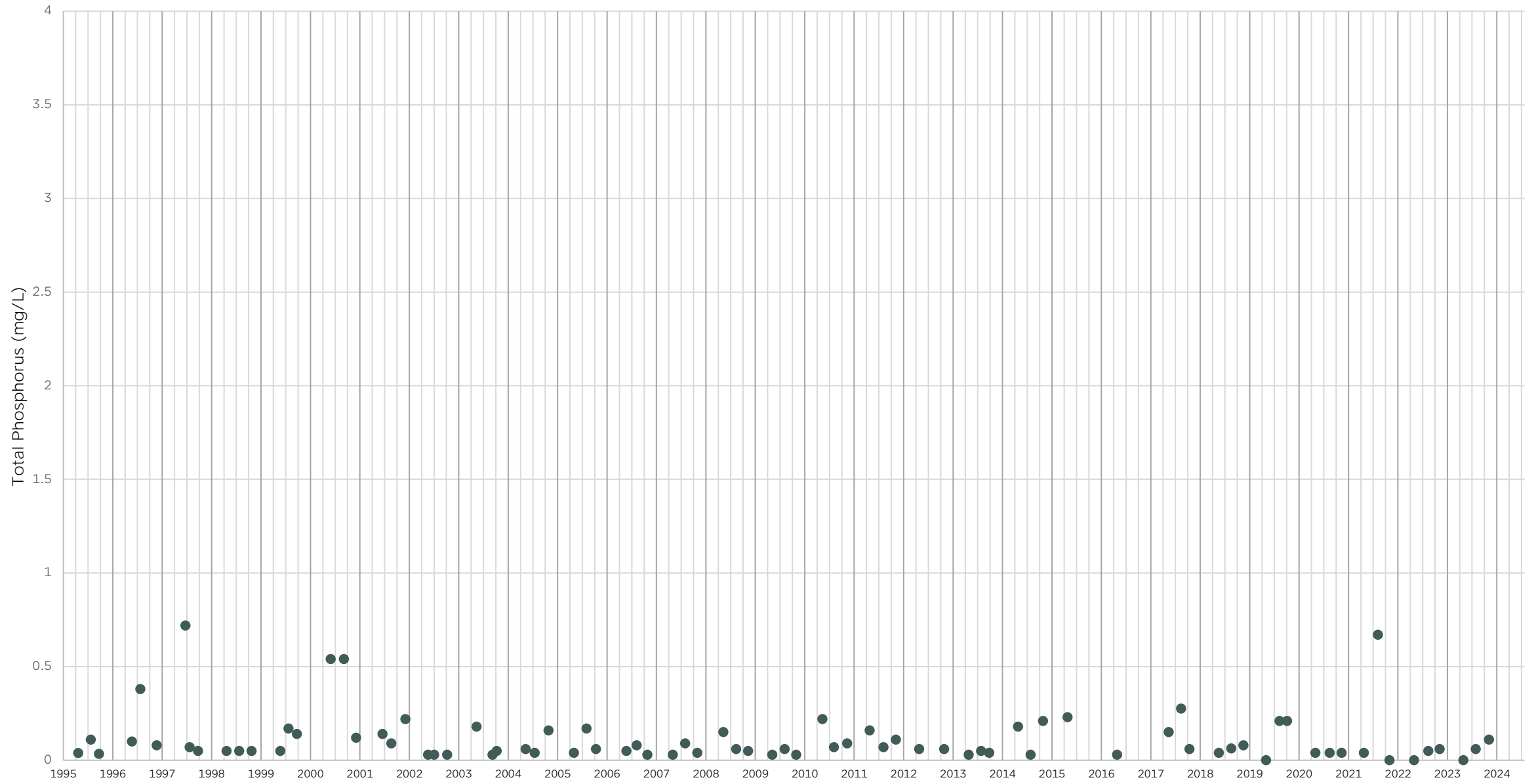
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BV SI-4 Total Phosphorus



Bayshore Village Effluent Spray Irrigation Groundwater Quality Monitoring
BV SI-7 Total Phosphorus

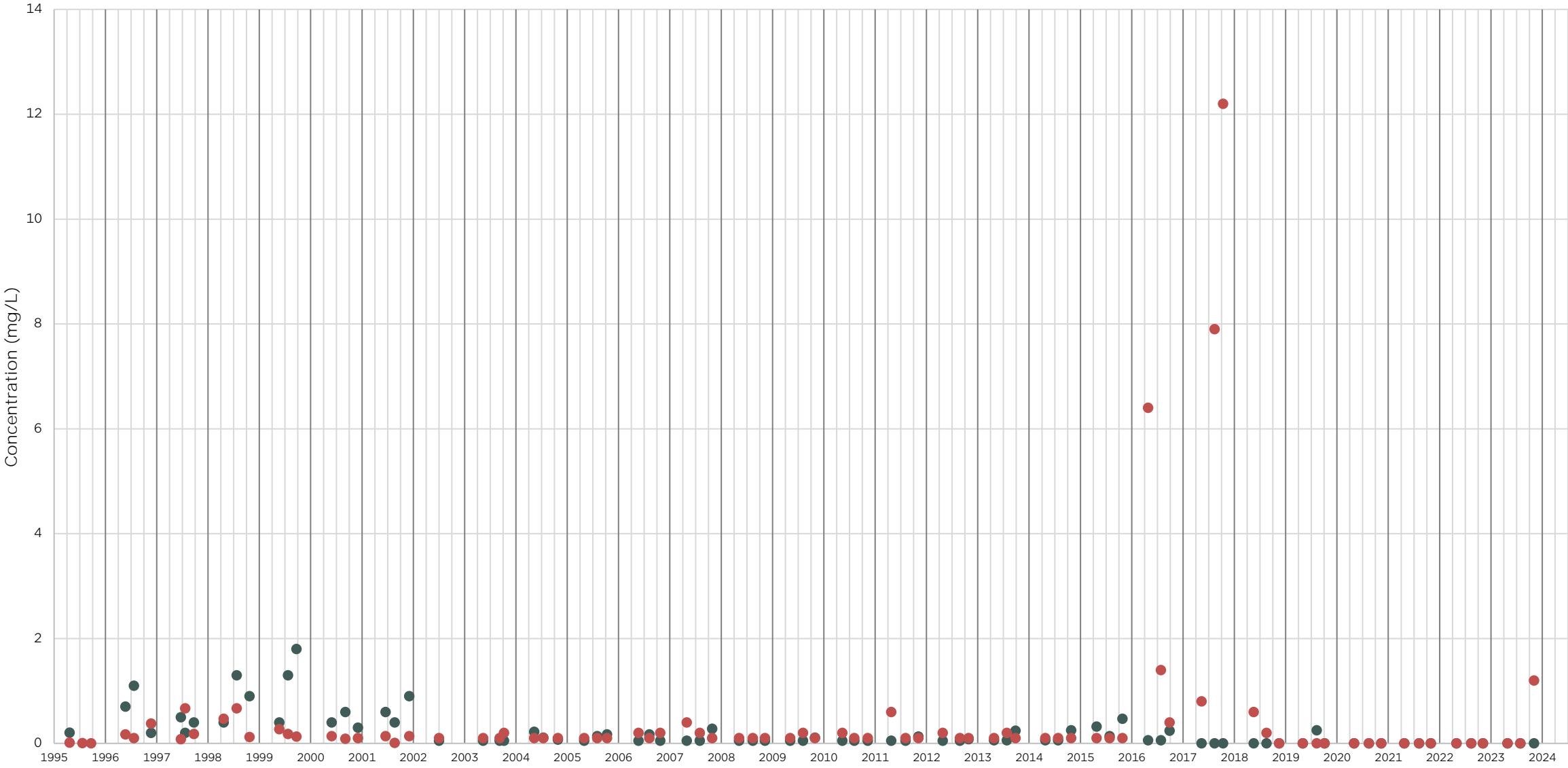


Bayshore Village Effluent Spray Irrigation Groundwater Quality Monitoring
BV SI-9 Total Phosphorus



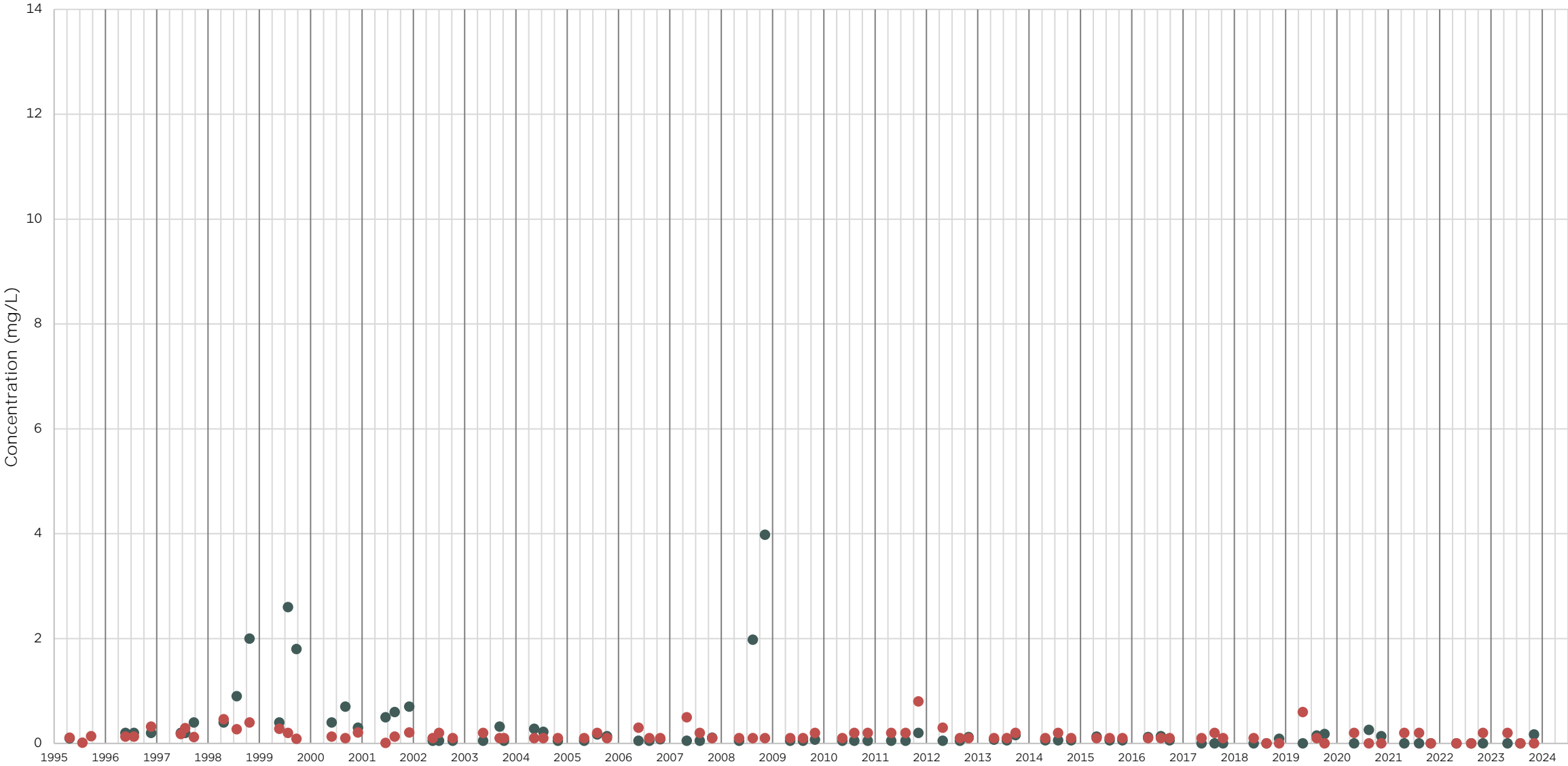
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BV SI-2 Nitrate and Total Ammonia Nitrogen

● Nitrate ● TAN



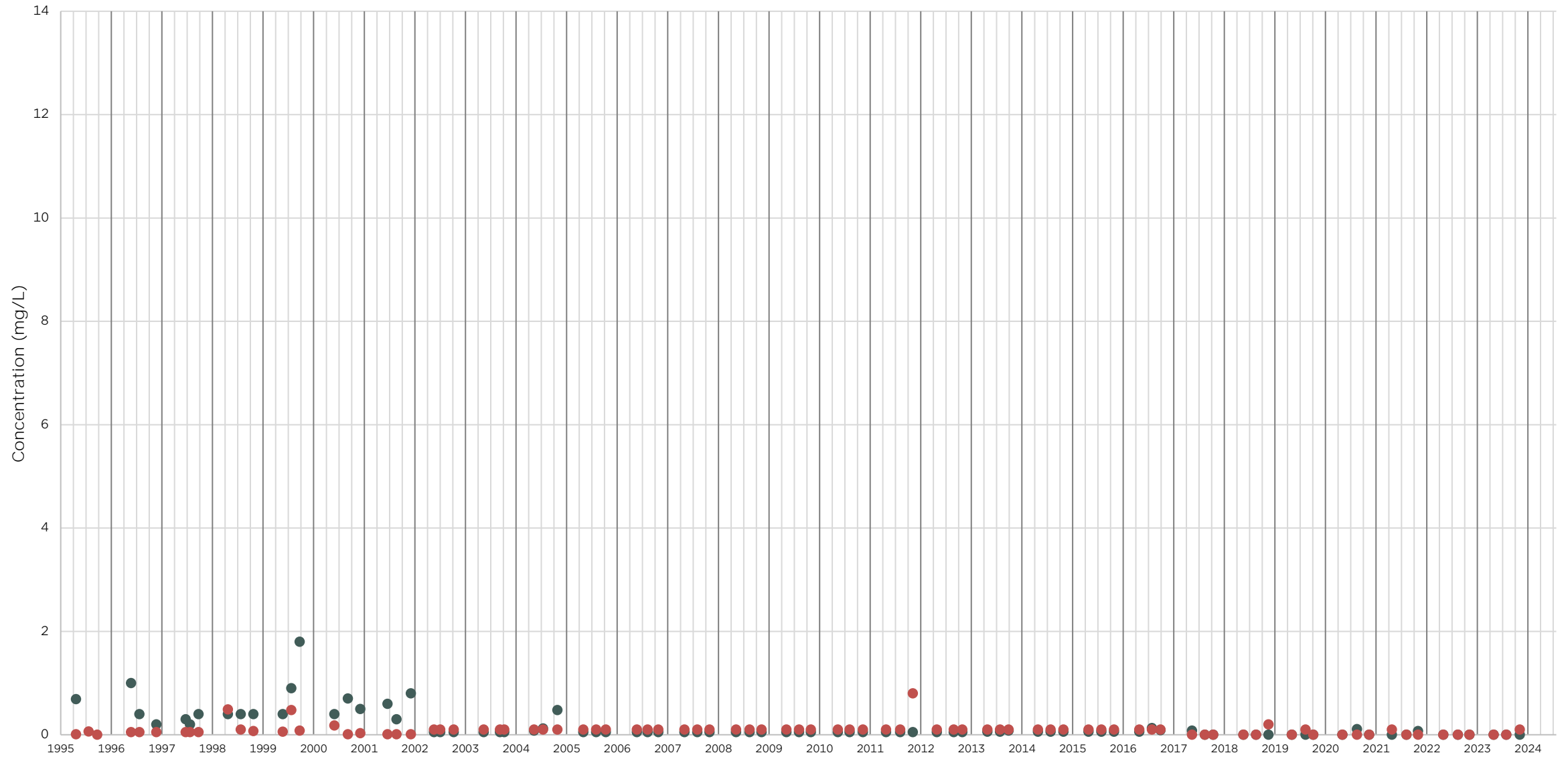
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BV SI-3 Nitrate and TAN

● Nitrate ● TAN



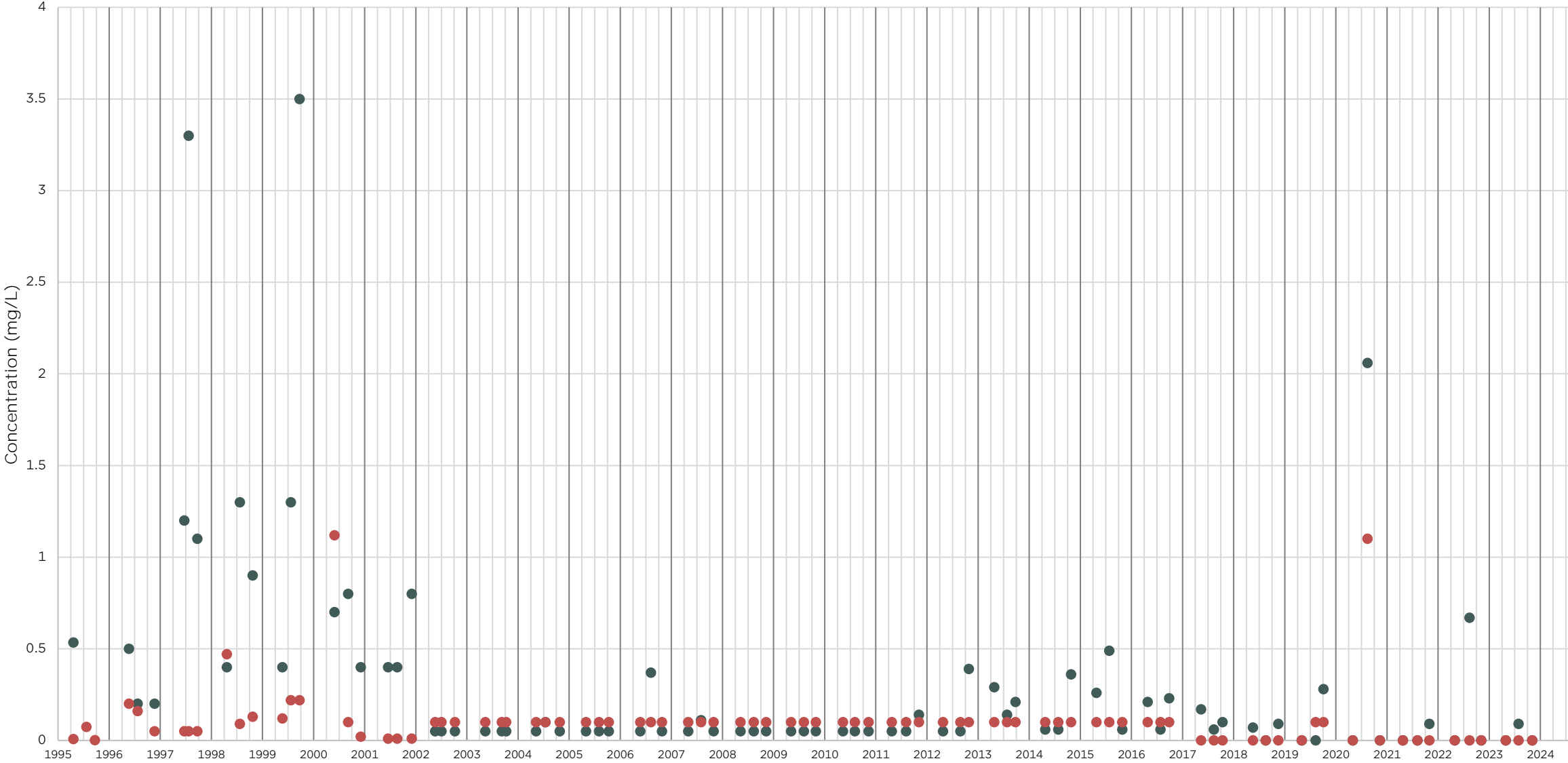
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● Nitrate ● TAN



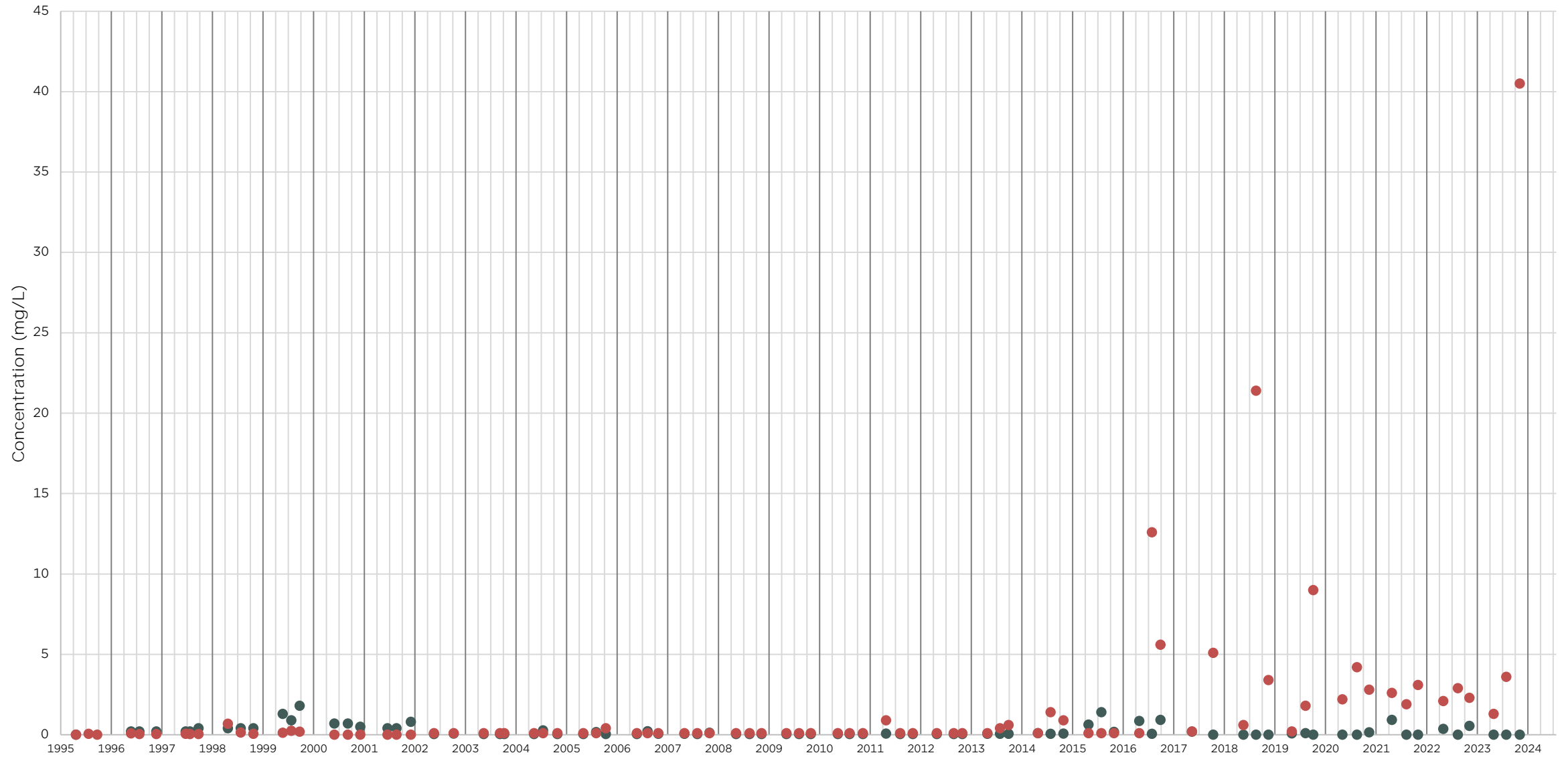
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● Nitrate ● TAN



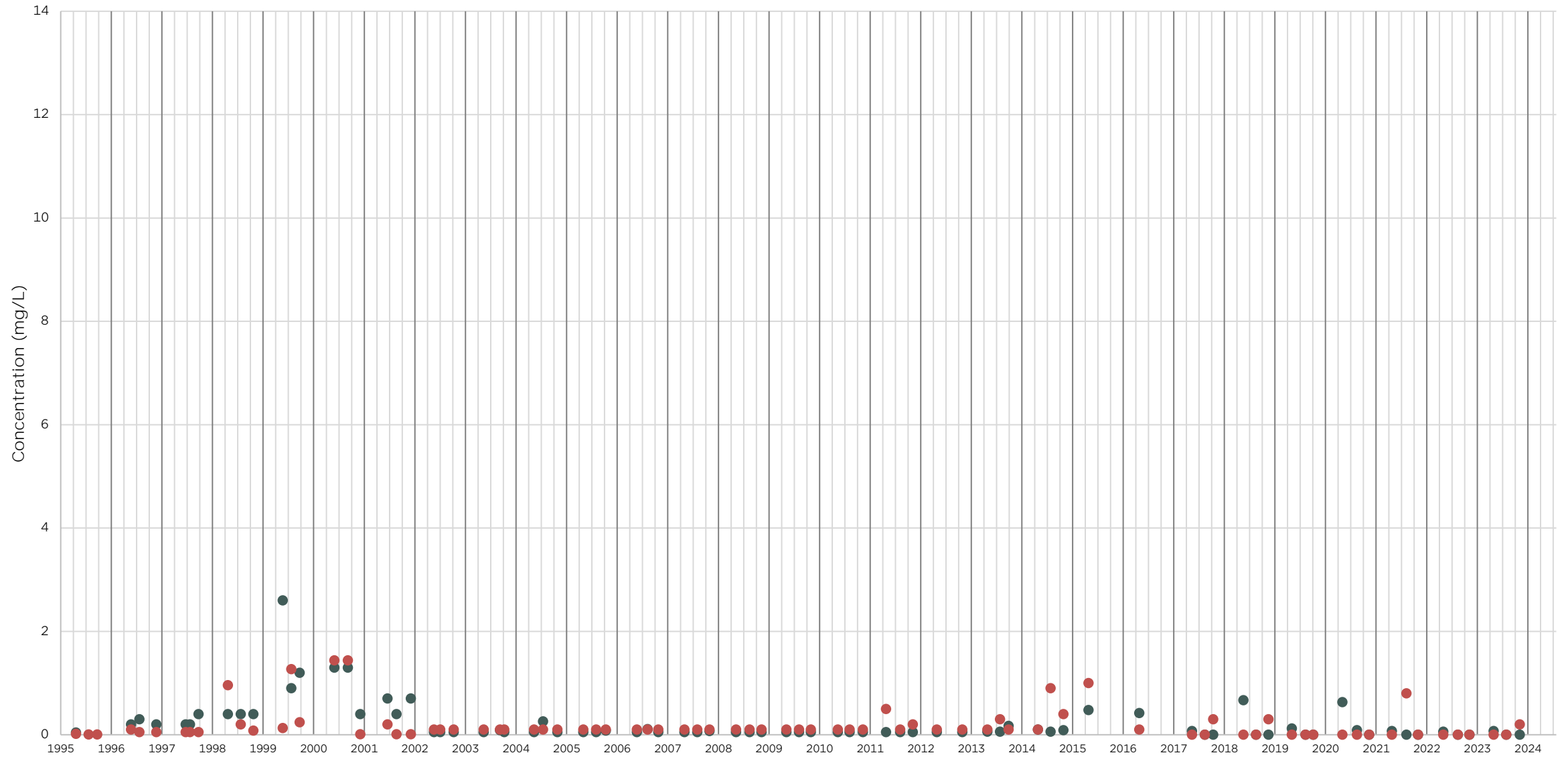
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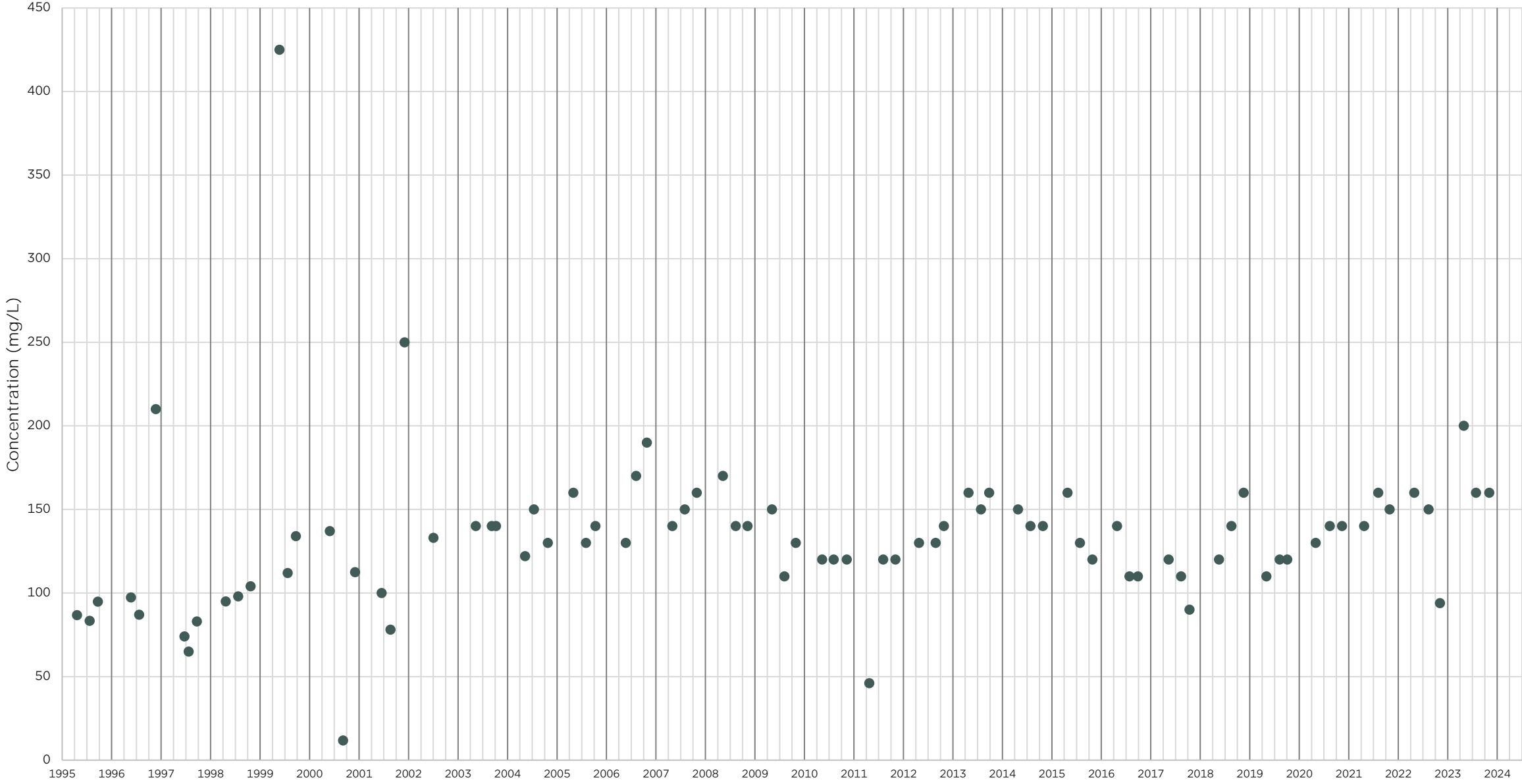


Bayshore Village Effluent Spray Irrigation Groundwater Quality Monitoring BV SI-9 Nitrate and TAN

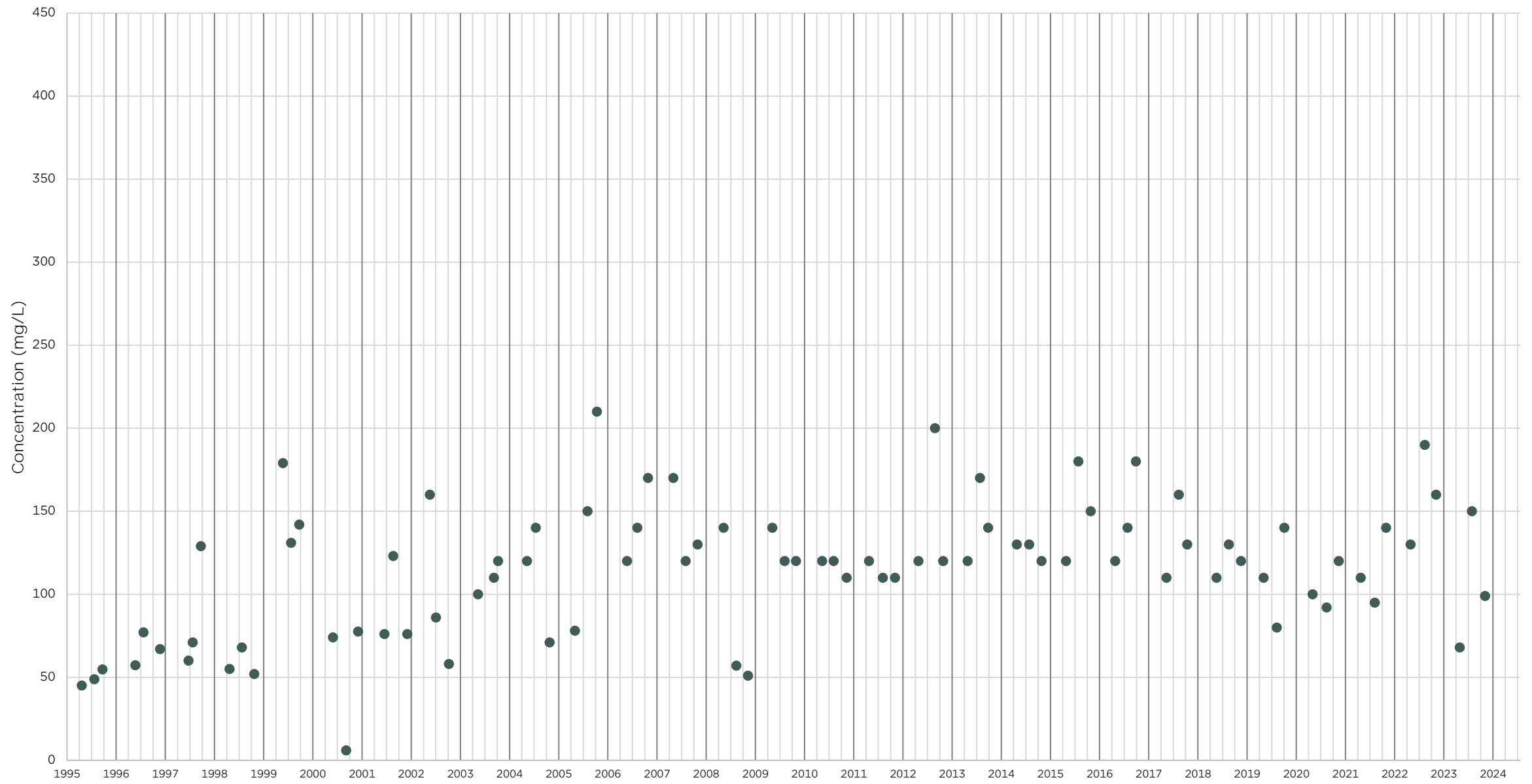
● Nitrate ● TAN



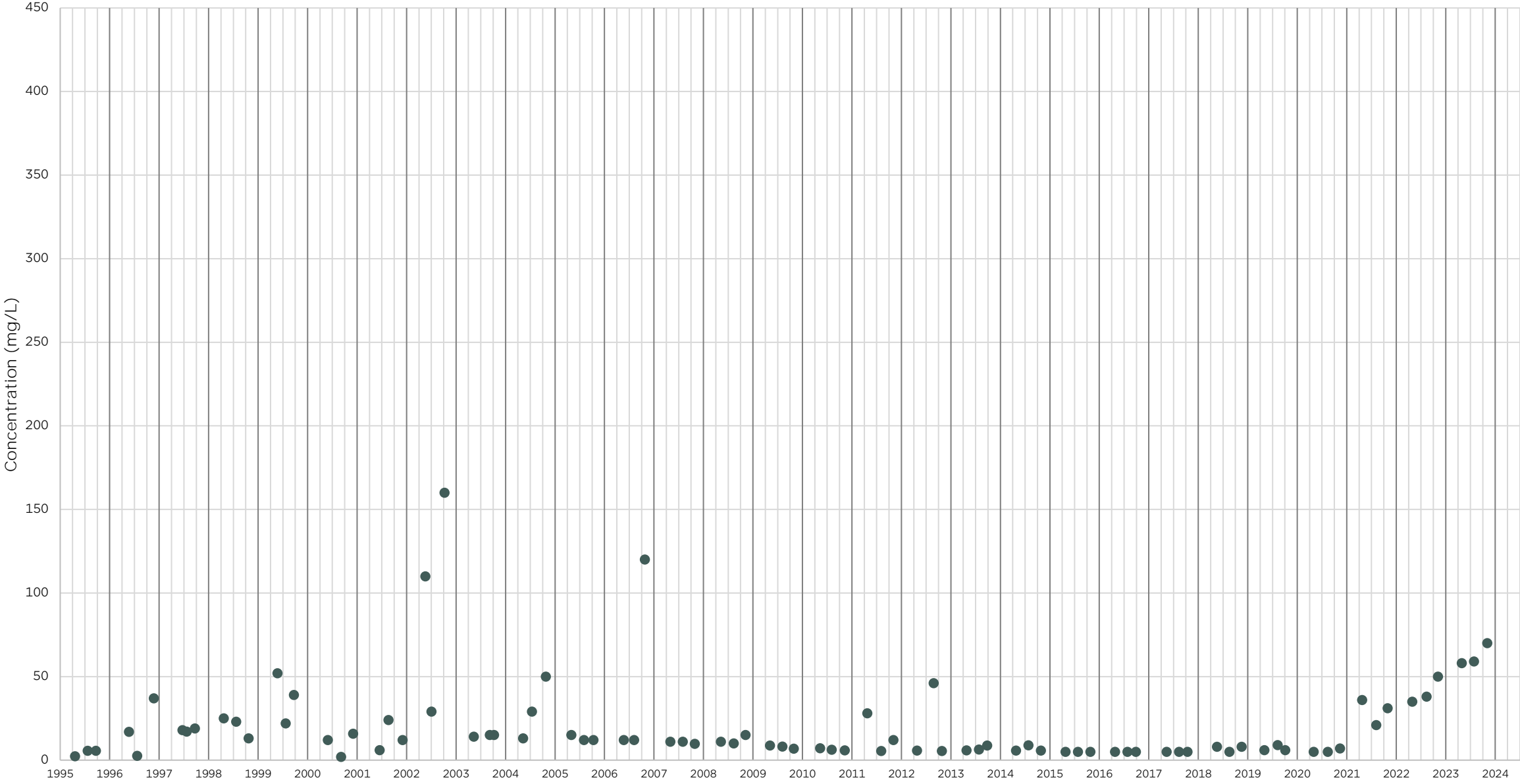
Bayshore Village Effluent Spray Irrigation Groundwater Quality Monitoring
BV SI-2 Chloride



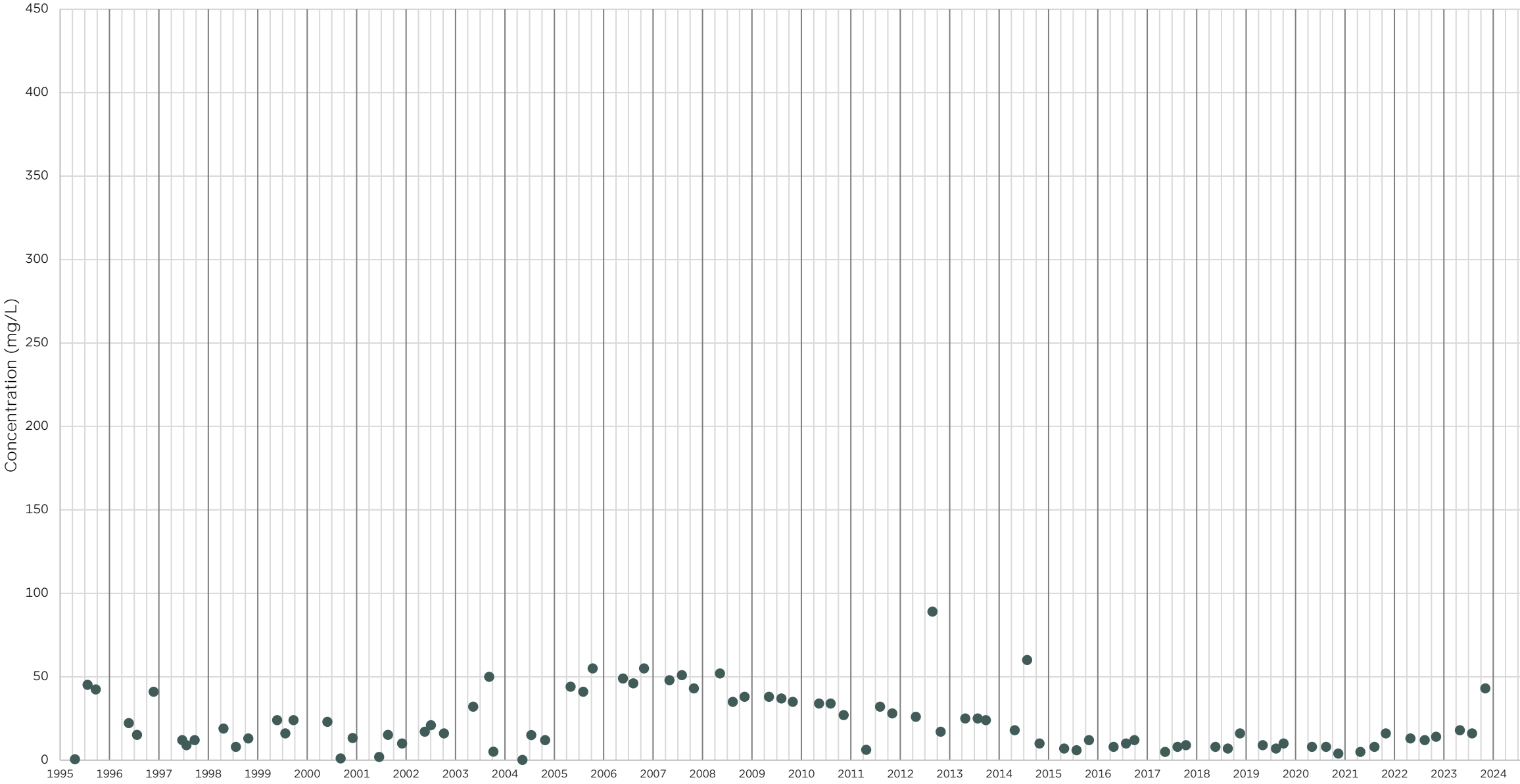
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BV SI-3 Chloride



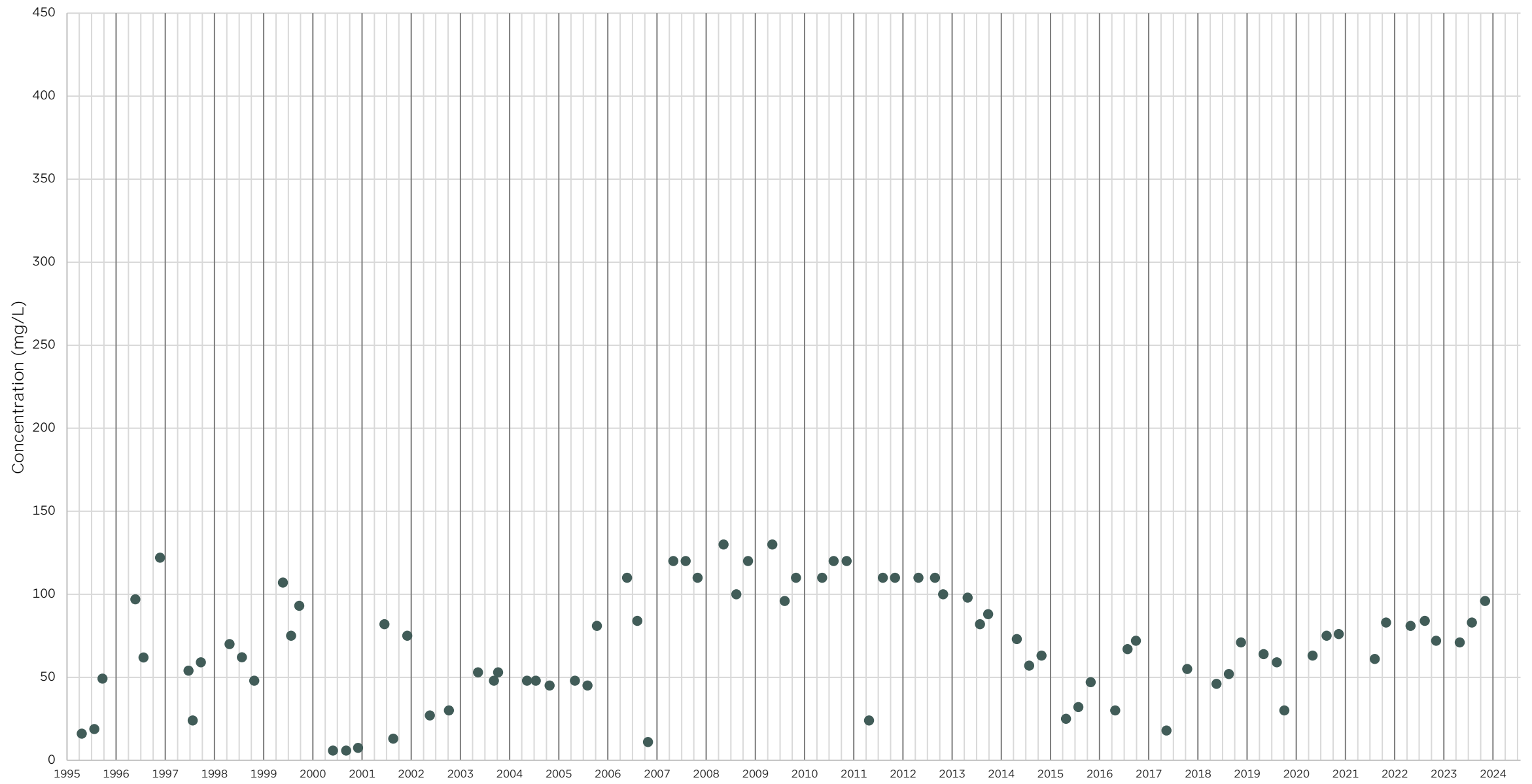
Bayshore Village Effluent Spray Irrigation Groundwater Quality Monitoring
BV SI-4 Chloride



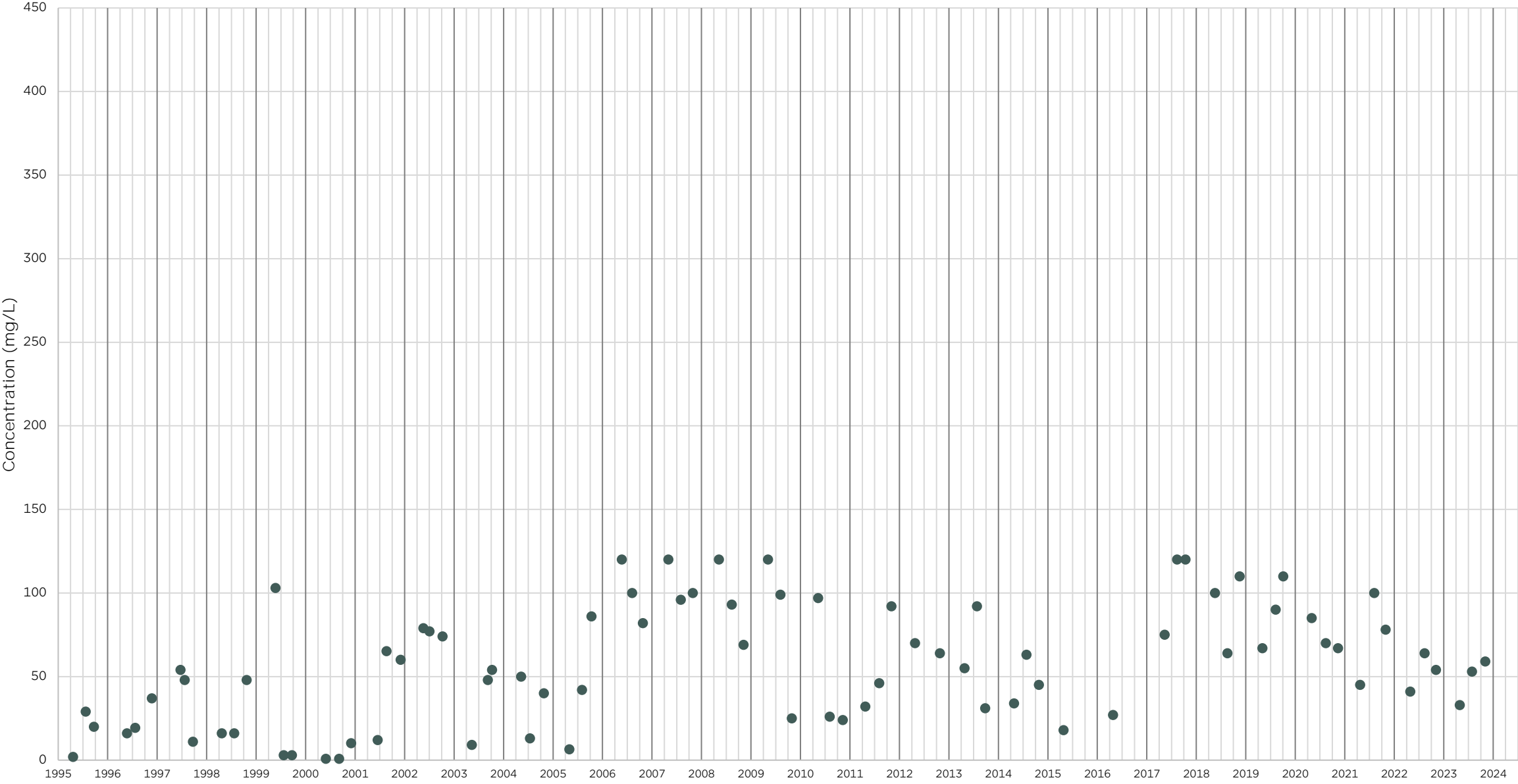
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BV SI-5 Chloride



Bayshore Village Effluent Spray Irrigation Groundwater Quality Monitoring BV SI-7 Chloride

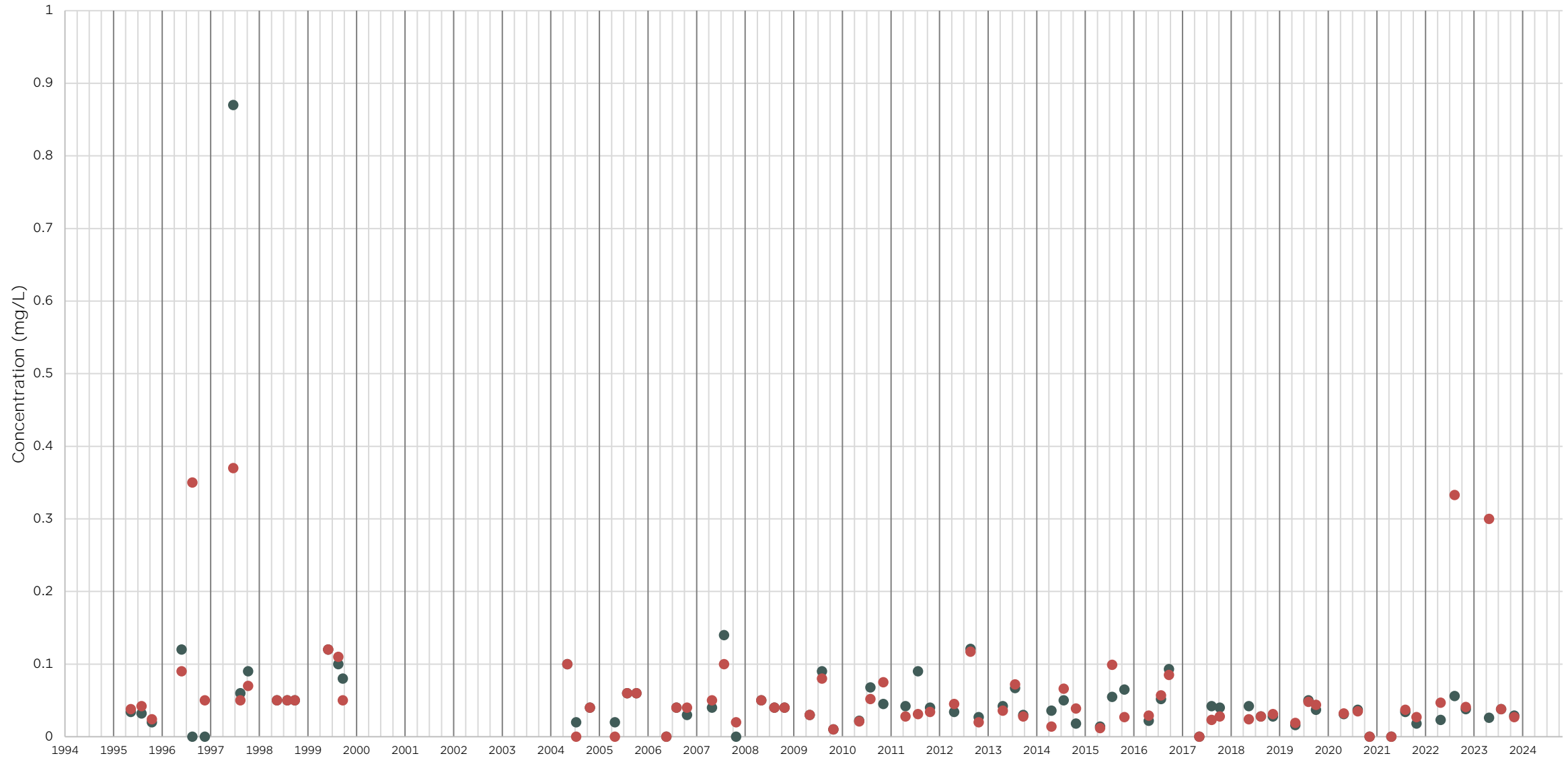


Bayshore Village Effluent Spray Irrigation Groundwater Quality Monitoring
BV SI-9 Chloride

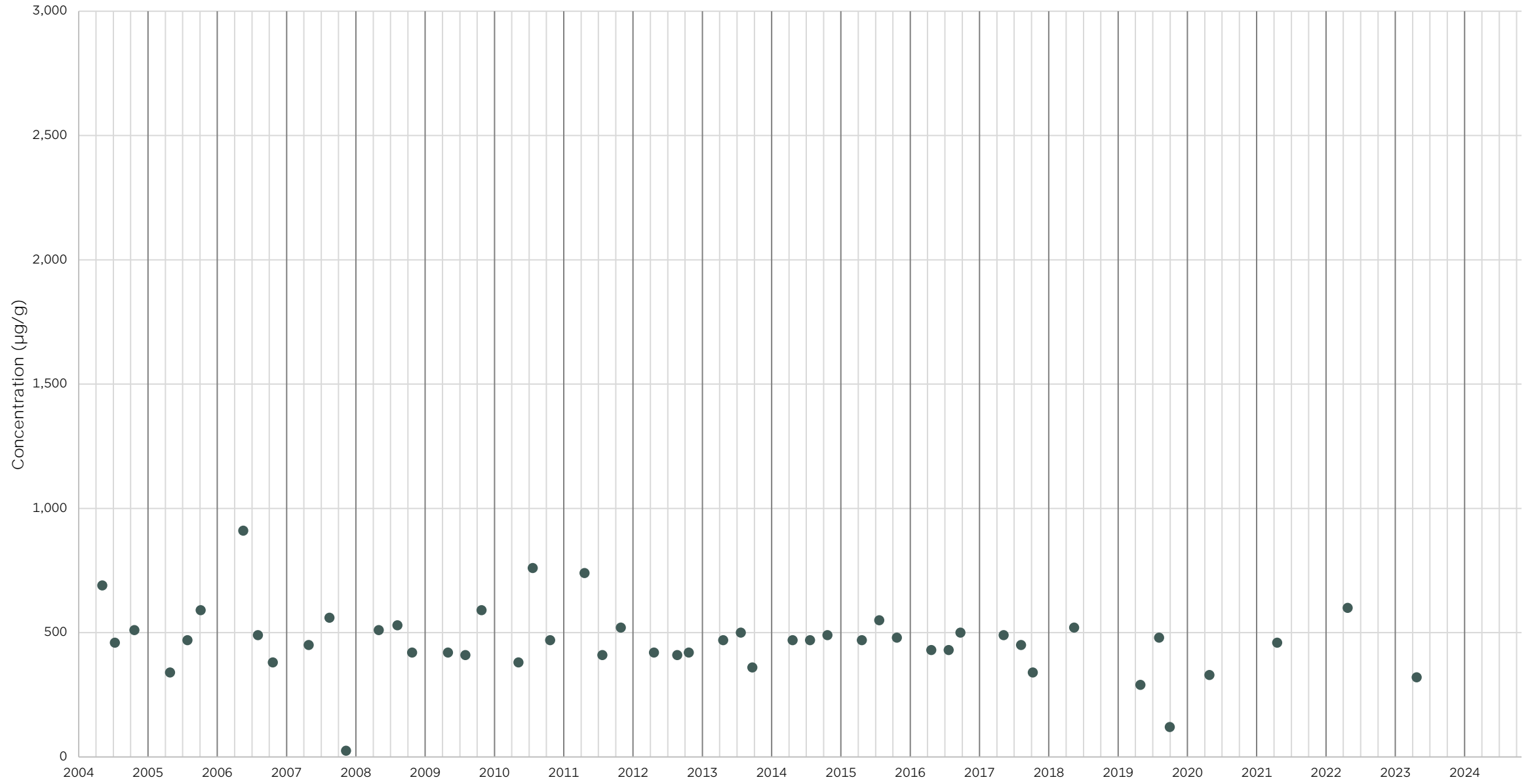


Bayshore Village Effluent Spray Irrigation Wainman's Creek Water Quality Monitoring Total Phosphorus

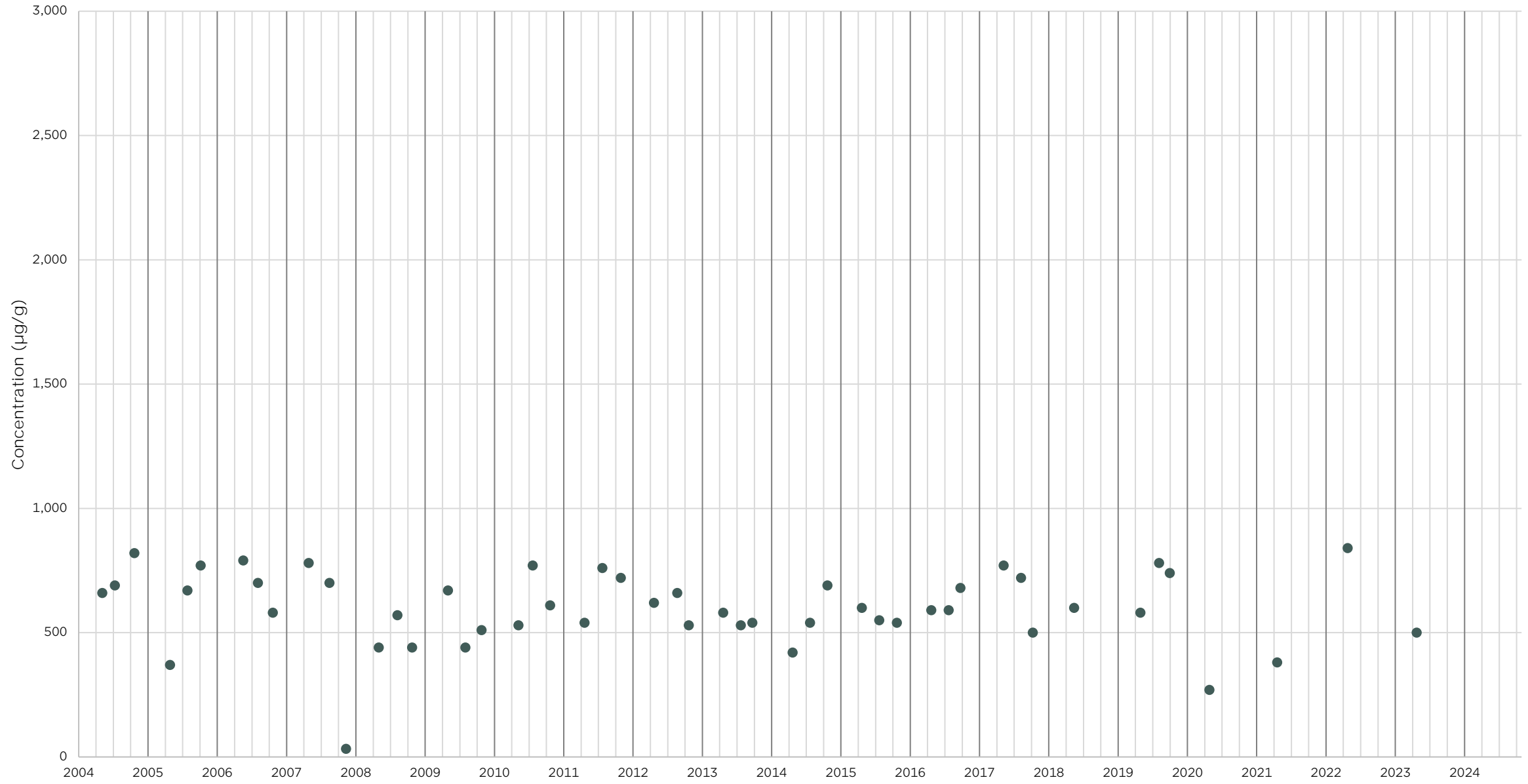
● Upstream From Spray Irrigation Area ● Downstream From Spray Irrigation Area



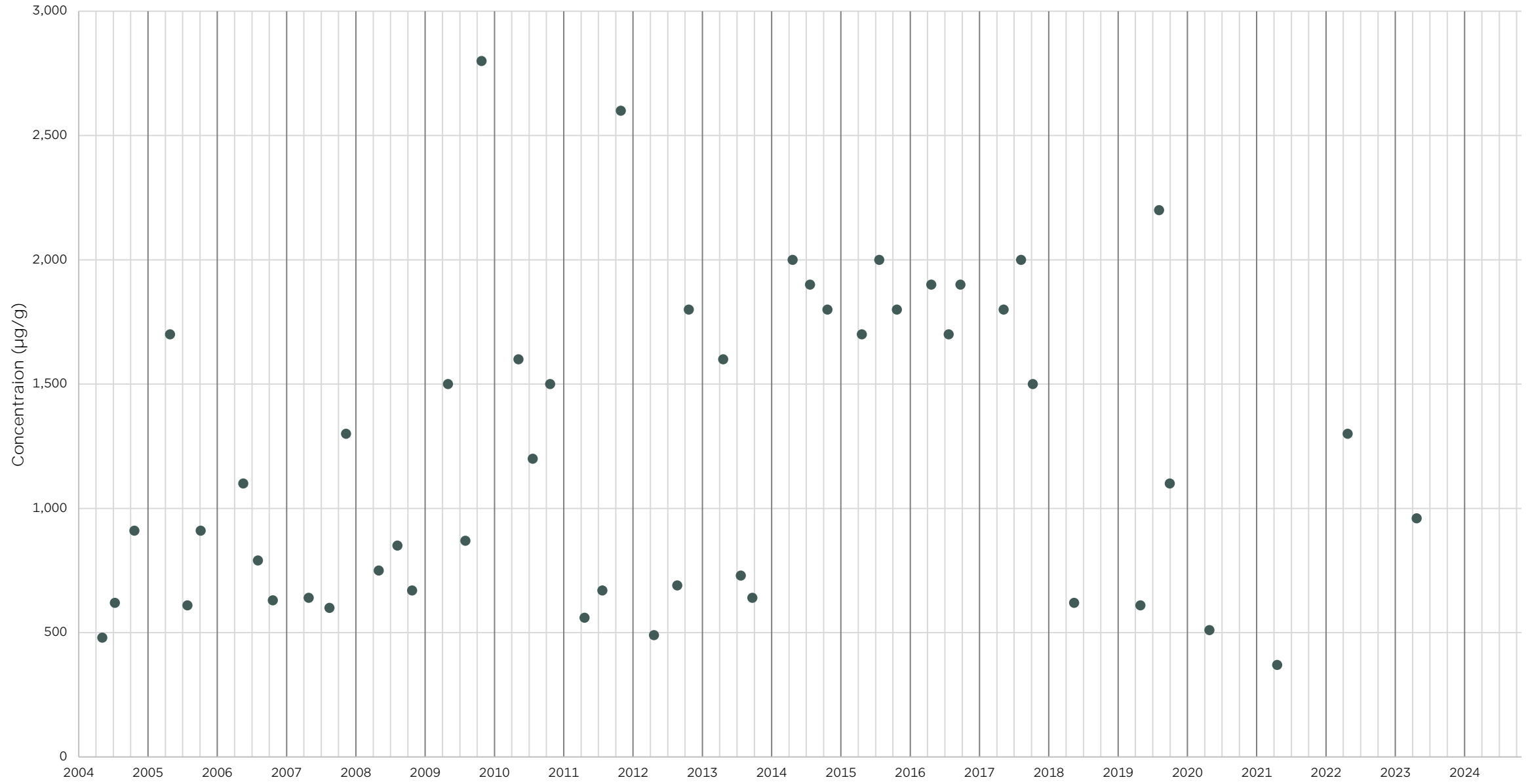
Bayshore Village Effluent Spray Irrigation Soil Quality Monitoring
North Field Upper - Total Phosphorus



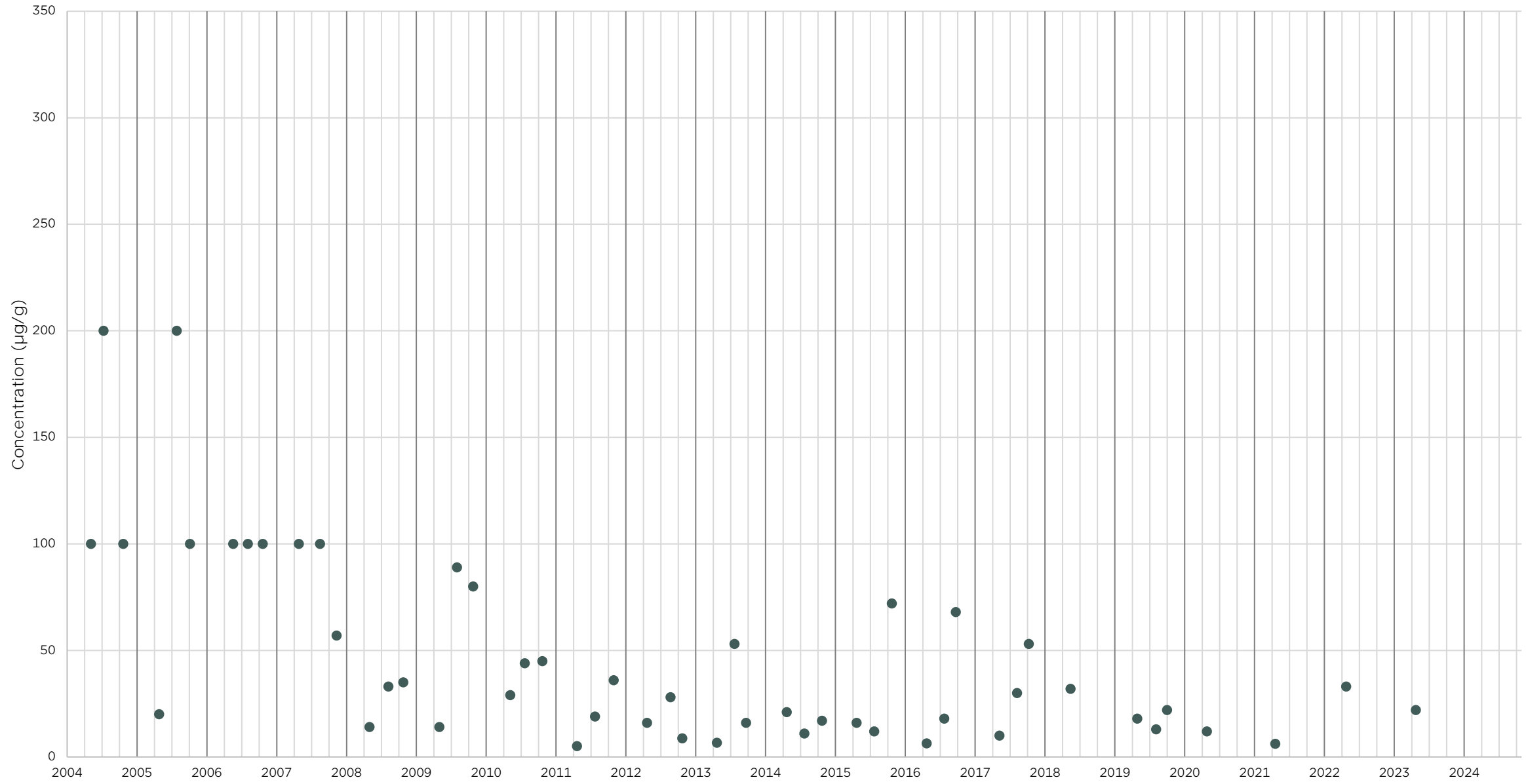
Bayshore Village Effluent Spray Irrigation Soil Quality Monitoring
North Field Lower - Total Phosphorus



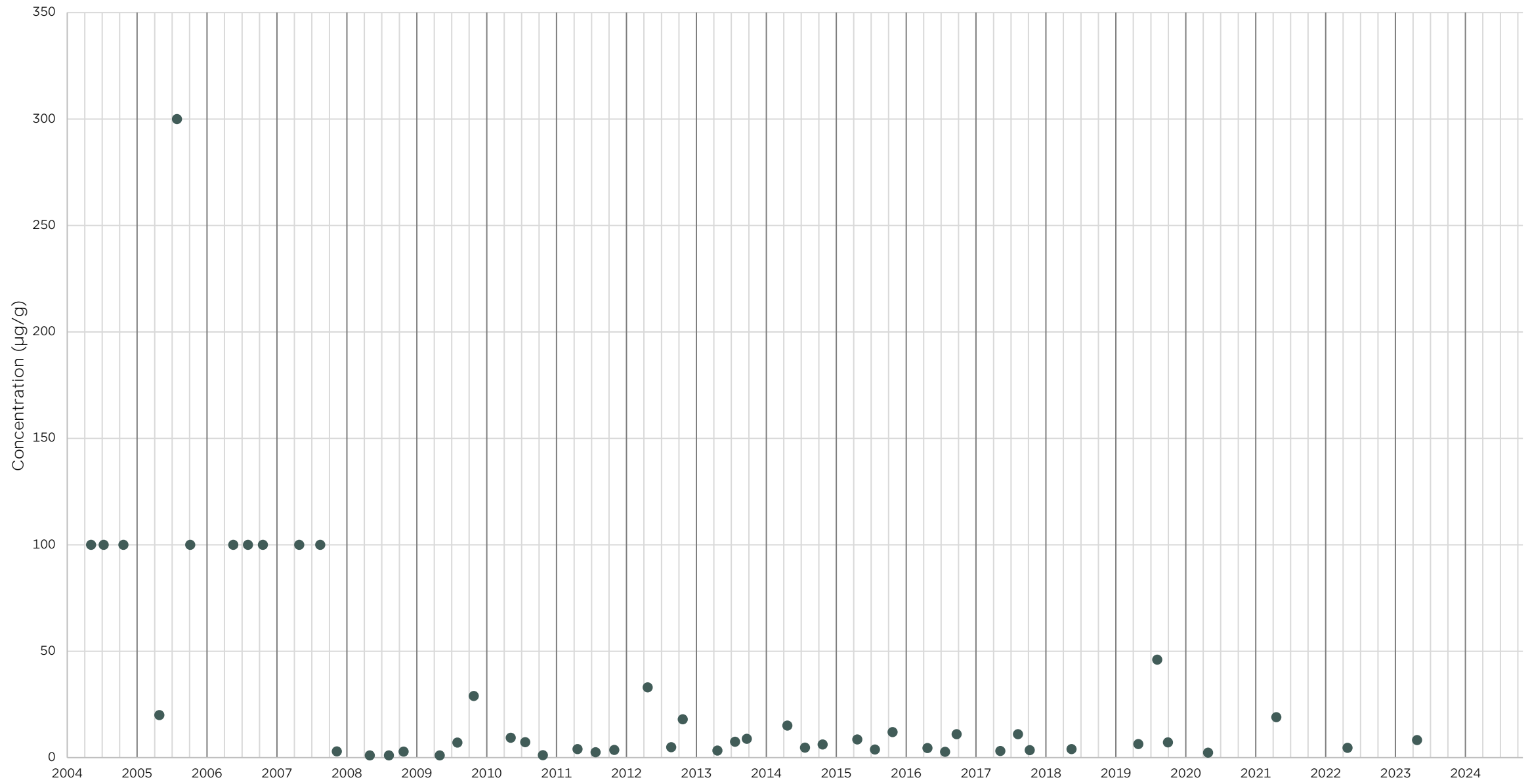
Bayshore Village Effluent Spray Irrigation Soil Quality Monitoring
South Field - Total Phosphorus



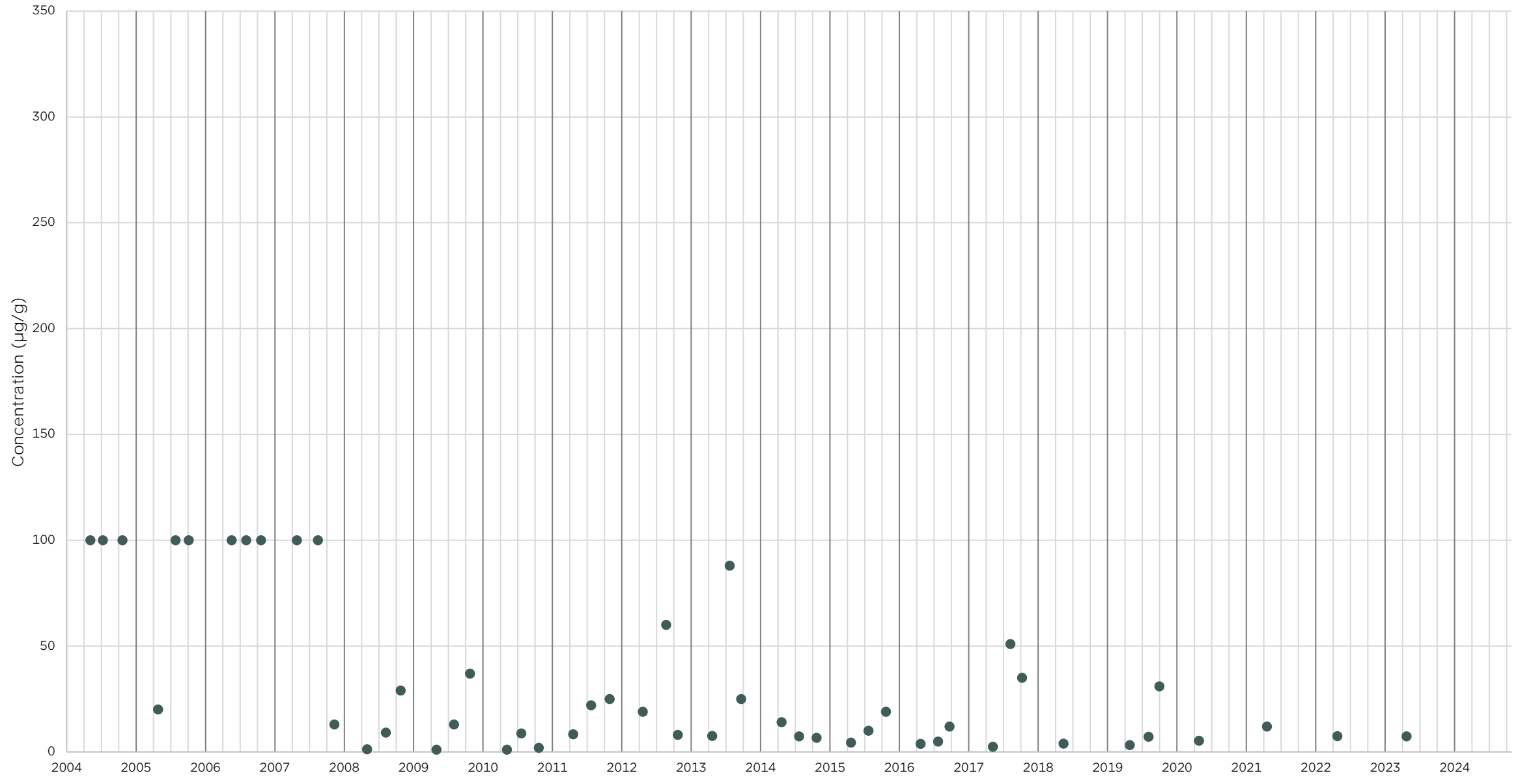
Bayshore Village Effluent Spray Irrigation Soil Quality Monitoring
North Field Upper - Chloride



Bayshore Village Effluent Spray Irrigation Soil Quality Monitoring
North Field Lower - Chloride



Bayshore Village Effluent Spray Irrigation Soil Quality Monitoring
South Field - Chloride



Appendix D: Air Quality Modelling

BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION CLASS EA

AIR QUALITY IMPACT ASSESSMENT

Introduction

Potential air quality concerns from the Bayshore Village lagoon effluent spray irrigation during the spray season of May to September were reviewed for the existing conditions (Do Nothing alternative) and the following effluent disposal alternatives:

- Alternative 3: Establish one new spray irrigation field (West)
- Alternative 6: Build effluent disposal bed on West field, spray irrigate on South Field, and decommission North Field

Four alternatives were short listed during the Class EA: Alternatives 3, 6, 7 and 8. Alternatives 3 and 7 both involve establishing spray irrigation on a new field (West Field), therefore air impact assessment of Alternative 3 was considered representative of Alternative 7. Alternative 8, which involves the complete replacement of the effluent spray irrigation system with a subsurface effluent disposal bed, was not modelled for air quality impacts because there are no anticipated air emissions from the below-ground system.

The Do Nothing alternative is to maintain the existing conditions, i.e., dispose of the effluent from the lagoons by spray irrigation on the existing South Field and North Field. Irrespective of the outcome of the Class EA, it is expected that the spray irrigation operation will be in place for the 2025 operating season and part of the 2026 season.

The existing sewage lagoons will remain in operation and are not the subject of the Class EA, therefore assessment of their air quality impacts was excluded from this study.

The treated effluent from the sewage lagoons is treated wastewater that is anticipated to contain some odorous components in limited quantities, mainly hydrogen sulphide (H₂S), which is a toxic and odorous gas, and ammonia, which is a pungent gas. These are the main contaminants that can be quantified and that may contribute to odour during effluent spray irrigation.

The main processes of odour release into the atmosphere from spray irrigation are:

- during wastewater spray application through wind drift, when fine effluent droplets evaporate; and
- when water is evaporated from the surface of the soil, releasing dissolved odorous gases into the atmosphere.

In addition to odour, particulate matter (total suspended solids (TSS)) release to the air and transfer to neighboring properties due to wind drift, was reviewed.

Factors that affect drift, odour, and particulate matter (PM) release include discharge pressure of the spray irrigation equipment; nozzle size and type, which can affect droplet size; contact time between wastewater and air; and weather conditions (wind, humidity, temperature, stability level).

We quantified the emission rates for the above-mentioned contaminants and completed air dispersion modeling and an off-property impact assessment at the closest sensitive receptors (i.e. residential dwellings) for the three above-mentioned scenarios. The methodology, sample calculation and results presented below.

Odour and Particulate Matter Emissions from Wind Drift and Evaporation

Methodology

Based on the South Field and North Field spray irrigation drawings (TSH, 1994 and 1995), available aerial imagery and Google street view, the existing spray irrigation system is a sprinkler solid set system with 1 to 1.5 m risers. The system is a permanent sprinkler installation consisting of above and below ground piping. It includes impact sprinklers with nozzles operating at 40 to 60 psi. The efficiency of this type of system (defined as percentage of water applied by the irrigation system that is available to the soil) is in the range of 70% to 75% (Ref. No. 1). This means that only 70% to 75% of water remains in the soil and the rest is lost during the application process to evaporation, wind drift or runoff.

For Alternatives 3 and 6, in which additional or replacement spray irrigation equipment will be installed, it was assumed that spray irrigation heads like the existing heads will be used.

Emission Rate Assessment

Emission rates were calculated using a mass balance methodology. To calculate the worst-case emission rate for the contaminants, it was assumed that the efficiency of the effluent irrigation system is 70%. It was also assumed that the remaining 30% is transferred completely to the air by wind drift and evaporation, and that the amount being drifted is completely evaporated before hitting the ground at a further distance. This creates the worst-case emission rate for ammonia, H₂S and PM from wind drift.

For the worst-case assessment, we also used the highest historical daily spray rate, which is approximately 80% higher than the average daily spray rate. The maximum annual average ammonia and TSS concentrations in the lagoon effluent for the past 10 years were used in this assessment.

In a study completed by Environment and Climate Change Canada and Health Canada, for different sources of H₂S (Ref. No. 2), two large urban secondary treatment systems with facultative lagoons were reviewed and H₂S concentrations were found to be undetectable. It was concluded that a wastewater treatment system that is “secondary or equivalent”, i.e., achieving reductions of BOD and TSS specified in



the Wastewater Systems Effluent Regulations (Canada 2012b), will also remove hydrogen sulphide to non-detectable levels (detection limit of 2 µg/L) (ECCC 2015). Therefore, the H₂S detection limit was used for this assessment.

The historical lagoon effluent parameters that were used for this assessment are summarized below.

Lagoon Effluent Parameters

PARAMETER	VALUE	UNIT	COMMENTS	SOURCE
Maximum historical daily spray rate	4,039	m ³ /day	Occurred on 9/24/2022	"Bayshore Village Lagoons Flows 2022" provided by Township
Maximum volume to be applied in a season	145,635	m ³	System rated capacity of 399 m ³ /day x 365 days	
Average spray days per season	65	days	from 2014 to 2023 historical data	Township Annual Reports
Average daily spray rate (existing)	2,241	m ³ /day		
Maximum operating hours per day	8	hrs/day		
Annual Average Ammonia in Cell A Effluent	2.75	mg/L	Annual Avg Lagoon Quality for 2012 to 2022	Tatham Updated Data Compilation Spreadsheet
Annual Average TSS in Cell A Effluent	88	mg/L		Tatham Updated Data Compilation Spreadsheet
Maximum H ₂ S in Lagoon Effluent	2	µg/L		Detection limit

Sample Calculation

24-hr ammonia emission rate for existing (Do Nothing) scenario = maximum historical daily spray rate x irrigation system efficiency x maximum annual average ammonia concentration / 24 / 3600
 = 3.86E-02 g/s

Odour Emission from Soil Evaporation

Methodology and Emission Rate Assessment

Evaporation of water from an unsaturated soil surface is known as actual evaporation, AE. The amount of evaporation depends on the soil type and its water conductivity as well as the pore sizes. Weather conditions also affect the water content above the surface and evaporation amount. Denser soils have lower water conductivity as well as lower evaporation rates due to less pores. The South and North Fields' soils are silty clay, which is a denser soil. The thermodynamic relationship between soil suction and the partial pressure of pore-water vapor can be determined by Lord Kelvin's equilibrium equation. The calculated and measured evaporation rates for a soil column of natural silt was published in Reference No. 3. The measured evaporation is in the range of 3.5 mm/day. This experiment was completed for a bare



soil column. Soil in the North and South Fields is covered with vegetation, which reduces the evaporation rate from the soil surface. However, to be conservative, we used the bare soil evaporation rate in the evaporation calculation and ammonia and H₂S emission rate assessment.

Sample Calculation

Evaporation rate	3.50	mm/day
South Field spray area (existing)	13.6	Ha
North Field spray area (existing)	11.4	Ha
Evaporation amount	875	m ³ /d
24-hr ammonia emission rate	2.79E-02	g/s

Air Dispersion Modelling

To determine the impact of the contaminants on the surrounding sensitive receptors, air dispersion modelling using the most recent regulatory version of AERMOD air dispersion model was completed and the highest point of impingement (POI) concentrations were determined. Air dispersion modelling was completed in accordance with the Guideline A-11- Air Dispersion Modelling Guide for Ontario. The results were compared to the applicable MECP compliance limits.

The following approved dispersion model and pre-processors were used:

- AERMOD dispersion model (v. 22112)
- AERMAP surface pre-processor
- BPIP building downwash pre-processor

The AERMET pre-processor was not used, because a pre-processed MECP meteorological dataset was utilized.

As required by sub-paragraph 10 of s.26(1) of O. Reg. 419/05, this section describes the local land use conditions and meteorological data used in dispersion modelling.

For this assessment, the AERMOD model was run using a MECP pre-processed 5-year meteorological dataset (surface and profile files), following paragraph 1 of s.13(1) of O. Reg. 419/05. The MECP preprocessed regional meteorological data set for Southwest Ontario- Crops processed with AERMET 22112 (April 2023) was used.

The terrain data used in this assessment was obtained from MECP. The file used in this assessment is cdem_dem_031D.tif.

Results

Emission rate calculation and air dispersion modelling were completed for the Do Nothing scenario and two alternative solutions for the period of May to September. The findings are summarized below.



- Under existing conditions (Do Nothing), the spray irrigation operation's modelled POI concentrations for ammonia, H₂S and particulate matter are all below the MECP criteria at the property limits.
- The POI concentrations of all three parameters are lower for Alternatives 3 and 6 than for the Do Nothing scenario.

Modelling results are presented in the tables overleaf.

References

1. "B.C. SPRINKLER IRRIGATION MANUAL, British Columbia Ministry of Agriculture, 2014" Table 3-1
2. Draft Screening Assessment, Hydrogen Sulfide (H₂S), Sodium Sulfide (Na(SH)) and Sodium Sulfide (Na₂S), Environment and Climate Change Canada, Health Canada, September 2017
3. Improvements to the calculation of actual evaporation from bare soil surfaces Dat T.Q. Tran, Delwyn G. Fredlund, and Dave H. Chan, Can. Geotech. J. 53: 118-133 (2016)



Air Dispersion Modelling Results – Emissions Summary

Contaminant Name	Contaminant CAS #	Total Emission Rate (g/s)	Air Dispersion Model Used	Maximum POI ¹ Concentration (µg/m ³)	MECP Criteria (µg/m ³)	Averaging Period	Limiting Effect	Percentage of Criteria (%)
Do Nothing (Existing Conditions)								
Ammonia	7664-41-7	0.0664	AERMOD 22112	4.46	100	24-hr	Health	4.46%
Particulate Matter	NA-PM	1.24	AERMOD 22112	83.2	120	24-hr	Visibility	69.33%
Hydrogen Sulfide	7783-06-4	0.0000483	AERMOD 22112	0.00324	7	24-hr	Health	0.05%
		0.000145	AERMOD 22112	0.0584	13	10-min	Odour	0.45%
Alternative 3: Add Spray Irrigation on West Field								
Ammonia	7664-41-7	0.0842	AERMOD 22112	3.50	100	24-hr	Health	3.50%
Particulate Matter	NA-PM	1.24	AERMOD 22112	51.5	120	24-hr	Visibility	42.91%
Hydrogen Sulfide	7783-06-4	0.0000613	AERMOD 22112	0.00255	7	24-hr	Health	0.04%
		0.000184	AERMOD 22112	0.0472	13	10-min	Odour	0.36%
Alternative 6: Abandon North Field, Keep South Field, Effluent Bed on West Field								
Ammonia	7664-41-7	0.0223	AERMOD 22112	4.16	100	24-hr	Health	4.16%
Particulate Matter	NA-PM	0.184	AERMOD 22112	42.2	120	24-hr	Visibility	35.20%
Hydrogen Sulfide	7783-06-4	0.0000162	AERMOD 22112	0.00910	7	24-hr	Health	0.13%
		0.0000487	AERMOD 22112	0.0314	13	10-min	Odour	0.24%

Modeling was completed for the months of May to September only.
 CAS Number = Chemical Abstract Series Number
 g/s = grams per second
 µg/m³ = micrograms per cubic metre
 POI = Point of Impingement

Appendix E: Alternatives Cost Estimates

Project: Bayshore Village Sewage Works Effluent Spray Irrigation Class EA

File No.: 100080-2

Subject: EA Cost Estimates

Date: 1/25/2013

Design: KES

KES Revised Aug. 29, 2014

KES Revised Dec. 10, 2015

KES Revised Nov 9, 2016

EP Revised Aug 3, 2023

Checked: ST, Sept 7, 2023, Revised Oct 18, 2023

ALTERNATIVE 3: ESTABLISH NEW SPRAY IRRIGATION FIELD (WEST) AND MAINTAIN SOUTH AND NORTH FIELDS

Item No.	Description	Units	Estimated Quantity	Estimated Unit Price	Total Cost
1.0	Mobilization/demobilization	L.S.	1	\$ 15,000	\$ 15,000
2.0	Spray irrigation on West Field				
	Spray irrigation equipment	L.S.	1	\$ 500,000	\$ 500,000
	Seed field	m ²	160,000	\$ 1.00	\$ 160,000
3.0	Upgrade pumphouse with UV disinfection				
	Pumphouse (process piping, etc.)	L.S.	1	\$ 200,000	\$ 200,000
	UV disinfection equipment	L.S.	1	\$ 150,000	\$ 150,000
4.0	Tree line	ea.	275	\$ 600	\$ 165,000
5.0	Additional monitoring wells	L.S.	1	\$ 10,000	\$ 10,000
6.0	Bonds and insurance	%	2%	\$ 24,000	\$ 24,000
7.0	Estimate allowance/contingency	%	25%	\$ 306,000	\$ 306,000
	Estimated construction cost				\$ 1,530,000
8.0	Engineering and approvals	%	5%	\$ 77,000	\$ 77,000
	Estimated project cost w engineering				\$ 1,607,000

Notes: Excludes land acquisition and ex. equipment refurbishment costs

Excludes rehabilitation of North and South spray fields

Project: Bayshore Village Sewage Works Effluent Spray Irrigation Class EA

File No.: 100080-2

Subject: EA Cost Estimates

Date: 7/2/2013

Design: KES

EP Revised Aug 3, 2023

Checked: ST, Sept. 7, 2023

ALTERNATIVE 6: KEEP SPRAY IRRIGATION ON SOUTH FIELD. ABANDON NORTH FIELD. BUILD DISPOSAL BED ON WEST FIELD

Item No.	Description	Units	Estimated Quantity	Estimated Unit Price	Total Cost
1.0	Mobilization/demobilization	L.S.	1	\$ 15,000	\$ 15,000
2.0	Effluent pumping station to disposal bed				
	Pumping station	L.S.	1	\$ 800,000	\$ 800,000
	Effluent forcemains	m	796	\$ 100	\$ 80,000
	Distribution valves and chambers	ea.	14	\$ 1,500	\$ 32,000
3.0	Recharge bed				
	Site preparation	hrs	80	\$ 380	\$ 31,000
	Sand layer (septic sand)	tonne	123,376	\$ 16	\$ 1,975,000
	Stone layer (septic stone)	tonne	10,398	\$ 39	\$ 406,000
	Distribution piping	m	12,096	\$ 10	\$ 121,000
	General labourers	hrs	480	\$ 570	\$ 274,000
	Cover, grade, topsoil and seed	m ²	5,000	\$ 12	\$ 60,000
4.0	Upgrade Pumphouse with UV disinfection to spray field	L.S.	1	\$ 350,000	\$ 350,000
5.0	Tree line	ea.	200	\$ 600	\$ 120,000
6.0	Remove spray equip in North Field	m ²	100,000	\$ 4	\$ 400,000
7.0	Additional monitoring wells	L.S.	1	\$ 10,000	\$ 10,000
8.0	Bonds and insurance	%	2%	\$ 93,000	\$ 93,000
9.0	Estimate allowance/contingency	%	25%	\$ 1,169,000	\$ 1,169,000
	Estimated construction cost				\$ 5,936,000
10.0	Engineering and approvals	%	5%	\$ 297,000	\$ 297,000
	Estimated project cost w engineering				\$ 6,233,000

Notes: Exclude land acquisition and ex. Equipment refurbishment costs
Excludes rehabilitation of South spray field

Project: Bayshore Village Sewage Works Effluent Spray Irrigation Class EA

File No.: 100080-2

Subject: EA Cost Estimates

Date: 7/2/2013

Design: KES

EP Revised Aug 3, 2023

Checked: ST, Sept. 7, 2023

ALTERNATIVE 7: ESTABLISH SPRAY IRRIGATION ON WEST FIELD. ABANDON NORTH FIELD. BUILD DISPOSAL BED ON SOUTH FIELD

Item No.	Description	Units	Estimated Quantity	Estimated Unit Price	Total Cost
1.0	Mobilization/demobilization	L.S.	1	\$ 15,000	\$ 15,000
2.0	Spray irrigation on West Field				
	Spray irrigation equipment	L.S.	1	\$ 480,000	\$ 480,000
	Seed field	m ²	160,000	\$ 1.00	\$ 160,000
2.0	Effluent pumping station to disposal bed				
	Pumping station	L.S.	1	\$ 800,000	\$ 800,000
	Effluent forcemains	m	539	\$ 100	\$ 54,000
	Distribution valves and chambers	ea.	14	\$ 1,500	\$ 32,000
3.0	Recharge bed				
	Site preparation	hrs	80	\$ 380	\$ 31,000
	Sand layer (septic sand)	tonne	151,712	\$ 16	\$ 2,428,000
	Stone layer (septic stone)	tonne	11,642	\$ 39	\$ 455,000
	Distribution piping	m	12,096	\$ 10	\$ 121,000
	General labourers	hrs	480	\$ 570	\$ 274,000
	Cover, grade, topsoil and seed	m ²	5,000	\$ 12	\$ 60,000
4.0	Upgrade Pumphouse with UV disinfection to spray field	L.S.	1	\$ 350,000	\$ 350,000
5.0	Remove spray equip in North Field	m ²	100,000	\$ 4	\$ 400,000
	Remove spray equip in South Field	m ²	136,000	\$ 4	\$ 544,000
6.0	Additional monitoring wells	L.S.	1	\$ 10,000	\$ 10,000
7.0	Bonds and insurance	%	2%	\$ 124,000	\$ 124,000
8.0	Estimate allowance/contingency	%	25%	\$1,554,000	\$ 1,554,000
	Estimated construction cost				\$ 7,892,000
9.0	Engineering and approvals	%	5%	\$ 395,000	\$ 395,000
	Estimated project cost w engineering				\$ 8,287,000

Notes: Exclude land acquisition and ex. equipment refurbishment costs

Project: Bayshore Village Sewage Works Effluent Spray Irrigation Class EA

File No.: 100080-2

Subject: EA Cost Estimates

Date: 7/2/2013

Design: KES

KES Revised Aug. 29, 2014

KES Revised Dec. 10, 2015

KES Revised Nov 9, 2016

EP Revised Aug 10, 2023

Checked: ST, Sept 7, 2023

ALTERNATIVE 8: BUILD EFFLUENT RECHARGE BED AND DISCONTINUE SPRAY IRRIGATION

Item No.	Description	Units	Estimated Quantity	Estimated Unit Price	Total Cost
1.0	Mobilization/demobilization	L.S.	1	\$ 15,000	\$ 15,000
2.0	Effluent pumping station				
	Pumping station	L.S.	1	\$ 800,000	\$ 800,000
	Effluent forcemains	m	1,221	\$ 100	\$ 122,000
	Distribution valves and chambers	ea.	14	\$ 1,500	\$ 32,000
3.0	Recharge bed				
	Site preparation	hrs	80	\$ 380	\$ 31,000
	Sand layer (septic sand)	tonne	148,720	\$ 16	\$ 2,380,000
	Stone layer (septic stone)	tonne	15,941	\$ 39	\$ 622,000
	Distribution piping	m	18,144	\$ 10	\$ 181,000
	General labourers	hrs	480	\$ 570	\$ 274,000
	Cover, grade, topsoil and seed	m ²	5,000	\$ 12	\$ 60,000
4.0	Decommission/remove spray equip in North and South Fields				
	North field	m ²	100,000	\$ 4	\$ 400,000
	South field	m ²	136,000	\$ 4	\$ 544,000
5.0	Additional monitoring wells	L.S.	1	\$ 10,000	\$ 10,000
6.0	Bonds and insurance	%	2%	\$ 109,000	\$ 109,000
7.0	Estimate allowance/contingency	%	25%	\$1,368,000	\$ 1,368,000
	Estimated construction cost				\$ 6,948,000
8.0	Engineering and approvals	%	5%	\$ 347,000	\$ 347,000
	Estimated project cost w engineering				\$ 7,295,000

Notes: Exclude land acquisition and ex. equipment refurbishment costs

Appendix F: Pre-PIC Correspondence



Township of Ramara
Attn: Ms. Jennifer Connor
Township Clerk
2297 Highway 12, PO Box 130
Breachin, ON, L0K 1B0

November 9, 2017

Re: Notice of Completion of Class Environmental Assessment Study Bayshore Village Effluent Spray Irrigation System – LSRCA Comments

Dear Ms. Connor,

I have reviewed the Bayshore Villiage Sewage Works Effluent Spray Irrigation Class Environmental Assessment Phases 1 and 2 Project File and offer the following comments:

Source Water Protection

The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage is one of the prescribed drinking water threats under the *Clean Water Act, 2006*. A portion of the south effluent spray irrigation field is within the wellhead protection area for the Bayshore Village Subdivision Well Supply (see Appendix A). Policies SEWG(b)-1 to SEWG(b)-3 of the South Georgian Bay Lake Simcoe Source Protection Plan and the circumstances and vulnerability score needed for the effluent discharge to be considered a significant drinking water threat should be reviewed to ensure that the proposed activity will be permitted. The recommended short term solution of establishing an additional spray irrigation field (Alternative 3A from the abovementioned report) adjacent to the existing field should be scrutinized in the same way.

If sewage biosolids are applied to land then policies NASM(App)-1 to NASM(App)-4 of the South Georgian Bay Lake Simcoe Source Protection Plan and the circumstances and vulnerability score needed for the land application of sewage biosolids to be considered a significant drinking water threat should be reviewed to ensure that the proposed activity will be permitted.

Thank you for the opportunity to comment on the Class EA study. Should you have any questions concerning our comments above, please contact the undersigned.

For further policy review, the South Georgian Bay Lake Simcoe Source Protection Plan can be found at www.ourwatershed.ca.

Sincerely,

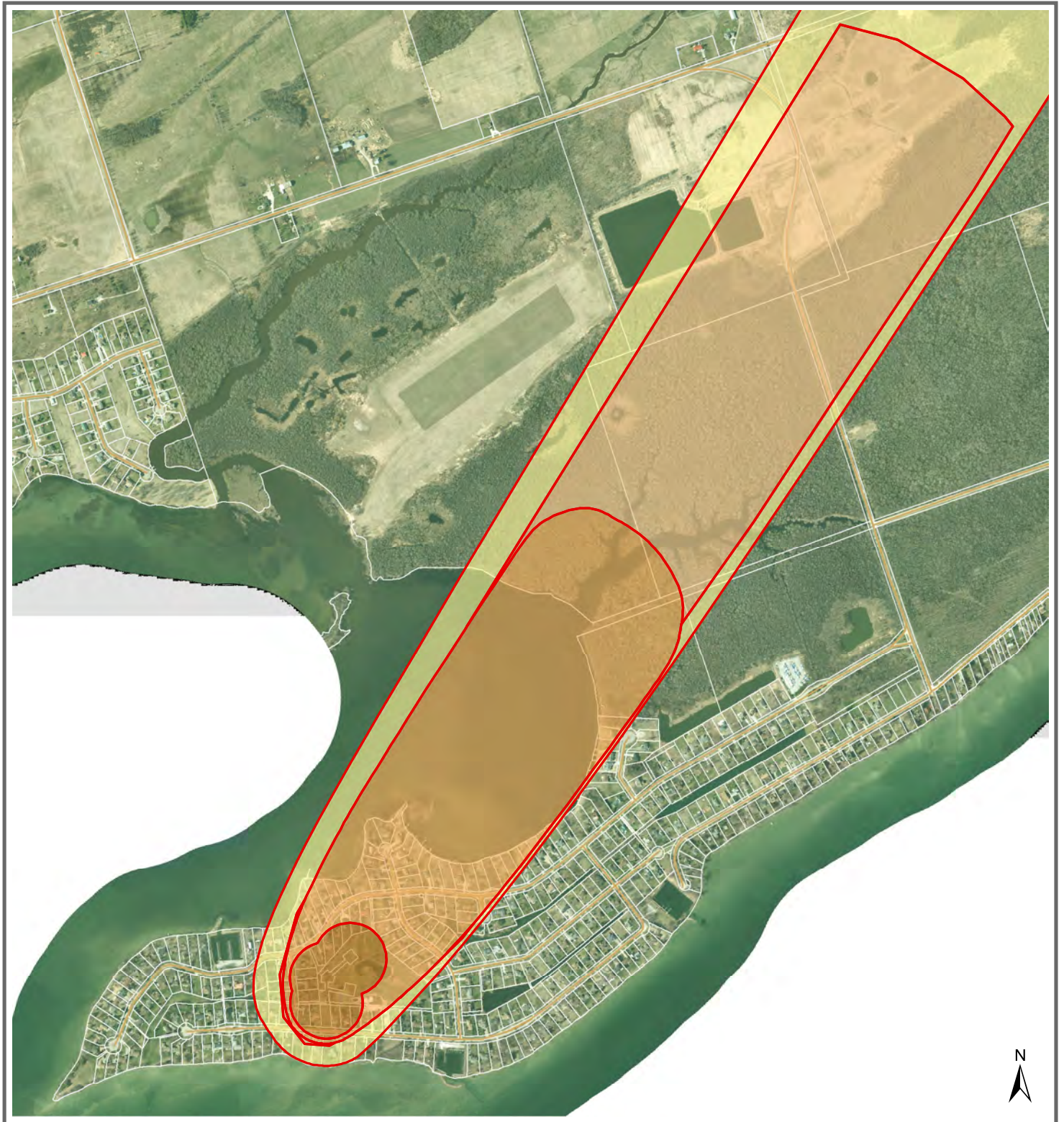
A handwritten signature in black ink that reads "Mike Wilson".

Mike Wilson, P. Geo.
Source Water Protection Coordinator

cc. Bill Thompson, Program Manager, South Georgina Bay – Lake Simcoe Source Protection Region

Taylor Knapp, Development Planner, Lake Simcoe Region Conservation Authority
Dyana Marks, Resources Technician/ RMO, Township of Ramara

Bayshore Village Subdivision Well Supply Wellhead Protection Areas



- WHPA-A (100m)
- WHPA-B (2 yr)
- WHPA-C (5 yr)
- WHPA-D (25 yr)

1:15,000



This product was produced by the Lake Simcoe Region Conservation Authority and some information depicted on this map may have been compiled from various sources. While every effort has been made to accurately depict the information, data / mapping errors may exist. This map has been produced for illustrative purposes only. LSRCA GIS Services DRAFT created KZ Nov. 2017. © LAKE SIMCOE REGION CONSERVATION AUTHORITY. All Rights Reserved. The following datasets municipal boundary, ORN are © Queens Printer for Ontario, 2016. Reproduced with Permission.



C.C. Tatham & Associates Ltd.
Consulting Engineers

Collingwood Bracebridge Orillia Barrie Ottawa

115 Sandford Fleming Drive, Suite 200
Collingwood, Ontario L9Y 5A6
Tel: (705) 444-2565
Fax: (705) 444-2327
Email: info@cctatham.com
Web: www.cctatham.com

October 3, 2018

via e-mail
CCTA File 100080

Mike Wilson

Source Water Protection Coordinator
Lake Simcoe Region Conservation Authority
120 Bayview Parkway
Newmarket, ON L3Y 3W3

**Re: Township of Ramara
Bayshore Village Sewage Works Effluent Spray Irrigation Class EA
Response to Comments**

Dear Mr. Wilson:

We wish to provide responses to the comments you provided on the Bayshore Village Effluent Spray Irrigation Class EA Project File.

During the Class EA study, we reviewed the South Georgian Bay Lake Simcoe Source Protection Plan and table of circumstances leading to a significant threat, and how these may affect the alternative approaches to resolving the issues with the Bayshore Village effluent spray irrigation system. Part of the existing sewage lagoons and effluent spray irrigation fields are within the WHPA-C (5-year time of travel) or WHPA-D (25-year time of travel) for the Bayshore Village municipal wells.

The existing sewage lagoons and spray irrigation system are approved by an MOE Certificate of Approval. The C of A includes terms and conditions and monitoring requirements, which are consistently met by the Township of Ramara. Therefore, Policy SEWG(b)-1 does not apply and Policy SEWG(b)-2 is met. Further, as a small sewage treatment plant discharging less than 400 m³/day of treated effluent, the Bayshore Village facility is not considered a significant threat to the municipal drinking water supply.

Some of the additional effluent spray irrigation areas adjacent to the lagoons that were suggested in the Class EA study would be within the WHPA-C or D and others would be outside the wellhead protection areas. It is acknowledged that it would be preferable for any new effluent spray irrigation field to be located outside of the wellhead protection area. We note however that the activity would not be a significant threat (due to the small volume of effluent applied) and that any ECA amendment that will be issued approving additional effluent spray fields would contain terms and conditions to ensure the new works are built, operated and monitored such that they do not become a significant threat to the

Bayshore Village well supply. Therefore, Policy SEWG(b)-3 does not apply under the circumstances at this site.

Sewage biosolids are not applied to land at the Bayshore Village sewage works site, therefore Policies NASM(App)-1 to 4 do not apply.

Thank you very much for your comments.

Yours truly,

C.C. Tatham & Associates Ltd.



Suzanne Troxler, B.Eng., M.Sc., P.Eng.
Director, Manager – Environmental Engineering
ST:rlh

copy: Dave Readman, Township of Ramara (via e-mail dreadman@ramara.ca)
Jennifer Connor, Township of Ramara, (via e-mail jconnor@ramara.ca)

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Ministry of the Environment

Central Region
Technical Support Section

5775 Yonge Street, 8th Floor
North York, Ontario M2M 4J1

Tel.: (416) 326-6700
Fax: (416) 325-6347

Ministère de l'Environnement

Région du Centre
Section d'appui technique

5775, rue Yonge, 8^{ième} étage
North York, Ontario M2M 4J1

Tél. : (416) 326-6700
Télééc. : (416) 325-6347



November 28, 2017

EA 01-06-03

Suzanne Troxler
Project Manager
C.C. Tatham and Associates Ltd.
115 Sandford Fleming Drive, Suite 200
Collingwood, L9Y 5A6

**RE: Bayshore Village Sewage Works Effluent Spray Irrigation
Township of Ramara
Class Environmental Assessment
Final Project File, September 26, 2017**

Dear Ms. Troxler,

We have reviewed the final Project File report for the above-noted Class Environmental Assessment (EA) project located in the Township of Ramara. The following comments are provided for consideration:

Project Description

The Project File concluded that there should be both a long-term and short-term solution implemented. The long-term preferred solution (Alternative 6) is to discontinue the current mode of effluent disposal via spray irrigation, upgrade the sewage treatment plant (STP) and discharge the effluent to Wainman's Creek. This is deemed a long-term solution due to the fact that obtaining approval to discharge the effluent to the Creek is reliant upon revisions being made to policies of the Lake Simcoe Protection Plan (LSPP) and Phosphorus Reduction Strategy (PRS). The project file also concluded that the short-term preferred solution (Alternative 3A) is to establish a new spray irrigation field, in addition to the existing fields.

Long-term Solution

- The EA notes that, before the proposed long-term preferred solution can be implemented, amendments to the LSPP are required. However, it is not possible to determine if or when the necessary amendments would be approved or what additional conditions may have to be met. It is therefore impossible to determine if or when the long term solution could be implemented.

It is recommended that a solution that fits within the existing policy and regulatory requirements, including the LSPP and PRS, be identified for the long-term solution.

- Cost is a significant factor in the selection of the preferred alternative. The Project File states that the preferred long-term solution (Alternative 6) would cost \$3 M. However, this is largely dependent on the level of treatment required. Even if the necessary amendment(s) to the LSPP are obtained at some point in the future, it is highly likely that the direct discharge option would be required to meet a very high level of treatment. This would significantly increase the cost for implementing this alternative, making it a much less attractive option. Properly re-assessing the cost to implement this alternative would require a more in-depth review of factors such as: effluent quality targets likely to be required and the treatment technologies needed to achieve

these; infrastructure needs including plant upgrades and potentially, a new outfall in the lake; the cost of the environmental impact and engineering studies; etc.

- During the Class EA study, pumping sewage to the Lagoon City STP was included in the long list of alternative solutions (alternative 7). However, this alternative was not considered viable due to cost, operational concerns and expected requirements to upgrade the STP. As a result, this alternative was not considered further. When weighing the new STP (alternative 6) versus pumping sewage to the existing Lagoon City STP (alternative 7), the Township should consider realistic estimates of all capital costs and operating costs that are reasonably expected to arise over the expected useful life of the infrastructure asset.

Short-term Solution

- From a surface water perspective, no significant concerns have been identified at this time. The ministry also recognizes that there is no increase in capacity being considered with this interim solution.
- From a groundwater perspective, the ministry does not have an objection in principle with the addition of or replacement of the effluent spray beds. However, in order to support this option, the ministry requires a hydrogeological study of the existing spray fields and of the areas for new spray fields and whether or not these new areas would meet “reasonable use” as defined in *Guideline B-7 Incorporation of the Reasonable Use Concept into MOEE Groundwater Management Activities*. This hydrogeological study should include the monitoring data collected from the North Fields and the South Fields.
- Table 4 “Assessment of Alternatives” states that for Alternative 3A “spray irrigation operation does not cause noise or have odours”. However, Table 5 “Summary of Written Comments Received at PIC No.1 and Responses” indicates that a resident “finds the spray irrigation operation results in very bad odour causing headaches”.

Considering that Alternative 3A involves increasing the land used for spray irrigation by 16 ha, it is recommended to conduct an Air Quality Impact Assessment to ensure that the short-term solution will not result in odour impacts off-site at nearby sensitive receptors. The assessment should also discuss any mitigation measures that may be required.

- The approval for this system limits the spray irrigation operation to the period between May 18 and September 28 each year. However, requests for extension of the spraying period past the September 28th window have been common. This has been necessary due to weather and a reduced absorption capacity of the spray fields due to compaction. Although aeration of the fields was undertaken in an attempt to increase the absorption capacity, it has not been successful. We anticipate the addition of new field(s) will alleviate this problem.
- In the past, ministry staff have received calls regarding potential discharge of lagoon effluent into Wainman’s Creek. There have also been concerns from neighbouring residents regarding aerosols and drift from the spray sites. Staff have also been informed that the piping in the spray fields requires frequent maintenance due to breaks. We expect the addition of new spray fields along with the addition of UV treatment will address these concerns. The ministry recommends an evaluation of the system and its operation be undertaken to ensure the integrity of the system (e.g., maintenance of conveyance pipes) and to ensure operations follow established procedures (e.g., timing of spraying, rates of application, regular inspections etc.).

Conclusion

It is recommended that the above comments be addressed along with the addition of the hydrogeological study and the Air Quality Impact Assessment be submitted prior to the completion of the EA.

Thank you for the opportunity to comment on this project. Should your team have any questions regarding the above, please contact me at 416-326-3477 or via email: paul.d.martin@ontario.ca.

Yours truly,

A handwritten signature in black ink that reads "Paul Martin". The signature is written in a cursive, flowing style.

Paul Martin, Supervisor
Air, Pesticides and Environmental Planning

- c. C. Hood, Manager, Barrie District Office, MOECC
T. Dufresne, Technical Support Manager, MOECC
Central Region EA File
A & P File



C.C. Tatham & Associates Ltd.
Consulting Engineers

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Fax: (705) 444-2327
Email: info@cctatham.com
Web: www.cctatham.com

October 3, 2018

via e-mail
CCTA File 100080

Paul Martin

Supervisor, Air, Pesticides and Environmental Planning
Ministry of the Environment, Conservation and Parks
Central Region
Technical Support Section
5775 Yonge Street, 8th Floor
North York, ON M2M 4J1

**Re: Township of Ramara
Bayshore Village Sewage Works Effluent Spray Irrigation Class EA
Response to Comments**

Dear Mr. Martin:

We have reviewed the comments you provided on the Bayshore Village Effluent Spray Irrigation Class EA Project File. We wish to provide our responses to these comments and present the Township of Ramara's proposed next steps on this project.

Response to Comments on Preferred Long-Term Solution

We acknowledge that the Class EA's preferred long term solution does not fit well within the current ministry policies with regards to Lake Simcoe. However, it is the intent of the Township to pursue their request to have the Ministry review the wording of Policy 4.3 of the Lake Simcoe Protection Plan as part of the 10-year review that is mandated by the *Lake Simcoe Protection Act*. The Township hopes to obtain an acknowledgment that the Bayshore Village sewage works is an existing municipal system on the shore of Lake Simcoe that should be considered in the LSPP. The Township concurs with the Class EA conclusion that upgrading the Bayshore Village STP to a tertiary facility with a surface effluent discharge is the best approach to address the issues caused by an inappropriate effluent disposal system at this location, and can be implemented without any negative impacts on lake water quality.

The estimated project cost of the preferred solution is for adding a tertiary treatment facility downstream of the existing secondary treatment lagoons. This facility will house coagulant addition, a tertiary filter to achieve an effluent TP of 0.05 mg/L, and UV disinfection. The proposed outfall would be to the creek or to the wetland, not directly into Lake Simcoe. Therefore, we believe our preliminary cost estimate of \$3M is appropriate.

The option of pumping sewage or effluent to the Lagoon City STP would involve an 8 km to 15 km long forcemain, depending on available easements and feasibility of crossing wetlands. In the Class EA report we indicate concern with the very high estimated cost of constructing this forcemain and pumping station (currently estimated at \$7M to \$12M), and the ongoing operation and energy costs. We do not see the potential benefits to the environment of ongoing pumping of effluent from Bayshore Village for discharge at an alternate location on Lake Simcoe. In our analysis, a more cost-effective solution is to provide tertiary treatment for phosphorus removal at the existing Bayshore Village treatment facility and utilize a small share (7 kg/year) of the Lagoon City STP's maximum phosphorus load (249 kg/year) to discharge the effluent to Lake Simcoe at Bayshore Village.

Response to Comments on Preferred Short Term Solution

The existing spray irrigation fields were designed and built in the 1980s and 1990s and were approved by the Ministry of the Environment. The addition of a new field to supplement the existing spray fields will require a hydrogeological study, a design brief and ECA application to describe how the new spray field design will meet MOE Sewage Works Design Guidelines. This work is intended to be completed during the design of the new spray field rather than during the Class EA study. At this time, the property immediately west of the municipal lagoons that was being considered for the additional spray field during the Class EA has been recently purchased by a third party and is not currently for sale or lease. Review of available lands at a greater distance from the lagoons is now necessary to identify potential new spray field locations.

With respect to odours from the effluent spray irrigation system, there has not been odour complaints in the past. The comment from one resident about odours has not been confirmed. We will require further direction from the MECP on the terms of reference for the requested Air Quality Impact Assessment and mitigating measures study for the lagoons and effluent spray irrigation. This assessment will be conducted when a new spray irrigation field is identified. We also note that the preferred short term solution includes the addition of tree buffers to mitigate concerns with aerosols from the existing spray irrigation operation.

The Township operates and maintains its spray irrigation system in accordance with the Certificate of Approval, and is aware of the need to replace equipment and facilities as they age and before they fail. The costs associated with the maintenance of its spray equipment on the existing fields is in the Township's operating budgets.

Interim Upgrades to the Bayshore Village Sewage Treatment and Effluent Disposal Works

The Township is planning to apply to the MECP for approval of interim upgrades to the Bayshore Village sewage treatment and effluent disposal system in order to reduce its potential phosphorus impact to Lake Simcoe and start to address the residents' concerns with the spray irrigation system. These measures will not directly address the capacity issue, however are intended to minimize, on an interim

basis, the potential impacts if the soil absorption capacity of the spray irrigation fields is temporarily exceeded.

The proposal will consist of:

- Adding a coagulant feed and mixing system to provide phosphorus precipitation in the lagoons. Alum or PAC is proposed to be injected into the incoming forcemain to the first lagoon cell. Metering pumps and a coagulant storage tank would be housed in a shed adjacent to the lagoon and provide year-round coagulant addition. The design objective is to reduce the phosphorus content of the lagoon effluent from the historical average of 0.9 mg/L to 0.3 mg/L.
- Disinfecting the lagoon effluent by UV light. An in-line UV system would be installed on the existing effluent pump station discharge pipe to the spray fields, with a design objective of 200 counts per 100 mL.

We will submit a letter to the MECP in the near future requesting technical comments in advance of submitting an ECA application for these interim measures.

We trust this letter provides adequate clarifications to your comments. We are available to meet with the MECP Barrie District Office and the Technical Support Section to discuss potential next steps to resolve the Bayshore Village effluent spray irrigation issues.

Yours truly,

C.C. Tatham & Associates Ltd.



Suzanne Troxler, B.Eng., M.Sc., P.Eng.
Director, Manager – Environmental Engineering
ST:rlh

copy: Dave Readman, Township of Ramara, via e-mail (dreadman@ramara.ca)
Jennifer Connor, Township of Ramara, via e-mail (jconnor@ramara.ca)

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**Ministry of the Environment,
Conservation and Parks
Drinking Water and Environmental
Compliance Division**

Central Region,
Technical Support Section
5775 Yonge Street, 9th Floor
North York, ON M2M 4J1
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Fax (416) 325-6347

**Ministère de l'Environnement, de la Protection
de la nature et des Parcs
Division de la conformité en matière d'eau
potable et d'environnement**

Région du Centre
Section d'appui technique
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North York, Ontario M2M 4J1
Tél. : (416) 326-6700
Télééc. : (416) 325-6347



November 21, 2018

File No.: EA 01-06-03

Suzanne Troxler
Project Manager
C.C. Tatham and Associates Ltd.
115 Sandford Fleming Drive, Suite 200
Collingwood, Ontario L9Y 5A6

Re: Bayshore Village Sewage Works Effluent Spray Irrigation
Township of Ramara
Class Environmental Assessment
Response to the Ministry's November 28, 2017 Comments on the Project File

Dear Ms. Troxler,

Thank you for your October 3, 2018 response to our comments dated November 28, 2017 for the above noted Class Environmental Assessment (EA) project. The ministry has reviewed your response and provides further comments below regarding the preferred short-term solution identified in your letter:

Based on the provisions of the Municipal Engineers Association's Municipal Class Environmental Assessment, and the purpose of the *Environmental Assessment Act* (Act), it is our view that further work must be done to verify the feasibility of the preferred short-term solution prior to its implementation. As the additional spray fields which were identified as the preferred option are no longer available for sale or lease (as mentioned in your October 3 letter), the preferred option must be revised to include actual lands that will be identified for use as spray fields. In the absence of this information, it is the ministry's view that the EA process for this project is not complete.

The ministry acknowledges that the proponent has committed to undertake a review of all available lands at a greater distance from the lagoons than previously considered; however this assessment must be completed as part of the EA process in order to select the preferred short-term solution. Any impacts on surrounding communities or nearby sensitive receptors from the proposed short-term solution must also be evaluated. As per our November 28, 2017 comments, once the additional spray fields are evaluated, a hydrogeological study must also be conducted at the EA stage.

The ministry's Barrie District office has expressed concerns with the existing sewage treatment system and the potential for failure while the EA process is ongoing. In 2017, the facility was operating at 97% of the rated capacity, which is an increase from 90% in 2016. Based on these concerns, in their recent inspection report of the wastewater system the district office strongly recommended developing a contingency plan for exceedance of rated capacity, as well as potentially restricting or suspending further development within the subdivision until these issues have been addressed. Once a contingency plan has been developed, please ensure that a copy is circulated to my attention, as well as to the district office.

Once these issues have been addressed to the ministry's satisfaction, the Township of Ramara must issue a Revised Notice of Completion for the Project File Report under A.4.1.1 Revisions to Schedule

B Projects of the Municipal Class Environmental Assessment. The Township must ensure that the requirements of the Class EA process for this project are satisfied prior to submitting an application for an Environmental Compliance Approval.

Thank you for the opportunity to comment on the project. If you have any questions regarding the comments above, please feel free to contact me directly at 416-326-3477 or by email at paul.d.martin@ontario.ca

Yours truly,

A handwritten signature in black ink that reads "Paul Martin". The signature is written in a cursive style with a large initial "P".

Paul Martin, Supervisor
Air, Pesticides and Environmental Planning

cc: [Dave Readman](#), Manager of Environmental Services, Township of Ramara
Cindy Hood, Manager, Barrie District Office, MECP
Lubna I. Hussain, Technical Support Manager, Central Region, MECP
Central Region EA File
A & P File

Appendix G: PIC Notice and Presentation



TOWNSHIP OF RAMARA

BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE

NOTICE OF PUBLIC INFORMATION CENTRE

The Township of Ramara is updating the Class Environmental Assessment (Class EA) that was previously completed in 2017 for the effluent spray irrigation system at the Bayshore Village Sewage Works. Treated effluent from the Bayshore Village sewage treatment lagoons is spray irrigated on two fields near Concession Road 8 and Sideroad 20. The Class EA is updating the evaluation of alternatives for effluent disposal to address current capacity and operational issues.

The Class EA update follows the Schedule B requirements of the Municipal Engineers Association (MEA) Municipal Class Environmental Assessment, as amended in 2023.

A Public Information Centre (PIC) will be held in person and virtually to present the alternative solutions under consideration and the preliminary recommendations, for public input. There will be a presentation followed by a question-and-answer period. Attendees can also join the PIC online by accessing the Zoom link that will be available on the Township website at www.ramara.ca/news. The recorded presentation will be available on the Township's [YouTube Channel](#).

Public Information Centre

Date: Wednesday May 22, 2024

Time: 6:00 pm to 8:00 pm

Location: Township of Ramara Council Chambers, 2297 Highway 12, Brechin

Written comments are invited and can be submitted during the PIC or by e-mail to the contacts below. Comments will be accepted until June 7, 2024, to be considered in the study. Following the PIC and upon review of comments, the preferred solution will be selected, and a study report will be prepared.

Josh Kavanagh

Township of Ramara

Director of Infrastructure

2297 Highway 12

Brechin, Ontario, L0K 1B0

Tel: 705-484-5374 ext. 290

Email: jkavanagh@ramara.ca

Suzanne Troxler

Tatham Engineering Limited

Senior Engineer

115 Sandford Fleming Drive, Suite 200

Collingwood, Ontario, L9Y 5A6

Tel: 705-444-2565 ext. 2089

Email: stroxler@tathameng.com

Comments and information received during this Class EA are collected in accordance with the *Municipal Freedom of Information and Protection of Privacy Act*. All comments will be part of the public record.

100080 Bayshore Village Effluent Spray Irrigation Class EA
Mailing List
Last updated 2024-05-07 for Notice of PIC

Municipalities	Job Title	Contact Suffix	Contact First Name	Contact Last Name	Address	Mailing	City	PC
Township of Ramara	Chief Administrative Officer	Mr.	Zach	Drinkwalter	777 Bay Street	Box 130	Brechin	L0K1B0
Township of Ramara	Director of Infrastructure and Drainage Superintendent	Mr.	Josh	Kavanagh	Box 130	Brechin	Brechin	L0K1B0
Township of Ramara	Mayor	Mr.	Basil	Clarke	Box 130	Brechin	Brechin	L0K1B0
Township of Ramara	Deputy Mayor	Mr.	Keith	Bell	Box 130	Brechin	Brechin	L0K1B0
Township of Ramara	Councillor Ward 1	Mr.	David	Snutch	Box 130	Brechin	Brechin	L0K1B0
Township of Ramara	Councillor Ward 2	Mrs.	Jennifer	Fisher	Box 130	Brechin	Brechin	L0K1B0
Township of Ramara	Councillor Ward 3	Mrs.	Dana	Tuju	Box 130	Brechin	Brechin	L0K1B0
Township of Ramara	Councillor Ward 4 - Currently Vacant							
Township of Ramara	Councillor Ward 5	Mrs.	Sherri	Bell	Box 130	Brechin	Brechin	L0K1B0
City of Orillia - Chief Administrative Office	Chief Administrative Officer	Ms.	Gayle	Jackson	50 Andrew Street South	Suite 300	Orillia	L3V 7T5
City of Orillia - Environment and Infrastructure Services	Manager of Environmental Services	Mr.	Roger	Young	50 Andrew Street South	Suite 300	Orillia	L3V 7T5
County of Simcoe - Administration Centre	Chief Administrative Officer	Mr.	Mark	Atken	1110 Highway 26		Midhurst	L9X 1N6
Federal Agencies	Job Title	Contact Suffix	Contact First Name	Contact Last Name	Address	Mailing	City	PC
Simcoe County District School Board	Manager of Planning	Mr.	Andrew	Kouken	1170 Highway 26		Midhurst	L0L 1X0
Simcoe Muskoka Catholic District School Board	Manager of Planning and Properties	Ms.	Jennifer	Sharpe	46 Alliance Boulevard		Barrie	L4M 5K3
Simcoe Muskoka District Health Unit	Medical Officer of Health	Mr.	Charles	Gardner	15 Sperling Drive		Barrie	L4M 6K9
Lake Simcoe Region Conservation Authority	Director, Watershed Management							
Lake Simcoe Region Conservation Authority	Director, Planning and Development Services							
Provincial Agencies	Job Title	Contact Suffix	Contact First Name	Contact Last Name	Address	Mailing	City	PC
Ministry of the Environment, Conservation and Parks - Barrie District Office	District Manager	Mr.	Chris	Hyde	54 Cedar Pointe Drive	Unit 1201	Barrie	L4N 5R7
Ministry of the Environment, Conservation and Parks - Environmental Assessment Branch	Regional EA Coordinator	Ms.	Chunmei	Liu	135 St. Clair Ave.	1st Floor	Toronto	M4V 1P5
Ministry of the Environment, Conservation and Parks - Central Region EA Notices	Central Region EA Notices							
Ministry of Municipal Affairs and Housing	Manager (acting), Community Planning and Development	Mr.	Erick	Boyd	Exeter Road Complex 2nd Flr, 659 Exeter Rd		London	N6E 1L3
Ministry of Municipal Affairs and Housing - Provincial Policies and Planning Unit	Senior Planner	Mr.	John M.	Taylor	College Park 13th Fl		Toronto	M7A 2J5
Ministry of Northern Development, Mines, Natural Resources and Forestry - Midhurst District	District Manager	Mr.	Dan L.	Thompson	2284 Nursery Road		Midhurst	L9X 1N8
Ministry of Northern Development, Mines, Natural Resources and Forestry - Midhurst District	District Planner	Mr.	Ken	Mott	2284 Nursery Road		Midhurst	L9X 1N8
Ministry of Transportation - Central Operations Division	Director	Ms.	Becca	Lane	159 Sir William Hearst Ave	2nd Flr	Toronto	M3M 0B7
Ministry of Transportation	Project Engineer				1202 Wilson Avenue	7th Floor, Building C	Downsview	M3M 1J8
Ministry of Indigenous Affairs - Indigenous Relations and Programs Division	Executive Advisor		Ayn	Cooney	160 Bloor St E	4th Floor	Toronto	M7A 2E6
Ministry of Heritage, Sport, Tourism and Culture Industries	Team Lead (A), Heritage	Ms.	Karla	Barbozza	400 University Ave.	5th Floor	Toronto	M7A 2E6
Ministry of Heritage, Sport, Tourism and Culture Industries - Regional and Corporate Services Division, MRegional Development Advisor	Regional Development Advisor	Ms.	Caitlin	Andrews	2284 Nursery Road		Midhurst	L0L 1X0
Ontario Heritage Trust	Sir/Madam				10 Adelaide Street E	Suite 203	Toronto	M5C 1J3
Infrastructure Ontario	President, Real Estate	Mr.	Toni	Rossi	1 Dundas Street West	Suite 2000	Toronto	M5G 1Z3
Ministry of Indigenous Relations and Reconciliation - Assistant Deputy Minister's Office - Strategic Policy	Manager		Lareina	Rising	160 Bloor St E, 4th Floor	4th Floor	Toronto	M7A 2E6
Ministry of Indigenous Relations and Reconciliation	Special Policy Advisor	Ms.	Emma	Jarvis	1600 Bloor Street E, 4th Floor	4th floor	Toronto	M7A 2E6
Ministry of Agriculture, Food and Rural Affairs - Central Region	Land Use Policy & Stewardship	Mr.	David	Mariott	6484 Wellington Road 7, Unit 10		Egira	N0B 1S0
Federal Agencies	Job Title	Contact Suffix	Contact First Name	Contact Last Name	Address	Mailing	City	PC
Indigenous Services Canada - Sustainable Infrastructure Planning, Regional	Program Manager	Mr.	Derek	Nadeau	10 Wellington Street, North Tower, 18th floor		Gatineau, QC	K1A 0H4
Environment and Climate Change Canada	Manager	Mr.	Rob	Dobos	867 Lakeshore Road	Box 5050	Burlington	L7S 1A1
Environment and Climate Change Canada	Manager, Environmental Assessment Section Environmental	Mr.	Wes	Plant	4905 Dufferin St.		Downsview	M3H 5T4
Fisheries and Oceans Canada					23 Waubesa Street		Parry Sound	P2A 1B9
Utilities	Job Title	Contact Suffix	Contact First Name	Contact Last Name	Address	Mailing	City	PC
Bell	Specialist, Network Provisioning	Mr.	Andrew	Klein				
Enbridge	Advisor, Construction and Project Management	Mr.	Kevin	Schimus	603 Kumpf Drive		Waterloo	N2V 1K3
Enbridge	Supervising Planning Technician	Ms.	Sarah	Szymczak	420 Welham Road		Barrie	L4N 8Z2
First Nations Groups	Job Title	Contact Suffix	Contact First Name	Contact Last Name	Address	Mailing	City	PC
Chippewas of Georgina Island	Chief		Donna	Big Canoe	R.R. #2		Sutton West	L0E 1R0
Beausoleil First Nation	Chief		Joanne	Sandy	11 O'Gema Miikaans	P.O. Box N-13	Christian Island	L0K1C0
Chippewas of Mnjikaning First Nation (Rama)	Chief		Ted	Williams	5884 Rama Road	Suite 200	Rama	L0K 1T0
Williams Treaties First Nations	Coordinator/Barrister, Solicitor	Ms.	Karry	Sandy-McKenzie	8 Creswick Court		Barrie	L4M 2J7
Huron-Wendat Nation	Grand Chief		Rémy	Vincet	255 Place Chef Michel Laveau		Wendake (Québec)	G0A 4V0
Great Lakes Métis Council	President		Pekter	Couture	380 9th St E		Owen Sound	N4K 1P5
Saugeen Ojibway Nation Environment Office (SON)	Resources and Infrastructure Manager		Emily	Martin	25 Maadookii Subdivision		Neyaashinigming	NOH 2T0
Métis Nation of Ontario - Gravenhurst Branch					385 Bethune Drive North	Unit A	Gravenhurst	P1P 1X8
Alderville First Nations Chief			Dave	Simpson	11696 2nd Line Road	P.O. Box 46	Alderville	K0K 2X0
Chippewas of Rama First Nation	Community Consultation Worker, Communications		Sharday	James	5884 Rama Road, Suite 200		Rama	L3V 6H6
Curve Lake First Nations	Consultation Liason		Kaitlin	Hill	22 Winookeedaa Road		Curve Lake	K0L 1R0
Georgian Bay Metis Council	President				10-845 King St		Midland	L4R 0B7
Great Lakes Métis Council	Consultation Assessment Coordinator		James	Wagar	380 9th Street E		Owen Sound	N4K 1P1
Hiawatha First Nation	Lands and Resource Consultation		Sean	Davison	431 Hiawatha Line		Hiawatha First Natn	K9J 0E6
Historic Saugeen Métis	President		Archie	Indoe	204 High Street	Box 1492	Southampton	NOH 2L0
Mississaugas of Scugog Island	Chief		Kelly	Larocca	22521 Island Road		Port Perry	L9L 1B6
Community Associations	Job Title	Contact Suffix	Contact First Name	Contact Last Name	Address	Mailing	City	PC
Bayshore Village Association	President	Mr.	Gunther	Gratzer	1 Hayloft Lane	RR3	Brechin	L0K 1B0
Bayshore Village Association	Editor	Mrs.	Susan	Hazlett	1 Hayloft Lane	RR3	Brechin	L0K 1B0
Joyland Beach Association					4303 McRae Park Road	RR3, Box 225	Ramara	L3V 0S2
North Mara Beach Association					3628 Amelia Drive	RR3	Brechin	L0K 1B0
Lagoon City Community Association	President	Mr.	Rob	LePage	84 Laguna Parkway	RR4, Suite 1	Brechin	L0K 1B0
Adjacent Properties and Other (from previous PIC)	Job Title	Contact Suffix	Contact First Name	Contact Last Name	Address	Mailing	City	PC
			Jan	Toebes	3733 Con Rd 8		Ramara	L3V 0M4
			Ellen	Andruszczyszyn	4155 Muley Point Rd		Ramara	L3V 0L4
					4551 Plum Point Rd		Ramara	L3V 0L4
			Andrew	Bucking	3815 Leo Cres		Ramara	L3V 0L1
			Charlene	Martin	3811 Leo Cres		Ramara	L3V 0L1
			Norman	Cooper	3803 Leo Cres		Ramara	L3V 0L1
			Seyedmohammad	Hossieni	3799 Leo Cres		Ramara	L3V 0L1
			Randy	Dobbs	3793 Leo Cres		Ramara	L3V 0L1
			George	Cho-chak-wing	3787 Leo Cres		Ramara	L3V 0L1
			Tammy	Kinder	3736 Con Rd 8		Ramara	L3V 0M4
			Mark	Wainman	3628 Con Rd 8		Ramara	L3V 0M4
			James	Newlands	3456 Con Rd 8		Ramara	L3V 0M4
			Edward	Chambers	12 Dawson Rd		Orangeville	L9W 2W2
			Archibald Estate	Smith John	4129 Sideroad 20		Ramara	L3V 0S7
			Kenneth	Bodenstein	85 Woodland Acres Cres		Maple	L6A 1G1
			Iqbal	Hossen	6 Coral Cove Cres		Toronto	M3A 1G8
			Robert	Hirst	3946 Glenrest Dr		Brechin	L0K 1B0
			Calvin	Smith	3677 Con Rd 9		Ramara	L3V 0M5
			Kenneth	Szjarto	4478 Orkney Heights		Ramara	L3V 0S1
			Wesley	Trnier	40 Orchard Point Rd		Orillia	L3V 1C8
			Konrad	Brenner	5489 Fawn Bay Rd		Ramara	L3V 0N2
			Elizabeth	Barker	50 Park Blvd		Elblcocke	MBWC 1H2
			Paul	Stott	1881 Yonge St	Suite 201	Toronto	M4S 3C4
			Sandra	McCreith	4049 Bonnie Beach Rd		Ramara	L3V 0L1

CANERIA HOLDINGS INC.



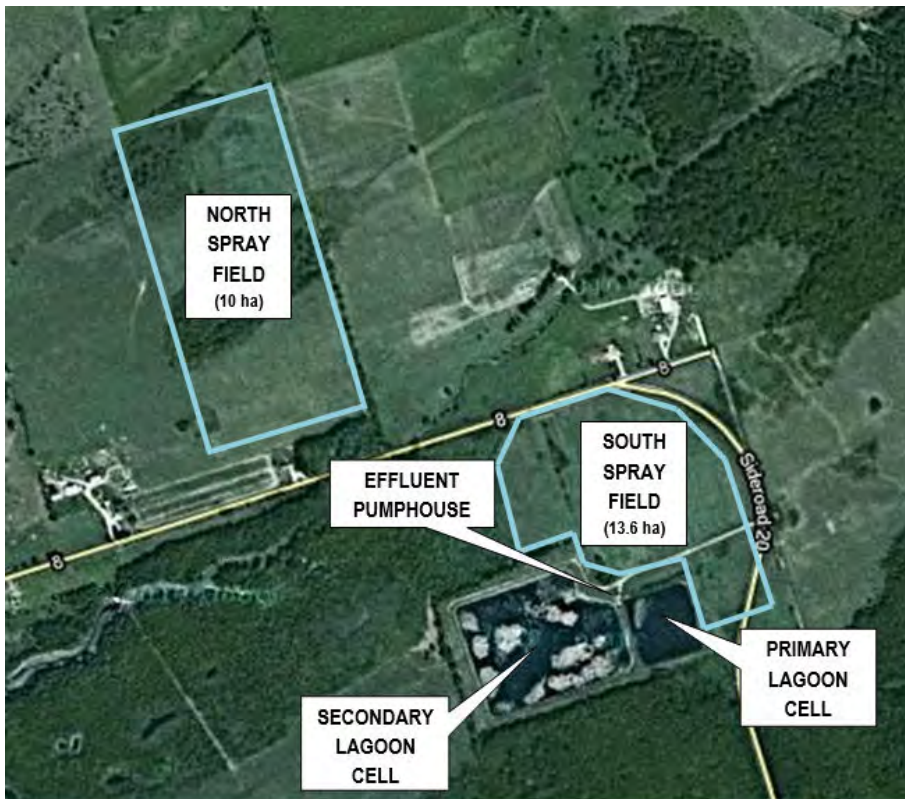
BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION CLASS EA UPDATE

Public Information Centre

May 22, 2024



BACKGROUND: EXISTING SEWAGE WORKS



- Sewage from Bayshore Village is pumped to 2 treatment and storage ponds (lagoons)
- Treated effluent is spray irrigated on the South and North fields from May to October
- Effluent disposal is by evapotranspiration and infiltration



CLASS EA PROBLEM STATEMENT

- The treated effluent is spray irrigated on fields that have been in continuous operation since the 1980s
- Soils appear to have become compacted and to have less infiltration capacity
- Increasingly difficult to dispose of all effluent from May to October due to weather. Available # spray days less than # design spray days
- Public concerns with occasional runoff and potential impacts on humans/farm animals, aerosols, drainage

Need to find the most appropriate solution for the disposal of the lagoon effluent

MAIN CONSIDERATIONS



The preferred solution needs to:

Provide the required effluent disposal capacity without runoff to ditches and Wainman Creek

Provide some spare capacity for operational flexibility

Involve reasonable level of effort and costs for operation and maintenance

Have reasonable capital costs for construction, equipment and land

Address adjacent residents' concerns

Be acceptable to MECP so that an approval can be obtained

PROJECT HISTORY



Class EA Study Report issued in 2017

- Preferred solutions in 2017 report:
 - Immediate: Establish one additional spray area on field west of lagoons
 - Long Term: Abandon spray irrigation, build tertiary STP with effluent discharge to Wainman Creek/Lake Simcoe
- MECP did not approve the EA Report

From 2017 to 2022

- Township discussions with politicians and MECP for a tertiary STP
- Identified sources of inflow & infiltration, and conducted repairs

2022

- Township resolved to abandon the STP solution
- Tatham retained to update and finalize the Class EA

ALTERNATIVE SOLUTIONS SCREENING

Criteria for Screening:

- ✓ **Meets Problem Statement**
- ✓ **Meets current MECP guidelines and LSPP policies**
- ✓ **Could be financially viable**

Screened out alternative solutions:

- *1- Reduce inflow and infiltration in sewers*
- *4- Establish 1 new spray irrigation field (West) and decommission North Field*
- *5- Establish 2 new spray irrigation fields and decommission North field*
- *9- Pump effluent from lagoons to an expanded Lagoon City STP*
- *10- Upgrade lagoons with tertiary STP and discharge effluent to Wainman Creek/Lake Simcoe*

Alternative solutions considered further:

- Do nothing (for comparison)
- 3- Establish 1 new spray irrigation field (West)
- 6- Build effluent disposal bed on the West field and continue spray irrigation on the South field only
- 7- Build effluent disposal bed on the South field and establish new spray irrigation field (West)
- 8- Build effluent disposal bed and discontinue spray irrigation



SCREENED OUT ALTERNATIVE SOLUTIONS

Screened out Alternatives	Main Rationale for Screening
Reduce inflow and infiltration in sewers, on its own	Helps but cannot on its own address Problem Statement. Must continue I/I monitoring and control.
Spray Irrigation: Add West Field, use South Field , abandon North Field	Insufficient spray area to dispose of annual volume in less than 75 days.
Spray Irrigation: Add West Field plus another field TBD, use South Field, abandon North Field	Closest well drained fields outside EP land are 3 - 4 km away. High estimated cost (\$11M) to convey effluent.
Pump lagoon effluent to expanded Lagoon City STP, abandon spray irrigation	Very high project costs (\$20M if forcemain route through wetland; \$36M if forcemain along road ROWs).
Upgrade lagoons with tertiary STP with Discharge to Wainman Creek/Lake Simcoe, abandon spray irrigation	Does not meet Lake Simcoe Protection Plan policies. Will not be approved by MECP

DO NOTHING (FOR COMPARISON)



- Continue with spray irrigation on existing fields
- Cannot dispose of annual effluent volume in available 65 - 75 spray days at MECP allowed spray irrigation rate
- Occasional runoff and potential negative impact on surface water quality
- Does not address adjacent residents' concerns
- No capital costs
- Annual O&M costs (\$150k/year) + haulage costs (\$700k in 2023)
- 20-year costs: \$3M, plus equipment replacement and haulage

ALTERNATIVE 3: USE THE SOUTH & NORTH FIELDS AND ADD THE WEST FIELD



- Adds the West Field, tree buffers, and UV disinfection of effluent
- Sufficient to dispose annual volume in 65 spray days at allowed spray irrigation rate
- Reduced potential for runoff and negative impacts on surface water quality
- Reduced aesthetic impacts and potential for aerosols
- Does not address adjacent residents' concerns with spray irrigation
- Estimated project cost: \$1.6M
- Estimated annual O&M costs: \$230k/year + potential haulage costs
- Estimated 20-year costs: \$6.2M, plus equipment replacement

ALTERNATIVE 6: BUILD DISPOSAL BED ON WEST FIELD AND KEEP SPRAY IRRIGATION ON SOUTH FIELD



- Add tree buffer and UV disinfection of effluent before spraying on South Field
- Build effluent disposal bed on West Field, used year-round
- Can dispose of annual volume of effluent, with spare capacity
- Much less potential for runoff and negative impacts on surface water quality
- Much less aesthetic impacts and potential for aerosols
- Low potential impacts on groundwater quality
- Does not fully address adjacent residents' concerns with spray irrigation
- Estimated project cost: \$6.2 M
- Estimated annual O&M costs: \$150k/year
- Estimated 20-year costs: \$9.2M, plus equipment replacement

ALTERNATIVE 7: BUILD EFFLUENT DISPOSAL BED ON SOUTH FIELD AND SPRAY IRRIGATE ON WEST FIELD



- Decommission existing spray fields, and replace with new spray area on West Field
- Build effluent disposal bed on South Field, used year-round
- Can dispose of annual volume of effluent, with spare capacity
- Much less potential for runoff and negative impacts on surface water quality
- Much less aesthetic impacts and potential for aerosols, due to location of spray field
- Low potential impacts on groundwater quality
- May reduce adjacent residents' concerns with spray irrigation, due to location of spray field
- Project implementation is longer (2 phases)
- Estimated project cost: \$8.3 M
- Estimated annual O&M costs: \$150k/year
- Estimated 20-year costs: \$11.3M

ALTERNATIVE 8: BUILD EFFLUENT DISPOSAL BED AND DISCONTINUE SPRAY IRRIGATION



- Decommission all spray fields
- Build effluent disposal bed on West field, used year-round
- Can dispose of annual volume of effluent, with spare capacity
- Eliminates potential for runoff and negative impacts on surface water quality
- Reduces aesthetic impacts and eliminates potential for aerosols
- Low potential impacts on groundwater quality
- Addresses adjacent residents' concerns with spray irrigation
- Estimated project cost: \$7.3 M
- Estimated annual O&M costs: \$80k/year
- Estimated 20-year costs: \$8.9M

ASSESSMENT OF ALTERNATIVES



Alt. 3: Continue with spray irrigation on existing fields and add a new field to the west

- Lowest 20-year cost alternative
- Risk remains that weather could prevent disposal of all effluent each year

Alt. 6 or 7: Adding a large effluent disposal bed and keeping a spray irrigation field

- Higher 20-year cost than Alt. 3
- Very low risk of insufficient disposal capacity
- Reduces risk of impacts to environment and residents
- Requires operation and maintenance of 2 systems
- Spray irrigation could be replaced with disposal bed in a second phase (Alt. 7)

Alt. 8: Abandoning spray irrigation and building a large effluent disposal bed

- 20-year cost is between Alt. 3 and Alt. 6 costs
- Eliminates risk of insufficient capacity due to weather
- Reduces O&M requirements
- Reduces risk of impacts to environment and residents

PRELIMINARY PREFERRED SOLUTION



Build effluent disposal bed on West field

Abandon effluent spray irrigation

Continue monitoring I/I and addressing sources of I/I



NEXT STEPS TIMELINE

- Obtain comments from public and agencies
- Additional field investigations (archaeological, geotechnical) of West field
- Final evaluation of alternatives and identification of preferred solution

June 2024

Summer 2024

- Draft Class EA Report to Township Council and to MECP
- Final Class EA Report and Notice of Study Completion
- 30-day review period

2024-2025

- Design of preferred solution
- Application for MECP approval

2026

- Construction

IN THE INTERIM



The Township is committed to:

- Operate the spray fields in strict compliance with the Certificate of Approval
- Supervise the spray irrigation operation as per MECP requirements
- Repair piping and adjust spray heads in spray fields as needed
- Continue sanitary sewer repairs in Bayshore Village
- Implement the contingency plan (haulage) if needed



YOUR INPUT

- Please give us your comments in writing
 - Use comment sheet
 - Or send us an email
 - By June 7, 2024
- PIC presentation available on Township website: www.ramara.ca

ANY QUESTIONS?



**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE - MAY 22, 2024

SIGN-IN SHEET

#	NAME	ORGANIZATION	ADDRESS	EMAIL
1	J. Newland		Ramara	
2	Maughn Andrews		Bayshore Village	
3	Terinda Richardson		Con 9 Ramara	
4	Rob Richardson		"	
5	Oruse McWilliam		Bayshore	
6	Lynn McWilliam		Bayshore	
7	Joey Torchia		Bayshore	
8	Francis Lee		CON 9 RAMARA	
9	Frank Lee		" "	
10	Mark Wainman		con 8 Ramara	
11	Jamie Wainman		" "	
12	Doug Davies		Bayshore	



**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE - MAY 22, 2024

#	NAME	ORGANIZATION	ADDRESS	EMAIL
13	Jim Fielding		Bayshore	
14	Steve Miller		Bayshore	
15	Brad Payne		Washago - Rama Township	
16	Dan McMillan		Floral Park	
17	TAMMY KIBLER		Conc. 8	
18	Leah Emms		OFA	
19	Maurice Mitchell			
20	Anna Bourgeois		3905 CR 47. BRECHW	annabourgeois@icloud.com
21	M. Sharpe		135 Bayshore Dr.	
22	Michael Douglas		3905 County Rd 47	mikedouglas1056@icloud.com
23	Ken Swarto		4478 Arkley Hts	wtok4me@gmail.com
24	Rose + Kathy Fuller		2 Lavender Ct	mkrpres@vuzer.com
25	Eugene Storojinski		216 Bayshore D.	



**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE - MAY 22, 2024

#	NAME	ORGANIZATION	ADDRESS	EMAIL
26	Tammy Wilson		7115 McMillan Sd. Rd.	tamatblackriver@gmail.com
27	Dan Daly		11 Maple Gate	dhorbay@gmail.com
28	Janice Latorre		187 Bayshore	jj.latorre@hotmail.ca
29	Mike Wiche		18 Sandlewood Trail	Mike.wiche1@outlook.com
30	Jeff Nolan		16 Misty Pt	jeff.nolan@hotmail.com
31	Wendy Lucas		226 Bayshore Dr	glenn.lucas@sympatico.ca
32	Glenn Luca		11	
33	Rick Matthews		128 Bayshore Ave	RICKMATH@OUTLOOK.COM
34	MERU SCOTT		12 MAPLE GATE	MERU.SCOTT4@GMAIL.COM
35	DAVE MEHARG		90 BAYSHORE	DAVEANDLIZMEHARG@GMAIL.COM
36	HARRY SILVER		1 WILLOW CRES. LAGOON CITY	harry.silver@implosive.deeds.com
37	Lornie Potter		2337 Lakeshore Dr.	lpbrechin@gmail.com
38	ANDREW SIMIC		- - -	- - -



**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE - MAY 22, 2024

#	NAME	ORGANIZATION	ADDRESS	EMAIL
39	Keith Meadows	Bayshore	16 Sandalwood trail	meadowskeith1@gmail.com
40	NANCY MROZ	LAGOON CITY	70 LAGOONA PKY #11	4MRS.OZ@GMAIL.COM
41	KATHY GUILLETTE	BAYSHORE	142 BAYSHORE DR	kateblue@gmail.com
42	TOM HAMMATT	"	"	redezvous20@icloud.com
43	Dave Hetherington S.C.F.A.	Midhurst		
44	KEITH BARRON	BAYSHORE	145 BAYSHORE DRIVE	Keithbarrow@gmail.com
45	KEN ALL	BAYSHORE	1 PARK LAKE	ken1park@gmail.com
46	Doug Richardson	Bayshore	46 Southview Dr.	uglypikebait@gmail.com
47	ANDREW FOLFORD	LAGOON CITY	11 LAGOONA, UNIT 7	drewfulford@gmail.com
48	Sheri Bell	Lagoon City	11 OLD INDIAN TRAIL.	
49				
50				
51				



**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE – MAY 22, 2024

SIGN-IN SHEET

#	NAME	ORGANIZATION	ADDRESS	EMAIL
1	Charlene Martin		3811 LEO CRES (VAL HARBOR)	
2	PAT BURNS		31 LAGOONA PARKWAY 15	
3	ETHEL FORESTAL		31 LAGOONA PARKWAY 32	
4	BRIAN JONES		5 SANDLEWOOD TRAIL 2	
5				
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13				



**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE – MAY 22, 2024

#	NAME	ORGANIZATION	ADDRESS	EMAIL
14	Rod TURNBULL	BAYSHORE	3 SANDLEWOOD TRAIL	rodturn153@gmail.com
15	DAVE RENAUD	BAYSHORE VILLAGE	99 BAYSHORE DR. BRECHIN	DAVE.R.RENAUD@gmail.com
16	Rhonda Wallace	"	99 Bayshore Dr. Brechin	rhondairwallace@outlook.com
17				
18				
19				
20				
21				
22				
23				
24				
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26				



**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE – MAY 22, 2024

#	NAME	ORGANIZATION	ADDRESS	EMAIL
27	JUDY MITCHELL WILSON		1818 LAKESHORE DR	judy.mitchell.wilson@gmail.com
28	Jane St. Marie		1056 Sylvan Glen	stejane39@gmail.com
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				

Appendix H: Consultation Correspondence

Public Comments

From: [Greg McIsaac](#)
To: [Josh Kavanagh](#)
Cc: [Dyana Marks](#); [Suzanne Troxler](#);
Subject: Re: Bayshore Spray Fields
Sent: 5/14/2024 7:22:36 AM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

Thank you for your confirmation.

Get [Outlook for Android](#)

From: Josh Kavanagh <JKavanagh@ramara.ca>
Sent: Tuesday, May 14, 2024 6:30:09 AM
To: Greg McIsaac <g.mcisaac@hotmail.ca>
Cc: Dyana Marks <DMarks@ramara.ca>; Suzanne Troxler <stroxler@tathameng.com>
Subject: RE: Bayshore Spray Fields

Good Morning Greg

Thank you for the letter of concern regarding the sprayfields, we have received it and will be adding it to the comment listing and sheet to be included with the EA.

Regards,



Superintendent
P.O. Box 130, 2297 Highway 12, Brechin, Ontario L0K 1B0
P: 705-484-5374 ext. 290 | F: 705-484-0441
E: jkavanagh@ramara.ca | W: www.ramara.ca

From: Greg McIsaac <g.mcisaac@hotmail.ca>
Sent: May 13, 2024 8:26 PM
To: Josh Kavanagh <JKavanagh@ramara.ca>
Subject: [EXTERNAL] Bayshore Spray Fields

To Mr Josh Kavanagh

Re.the recent concerns voiced by residents of the township directed towards the utilization of spray fields as a method of disposing of effluent produced specifically by Bayshore Village.

As a resident of the township I have over the years frequented the areas in and around the effluent settling ponds.Many years ago I witnessed, during a seasonably dry period, ponding of liquid on the land surrounding the settling ponds. At the time this raised eyebrows but ultimately no more than that.At other times the liquid was much more visible and creating it's own path to lower ground.At this point an off handed question was raised about whether this "stuff" should be running to the lake.

It is with grave concern and a good deal of incredulity that I recently heard of these practices ,of over pumping, have not only been continued but increased to the point of producing large areas of standing effluent. I have taken an interest in this matter and will watch with care as the Township handles this history of negligence from one of it's major departments.

Thanks for Your Attention
Greg McIsaac

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Ramara Township
2297 Hwy 12, PO Box 130, Brechin, ON L0K1B0
May 16, 2024

Dear Mayor Clark, Council and Clerk and Staff,

RE: Tatum Engineering Presentation December 11, 2023 – 10 options
Staff Report: #ID-23-24 – Annual Wastewater Performance Reports

We are writing to recommend that Ramara Council pursue option 8 for managing the effluent from Bayshore Village. Now that the Province of Ontario is allowing communal wastewater systems, I believe one of the barriers to adopting this solution has been removed.

Spray fields should be seen as a non-option. Take them off the table. We can't depend on them. The four non-compliances in the public reports are not to be ignored. We will not always be "granted relief" for the proper certificate approvals. There are four Requirement(s) system failed to meet items reported. According to the most recent Performance Report, the required actions and status remain in progress.

These are the comments made by Tatum in their report:

- Abandoning spray irrigation and building a large effluent disposal bed (Alt. 8)
 - Higher cost than Alt 3 and Alt 6
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Mayor Clarke, you have been on council for more than 20 years. You are now the Warden of Simcoe County. You know the right thing to do is to opt for option 8: Build effluent disposal bed and discontinue spray irrigation.


The spray irrigation has already cost the taxpayers money. Do the right thing, find the funding for Option 8, use it to our advantage.

- Option 8: Build effluent disposal bed and discontinue spray irrigation
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 - Estimate project cost: \$7.3M


We can't afford to be shipping wastewater and paying from reserves. We know the spray fields do not work. We can't afford not to build it right if we are planning for future Ramara.

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Anna Bourgeois
Concerned Citizen of Ramara
3905 County Rd 47, Brechin



Co-signer
Margaret Prophet
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Simcoe County Greenbelt Coalition



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cc: Jill Dunlop MPP Simcoe North

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what constitutes a spill and when and how to report it to the Ministry. Confirmation was provided that OCWA operations staff have participated in OCWA's EC101 training which covers spills and overflows. As well at OCWA monthly cluster meeting spills was a topic of

conversation. 2)The drainage piping that appears to be draining the low-lying area between the two north fields was not part of the original design of the spray fields.

Required Action - Provide details of this pipe's purpose to the Provincial Officer

Status – In progress

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For Lagoon Systems, the owner is not in compliance with the freeboard and/or supernatant cover conditions prescribed by the Environmental Compliance Approval or an Order.

Required Action – Restore freeboard to the 0.6 m height required by the Environmental Compliance Approval. Starting immediately and continuing until such time as freeboard is restored to 0.6 m, conduct weekly inspections of the berm to ensure structural integrity is being maintained and that there are no breaches.

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The works, related equipment and appurtenances were not being operated and maintained to achieve compliance prescribed by the Environmental Compliance Approval

Required Action - The holes in the pipe between the two north fields need to be plugged in such a manner as to prevent the discharge of effluent at all times before the start-up of 2024 season and the Provincial Officer notified of its completion. As well prior to the start-up of the spray irrigation system for the 2024 season, inspect all the piping and ensure any holes/leaks are repaired. Routine inspections should be regularly conducted while the spray irrigation system is operating to ensure that leaks are identified and repaired immediately.

Status – In progress

4. Requirement (s) system failed to meet

The operator-in-charge had not ensured that all equipment used in the processes was monitored, maintained, inspected, tested, and evaluated.

Required Action - To conduct inspections of the spray irrigation equipment and piping network each day that the equipment is operated to ensure it is in good working order and to conduct regular inspections during and after spray irrigating to ensure the application rate is appropriate and no run off or ponding is occurring. Any issues identified during the daily inspections should be promptly addressed. Documentation should be carried out in the logbooks, or other record-keeping mechanism.

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Recent meeting April 29, 2024 Committee of the whole meeting.

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Annual Wastewater Performance Report

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The following slide show presentation was presented.

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Problem Statement

- The effluent is spray irrigated on fields that have been in continuous operation since the 1980's
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- Need to find the most appropriate solution for the disposal of the lagoon effluent

Main Considerations

The preferred solution needs to:

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- Involve reasonable capital costs for construction, equipment and land
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Project History

- Class EA Study Report issued 2017
- Preferred solutions were in 2017
 - Immediate: Establish on additional spray area on field west of lagoons
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UPDATES

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 - Sources of flows identified
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- Spray irrigation days
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PRELIMINARY ASSESSMENT

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Ramara Township
2297 Hwy 12, PO Box 130, Brechin, ON L0K1B0
May 16, 2024

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**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE - MAY 22, 2024

COMMENT SHEET

NAME: Anna Bourgeois

ORGANIZATION: CCR, SCGC, RLSC

ADDRESS: 3905 CR47 Brechin L0K 1B0

EMAIL: annabourgeois@icloud.com

DATE: May 22, 2024

Do you wish to be added to the project mailing list? You will be notified when the study report is available for review.

Yes

No

Please note your comments, questions, or suggestions

- What will be the timeline of archaeological study commencing in June?
- (Weeping bed construction) Will material like filtering soils need to be brought in for the West field? Alternatives?
- What will be the timeline of MECP approval for Alternatives?
- Why offer spray field alternatives, when it is apparent that climate is an unreliable factor in ~~the~~ the success of dealing with the effluent? The other choices would be irresponsible, and should not be offered.



**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE - MAY 22, 2024

COMMENT SHEET

NAME: Michael Douglas

ORGANIZATION: _____

ADDRESS: 3905 County Rd. 47, Brechin,

EMAIL: mikedouglas1056@icloud.com Ontario, L0K 30

DATE: 24 05 22

Do you wish to be added to the project mailing list? You will be notified when the study report is available for review.

Yes

No

Please note your comments, questions, or suggestions.

Alternative ~~8~~ ^{No More Spraying} Build effluent disposal bed and discontinue spray irrigation. (on West field)

Advantages as listed.

- Used year round.
- Capable of disposing of annual volume of effluent, with spare capacity.
- Eliminates the currently existing constant run off contaminating local properties and Lake Simcoe.
- Out of sight & out of mind!
- Minimizes potential impacts on groundwater quality.

Ramara Township has had plenty of opportunity to find the funding for Alternative #8



**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE - MAY 22, 2024

- Alternative 8 finally attempts to address surrounding area residents' concerns with spray irrigation. Ramara Township residents & tax payers must not continue to be subjected to a substandard method of handling Bayshore Village effluent simply because they live down the road from Bayshore Village.

- Compared to the other proposed Alternatives the Alternative 8 option is described as the most cost effective considering ^{the} initial project cost, operating & maintenance annual costs and the overall estimated 20 year cost of \$ 8.9 Million.

The concept of spray fields and Ramara Township's adherence to approved management practices Can Not Be Trusted
Please complete the form and submit it to us today, or if you wish to complete this sheet at your convenience, **return by June 7, 2024**, to:

Tatham Engineering Limited
Suzanne Troxler
115 Sandford Fleming Drive, Suite 200
Collingwood, ON L9Y 5A6
Email: stroxler@tathameng.com

Thank you for your involvement in this study. Comments and information supplied by the public, agencies and interested parties are being collected to assist the proponent in meeting requirements under *the Environmental Assessment Act*. This information will be kept on file for use during the study and may be included in study reports. It will become public information and will be used to forward further documentation to you in the future.

From: [Ross FIDLER](#)
To: [Suzanne Troxler](#)
Subject: Bayshore Spray Fields
Sent: 5/24/2024 12:28:13 PM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

Hi Suzanne, Thanks for the informative presentation. I agree with your recommendation (#8) as it has low annual fees and all season service although \$7.3 million is a lot of cash. I am concerned that if the spray fields become more ineffective, the ministry will shut us down and we will have to go to expensive trucking or shut down bayshore village. The sewage problem is a risk to our community and the value of our homes. Year after year, the council has kicked this can down the road and this must stop now - we need a decision this June. If not, we will work to change the council and mayor. Ross Fidler, 2 Lavender court, Brechin, On - 705-484-0755

From: [Kathy Guillemette](#)
To: [Suzanne Troxler](#)
Subject: Bayshore Village Effluence
Sent: 5/24/2024 10:15:15 AM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.



**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE - MAY 22, 2024

B. INCREASED OPERATION & MAINTENANCE FOR
DOSING SYSTEMS TO ENSURE EVEN DISTRIBUTION
OF EFFLUENT TO LARGE TIRE BEDS

C. THE BED CANNOT BE USED FOR CROPS, GRASS MUST
BE CUT REGULARLY TO MAINTAIN TIRE PERFORMANCE

THE ESTIMATED PROJECT COST AT THAT TIME
WAS \$4.4M (2016 REPORT) AND NOW IT IS \$7.3M SO
THE DELAY IN ACTION HAS ~~NOT~~ RESULTED IN EXTRACOST
WHICH WILL PROBABLY ESCALATE OVER THE NEXT 2YRS
UNTIL CONSTRUCTION ALONG WITH CURRENT MAINTENANCE
COSTS. HOW IS RAMARA TOWNSHIP GOING TO AFFORD
THE COST. THEY HAVE MISSED OUT ON NUMEROUS GRANTS
OVER THE YEARS FROM FEDERAL & PROVINCIAL GOVT.

Please complete the form and submit it to us today, or if you wish to complete this sheet at your convenience, **return by June 7, 2024**, to:

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EG. "HOUSE
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DOLLARS ~~WAS~~
WERE
DISTRIBUTED

Thank you for your involvement in this study. Comments and information supplied by the public, agencies and interested parties are being collected to assist the proponent in meeting requirements under the *Environmental Assessment Act*. This information will be kept on file for use during the study and may be included in study reports. It will become public information and will be used to forward further documentation to you in the future.



BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE

PUBLIC INFORMATION CENTRE - MAY 22, 2024

B. INCREASED OPERATION & MAINTENANCE FOR
DOSING SYSTEMS TO ENSURE EVEN DISTRIBUTION
OF EFFLUENT TO LARGE TIRE BEDS

C. THE BED CANNOT BE USED FOR CROPS, GRASS MUST
BE CUT REGULARLY TO MAINTAIN TIRE PERFORMANCE

THE ESTIMATED PROJECT COST AT THAT TIME
WAS \$4.4M (2016 REPORT) AND NOW IT IS \$73M SO
THE DELAY IN ACTION HAS ~~NOT~~ RESULTED IN EXTRACOST
WHICH WILL PROBABLY ESCALATE OVER THE NEXT 2yrs
UNTIL CONSTRUCTION ALONG WITH CURRENT MAINTENANCE
COSTS. HOW IS RAMARA TOWNSHIP GOING TO AFFORD
THE COST, THEY HAVE MISSED OUT ON NUMEROUS GRANTS
OVER THE YEARS FROM FEDERAL & PROVINCIAL GOVT.

Please complete the form and submit it to us today, or if you wish to complete this sheet at
your convenience, **return by June 7, 2024**, to:

Tatham Engineering Limited
Suzanne Troxler
115 Sandford Fleming Drive, Suite 200
Collingwood, ON L9Y 5A6
Email: stroxler@tathameng.com

EG. "HOUSE
ENABLING WATER
SYSTEM FUND"
THIS YEAR
200 MILLION
DOLLARS ~~WAS~~
DISTRIBUTED

Thank you for your involvement in this study. Comments and information supplied by the public, agencies and interested parties are being collected to assist the proponent in meeting requirements under the *Environmental Assessment Act*. This information will be kept on file for use during the study and may be included in study reports. It will become public information and will be used to forward further documentation to you in the future.



**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE - MAY 22, 2024

COMMENT SHEET

NAME: Jamie Wainman

ORGANIZATION: _____

ADDRESS: 3628 Concession Rd 8, Ramara

EMAIL: _____

DATE: May 25, 2024

Do you wish to be added to the project mailing list? You will be notified when the study report is available for review.

Yes

No

Please note your comments, questions, or suggestions

I live on a property that borders the North field. The overspray constantly floods our property. I have seen broken pipes spraying up in the air and go unfixed for days on end. I have seen lawn mower stuck that required a backhoe to assist. These are just a few of the concerning ~~the~~ things I witness from my backyard. I do support option 8, however I cannot stress enough that additional action must be taken in the mean time to address the concerns with the current spray irrigation system.



**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE - MAY 22, 2024

COMMENT SHEET

NAME: Mark Wainman

ORGANIZATION: Self

ADDRESS: 3638 Concession Rd 8, Ramara, ON

EMAIL: mhwainman@gmail.com

DATE: May 25/24

Do you wish to be added to the project mailing list? You will be notified when the study report is available for review.

Yes

No

Please note your comments, questions, or suggestions

I thought the staff did a good job with the ~~set~~^{set} up of the PIC. The engineer in charge was present as were most of council to listen to the presentation. I was disappointed to see spray irrigation still presented as an option, it wasn't the preferred option but it being listed as viable shows a total disregard for all the problems that the system has experienced the past 30 years. I felt during the question period many of the answers given by staff or Township engineers were either weak or inaccurate. In particular, their answers to treatment, bypass, prospects of future trucking of effluent, were very vague. I will seek further clarification by email.

From: [K Brenner](#)
To: [Suzanne Troxler](#)
Subject: Bay Shore Sewage - Public meeting May 22
Sent: 5/26/2024 7:21:03 PM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

Hi

Considering the uncertainty in the weather particularly due to Global Warming, it is my opinion that the alternative of all disposal in a tile field and abandoning spraying is reasonable. That is if it is accepted that a new sewage treatment plant will not be approved by the Province .

Konrad Brenner
5498 Fawn Bay Road
Ramara, L3V 0N2

PH. 705 326 6844

From: [Dyana Marks](#)
To: [Charlene Martin](#)
Subject: Surface Water Question - Bayshore Village Sprayfields PIC
Attachments: [2023beachreports_ramara.pdf](#); [Field locations.png](#); [Bayshore Village Sewage Works Performance Report 2023.pdf](#);
Sent: 5/27/2024 12:43:08 PM

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Hi Charlene,

I wanted to follow up a bit more on the surface water monitoring that takes place on Wainman's Creek. The Township owns and operates 2 effluent spray irrigation fields – one is located at 3582 Concession Road 8 (North Field) and one is located at 3820 Sideroad 20 (South Field).

We are required to monitor the ground water, surface water and soils in and around the site by taking water and soil samples before, during and after spray operations, on an annual basis. This has been occurring since 1996. The sample results are summarized in an Annual Performance report and can be found here - <https://www.ramara.ca/en/living-here/sewer-systems.aspx#2023> direct link to the 2023 annual report is here: <https://www.ramara.ca/en/living-here/resources/Documents/Bayshore-Village-Sewage-Works-Performance-Report-2023.pdf>

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 2023. The sample results from Wainman's Creek are shown in Tables 13 and 14 in the attached annual report. The upstream and downstream sample location results show water quality is consistent, signifying little to no impact from the spray irrigation process.

However, there are many factors that influence water quality – like rain, wind, geese, farm animals and water temperature. The Health Unit has great resources on water quality and making an informed decision before swimming – in any lake, river or stream. <https://www.simcoemuskokahealth.org/Topics/SafeWater/BeachWater/beachwaterquality.aspx>

The Health Unit regularly tests lake water at public beaches throughout the summer – more on that program here -

<https://www.simcoemuskokahealth.org/Topics/SafeWater/BeachWater/BeachPostings>

Water samples are tested for E.coli bacteria and the beach may be posted with a swim advisory when levels exceed 200 cfu per 100 mL of water. The posting has the general warning of:

“During a swimming advisory, the beach is posted with warning signs indicating that the most recent water samples showed bacteria in numbers that may increase your risk of developing minor skin, eye, ear, nose or throat infections or stomach illness. If you choose to swim during a swimming advisory, avoid dunking your head or swallowing the water.”

As you will see in the annual report, the August upstream sample was 340 cfu/100mL and the downstream sample was 400 cfu/100mL. If this area was a public swimming location, a swim advisory would have been posted since they were above the guideline of 200 cfu/100mL. For context, I attached the 2023 public beach monitoring summary report for Ramara Township. We monitor water quality at [4 public beaches](#) in the Township. The report includes individual sample results for each beach. We see poorer water quality at the Atherley Beach due to the large presence of geese there. We'll see higher than normal counts at the Lagoon City beaches after heavy rains. I'm just adding this so you're aware of different factors when it comes to water quality and the decision to swim. Even when beaches are posted with a swim advisory, people still swim, it's an individual choice.

My intent is not to overwhelm you with information, so if you have any questions at all, please give me a call anytime. I just wanted to make you aware of where we sample in Wainman's Creek and to provide some more information on water quality.

Thank you,

Dyana Marks
Resources Technician
Township of Ramara

P.O. Box 130 Brechin, Ontario L0K 1B0

P: 705-484-5374 ext. 285 | F: 705-484-0441

E: dmarks@ramara.ca | W: www.ramara.ca |     

We are open Monday through Friday from 9:00 a.m. to 4:30 p.m. We will respond to all email or call inquiries or concerns within two business days unless stated otherwise. To access services after hours, visit our [online services](#) page or visit our [website](#) for all the latest news and information. Remember to [stay informed](#) and [subscribe](#) to receive up to date information by email.

Confidentiality Note: This email message and any attachments are intended only for the named recipient(s) above and may contain privileged, confidential and/or exempt from disclosure under the Municipal Freedom of Information and Protection of Privacy Act. If you have received this message in error, please notify the sender immediately and delete this email message from your computer. Thank you.



From: [Kathy Alden](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: Bayshore spray field issue
Sent: 6/1/2024 1:31:28 PM

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This has gone on too long without a proper solution. Alternative Solution #8 seems to be the most sensible and cost efficient choice. Please look into provincial and federal grants that can help make this solution happen this term. Let's get this done, hopefully with the help of both provincial and federal grants. Alternative #8 will save money, stop all toxic spraying and prevent the need for costly sewage hauling to a treatment plant.

Kathy Alden
16 Maple Gate
Brechin, Ontario
L0K 1B0

From: [Linda Bridges](#)
To: [Suzanne Troxler](#)
Subject: Bayshore spray field option
Sent: 6/1/2024 2:07:30 PM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

I would like to support alternative #8 for the Bayshore spray fields. I request that Ramara township seeks Provincial and federal grants to support construction costs. I also request that this project be "shovel ready" by the end of the current term of council. Thank you

Linda and Jim Bridges
84 Bayshore Drive
Sent from my iPad

From: [Ken Szijarto](#)
To: [Suzanne Troxler](#)
Cc: [Ramara - Council; info@ramara.ca](#);
Subject: Ramara Township – Bayshore Village Sprayfields – PIC May 22, 2024
Sent: 6/3/2024 8:48:15 AM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

June 03, 2024

Suzanne Troxler
Tatham Engineering
115 Sandford Dr – Suite 200
Collingwood, ON
L9Y 5A6
stroxler@tathameng.com

Re: Ramara Township – Bayshore Village Sprayfields – PIC May 22, 2024

Ramara Township should abandon any option that would invest in expanding the use of spray field technology.

The best option, for Ramara Township is one that:

- Prevents effluent running off and spilling into Lake Simcoe via feeder watercourses; and
- is forward looking towards potential expansion of the number of users; and
- is scalable in design so that it can be expanded in phases, as growth demands; and
- designed to minimize ongoing operational and maintenance costs.

Ken Szijarto
4478 Orkney Heights
Ramara, ON
Canada L3V 0S1

(C) +1 (705)984-2373
(E) wtok4me@gmail.com

A Ward 3 resident who operates his own private well and septic system, who desires not to be held liable for subsidizing User Rates for municipal services that I can't be accessed.

From: [Jon Wagner](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Cc: [Deborah Wagner](#)
Subject: Support alternative #8: Build Effluent Disposal Bed and Discontinue Spray Irrigation.
Sent: 6/3/2024 9:13:58 AM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

We are and have been residents of Bayshore Village for 29 years:

Jon and Deborah Wagner
42 Thicketwood Place support alternative #8: Build Effluent Disposal Bed and Discontinue Spray Irrigation.
Brechin, Ontario

We support alternative #8: Build Effluent Disposal Bed and Discontinue Spray Irrigation.

We request that Ramara Township seek provincial and federal grants to support construction costs.

We request that the project be "shovel ready" by the end of the current term of council.

Regards

Jon & Deb

Jon and Deb Wagner
42 Thicketwood Place, Brechin, ON, L0K 1B0
Phone: (705) 484-0888 / Cell: 705-323-7736 / Deb Cell: 705-305-3773
jonwagner.flLakeSimcoe@gmail.com ; deborahwagner1953@gmail.com

From: [Mary Andrews](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Cc: [Bayshore Village Association](#)
Subject: Bayshore Village Spray Fields Environmental Assessment Update
Sent: 6/4/2024 11:00:46 PM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

To:
Suzanne Troxler, Senior Engineer, Tatham Engineering
Josh Kavanagh, Director of Infrastructure, Township of Ramara
Ramara Council Members

From:
Mary M. Andrews
18 Thicketwood Place, Brechin, ON LOK 1B0
marymva511@gmail.com

As a resident member of Bayshore Village Association since 1996, I was a very keen attendee at the *Bayshore Village Effluent Spray Irrigation System Municipal Class Environmental Assessment Update* Public Information Session held at Ramara Township offices at 6:00 to 8:00 pm on May 22, 2024 - following which:

- I wish to confirm my support for Alternative #8, the Effluent Disposal Bed, and
- I firmly request that Ramara Township seek Provincial and Federal grants to support construction costs, and
- That the project be "shovel ready" by the end of the current term of council.

Please add my name to the project mailing list so that I will be notified when the study report is available for review.

Sincerely,

Mary M. Andrews
18 Thicketwood Place,
Brechin, ON LOK 1B0
marymva511@gmail.com

From: [Simpson Cherry](#)
[Suzanne Troxler](#); jkavanagh@ramara.ca; bclarke@ramara.ca;
To: kbell@ramara.ca; dsnutch@ramara.ca; jfisher@ramara.ca;
dtuju@ramara.ca; jgough@ramara.ca; sbell@ramara.ca;
Subject: Bayshore Village Spray field
Sent: 6/4/2024 3:05:47 PM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

I totally support option #8 for the Bayshore Village spray field . I request that Ramara Township seek provincial and federal grants to support construction costs and that the project be shovel ready by the end of the current term of council.

Simpson Cherry
20 Park Lane
Brechtin

Sent from my iPad

From: M.A.Foghi
To: [Suzanne Troxler](mailto:Suzanne.Troxler@ramara.ca); jkavanagh@ramara.ca; bclarke@ramara.ca; kbell@ramara.ca; dsnutch@ramara.ca; jfisher@ramara.ca; dtuju@ramara.ca; jgough@ramara.ca; sbell@ramara.ca;
Subject: Supporting Alternative #8 , the effluent Disposal Bed
Sent: 6/4/2024 10:58:16 PM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

My name is Matthew Foghi residing at Bayshore Village - 146 Bayshore Drive, Brechin ON L0K 1B0

- I support "**Alternative #8**", the Effluent Disposal Bed
- I am requesting that Ramara Township seeks provincial and federal grants to support construction costs
- I am requesting that the project be "shovel ready" by the end of the current term of council

Regards,

Matthew Foghi

University of Toronto: (B.Sc. 1998)
Foghi Legal Services PC: (LSO - P11933)
Notary Public: 2019
TREB: 2003

PH: (416) 930-3191
E-mail: mfoghi@yahoo.com

From: [Janice Latorre](#)
To: [Suzanne Troxler](#); [Josh Kavanagh](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [Jennifer Fisher](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: Spray Fields
Sent: 6/4/2024 2:39:31 PM

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I attended the May 22 evening information session/presentation at the town hall on the above matter.

After considering the alternatives presented, we are strongly in support of ALTERNATIVE #8 for many reasons, including the lower annual operating costs and it being operated 24/7 - 365 days a year. As well, this option will terminate all the spraying activity and eliminate the possibility of costly sewage hauling in the future.

The disaster in Walkerton Ontario with respect to municipal water in 2000 and the deaths of residents there should be a reminder as to how important it is to have a proper and safe system in place. Ramara Township should strongly pursue both **federal and provincial** grants to support the construction costs involved for Alternative 8. The fact that we live on Lake Simcoe only further impacts the environmental issues faced.

Time is of the essence and would like to see this project be ready to implement by the end of the current term of counsel. Please act quickly and take proper responsibility.

Our water rates are among the highest in the country and should not be put on the shoulders of the residents! Thank you.

Janice and Joe Latorre
187 Bayshore Drive
Brechin, Ontario
L0K 1B0

From: [Ian Mead](#)
To: jkavanagh@ramara.ca; [Suzanne Troxler](mailto:Suzanne.Troxler); bclarke@ramara.ca; kbell@ramara.ca; dsnutch@ramara.ca; jfisher@ramara.ca; dtuju@ramara.ca; jgough@ramara.ca; sbell@ramara.ca;
Subject: Bayshore Spray Field Alternative #8
Sent: 6/4/2024 6:26:43 PM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

I understand that the June 6th meeting has been cancelled however, please accept this E-mail as our full support for Alternative 8.

We are Ian and Lynda Mead, 167 Bayshore Drive.

We fully support Ramara Township seeking Provincial and Federal grants to help/cover construction costs and we request that the project be shovel ready by the end of this Council term.

Cheers

Ian

We don't inherit the earth from our ancestors

We borrow it from our children

- *David Brower*

From: supreme.carpentry1@gmail.com
[Suzanne Troxler](mailto:Suzanne.Troxler@ramara.ca); jkavanagh@ramara.ca; bclarke@ramara.ca;
To: kbell@ramara.ca; dsnutch@ramara.ca; JFisher@ramara.ca;
dtuju@ramara.ca; jgough@ramara.ca; sbell@ramara.ca;
Subject: Spray Fields
Sent: 6/4/2024 4:08:42 PM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

After much consideration the alternatives presented, we strongly support Alternative #8. We are in agreement with the lower annual operating costs and it being operated 24/7 and 365 days a year. Also, the terminating of the spraying activity.

The biggest situation that impacts us seniors living on a fixed income are the water rates. Just to think that less than 20 years ago we didn't pay for water in Bayshore. This made sense because we are surrounded by water. Now we are paying an astronomical amount, the highest in the country. This is really unfair.

Thank you.

Rocco and Maria Morra
24 Sandlewood Trail
Brechin, Ontario
Sent from my iPad

From: [Jeff Nolan](mailto:Jeff.Nolan@ramara.ca)
To: [Suzanne Troxler](mailto:Suzanne.Troxler@ramara.ca); jkavanagh@ramara.ca; bclarke@ramara.ca; kbell@ramara.ca; dsnutch@ramara.ca; jfisher@ramara.ca; dtuju@ramara.ca; jgough@ramara.ca; sbell@ramara.ca;
Subject: Bayshore Village Sprayfield
Sent: 6/4/2024 4:16:36 PM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

We would like to share our thoughts and our request to staff and council concerning the Bayshore Village spray field. We believe that the current method of processing the effluent from Bayshore Village is no longer a viable option and that spraying effluent is not the correct solution for present day and certainly not for the future.

We support Alternative 8: Build Effluent Disposal Bed and Discontinue Spray Irrigation as presented by Tatham Engineering on May 22. We request that Ramara Township approves this option and seeks provincial and federal grants to support construction costs to offset the cost of this to the residents of Ramara Township who are on sewer services. We further request that the project be "shovel ready" by the end of the current term of council, to avoid unnecessary delays associated with bringing possible new council members up to speed on the situation.

Thank you.
Jeff and Mary Nolan
16 Misty Court, Brechin.

From: [Jenna McDonald](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Cc: [Steven Sasseville](#)
Subject: Spray Fields
Sent: 6/4/2024 9:02:42 PM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

Good evening,

In response to the meeting held May 22, 2024, we have considered the alternatives presented, however are strongly in support of ALTERNATIVE #8 for many reasons such as:

- Lower annual operating costs
- Ability to operate 24/7 - 365 days a year
- Terminate all the spraying activity
- Eliminate the possibility of costly sewage hauling in the future.

The disaster in Walkerton Ontario with respect to municipal water in 2000 and the deaths of residents there should be a reminder as to how important it is to have a proper and safe system in place. Ramara Township should strongly pursue both federal and provincial grants to support the construction costs involved for Alternative 8. The fact that we live on Lake Simcoe only further impacts the environmental issues faced.

Time is of the essence and would like to see this project be ready to implement by the end of the current term of council. Please act quickly and take proper responsibility.

Our water rates are among the highest in the country and should not be put on the shoulders of the residents!

Many Thanks,

Jenna and Steve Sasseville
9 Sandlewood Trail,
Brechin, Ontario
L0K 1B0

From: [Merv Scott](#)
To: [Suzanne Troxler](#); [Josh Kavanagh](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Sent: 6/4/2024 10:04:05 AM

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Good morning all,

My name is Merv Scott and I live at 12 Maple Gate in Bayshore Village.

I would like to confirm my support for alternative #8

I would also request that Ramara Township seek provincial and Federal grants to support the construction costs.

Furthermore I would also request that the project be "shovel ready" by the end of the current term of council.

Respectfully

Merv Scott

(416) 873-3019

From: [Gord Semple](mailto:Gord.Semple)
To: [Suzanne Troxler](mailto:Suzanne.Troxler@ramara.ca); jkavanagh@ramara.ca; bclarke@ramara.ca; kbell@ramara.ca; dsnutch@ramara.ca; jfisher@ramara.ca; dtuju@ramara.ca; jgough@ramara.ca; sbell@ramara.ca;
Cc: gfsemple@rogers.com
Subject: Bayshore Village Spray Field
Sent: 6/4/2024 5:17:56 PM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

Hello

I am a resident of Bayshore Village. My wife and I reside at 98 Bayshore Drive and have been a resident for the past 2-1/2 years. We have also owned a recreational property at 3350 Amilia Drive for approximately the past 10 years.

I would like you to know that I support the option of an effluent disposal bed to replace the current spray field that is nearing its end of life cycle.

The benefits are many:

- lower annual operating costs
- discontinuation of all spraying activity
- operation 24/7, 365 days a year
- eliminate future possibility of costly sewage hauling

I would request that Ramara Township seek provincial and federal grants to support this initiative. The project should be "shovel ready" by the end of the current term of council.

I believe it's incumbent on all council members to get behind this solution to an issue that is not going away. Before it becomes a bigger issue let's put the tax dollars of Bayshore residents to work and get this project moving forward. A project that is long term sensible solution for many years to come.

Best Regards

Gord and Karen Semple
98 Bayshore Drive
Brechin, Ontario
L0K1B0

From: [Margaret Sharpe](#)
To: [Dyana Marks](#)
Cc: [Suzanne Troxler](#); [Josh Kavanagh](#);
Subject: Re: Bayshore Village Wastewater Proposal
Attachments: [BV Presentation PIC May 22, 2024.pdf](#); [357-2023-892 - Signed Letter.pdf](#);
Sent: 6/5/2024 2:06:03 PM

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Hi Dyana
Thank you for getting back to me. I'm sorry I should have had you on the original email
I will respond to you once I speak with my contact.
Again thank you for your quick response
Marg Sharpe

Sent from my iPhone

On Jun 5, 2024, at 12:53 PM, Dyana Marks <DMarks@ramara.ca> wrote:

Hi Marg,
Thank you for your email. It will form part of the public consultation for this Class EA.
The option of building a mechanical sewage treatment plant to replace the spray fields was screened out as an alternative during the Class EA process.
Bayshore Village and the surrounding area is located in the Lake Simcoe watershed. Map attached for your reference – area shaded in green is within the Lake Simcoe watershed.

Subject to the Lake Simcoe Protection Plan (LSPP) Policy 4.3-DP: no new municipal sewage treatment plants shall be established in the Lake Simcoe watershed unless:

- a) the new plant is intended to replace an existing municipal sewage treatment plant; or
- b) the new sewage treatment plant will provide sewage services to,
 - i. a development that is on partial services, or
 - ii. a development where one or more subsurface sewage works or on-site sewage systems are failing.

The Bayshore Village sewage works is not considered an existing municipal sewage treatment plant as it does not dispose of treated effluent in a surface water body (O. Reg.60/08, amended by O. Reg.130/09). It doesn't matter if the effluent doesn't go directly into Lake Simcoe. The prohibition is for all water bodies in the watershed – no discharge of effluent to a river, lake, creek, drain, wetland anywhere in the watershed – that area in the green.

Treated effluent from the Bayshore Village sewage works is spray irrigated onto 2 fields for disposal by infiltration. It is not discharged to surface water.

The LSPP was prepared and approved under the *Lake Simcoe Protection Act, 2008* and took effect on June 2, 2009. The Act requires the MECP to conform with designated policies in the LSPP. This means that the MECP will not/can not approve a new sewage treatment plant in this location that disposes effluent to surface water. We did receive a letter from the Minister of Environment to this effect in 2023 (attached).

The Township also looked into extending services to Val Harbour, which is a partially serviced development, in order to meet requirement 4.3 b) i. in order to build a new sewage treatment plant, however it was screened out due to the timeline and cost associated with that option – 5+ years and \$23 million dollars. It worked out to be around \$150,000 per home to connect Val Harbour which is not reasonable.

Please have a read through of the slides presented on May 22 for the Class EA. There are currently 8 alternatives presented. Building a tertiary STP that discharges effluent to surface water has been screened out. It is off the table for discussion. We have exhausted all resources in trying to get an approval for a new STP. The Township needs to move forward with a solution that meets the problem statement (find a solution for the disposal of lagoon effluent), meets current MECP guidelines and LSPP policies and is financially viable.

We appreciate you taking the time to present this proposal, however, it has been investigated and it has been screened out. If I can provide further information or clarification on anything though, please let me know. We are happy to explain the EA study as much as we can.

Thank you,



Dyana Marks
Resources Technician
Township of Ramara

P.O. Box 130 Brechin, Ontario L0K 1B0
P: 705-484-5374 ext. 285 | F: 705-484-0441
E: dmarks@ramara.ca | W: www.ramara.ca |





----- Original message -----

From: Margaret Sharpe <sharpemw22@gmail.com>

Date: 2024-06-04 8:24 p.m. (GMT-05:00)

To: stroxler@tathamengineering.com, jkavanaugh@ramara.ca, Basil Clarke <BClarke@ramara.ca>, Keith Bell <KBell@ramara.ca>, David Snutch <DSnutch@ramara.ca>, Dana Tuju <DTuju@ramara.ca>, Sherri Bell <SBell@ramara.ca>, Jennifer Fisher <JFisher@ramara.ca>, Joe Gough <JGough@ramara.ca>, Zach Drinkwalter <ZDrinkwalter@ramara.ca>

Subject: [EXTERNAL] Bayshore Village Wastewater Proposal

Suzanne Troxler
Tatham Engineering
Senior Engineer

Josh Kavanagh
Township of Ramara
Director of Infrastructure

Zack Drinkwater
Ramara Township CAO

Ramara Council
Mayor Clarke, Deputy Mayor Bell, Councillors, Snutch, Tuju, Bell, Fisher, Gough

I would like to put forth another proposal for the Bayshore Village Wastewater System.

I am fully aware that our Spray fields are at the end of their effective life and a new solution must be made to ensure a system that does not directly discharge into Lake Simcoe is put in place. I am in full support of protecting the Lake.

With the purchase of new Land that would be considered waterfront on Barnstable Bay (Lake Simcoe) to enhance our Spray fields and the land that has been in use for the Spray Fields for many years goes down to Lake Simcoe, the proposed solutions put forward is basically on Waterfront property. There is little to no waterfront vacant land around Lake Simcoe and it is concerning that we are using good development land for a Sewage System.

Please bear with me as I have a proposal that is more palatable and feasible.

Move the Bayshore Wastewater System across the road on the other side of sideroad 8. Looking at the map it appears that Ramara has a piece of land or could get a piece of land where a tertiary sewage plant could be placed and **NOT directly be discharged** into Lake Simcoe. Lagoon City Plant is not that far from Lake Simcoe and does not discharge directly into the lake.

By using a Tertiary wastewater system, effluent discharge can be monitored to ensure the phosphorus upload to Lake Simcoe would be at an acceptable level as per MOECP regulations imposed on us. Bayshore Village is not considered to have phosphorus loading into lake Simcoe, this is why they have not been considered for a tertiary treatment system. In the past it was considered that phosphorus loading between Bayshore Village and Lagoon City could be shared as an alternative. This system would allow for future growth /development.

Consideration:

Sell off the Sprayfield site and newly acquired **Waterfront property** for development for affordable housing.

Put the money into the development of the new tertiary sewage system.

More users on our Sewer system.

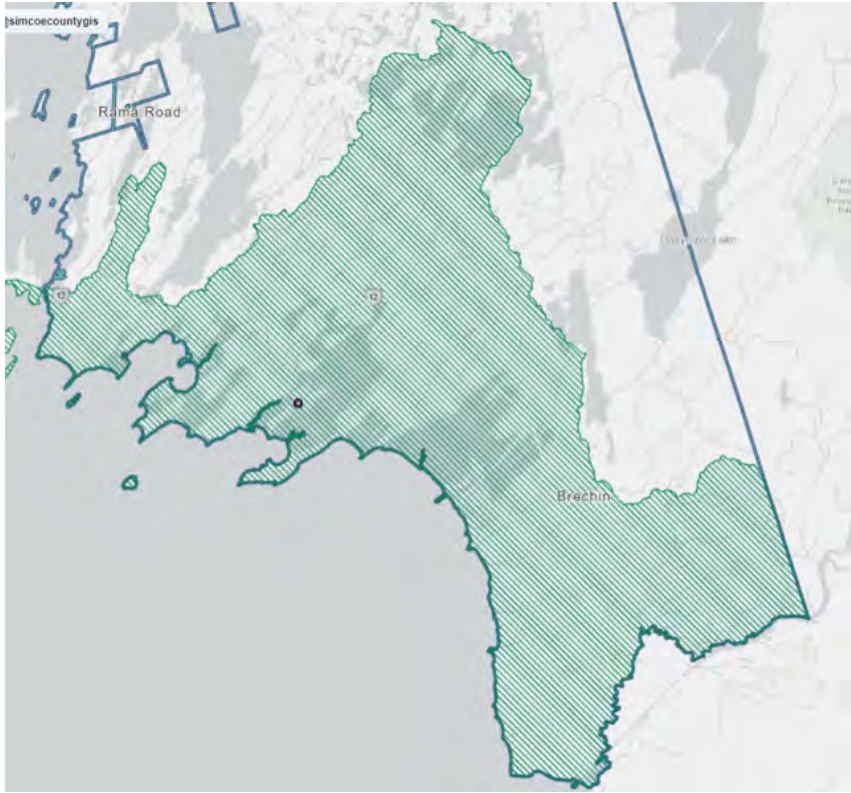
Would be able to service new users such as Val Harbour etc. in the future.

Let's think forward into the future and ensure we have the best solution and make it happen.

A response would be appreciated. If you have any questions please do not hesitate to contact me.

Thank you for your consideration.

Margaret Sharpe
135 Bayshore Dr.,
Bayshore Village
sharpemw22@gmail.com
705 484 5786



From: jeff.switzer@sympatico.ca
To: [Suzanne Troxler](mailto:Suzanne.Troxler@ramara.ca); jkavanagh@ramara.ca; bclarke@ramara.ca; kbell@ramara.ca; dsnutch@ramara.ca; jfisher@ramara.ca; dtuju@ramara.ca; jgough@ramara.ca; sbell@ramara.ca;
Subject: Bayshore Village Spray Field Replacement
Sent: 6/4/2024 9:34:36 AM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

Hello,

I am a Bayshore Village resident. Recently, there have been a number of presentations on the options to replacing the current spray fields. In the absence of the ability to put in a full sewage treatment facility (Alternative #10), I support Alternative #8. I would also request that Ramara seek all available alternative forms of funding for this project, such as provincial and federal grants.

As this has been a long-standing issue with a great deal of debate and false leads, I would also request that this be moved along as quickly as possible with the goal of actually under construction within the next 2 years. The time for talking about this is long over – it is now time for action!

Respectfully, Jeff

Jeff Switzer
152 Bayshore Dr
Brechtin, ON

(705) 484-0160
(Cell) (416) 525-9193
jeff.switzer@sympatico.ca

From: [Joey Torchia](#)
To: [Suzanne Troxler](#); [Josh Kavanagh](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [Jennifer Fisher](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [Sherri Bell](#);
Subject: Bayshore Village Sewage Works Effluent Spray Irrigation Class EA
Sent: 6/4/2024 6:47:05 PM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

Hello,

I am writing today to lend my support to Option 8 (effluent bed and discontinued spray irrigation) for the Bayshore Sewage works EA.

In addition, I'm encouraging council to seek and apply for any available provincial and federal grants to offset some of the construction costs.

Finally, I'm asking council to work towards a "shovel-ready" solution prior to the end of the current council. Given the length of this project to-date, it would be a real travesty to "start over" with a new council and possible new faces around the table.

Regards,
Joey Torchia
23 Park Lane

From: [Deborah Antenore](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Cc: [Bayshore Village Association](#)
Subject: Bayshore Village Effluent Disposal Bed
Sent: 6/5/2024 7:19:07 PM

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To all concerned,

I am a home owner in the Bayshore Village area and I am writing in support of "Alternative #8" - the effluent disposal bed, as the optimal means with which to address the coming end of life of our current situation.

I respectfully suggest the Ramara Township should seek financial support for this infrastructure investment, including provincial and federal grants to offset construction costs.

The age and stage of the current solution, and the significant disruption to the local area to remove overflow, are very concerning. I request that this project be planned, funded and "shovel ready" before the end of term for the current council members.

Your time and attention are greatly appreciated.

Deborah Antenore
12 Thicketwood Place
Brechtin Ontario
L0K 1B0

Get [Outlook for iOS](#)

From: [Kay Beacham](#)
[Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#);
To: [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#);
[dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: Water and Wastewater Meeting June 6, 2024
Sent: 6/5/2024 3:42:41 PM

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We support Alternative #8, the Effluent Disposal Bed. We also request that Ramara Township seeks provincial and federal grants to support construction costs. The project should be shovel ready by the end of the current term of council. This has dragged out long enough.

Lorne McCaig
Kathryn Beacham
194 Bayshore Drive
Brechtin, Ontario

Sent from my iPad

From: Keith Bellamy
To: bclarke@ramara.ca; dsnutch@ramara.ca; dtuju@ramara.ca; jfisher@ramara.ca; jgough@ramara.ca; jkavanagh@ramara.ca; kbell@ramara.ca; sbell@ramara.ca; Suzanne Troxler;
Subject: Water and waste water
Sent: 6/5/2024 11:54:40 AM

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Keith Bellamy, 121 Bayshore Dr. Was looking forward to meeting June 6th that is now cancelled?

I support Alternative #8 as to the best solution to your problem with Bayshore wastewater.

Since the reserve monies are no longer available for this project we must ask for help from all agencies as the residents are under heavy burdens already in regards to water and sewer costs.

You need to act now!

Pat and Keith Bellamy

From: julie.branecatella, julie.branecatella
To: [Suzanne Troxler](mailto:Suzanne.Troxler)
Subject: Fwd: Effluent Disposal Bed
Sent: 6/5/2024 4:44:06 PM

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Resending since I had an error in your email address. :)

----- Original Message -----

From: julie.branecatella@sympatico.ca

To: jkavanagh@ramara.ca; jfisher@ramara.ca; dtuju@ramara.ca; jgough@ramara.ca; sbell@ramara.ca; stroxler@tathamenb.com; bclarke@ramara.ca; kbell@ramara.ca; dsnutch@ramara.ca

Sent: Wednesday, June 5th 2024, 16:41

Subject: Effluent Disposal Bed

Dear all,

We have been longtime residents of Bayshore Village. Please note that my husband, Vito Brancatella, and I fully support Alternative #8, the effluent disposal bed instead of the existing sprayfields.

We request that Ramara Township seeks provincial and federal grants to support the construction costs.

We also request that the project be "shovel ready" by the end of the current term of council.

Best regards,

Julie and Vito Brancatella

19 Sandlewood Trail

Brechin, ON

L0K 1B0

From: [Velma Burley](#)
To: [Suzanne Troxler](#); [Josh Kavanagh](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [Jennifer Fisher](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: Action needed on Bayshore effluent
Sent: 6/5/2024 9:05:55 AM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

After attending the May 22nd meeting regarding a solution for Bayshore's aging spray fields, my husband and I both support going ahead with alternative #8. We ask you, our council, to seek provincial and federal grants to support construction costs. We are very hopeful that the project will be "shovel ready by the end of the current term of this council.

Thank you.

Velma and Paul Burley
6 Lavender Court
Bayshore Village
L0K 1B0

From: [Doug Davies](mailto:Doug_Davies@ramara.ca)
kbell@ramara.ca; dsnutch@ramara.ca; bclarke@ramara.ca;
To: jkavanagh@ramara.ca; jfisher@ramara.ca; [Suzanne Troxler](mailto:Suzanne_Troxler@ramara.ca);
dtuju@ramara.ca; jgough@ramara.ca; sbell@ramara.ca;
Subject: The Future of Bayshore Village Sewage
Sent: 6/5/2024 1:43:59 PM

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The future of Bayshore sewage disposal had been a subject of discussion for most of the decade that we have lived in Bayshore. At this point in time, it is becoming obvious that weather does not allow a spray field to be a viable option. We don't have enough dry days, warm days or the right soil conditions. The only alternative now that a tertiary treatment plant is disallowed, is a tile bed. We need the largest bed to handle Bayshore effluent without supplementary spray fields. Option 8 would seem to be the best option.

The construction of a large tile bed as described in option 8 of the Tatham presentation should be pursued. Zoning changes, environmental assessment and approvals from various government agencies should be ongoing immediately. There should be infrastructure grants available at the Federal and Provincial levels.

We want to see progress in terms of funding and approvals such that construction can begin before the current council term ends. Having to start over with new councillors will just ensure that momentum is lost again.

In summary, Option 8, federal and provincial funding, all zoning and governmental approvals, ready for construction within 2 years and regular progress updates.

Thanks,

Jane and Doug Davies
20 Thicketwood Place
Bayshore Village
Brechin Ontario
Sent from my iPhone

From: [Laurel Dewar](#)
To: [Suzanne Troxler](#); [Josh Kavanagh](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: Ramara spray field solution
Sent: 6/5/2024 8:14:12 AM

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To the Municipality of Ramara Township;

I am writing today to indicate that my husband and I want to see the effluent disposal bed as the preferred long-term solution for the waste water from Bayshore and area. The current spray field is nearing the end of its effective life-cycle. As a resident of Bayshore Village we have been paying our taxes and high water costs for over 10 years and this issue has been at the forefront for much longer. It's time for a long term solution.

We also ask that Ramara Township seek provincial and federal grants to support construction costs. This seems like a logical course of action and I hope the municipality follows through.

One more request is that the project be "shovel ready" by the end of the current term of council.

Thank you for your consideration,

Laurel Dewar

7 Thicketwood Pl, Brechin, ON L0K 1B0

From: [Anne Harwood](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: Bayshore Village Spray Fields
Sent: 6/5/2024 1:46:17 PM

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Greetings All

We are extremely disappointed that The Water and Wastewater meeting scheduled for June 6th is cancelled. We respectfully request that **each question** that was submitted be fully answered and not just FAQ's as indicated on the Ramara website. Time was spent to research questions and therefore each one deserves an answer from the Council.

We support **Alternative #8, the Effluent Disposal Bed** and request that Ramara Township seeks provincial and federal grants to support construction costs. Also, we request that the project be "shovel ready" by the end of the current term of Council.

We look forward to your responses.

Respectfully
Rick and Anne Harwood
26 Thicketwood Place
Bayshore Village

From: [Karma](#)
To: [Suzanne Troxler](#)
Cc: [javanagh@ramara.ca](#); [kbell@ramara.ca](#); [jfisher@ramara.ca](#); [dsnutch@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: Fwd: Spray fields
Sent: 6/5/2024 7:25:34 AM

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Sent from my iPhone

Begin forwarded message:

From: Karma <hepbk1980@gmail.com>
Date: June 5, 2024 at 7:20:43 AM EDT
To: [clarke@ramara.ca](#)
Subject: Spray fields

I support alternative 8 for a disposal septic bed that can handle the volume for our community and discontinue the spray fields.
Please seek funding from federal and provincial sources and preferably as soon as possible
Thank you
Karma and Bob Hepburn
12 Fernwood Lane
Sent from my iPhone

From: [Ken Hill](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: Bayshore Village Spray Field
Sent: 6/5/2024 9:43:01 AM

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Good morning,

We wish to express our support for Alternative #8, the effluent disposal bed.
We also request that Ramara Township seek any and all grants provincially, federally and otherwise that may be available, to support construction costs; and, that the project be "shovel ready" by the end of the current term of council.

Regards,

Ken and Sylvia Hill
1 Park Lane
Breachin ON

From: [David Horbay](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: spray Field
Sent: 6/5/2024 3:53:00 PM

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Here are our choices for the Spray Fields
David and Heather Horbay
11 Maple Gate, Brechin, ON L0K 1B0

We: [support of "Alternative #8", the Effluent Disposal Bed](#)
: request that Ramara Township seek provincial grants to support construction costs.
: request that the project be shovel ready by the end of the current term of council.

We are very disappointed by the council canceling the meeting regarding our water billis
We elected you and we have the right to be heard, this is totally unacceptable.

Yours Truly
David and Heather Horbay

David Horbay
Sales Representative
Century 21 Leading Edge
Realty Inc., Brokerage
Office: 905 666-0000
Direct: 905 903-3760
www.DavidHorbay.com
dhorbay@gmail.com

From: [Artena Hutchison](#)
[Suzanne Troxler](#); jkavanagh@ramara.ca; bclarke@ramara.ca;
To: kbell@ramara.ca; dsnutch@ramara.ca; jfisher@ramara.ca;
dtuju@ramara.ca; jgough@ramara.ca; sbell@ramara.ca;
Subject: Ramara Water and Wastewater Issues
Sent: 6/5/2024 11:46:25 AM

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My name is Artena Hutchison and I am writing on behalf of my husband and I. We reside at 25 Maple Gate in Bayshore Village and have been keeping informed of the current issues surrounding water and wastewater in Ramara. We consider this to be a very serious issue, not only because water is our most precious resource but also because our home is our most valuable asset and we cannot afford to lose value in it. If this issue isn't resolved in a fiscally responsible manner, no one will want to buy homes in this township. Of course, that will have a huge impact on the township as well as many individuals.

I am sorry to hear of the cancellation of the Open House meeting on June 6; however, I do understand your reasons as this is a hot topic and emotions tend to run high. I would like all the misinformation to be cleared up as Bayshore residents have unfairly taken some verbal abuse over this issue. In addition, I sincerely hope council is working hard to resolve this issue in such a way that water rates will be affordable now and in future.

To us, the best solution would be to build an Effluent Disposal Bed and still maintain some sprayfield as back up (Alternative #8). Bayshore has had a dedicated group of residents working hard on this issue and feel this is the best solution. I trust that Ramara staff and council will seek out any government monies to support the township in paying for this solution and would hope that much of this is resolved by the end of council's current term in office.

And, please, keep your residents informed! Communication within Ramara has been pretty bad in the past - you can do much better.

Thank you.

Artena Hutchison

Sent from my iPad

From: [Laura S. Lee](#)
To: [Suzanne Troxler](#)
Cc: [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [Dana Tuju](#); [sbell@ramara.ca](#); [jgough@ramara.ca](#); [Jennifer Connor](#); [zdrinkwalter@ramara.ca](#); [Josh Kavanagh](#); [DMarks@ramara.ca](#); [Aziz.Ahmed@ntario.ca](#); [Chris.Hyde@ontario.ca](#); [Sheri.broeckel@ontario.ca](#); [Carly.Munce@ontario.ca](#);
Subject: Response to Notice of PIC and Request for Comments - Bayshore Village Effluent Spray Irrigation System
Attachments: [240604 Bayshore letter.docx](#)
Sent: 6/5/2024 9:50:20 PM

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Dear Ms. Troxler:

Please see the attached letter submitting our comments regarding the above.

Thank you.....*Joe and Laura S. Lee*

--

Joseph J. Lee
Laura S. Lee
Maple Grove Farm
3642 Concession Road 9
Ramara ON L3V 0M5
705 325-4050
lsl.maplegrove@gmail.com

June 4, 2024

Suzanne Troxler
Tatham Engineering Limited
Senior Engineer
115 Sandford Fleming Drive, Suite 200
Collingwood ON L9Y 5A6

Via email: stroxler@tathameng.com

Dear Ms. Troxler:

Re: Bayshore Village Effluent Spray Irrigation System Municipal Class Environmental Assessment Update – Notice of Public Information Centre – May 22, 2024

We are responding to the above-noted Notice of Public Information Centre, issued on the Township's website on May 6, 2024, and request for comments.

We have been following the lack of progress on this issue for some time. Interestingly enough, the arrows in Alternative 5 *Bayshore Village Effluent Spray Irrigation Class EA Update*, dated and presented to Committee of the Whole Council on December 11, 2023, (which has been screened out) point directly to the front yards of our property and our sister's property on Concession 9.

The residents who live adjacent to the spray fields are the ones most affected by the thirty-year plus Bayshore Village spray experiment. They are not newcomers complaining about an inconvenience. They are generational farm owners who have watched the Township and OCWA spread unwanted human waste on their land for years, harming their land, their farming income and their health. Their complaints to the Township about these spills onto their property have not been addressed or corrected.

Laura attended the December 11, 2023, and the May 22, 2024, meetings and listened to the review of the ten listed alternative solutions (plus a *do-nothing* option) for the disposal of lagoon effluent. The review stated that the *do-nothing* option and six alternatives had been screened out. Alternatives 3,6,7 and 8 were left.

We submit that, of these four alternatives, only Alternative 8 is viable. Alternatives 3,6 and 7 all involve spray irrigation and do not meet the requirements of the Main Considerations listed on Slide 4 of this updated report.

Taking the words from the Problem Statement in Slide 3 of your May 22 presentation, we submit that runoff and impacts on humans/farm animals, aerosols and drainage all have occurred. Overspray, runoff and drainage from the south field, and especially from the north field, have been documented and captured in picture and video and submitted to your office, MECP, and the Township. The two neighbouring farms on Concession 8 directly affected have submitted tomes of evidence. The runoff includes over-sprayed effluent spilling into Wainman's Creek which empties into Lake Simcoe.

The Class EA Problem Statement further states that there is a "need to find the most appropriate solution for the disposal of the lagoon effluent." Spray irrigation is not the most appropriate solution.

The spray irrigation system does not have the required capacity and is completely dependent upon the weather. Hauling the effluent has not solved the problem. How will continuing spray irrigation in Alternatives 3,6 and 7 not also breach the Certificate of Approval? Continuing with any form of spray irrigation will not meet the Main Considerations listed in Slide 4 of your May 22 presentation.

We have read the Certificate of Approval and note the following sections:

- “1.4 The Owner shall ensure that the effluent spray irrigation system is operated in a manner that precludes the sprayed effluent ponding, run-off, and aerosol drift beyond the limits of the approved spray irrigation fields at all times.*
- 1.5 Any diversion of sewage from any portion of the sewage works is prohibited, except where it is unavoidable in preventing loss of life, danger to public health, personal injury or severe property damage.”*

We submit that the current system has breached sections 1.4 and 1.5 of the C of A by allowing run-off onto neighbouring properties and into Lake Simcoe.

On April 29, 2024, representatives of OCWA presented their annual report, dated March 28, 2024, to Ramara Council. Just prior to this presentation, all members of Council had received correspondence from the affected farm owners, pointing out that the total acreage of spray area used was an incorrect figure, thereby skewing the overall spray average calculations in the report. We attended that April 29 meeting and heard from the OCWA Operations Manager that, despite using an incorrect calculation, they were still in compliance no matter the acreage because they had received an exemption. As Councillor Snutch stated at that meeting, ‘What I’m hearing is it doesn’t matter how much you spray.’ The response from the OCWA Operations Manager was ‘The past few years it wouldn’t have because there was an exemption.’ Would MECP perhaps not have given these exemptions over the years if they had received the correct calculations? This is such a betrayal to the stakeholders.

As stated, the adjacent landowners have documented many breaches of the C of A. You have written and visual evidence of those breaches. Other agencies beyond the Township have now been contacted, including the Beef Farmers of Ontario, the Ontario Federation of Agriculture, the local MPP, various levels of the MECP, including the current and previous Ministers. The owners have also been in consultation with their farm veterinarian.

We own a farm located on Concession 9 in Ramara. As farmers, with cattle, horses and poultry, we are subject to stringent rules and regulations regarding nutrient management. The Bayshore Village spray fields are subject to regulations, but human waste, with little or no treatment, is spilling onto privately owned fields outside the approved spray area, with no permission granted, and allowed to run into a creek which exits into Lake Simcoe. The residential water well belonging to one of the affected owners has been contaminated; cattle pasturing has had to be altered to protect animals in the food chain; tillable land has had to be abandoned; human physical and mental health is at risk.

We have seen the detailed documentation provided to you, to MECP, and to the Township by these adjacent farm owners. The owners have remained very factual in their submissions. Their arguments have been backed up by defensible evidence. Both families have deep roots in this community –

Suzanne Troxler
June 4, 2024

perhaps not the wisest move on the part of the Township Council, OCWA, and Tatham to treat so lightly the concerns of stakeholders that extend back four generations on these properties.

Alternatives 3,6 and 7 should be screened out as they all include spray irrigation. Alternative 8 is the only alternative that meets the Main Considerations set out in your May 22 presentation slide. We submit that it is the only alternative that would meet today's health and environmental standards.

We submit that the timeline presented on Slide 15 of your presentation is unacceptable. These issues were raised by the affected property owners going back to at least 2011. A concerted effort to fast track the timeline would be the responsible and appropriate action to take.

We submit the following:

1. Alternative #8 is the only option to present and is the only logical course of action. Council cannot be solely depended upon to do the right thing.
2. Permanently remove Alternatives #3, 6 and 7 or any variation of spray fields from consideration as they do not meet the Main Considerations in your presentation.
3. We object to the proposed timeline. This environmental disaster has been years in the making and is getting worse with time. Residents have been waiting for a resolution since 2011. How much more must be endured?

Yours,

Joseph J. Lee

Laura S. Lee

Joseph J and Laura S. Lee
3642 Concession Road 9
Ramara, Ontario L3V 0M5
lsl.maplegrove@gmail.com

cc:

bclarke@ramara.ca
kbell@ramara.ca <
dsnutch@ramara.ca
jfisher@ramara.ca
dtuju@ramara.ca
sbell@ramara.ca
jgough@ramara.ca
jconnor@ramara.ca

zdrinkwalter@ramara.ca
jkavanagh@ramara.ca
DMarks@ramara.ca
Aziz.Ahmed@ontario.ca
Chris.Hyde@ontario.ca
Sheri.broeckel@ontario.ca
Carly.Munce@ontario.ca

From: [Suzanne Troxler](#)
To: [Laura S. Lee](#)
Cc: [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [Dana Tuju](#); [sbell@ramara.ca](#); [jgough@ramara.ca](#); [Jennifer Connor](#); [zdrinkwalter@ramara.ca](#); [Josh Kavanagh](#); [DMarks@ramara.ca](#); [Aziz.Ahmed@ntario.ca](#); [Chris.Hyde@ontario.ca](#); [Sheri.broeckel@ontario.ca](#); [Carly.Munce@ontario.ca](#);
Subject: RE: Response to Notice of PIC and Request for Comments - Bayshore Village Effluent Spray Irrigation System
Sent: 8/20/2024 8:48:00 AM

Laura and Joseph Lee,

Thank you for your detailed letter of comments on the Bayshore Village Effluent Disposal Class EA.

The Class EA process requires that we consider all potential alternatives to compare their impacts, positive and negative. Your comments, as well as the comments of other affected residents and farm owners, have been considered and integrated in the assessment and evaluation of alternatives. Your comments were significant contributions to the assessment and recommendations of the Draft Class EA report that were presented to Township Council on August 12. These recommendations include abandoning effluent spray irrigation and accelerating the schedule to implementation of the effluent disposal bed solution.

You will be directly notified when the Final Class EA Report is available for public review.

Sincerely,

Suzanne



Suzanne Troxler P.Eng.
Senior Engineer

stroxler@tathameng.com T 705-444-2565 x2089 C 705-888-0898
115 Sandford Fleming Drive, Suite 200, Collingwood, Ontario L9Y 5A6

From: Laura S. Lee <ls.maplegrove@gmail.com>
Sent: Wednesday, June 5, 2024 9:50 PM
To: Suzanne Troxler <stroxler@tathameng.com>
Cc: [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [Dana Tuju](#) <dtuju@ramara.ca>; [sbell@ramara.ca](#); [jgough@ramara.ca](#); [Jennifer Connor](#) <jconnor@ramara.ca>; [zdrinkwalter@ramara.ca](#); [Josh Kavanagh](#) <jkavanagh@ramara.ca>; [DMarks@ramara.ca](#); [Aziz.Ahmed@ntario.ca](#); [Chris.Hyde@ontario.ca](#); [Sheri.broeckel@ontario.ca](#); [Carly.Munce@ontario.ca](#)
Subject: Response to Notice of PIC and Request for Comments - Bayshore Village Effluent Spray Irrigation System

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Dear Ms. Troxler:

Please see the attached letter submitting our comments regarding the above.

Thank you.....*Joe and Laura S. Lee*

--

Joseph J. Lee
Laura S. Lee
Maple Grove Farm
3642 Concession Road 9

Ramara ON L3V 0M5

705 325-4050

lsj.maplegrove@gmail.com

From: GLENN.LUCAS@SYMPATICO.CA
To: [Suzanne Troxler](mailto:Suzanne.Troxler@ramara.ca); jkavanagh@ramara.ca; bclarke@ramara.ca; kbell@ramara.ca; dsnutch@ramara.ca; jfisher@ramara.ca; dtuju@ramara.ca; jgough@ramara.ca;
Subject: Bayshore Village Spray Field Request
Sent: 6/5/2024 4:47:12 PM

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Our names are Wendy & Glenn Lucas from 226 Bayshore Dr. in Bayshore Village. We attended the Public Information session at the Ramara Council Chambers on May 22 regarding the spray field project. We are in support of the long-term solution of an effluent disposal bed alternative #8. We are in support of #8 because of the lower annual operating costs, discontinuation of all spraying activity, the operation can be handled 24/7, 365 days a year and elimination of costly sewage hauling.

We have been paying a large water bill for years that mostly pays for new infrastructure and are extremely disappointed that nothing constructive has been done by the current Mayor and Council. We have known for years now that the current spray field is at the end of its effective life-cycle and to be told at the meeting that another 2 years of waiting is unacceptable. We request that Ramara Township seek provincial and federal grants to support construction costs and that the project be started immediately because of the severity of the situation.

Wendy & Glenn Lucas

From: [Rick Matthews](#)
To: [Suzanne Troxler](#); [Josh Kavanagh](#); [Basil](#); [Keith Bell](#); [David Snutch](#); [Jennifer Fisher](#); dtuju@ramara.ca; [Joe Gough](#); sbell@ramara.ca;
Subject: Bayshore Village Spray Field Replacement: Option 8 - Effluent Disposal Bed
Sent: 6/5/2024 9:51:05 AM

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As member of the Board of Directors for the Bayshore Village Association for over eight years, I believe it is time for Ramara to finalizes the replacement of the Spray Irrigation Fields.

I am in support of the engineering recommendation to develop an Effluent Disposal Bed, Option #8, and terminate any form of Spray Irrigation.

Given the added cost of trucking associated with the failing spray field, the development, approval and replacement, with option 8, the Effluent Bed, should be one of the highest priorities for this council. **In fact the council should ensure this issue is resolved before the term of this council.**

During the approval process I urge the Council to lobby Provincial and Federal representatives of our area to secure funds to construct this new facility. Funds are not granted until projects are "shovel ready" but our MP and MPP need to be engaged early in the process to help secure any grants/ funds.

I believe our local Councillor will continue to support this project, but I believe a task force of council, external engineer and Ramara support staff should be formed to focus resources on this initiative with regular communications and status reports to the community and council. This does not have to be a large team. A project plan with clear milestone dates and objectives should be developed. Most importantly a single individual should be responsible to make this Effluent Field happen. I am concerned the timeline of this council will not meet the target completion without this type of focus on the project especially with a new CAO being injected into the organization.

Rick Matthews
128 Bayshore Drive
Ex-Officio of Bayshore Village Association

From: [Bruce McWilliam](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: Bayshore spray field
Sent: 6/5/2024 11:44:40 AM

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Hello,

We would like to express our strong support for alternative # 8 (effluent disposal bed with no further spray irrigation). This option has the benefits of lower annual operating costs, discontinuation of all spraying activity (with its impact on neighbouring residents), operation 24/7, 365 days a year, and elimination of the future possibility of costly sewage hauling.

We ask that Ramara Township seek provincial and federal grants to support the construction costs of this project. Also, we ask that the project be "shovel ready" by the end of the current term of council.

Also, consideration should be given to Simcoe County taking over responsibility for Ramara water and wastewater.

Yours truly
Bruce and Lynn McWilliam
13 Park Lane
Brechin, ON
L0K1B0

From: [Dave and Liz](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [Basil Clarke](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [Joe Gough](#); [sbell@ramara.ca](#);
Subject: Bayshore spray fields
Sent: 6/5/2024 9:13:00 AM

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I strongly support "alternative 8" for an effluent disposal bed.
I would encourage the council to immediately and aggressively pursue financial support for all levels of government county, provincial and federal.
The time for stalling has passed.
Get this shovel ready and underway before the next election.
Regards
Dave Meharg
90 Bayshore Dr
Brechtin
L0K1B0

From: [millertyme](#)
To: [Suzanne Troxler](#); [jkavanagh](#); [bclarke](#); [kbell](#); [dsnutch](#); [jfisher](#); [dtuju](#); [jgough](#); [sbell](#);
Subject: Water and Waste Water for Bayshore Village
Sent: 6/5/2024 7:45:17 PM

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Hello

My name is Steve Miller and my wife and I live at 30 Southview Drive in Brechin (Bayshore Village).

I recently attended the *Bayshore Village Effluent Spray Irrigation* meeting. As a result of the information gained at that meeting, I would like to confirm my support for Option # 8, Build an effluent disposal bed and discontinue the current spray irrigation system.

I would also like to request that the Township of Ramara seek Provincial and Federal grants as well as any other financial support and request that the project be "shovel ready" by the end of the current term of Council.

At the meeting, it was stated that the soil in the existing spray fields had become compacted as a result of years of spraying. My understanding is that the fields were never worked because they could not get equipment between the pipes. However, I see farm tractors cutting the grass during the summer and I don't understand why these same tractors couldn't be used to pull ploughs and disks in the spring or fall. Farming equipment could fit in the same area that you are currently operating the hay cutting equipment. Wouldn't this have extended the life of the system?

Regardless, given the situation we are currently at, I highly recommend proceeding with Option 8.

Thank you.

Steve Miller

Sent on an Android device

From: [patrick.j.murphy](mailto:patrick.j.murphy@ramara.ca)
To: [Suzanne Troxler](mailto:Suzanne.Troxler@ramara.ca); jkavanagh@ramara.ca; jgough@ramara.ca; sbell@ramara.ca; dsnutch@ramara.ca; ffisher@ramara.ca; kbell@ramara.ca; bclarke@ramara.ca; dtuju@ramara.ca;
Subject: Bayshore Spray Fields
Sent: 6/5/2024 8:49:45 AM

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From: Patrick Murphy & Elaine Ney
3 Misty Court
Doug & Sally McPherson
9 Misty Court

We are writing to voice our support for a preferred long term solution of an effluent disposal bed as the Bayshore Spray Fields are ending their effective life-cycle.

We support proposal #8 as its benefits are lower annual operating costs, operation 24/7, 365 days a year, discontinue all spraying activity which benefits all the nearby residents and eliminate the costly hauling of sewage.

We request that Ramara seek provincial and federal grants to support construction costs and also have the project shovel-ready by the end of the current term of council.

Elaine Ney & Patrick Murphy
Doug & Sally McPherson

From: [Lori King](#)
To: [Suzanne Troxler](#); [Josh Kavanagh](#); [Basil Clarke](#); kbell@ramara.ca; [David Snutch](#); [Jennifer Fisher](#); dtuju@ramara.ca; [Joe Gough](#); sbell@ramara.ca;
Subject: We Support Alternative #8 - Effluent Disposal Bed
Sent: 6/5/2024 6:40:41 PM

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Hi,

We, Lori King and Paul Presseault of 22 Maple Gate, Bayshore Village are in support of the Alternative #8 for the Effluent Disposal Bed.

We request that Ramara Township seeks provincial and federal grants to support the construction costs.
We also request that the project be "shovel ready" by the end of the current term of council.

Thank you.

Lori King and Paul Presseault

Lori King,
E-RYT200, RYT500, YACEP

*"When a woman rises up in glory, her energy is magnetic and her sense of possibility contagious."
Marianne Williamson, A Woman's Worth*

From: [Linda Richardson](#)
To: [Suzanne Troxler](#)
Cc: [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [sbell@ramara.ca](#); [jgough@ramara.ca](#); [jconnor@ramara.ca](#); [zdrinkwalter@ramara.ca](#); [jkavanagh@ramara.ca](#); [DMarks@ramara.ca](#); [Aziz.Ahmed@ntario.ca](#); [Chris.Hyde@ontario.ca](#); [Sheri.broeckel@ontario.ca](#); [mhgwainman@gmail.com](#);
Subject: Bayshore Village Spray Fields Response
Attachments: [Spray Fields .docx](#)
Sent: 6/6/2024 7:06:46 PM

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Please see attached response to Bayshore Village spray fields PIC May 22, 2024.

Linda Richardson

June 5, 2024

Suzanne Troxler
Senior Engineer
Tatham Engineering Limited
115 Sandford Fleming Drive, Suite 200
Collingwood ON L9Y 5A6

Via email: stroxler@tathameng.com

**Re: Bayshore Village Effluent Spray Irrigation System Municipal Class
Environmental Assessment Update - Notice of Public Information Centre - May 22,
2024**

- IN SUPPORT OF ALTERNATIVE #8 -

We attended the December 11, 2023, Committee of the Whole meeting where alternatives for the Bayshore Village spray fields were presented. At that meeting only Alternatives #3, 6, 7 and 8 were left for consideration. Fortunately, Alternative #8 was left in but sadly Alternatives #3, 6 and 7 were not eliminated. (On a personal note, we were shocked to see Alternative #5 on the original mapping showed an arrow pointing directly at our property on Concession 9 indicating locations for future spray fields. This was outrageous and completely unacceptable.)

We also attended the Public Information meeting on May 22, 2024, where the remaining alternatives were discussed. What we cannot fathom is why the Council has not corrected this problem long ago. They have years of information and empirical data proving that the spray fields are not working as designed and have negatively impacted two farms for years.

The contractor, OCWA, responsible for the operation and maintenance of the spray fields seems to flaunt regulations, gets continuing exemptions from the Ministry of Environment, Conservation and Parks, and continues to alter the system regardless of consequences. And why hasn't the contracted engineering firm, Tatham Engineering Limited, stepped up to stop the unauthorized alterations that have not improved or corrected the problem? Contractors who do not do their jobs would be fired in any other world.

Where is the oversight, common sense and accountability?

There is certainly enough incompetence to go around. Council is elected to do the right things. If they don't there is always another election, and they are sadly mistaken if they think there are only four votes involved from the two impacted farms. However, there is no time to wait for a new Council.

The runoff and overspray from both the south and north spray fields have significantly and negatively impacted the two neighbouring farms. Their properties and a drinking water well are now contaminated. They have had to alter the management of their livestock and tillable land due to loss of viable acreage. This impacts their incomes and livelihoods. Nor should the amount of personal stress and risk of harmful health effects be overlooked.

Has Council even considered compensation for the loss of acreage or rehabilitation of their properties or what this has meant to their mental and physical health? How many Councillors or Bayshore Village residents would be OK with sewage being constantly pumped onto their front yard?

Additionally, there was no information on what effects this contamination has had on local wildlife, birds or insects. As the untreated runoff also spills directly into Lake Simcoe through Wainman's Creek, what is it doing to the health of the lake, fish and waterfowl? And yes we mean "untreated". At the meeting on May 22nd, we learned that the treated lagoon is bypassed when overfull and what gets sprayed is not treated. Another way of saying it's raw sewage.

The Township has spent and is continuing to spend hundreds of thousands of our tax dollars (not Bayshore Village dollars) on a system that has failed badly and created an environmental disaster. Spending more on hauling as a stopgap measure is only spitting in the wind. At the Public Information meeting there was consensus that the spray field alternatives were not an option moving forward. Alternative #8 is the only option that meets today's rigorous health and environmental standards and stops further contamination on the adjacent farms. This is outlined in the Main Considerations on Page 4 of your presentation from the May 22nd Public Information meeting.

This is a huge problem that the Bayshore Village spray fields have created. We also learned that MECP will not allow a sewage treatment plant to be built so that eliminates the best solution. We suggest that another option is for the residents of Bayshore Village to install individual septic systems on their properties and look after their own waste. Keep in mind that the local farms have been there for well over a hundred years - long before Bayshore Village was even thought of. In fact, Bayshore Village itself was originally viable farmland.

In summary -

1. We request that Alternative #8 be presented as the only option moving forward. It is the only logical course of action. Council cannot be solely depended upon to do the right thing.
2. We request that you permanently remove Alternatives #3, 6 and 7 or any future "spray fields" from consideration as they do not meet the Main Considerations in your presentation.
3. We object to the proposed timeline. This environmental disaster has been years in the making and is getting worse with time. Residents have been waiting for a resolution since 2011. How much more must be endured?
4. We as non-users will not pay to correct a massive problem that has been created by a small percentage of the population.

Now is not the time to hesitate but to keep moving forward in an expeditious manner. No more delays. Alternative #8 is the only workable solution and must be acted upon immediately.

Respectfully,

Pat Richardson
Linda Richardson

Pat and Linda Richardson
3552 Concession Road 9
Ramara ON L3V 0M5
pat@orilliapronet.com
linda@orilliapronet.com

Cc -

bclarke@ramara.ca
kbell@ramara.ca
dsnutch@ramara.ca
jfisher@ramara.ca
dtuju@ramara.ca
sbell@ramara.ca
jgough@ramara.ca

jconnor@ramara.ca
zdrinkwalter@ramara.ca
jkavanagh@ramara.ca
DMarks@ramara.ca
Aziz.Ahmed@ontario.ca
Chris.Hyde@ontario.ca
Sheri.broeckel@ontario.ca
mhgwainman@gmail.co

From: [Suzanne Troxler](#)
To: [Linda Richardson](#)
bclarke@ramara.ca; kbell@ramara.ca; dsnutch@ramara.ca; jfisher@ramara.ca; dtuju@ramara.ca; sbell@ramara.ca; jgough@ramara.ca; jconnor@ramara.ca; jkavanagh@ramara.ca; DMarks@ramara.ca; Aziz.Ahmed@ntario.ca; Chris.Hyde@ontario.ca; Sheri.broeckel@ontario.ca; mhgwainman@gmail.com;
Cc:
Subject: RE: Bayshore Village Spray Fields Response
Sent: 8/20/2024 4:59:00 PM

Linda and Pat Richardson,

Thank you for your detailed letter of comments following the Bayshore Village Effluent Disposal Class EA PIC.

The Class EA process requires that we consider all potential alternatives to compare their impacts, positive and negative. Your comments, as well as the comments of affected residents and farm owners, have been considered and integrated in the assessment and evaluation of alternatives. The resulting recommendations, which include abandoning effluent spray irrigation and accelerating the schedule to implementation of the recommended effluent disposal bed solution, were presented to Township Council on August 12.

The Class EA report is in preparation and when ready, will be made available for public review. It contains clarifications and data that address some of your comments. The water quality of Wainman's Creek has been monitored since 1995 and the data, included in the report, do not show measurable impacts from the spray irrigation operation. The report includes performance monitoring data for the lagoons, demonstrating the level of sewage treatment provided by each lagoon cell. The Class EA did not consider the suggested installation of individual septic systems in Bayshore Village, as it is not a feasible option for the built community.

We have added you to our direct mailing list so that you will be notified when the Class EA report is available for review.

Sincerely,

Suzanne



Suzanne Troxler P.Eng.
Senior Engineer

stroxler@tathameng.com T 705-444-2565 x2089 C 705-888-0898
115 Sandford Fleming Drive, Suite 200, Collingwood, Ontario L9Y 5A6

From: Linda Richardson <linda@orilliapronet.com>
Sent: Thursday, June 6, 2024 7:06 PM
To: Suzanne Troxler <stroxler@tathameng.com>
Cc: bclarke@ramara.ca; kbell@ramara.ca; dsnutch@ramara.ca; jfisher@ramara.ca; dtuju@ramara.ca; sbell@ramara.ca; jgough@ramara.ca; jconnor@ramara.ca; zdrinkwalter@ramara.ca; jkavanagh@ramara.ca; DMarks@ramara.ca; Aziz.Ahmed@ntario.ca; Chris.Hyde@ontario.ca; Sheri.broeckel@ontario.ca; mhgwainman@gmail.com
Subject: Bayshore Village Spray Fields Response

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Please see attached response to Bayshore Village spray fields PIC May 22, 2024.

Linda Richardson

From: four-a-float@sympatico.ca
To: [Suzanne Troxler](mailto:Suzanne.Troxler@ramara.ca); jkavanagh@ramara.ca; bclarke@ramara.ca; kbell@ramara.ca; dsnutch@ramara.ca; jfisher@ramara.ca; dtuju@ramara.ca; jgough@ramara.ca; sbell@ramara.ca;
Subject: Re: Bayshore Water and Wastewater.
Sent: 6/5/2024 10:18:52 AM

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Good morning Ramara Council.

Marcia and Rudy Schafranek
23 MapleGate
Brechin, On.
LOK 1B0

We support "Alternative #8", the Effluent Disposal Bed.

We request that Ramara Township seeks provincial and federal grants to support construction costs.

We request that the project be "shovel ready" by the end of the current term of council.

Thank you for your time.

Best regards,

Marcia and Rudy Schafranek.

From: [Norman Sicard](#)
To: [Suzanne Troxler](#)
Subject: Alternative #8
Sent: 6/5/2024 11:37:01 AM

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Dear Sir or Madam,

We would like to express our support for "Alternative #8" the Effluent Disposal Bed. We think Ramara Township should seek provincial and federal grants to help fund the construction costs.

We also think that this project should be "shovel ready" by the end of the current term of council.

Thank you!

Barbara and Norman Sicard
193 Bayshore Drive
Brechin On L0K1B0

From: [Josh Kavanagh](#)
To: [John Simerson](#)
Cc: [Suzanne Troxler](#)
Subject: RE: [EXTERNAL] Bayshore Sewage
Sent: 6/6/2024 8:16:36 AM

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Thank you Mr. Simerson

We have received and submitted your comment into the PIC.

Regards,

Josh Kavanagh | Director of Infrastructure / Drainage Superintendent
P.O. Box 130, 2297 Highway 12, Brechin, Ontario L0K 1B0
P: 705-484-5374 ext. 290 | F: 705-484-0441
E: jkavanagh@ramara.ca | W: www.ramara.ca



From: John Simerson <johnsimer68@gmail.com>
Sent: June 5, 2024 6:52 PM
To: Josh Kavanagh <JKavanagh@ramara.ca>
Subject: [EXTERNAL] Bayshore Sewage

The Simerson family at 108 bayshore Drive support Alternative #8, support grant applications and shovel ready by end of current term of council.

From: [Natalie Svadjian](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Cc: [Annie Svadjian \(as@Svadjian.com\)](#); [Natalie Svadjian](#);
Subject: Effluent Disposal Bed
Sent: 6/5/2024 9:18:50 AM

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Good Morning

My name is Anahid Svadjian, and my address is 103 Bayshore Drive in Brechin, L0K 1B0.

I am contacting you, as the key decision-makers, to support Alternative #8 regarding the Effluent Disposal Bed and ask that Ramara Township seek provincial and federal grants to cover the construction costs.

I also request that the project be shovel-ready before the end of the current council term.

Thank you
Anahid Svadjian
(647) 444-3883

From: famtoebes.famtoebes
To: [Suzanne Troxler](mailto:Suzanne.Troxler@ramara.ca); jkavanagh@ramara.ca; dmarks@ramara.ca;
Subject: Bayshore Village Class EA Update
Attachments: [Letter Bayshore Village Effluent Spray.doc](#)
Sent: 6/5/2024 11:44:22 AM

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Good morning,

Please see my attached letter re Bayshore Village Effluent Spray proposals.

Thank you,

Geraldine Toebes

As a resident of Ramara living near the proposed expansion of the effluent spray fields used to dispose of the Bayshore Village sewage, I am totally opposed to the expansion of the already antiquated systems of spraying effluent on top of the ground in the hopes that it will be absorbed and not run off into neighbouring properties, Wainman Creek and eventually into Lake Simcoe.

My concerns are the following:

1. the process of using spray fields is dependent on good weather, for a maximum of 6 months of the year. What happens when the soil is already waterlogged with rainfall, as climate change continues to impact our local weather conditions? The numbers of days that the sprayfields can operate are greatly reduced. Will that mean another expensive trucking bill to keep ahead of the inflow of sewage?
2. the spray fields already in use have compacted clay soil that is unsuitable for spray fields, adding more spray fields will not change the soil, adding to the problem is not the answer.
3. there is still the risk of the lagoons being overwhelmed by sewage and natural rainfall. What if the berms fail that surround the lagoons dumping sewage into Wainman Creek? Will that be just one more environmental disaster?
4. Wainman Creek is already contaminated, what is the point of spending millions of dollars on cleaning up Lake Simcoe if the water tributaries that feed it are blatantly neglected?
5. Bayshore Village has been developed for over 50 years, and the township continues to approve building permits for more households using the broken down system of spray fields. There should be a moratorium on building until this issue is resolved and a permanent, environmentally sound system in place.
6. the adjacent property owners should not be burdened with the contamination from the Bayshore Village sewage.
7. the taxpayers of Ramara who already own and maintain their own septic systems cannot be expected to subsidize the property owners of Bayshore Village by having the added expense of the Bayshore Village effluent disposal be added to their tax bill.

Thank you for giving me the opportunity to add to the conversation.

I am in favour of:

Alternative 8: Build Effluent Disposal Bed and Discontinue Spray Irrigation

Decommission all spray fields.

Build effluent disposal bed on west field to be used year-round

Thank you,

Geraldine Toebes

From: [Ed Villeneuve](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: Effluent disposal bed
Sent: 6/5/2024 6:43:57 AM

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To all,

My name is Edward Villeneuve, 174 Bayshore Dr. in Bayshore Village.

I support "Alternative #8", the Effluent Disposal Bed and request that Ramara Township seek provincial and federal grants to support construction costs.

In addition I request that the project be "shovel ready" by the end of the current term of council.

Thank you for your diligent efforts in addressing these requests.

Regards

Edward Villeneuve

From: [Rhonda Wallace](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: Bayshore Village Spray Fields
Sent: 6/5/2024 9:27:51 AM

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As a resident of Bayshore Village I support No. 8 for the preferred long-term solution of an effluent disposal bed as the current spray field is nearing the end of its effective life-cycle.

It would be a wise decision for Ramara Township to seek provincial and federal grants to support construction costs. It would also be in the best interest for the community and the councillors for this project to be "shovel ready" by the end of the current term of council.

**Regards,
Rhonda Wallace
99 Bayshore Dr.
Brechin, ON
L0C1B0**

From: [Mike Wiebe](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: Our Support for the speedy resolution of the Bayshore effluent issues
Sent: 6/5/2024 7:48:49 AM

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I'm sure this group is sick of hearing about this issue, so I will be brief.

My wife and I have lived in Bayshore for three years. During that time, we have made it a point to learn as much as possible about the water and sewer issues facing our community. Frankly, it astounds us that the issue of effluent treatment continues to be an issue after this many years. Recent developments – i.e. trucking of effluent; revelations that spray is running on to neighbouring land; 'temporary' bypassing of treatment due to capacity issues; and heightened scrutiny from the MECP – elevate our concern.

As ratepayers, we ask that you - our elected officials, staff and hired experts – do the following:

1. Unequivocally support option 8 in the recent engineering report (elimination of all existing Bayshore Village spray fields and creation of a new tile bed);
2. Work with the highest possible sense of urgency to make the result happen asap, which at minimum means physical construction underway by the end of the current term of council.
3. Work with the highest possible sense of urgency to find sources of funding for this project from a broader agency such as the provincial government.

Ramara is such a nice place to live. That's why we moved here. It would be a shame to see the Township's name in the media as contributing to the environmental downfall of the Lake Simcoe watershed. We fear that's what will happen if a pond breaks, or sewage trucking becomes the norm, or – God forbid – one of the neighbouring impacted farms suffers some loss as a result of sewage mismanagement.

It's time to get this right. Please don't let us down.

Mike and Lee Anne Wiebe
18 Sandlewood Trail
Brechtin

From: [Suzanne Troxler](#)
To: [Drew Fulford](#)
Cc: jkavanagh@ramara.ca; [Dyana Marks](#);
Subject: RE: Bayshore Village Class EA Comments
Sent: 8/20/2024 8:04:00 AM

Drew,

In response to your question and comment:

The effluent from a septic tank is more concentrated than the effluent from a sewage treatment facility for all parameters that are typically monitored including phosphorous. The Bayshore Village lagoons effluent has an average Total Phosphorus concentration of 0.8 mg/L, which is then reduced through plant uptake and retention in the soil. Individual septic systems located near the lake have the potential to release phosphorous into the lake if there isn't enough soil attenuation. So, replacing near shore septic systems with a communal sewage treatment facility can reduce pollution to the lake.

The possibility of connecting additional adjacent areas to the Bayshore Village sewage system has been previously discussed with the Township. However, it would only be possible if a sewage treatment plant with discharge to the lake could be built, because of the capacity limitations of in-ground effluent disposal. The MECP has confirmed the Lake Simcoe Protection Plan policies, which state that no new municipal sewage treatment plant can be built in the Lake Simcoe watershed, will not be changed. Therefore, increasing the service area of the Bayshore Village sewage system could not be considered.

Hope this answers your very good question.

Sincerely,

Suzanne



Suzanne Troxler P.Eng.
Senior Engineer

stroxler@tathameng.com T 705-444-2565 x2089 C 705-888-0898
115 Sandford Fleming Drive, Suite 200, Collingwood, Ontario L9Y 5A6

From: Drew Fulford <drewfulford@gmail.com>
Sent: Thursday, June 6, 2024 10:07 PM
To: Suzanne Troxler <stroxler@tathameng.com>
Cc: jkavanagh@ramara.ca
Subject: Bayshore Village Class EA Comments

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Hello Suzanne,

Please find my comment below. Thank you.

During your presentation, you noted that phosphorus from private septic systems is far more concentrated than treated effluent discharged through spraying or subterranean methods. From a phosphorus loading standpoint, wouldn't it be best for Lake Simcoe's health to implement the most environmentally beneficial solution to reduce phosphorus levels in the greater service area?

Regardless of the chosen solution, could it be designed to include capacity for additional connections from the Southview and Glenrest areas, and potentially Amelia in the future? This would service an additional 80-120+ sewer and water connections, helping to reduce the financial burden on all sewer and water users.

Thank you.

From: [Leslie Goodall](#)
To: [bclarke@ramara.ca](#); [dsnutch@ramara.ca](#); [dtuju@ramara.ca](#); [jfisher@ramara.ca](#); [jgough@ramara.ca](#); [jkavanagh@ramara.ca](#); [kbell@ramara.ca](#); [sbell@ramara.ca](#); [Suzanne Troxler](#);
Subject: Effluent Bed Solution, Alternative #8
Sent: 6/6/2024 12:52:07 PM

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To whom it may concern:

We are writing to lend our support of the Bayshore community's choice of Alternative 8 to resolve our problem and concerns.

We are hoping that in your capacity that you'll be able to request and secure financial government grants to help with construction costs.

We are also hoping this be ready to begin construction by the time the current council term comes to an end.

Thank you for your time and consideration.

We remain

Yours sincerely

Michael and Leslie Goodall
29 Thicketwood Pl, Brechin, ON L0K 1B0

From: [Dave Meharg](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [dsnutch@ramara.ca](#); [jfisher@ramara.ca](#); [dtuju@ramara.ca](#); [jgough@ramara.ca](#); [sbell@ramara.ca](#);
Subject: Fwd: Ontario municipalities to get \$4.7B from feds for infrastructure over next 5 years | CTV News
Sent: 6/6/2024 9:30:51 AM

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Go get some of this money

The federal government will provide Ontario municipalities with \$4.7 billion over the next five years as part of a renewal of the Canada Community-Building Fund (formerly the Gas Tax Fund).
<https://toronto.ctvnews.ca/ontario-municipalities-to-get-4-7b-from-ottawa-for-infrastructure-over-next-5-years-1.6914599>

Sent from my iPad

Adjacent Residents Comments

From: [Jim & June Newlands](#)
To: [Suzanne Troxler](#)
Cc: [Mark Wainman](#)
Subject: Bayshore Village Spray Field
Attachments: [letter to Minister Khanjin for ROMA - January 2024 .pdf](#); [Wainman - April 2023 - OCWA.pdf](#); [Wainman 2023 Letter To Township.pdf](#); [Wainman Letter To Council.pdf](#); [Newlands 2011 Sprayfield Complaint To Township.pdf](#); [Newlands 2022 Bayshore Sprayfield Concerns.pdf](#); [Newlands 2023 Bayshore Village spray field.pdf](#);
Sent: 2/5/2024 5:13:30 PM

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Good afternoon Suzanne

This message is to provide you with a copy of a letter that we have recently sent to the Minister of Environment, Conservation and Parks. The letter was sent jointly from Mark Wainman and us, and described the ongoing issues with the Bayshore Village spray fields which are adjacent to our properties

The Problem Statement page of the Bayshore Village Effluent Spray Irrigation Class EA Update, dated December 11, 2023, states that there are "Public concerns with potential runoff and impacts on humans/farm animals, aerosols, drainage". We would like to bring to your attention that these concerns are real and not just potential, as we have been dealing with significant effluent runoff during each spray season and have experienced negative impacts regarding quality of life, loss of the use of farmland, stench from the lagoons/sprays, and flooding onto our properties. Each year, there has been over-spraying resulting in our properties being used as a secondary sewage lagoon. This over-sprayed effluent flows through our properties, into the creek and directly into Lake Simcoe. We are not part of the lands zoned for effluent disposal, yet the Township has willingly and knowingly used it as such.

We have been dealing with the Township since 2011. Our complaints remain unchanged and the issues have been getting worse over time. We have continually been told that the situation is being "worked on", but no steps have been taken to stop the over-spraying.

These attachments have been sent to the Minister of Environment, Conservation and Parks, MPP Jill Dunlop, Ramara Township Mayor and Council, Ramara CAO, and the Ramara Staff Members that are involved. We felt that it was important that you are aware of the impacts on our quality of life and our property that we have been dealing with as a result of the over spraying from the Bayshore Village spray fields so you can include this in your EA update.

Thank you
Jim and June Newlands

21 January 2024

Dear Minister Khanjin

This message is to provide information to you about the sewage effluent spills onto our properties because of the over spraying on the Bayshore Village spray fields in Ramara Township, and the problems that we have had with this inefficient and faulty system since 2011. This message also explains our support to resolve this issue by requesting that the option to build an effluent disposal bed and discontinue spray irrigation as described in a report by Tatham Engineering dated December 11, 2023, and submitted to Ramara Township Council be approved. We are asking that your Ministry assist Ramara Township to discontinue spray irrigation and build a proper sewage disposal system.

Our properties are adjacent to the spray fields, and we are impacted on several sides. We have made our complaints to Ramara Township Council and Staff verbally, digitally and in writing since 2011. Our complaints have remained the same. No action has been taken to correct the problems and the spray fields are continually operated each year in a manner that results in over spraying and effluent spills onto our properties. Over the years, the impacts of the over spraying have become worse and have affected our quality of life.

Our complaints to the Township have included the following:

- Consistent, contaminated well water test results during the season when the spray fields are operating from the properly maintained well which supplies drinking water to the Wainman home,
- Pools of flooding effluent on our properties in several areas caused by over spraying,
- The inability of the saturated and compacted clay soils in the spray fields to absorb the volume of effluent, causing run off,
- Loss of useable farmland due to effluent spills,
- Concerns about the contaminants in the effluent as it is not disinfected or treated with anything other than sunlight,
- The stench that is created by the sewage lagoons and spray fields,
- The effluent runoff continues through our properties and runs directly into Lake Simcoe,
- The fact that the system does not work and should be discontinued, not expanded.

These complaints also have been made to the Ministry of the Environment, Conservation and Parks (MECP) and a site visit took place on October 24, 2023, with MECP representatives, during which the well water contamination was discussed, and the spills were seen and confirmed.

We have expressed our profound disappointment to the MECP that they granted an extension to allow the Township to spray until December 15, 2023. Fortunately for us, last fall's cold weather stopped the spraying earlier than December.

The lack of capacity in the spray field system has been demonstrated many times as extensions have been granted to allow the Township to lengthen the spraying season in the fall to lower the effluent levels in the sewage lagoons to prevent a catastrophic failure of the system. Since December 2023, the effluent has been hauled by transport trucks from the spray field sewage lagoons to the Lagoon City Sewage Treatment Plant. Hauling is not effective or sustainable, but it has stopped our properties from being used as an additional sewage lagoon for the spray field system.

The spray field operations are to follow the procedures described in the Certificate of Approval (C of A) #3-1337-81-968. We have observed that many conditions of the C of A have been breached on a consistent basis without any concern of the impact on our properties and quality of life. These breaches have included;

- section 1.4 -prevent the runoff, ponding, and aerosol drift beyond the spray fields,
- section 1.5 – any diversion of sewage from any portion of the sewage works is prohibited,
- section 3.1 - terminate spray irrigation when ponding or runoff occurs and allow the soil to dry out between spray applications,
- section 3.3 – no spraying during rainfall, when ground is saturated, or when wind velocity exceeds 15 km/hr,
- section 3.9 -take corrective action when a complaint is received,
- Page 8 of 9 of the Certificate Approval, point #3 states that “...the works will be operated, maintained, funded, staffed, and equipped in a manner enabling compliance with the terms and conditions of this certificate, such that the environment is protected and deterioration, loss, injury, or damage to any person or property is prevented”.

It is our firm position that the requirements of the C of A have not been followed, and the spray fields need to be discontinued and replaced with a system that is efficient, sustainable, not dependent on weather, can be used year-round, and has the capacity to handle the volume of waste that is generated.

Options to deal with this system have been presented to Ramara Township Council in a report written by Tatham Engineering dated December 11, 2023. It is our opinion that Option 8 of this report to “Build an Effluent Disposal Bed and Discontinue Spray Irrigation” is the only sustainable, efficient, and reasonable option to approve. This option will provide a cost-effective system that has the capacity to manage the waste created by current and future users, is not impacted by weather, is able to keep the effluent contained to the permitted property and prevent further contamination of Lake Simcoe.

Furthermore, we must insist that the spray irrigation, particularly in the North Field, be discontinued immediately to stop further contamination of the well which supplies drinking water to the Wainman home and to stop the flooding of our properties. This will undoubtedly place a substantial financial burden on our Township and the sewer system users.

Please consider any assistance to resolve this issue and alleviate our situation.

For your information, attached are copies of some correspondence on this matter as well as a copy of the Certificate of Approval. Additional information is available, if required.

Thank you for your consideration in this matter.

Mark Wainman
3628 Concession Road 8
Ramara, ON
L3V 0M4

Jim and June Newlands
3456 Concession Road 8
Ramara, ON
L3V 0M4

To Ramara Township Environmental Staff and all Members of Ramara Council,

I am writing this letter to state my opposition to spray irrigation that is done for Bayshore village. I live beside it and have seen since day one how inefficient it operates. I have also seen the negative effect it has on property and quality of life of people that live near it. I realize it is a complex problem and any solution will be expensive. My personal preference would be a large septic bed style but anything other than more spray irrigation would be an improvement.

There are a number of problems I would be glad to discuss but, in an effort to keep things short, I will just focus on the contamination of my well. I submitted four copies of Water Test Results from Public Health Laboratory Orillia. The first October 6th, 2022, three weeks before the end of spray season. The results show overgrown heavily contaminated, not safe to drink. Three further test one month apart starting two weeks after the end of spray season all showed clear tests no contamination at all. I have a drilled well with casing and cap installed by Carl Baldwin. All tests are fine except when spraying.

I am not writing this letter as a complaint of any current environmental staff or the OCWA staff that carries out the daily operations. This an impossible system and they are dealing with it the best they can.

I have included minutes of a meeting from March 25, 2011, relevant comments from my neighbour from February 4, 2011, and a deputation to council from 2022. As you can see nothing much has changed over 12 years.

Lastly, I will repeat there are many concern but I must concentrate my immediate attention on the contamination of my well. I am looking forward to hearing from someone to help contribute to a solution.

Mark Wainman
(705)321-4140
mghwainman@gmail.com

From: **Nick Leroux** <NLeroux@ocwa.com>
Date: Fri, Apr 21, 2023 at 8:15 AM
Subject: Bayshore Spray Fields
To: mhgwainman@gmail.com <mhgwainman@gmail.com>
Cc: Josh Kavanagh <JKavanagh@ramara.ca>, Dyana Marks <DMarks@ramara.ca>, Wesley Henneberry <WHenneberry@ocwa.com>, Christine Craig <CCraig@ocwa.com>, Ellen Campbell <ECampbell@ocwa.com>

Hey Mark,

I was forwarded the below message regarding the Annual Bayshore Spray Irrigation Report. I understand your concern regarding that statement as under normal circumstances the effluent would have exceeded the C of A requirements, as it did for some years previous. The Bayshore Spray Irrigation site was granted regulatory relief by the MECP for the 2022 Spray season with regards to the effluent application rate. Further on in the report where it speaks to the effluent application it does specifically state that the regular application rate noted in the C of A was exceeded. See below for that section.

A total effluent volume of 137,325 m³ was applied to the spray fields. The average effluent application rate for the reporting period was:

- 51.02 m³/ha/day on the 14 ha utilized for 10 days
- 86.32 m³/ha/day on 26 ha utilized for 58 days*
- 77.67 m³/ha/day on 26 ha utilized for the total 68 days*

*These values exceed the Certificate of Approval limit of 55 m³/ha/day, although relief was given from Conditions 1.2 and 1.3 during the 2022 spray season. See Appendix I: EPB Letter for Bayshore Village Sewage Works.

I agree that these reports are very important as they are indeed used to make important decisions. The township and local residents are very aware of the ongoing effluent disposal issues at the Bayshore Village spray fields and OCWA continues to work diligently with the Township to resolve these issues.

Thanks,

Nick Leroux
Senior Operations Manager
OCWA Kawartha Lakes West Cluster

----- Forwarded message -----

From: **Mark Wainman** <mhgwainman@gmail.com>
Date: Mon, Apr 24, 2023 at 5:53 AM
Subject: Re: Bayshore Spray Fields
To: Nick Leroux <NLeroux@ocwa.com>

Cc: Josh Kavanagh <JKavanagh@ramara.ca>, Dyana Marks <DMarks@ramara.ca>, Wesley Henneberry <WHenneberry@ocwa.com>, Christine Craig <CCraig@ocwa.com>, Ellen Campbell <ECampbell@ocwa.com>

Hello Nick

I will apologize in advance for the length of this email. Before starting I feel the need to clarify something that is hanging over discussions. Your former manager said that my father was partly to blame for the effluent spray problem by building a house right in front of it. The lot was severed in 1986 and the house was built in 1989 which was 5 years before the spraying started. He did sell the North field for spraying but was promised something this operation does not resemble. We would be pretty naive to believe promises from a developer but we always thought the MOE and Township would have stringent rules.

That brings us back to the certificate of approval from 1996. I do understand that you got relief from performance conditions 1.2 and 1.3.

Condition 1.4 "The Owner shall ensure that the effluent spray irrigation spray irrigation system is operated in a manner that precludes the sprayed effluent ponding, run off, and aerosol drift beyond the limits of the approved spray irrigation fields at all times." I have many pictures of run off and ponding as seen by my family members and neighbors. There was flooding on four sides of our lot, that is pretty hard to do.

Condition 1.5 "Any diversion of sewage from any portion of the sewage works is prohibited, except where it is unavoidable in preventing loss of life, danger to public health, personal injury or severe property damage." There is a 300mm pipe running near the property line from a sump hole installed in the low area of the bush. This was not an original drainage pipe but was installed many years ago by Township staff to help with flooding of my and my neighbor's property. While it does accomplish part of this objective, it is running the effluent straight from ponding to a ditch which is 100ft from the creek. This ditch will be dry in the summer and starts to run 20mis after the pumps start to spray.

Operations and Maintenance 3.2 "The Owner should ensure that whenever ponding or run-off of sprayed effluent occurs, the application of effluent to the affected area of the spray irrigation field is immediately terminated, and adequate time is allowed before resumption of the application of effluent to that area for the area to dry to a degree that would preclude immediate recurrence of ponding or run-off." Run-off and ponding occurs everyday that spraying occurs. I have many pictures to back up this statement. On days of rest when cutting grass, you can often hear the mower stalling as it tries to cut through standing water. You can hear this a 1/4 mile away.

Operations and Maintenance 3.3 "The Owner should ensure that no effluent application to the spray irrigation fields takes place during rainfall, when the ground is saturated, and when the wind velocity exceeds 15km/hr." Any time they spray 2 or more days in a row it is into saturated ground.

Reasons for the imposition of these terms and conditions are as follows Number 3 " Conditions 3.1 to 3.10 are included to ensure that the works will be operated, maintained, funded staffed and equipped in a manner enabling compliance with the terms and conditions of this certificate, such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented." These were productive farm fields growing hay or pasture. Cattails and swamp grass were not natural vegetation of these fields before Bayshore abuse.

I feel the Certificate of Approval has not been met since day 1, although Aqua staff makes better efforts to be transparent. By not reporting the severity of this situation to the people that have to make decisions about this is misleading and unproductive.

I am available for further discussion or clarification.

Mark Wainman
(705)321-4140

From: Mark Wainman <mhgwainman@gmail.com>
Sent: December 5, 2023 6:38 AM
To: zdrinkwater@ramara.ca
Cc: Josh Kavanagh <JKavanagh@ramara.ca>; Dyana Marks <DMarks@ramara.ca>; Basil Clarke <BClarke@ramara.ca>; Keith Bell <KBell@ramara.ca>; David Snutch <DSnutch@ramara.ca>; Jennifer Fisher <JFisher@ramara.ca>; dana.tuju@gmail.com; Sherri Bell <SBell@ramara.ca>
Subject: [EXTERNAL] Bayshore Spray Fields

Good morning Zack,

I am writing this email as a follow up to an email sent in the spring. I have seen over many years how the spray irrigation does not work. The scale of effluent involved in this is way bigger than most approved spray irrigation sites. It is only class 1 treatment and many years such as 2023, the little lagoon was bypassed for a period of time in the spring when it is too full. The spray irrigation can only be done seasonally when the weather is good. This puts too much pressure on the aging lagoons. All reports that I have seen written since 1996 say that the south field effluent is sprayed on 13.6 ha involving 146 sprinklers. The north field is 10 ha and 148 sprinklers. Due to failures and community complaints, the area sprayed on and the number of sprinklers involved is way less. The system was originally designed to have 4 different application rates as defined by hydrogeological testing. From meeting 2011 we and Mr. Newlands complained about how much overspray effluent was escaping the north and south fields to flood our and surrounding properties. To my surprise it was discussed that there should be a review of drainage in the area, no mention of a real solution to the overspray of effluent. The only ditching that was done a result of this meeting was a large deepening of an old ditch along an abandoned road allowance on sideroad 20. The only purpose it served was to dispose of overspray effluent from the south field, see video 1 to get a concept of the volume. I believe this is in direct violation of the C of A section 1.5. this ditch has not been used as much recently as some of the spray areas are not utilized. My goal in showing old video is to show the volume of over sprayed effluent. It is only showing the volume that goes off one area while at the same time there was a large amount going to the south ditch, that can be heard running but hard to capture on video because of the cat tails.

Now to the present and how it affects my property. I have included videos and pictures from 2022 and 2023. Even though OCWA 2022 report says;

"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."

I have found my property flooded from 4 sides.

This is caused from overspray and broken pipes not repaired some for months at a time. Included videos to show proof. On May 16, 2023 I held a site visit to my property that was attended by councillor Hetherington and Fisher, Zack Drinkwater, Josh Cavanaugh, Nick Leroux, Dyana Marks, Jim and June Newlands and myself. We used this opportunity to air some of our complaints, at this time I felt I clearly showed everyone attending with pictures and videos where my property was being flooded from. They started spraying May 26 and did not repair any of the leaks I had clearly pointed out, they continued to spray May 27-29th at which time I phoned Dyana and complained about their work. They came out and repaired one pipe and shut one off. on May 31st the pipe by the bush was gushing 20ft in the air again so I phoned josh about that and another leak I had found. The point I am trying to make here is inspection should have been done especially when I pointed out problems, it was started up run for 4 days with major leaks, not repaired from the year before. THIS IS NOT MY JOB, you can see how much effort has to be put into it in just one week. On oct 2nd I had another site visit from Dana Tuju and Josh. We showed Josh exactly where pipe was broke and gushing for 3 straight days. I could see this from my deck. We discovered many holes drilled in main pipe and suspected leaky connections. On oct 4th OCWA started spraying without any repairs, I phoned Dyana Marks asking for someone come out and repair, they shut the one line off, but I don't believe any repairs were made to holes drilled in main pipe. Many workers drive by these holes shooting effluent 20 feet into the trees but choose to ignore these and many other leaks.

I hear from many different sources that this is the first they have heard of any of these problems. I know for many years my complaints were just verbal and fell on deaf ears. But our complaints in regard to the meeting held on mar 25, 2011 in relations to class e a assessment are well documented and available on your website. However, I do not feel our concerns regarding overspray of effluent which in turn floods our property were never addressed. Since flooding of effluent has occurred every year since 1994, I must insist that the pipe across the creek to the north field not be installed in 2024. I have been promised many improvements over the years, but this situation just gets worse.

I am completely exhausted by the constant battle to have my opinion valued. So, I must insist that no section of the north field be used for spray irrigation in 2024 because there is no control of over sprayed effluent.

Video Number 1 - June 10, 2012

Depicts effluent that was over sprayed in the south spray field. Just trying to visualise the volume of over sprayed effluent.

Video Number 2 - Aug 2, 2020

Shows volume flowing to road ditch after rain event. They sprayed most of the day even though thunderstorm was predicted. They often rush to spray before forecasted rain events. Something like this is the result.

Video Number 3 - Aug 8, 2020

Shows volume of effluent entering ditch on a dry day when they sprayed.

Picture Number 4 - Aug 10, 2022

Shows ditch south of my house. The week before we received 1.5 inches of rain in 2 different rain events. But in that week, they only sprayed 1-2 hours on Aug 7th.

Video Number 5 - Aug 16, 2022 5:36pm

Shows same section of ditch directly south on my house but have been spraying for 7 straight days. There has been no rain in between, but it did rain .5 inch after this video. However they sprayed on Aug 17th and 18th.

Picture Number 6 - Oct 4, 2022

Shows damage to alfalfa field west of my house. This is overpowering a systematically tile drained field and is being taken by the road ditch to result in the previous picture. The effluent flows freely from under the fence of the spray field in the north west part. This flooding has occurred every day since July 20th. I showed similar pictures on May 16th 2023 site visit and pointed over the fence to the area in question but yet spraying was started up in 2023 and run for 4 days flooding like the 2022 year until I complained.

Picture number 7 - July 22, 2022

Picture shows broken pipe shooting effluent 10-15 feet in the air. This was not repaired until July 26th even though you could clearly see this driving east on Concession Road 8. There were similar leaks in behind the bush not repaired all year.

Picture 8A - Sept 17, 2023 9:19am

Along fence at my bush lot directly east of my house.

Video 8B - Sept 17, 2023 12:43pm

Same spot after spraying all morning.

Video Number 9 - Sept 30, 2023 3:10pm

Shows the same path ending with 4 inches of effluent at the edge of my lawn. This result after 18 sprinklers closest to the area have been disconnected or turned off. Zack this is the same area you walked May 16th in your dress shoes. It has not rained for a week to 10 days but they have sprayed effluent for 5 days and continued to spray for 2 more until they had a pipe bust at the creek on Oct 2nd.

Picture 10A - Sept 27, 2023 7:12am

A little further down the trail to the east before the easement.

Picture 10B - Sept 27, 2023 4:47pm

After spraying effluent all day.

Picture number 11 - Sept 29, 2023 2:58pm

Shows spraying going into ponding but also notice no sprinklers are on closer to the bush where previous pictures showed flooded areas.

Picture Number 12 - Sept 29, 2023 2:59

This area directly north of our property looks flooded and saturated even though no sprinklers in this area have been utilized.

I fear from what I had seen in many years previous that because an extension was granted that whatever amount of effluent needed to be drawn out of the lagoons for the winter period would be dumped on me in October. So, I phoned the MEO Barrie office on Sept 28th.

To summarize I only concentrated pictures 4-12 on the area around my house. This was not the only place where effluent overflowed onto my property (have many more pictures if required). I do appreciate your consideration of the pictures I have sent, many of which I believe could be defined as spills.

In closing Mr. Drinkwater, I feel bad about you and your staff having to deal with a problem that was created many years ago. Over the last couple of years, I reviewed many reports and been to many meetings where it says these spray fields are operated properly within the C of A from 1996. I don't believe this to be true so how can proper decisions be made from this.

Thank you for your consideration

Mark Wainman
(705)321-4140

TOWNSHIP OF RAMARA
BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION EXPANSION CLASS E A
PIC - FEBRUARY 24, 2011

PUBLIC COMMENT SHEET

NAME: J. L. Newlands _____

ORGANIZATION: _____

ADDRESS: 3456 Con 8, RR#7 Orillia, Ont. L3V 6H7 _____

PHONE: 705 326-8460 _____ EMAIL: _____

Do you wish to be added to the project mailing list? You will be notified of the study conclusions.

Yes

No

Do you have any specific comments, questions or suggestions?

I am opposed to the use of the Bayshore spray fields. Rather than expand them, I believe they should be discontinued. A proper Sewage treatment plant should be installed for the safe and effective disposal of the effluent. From personal observation, the spraying of the effluent does not work. The fields have become compacted and the ground is incapable of absorbing so much moisture. The result is that the fluid runs off the fields and enters Wainman Creek and ultimately Lake Simcoe, untreated. I know that at the Open House, I was advised that the MOE would not approve any further Sewage Treatment Plants on Lake Simcoe, however, I can not understand how they would permit untreated effluent to effectively be dumped into the creek after a preliminary pass over a field. Why not just pipe it straight into the Lake? What's the difference? How does spraying it in the air so everyone can see and smell it make it any better? The end result is the same, except no one would see or smell it, and it would be cheaper if we just pumped it straight in. Either way, untreated sewage from Bayshore Village is going into the lake. At least with a proper treatment plant, a better product would be released into the environment.

Taking a field out of service for maintenance would likely improve the filtering and capacity to absorb more volume, but for how long? The effect of spraying water, causes the soil to compact from the droplets hitting the ground. This is compounded by the maintenance equipment driving on the wet ground, creating further compaction. You would require

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considerably more land base to maintain effectiveness, using this technology. The soils in this area tend to be heavier clay type which are not generally very permeable unless they are worked regularly.

Ideally, the best solution would be a proper sewage treatment plant nearby the lagoons. This could be an incentive for nearby built up areas to connect to the system in the future. Peter and John Streets, Southview and Glenrest, and even Val Harbour could be connected to the plant thereby, reducing individual operating costs, reducing seepage from faulty septic systems, many of which are of questionable capacity and quality, and increasing property values. Further land acquisition would not be required.

Failing that, if we must continue to use this archaic technology, why does it have to be sprayed up in the air? I don't see much, if any of it, being evaporated. Why not just trickle the effluent on the ground and let it soak in from there? A flexible soaker hose would be more portable than the rigid piping in place now. It could be moved for maintenance, either grass cutting or aerating or both. It wouldn't cause as much compaction from the water drops hitting the earth from on high. A tile drainage system installed beneath would ensure the water, now filtered through the soil would be removed from the field thereby reducing the amount of saturation. It could be gravity fed to the creek. Perhaps the pumping capacity would not need to be as high, reducing operating costs through reduced pressure requirements. The visual impact of the spray heads with water shooting up into the air would be eliminated and the smell should be reduced. Maintenance may be reduced and life expectancy of the field could be extended and the land expansion may not be required.

How about a giant tile bed similar to a regular residential or commercial septic system? It should fit into a smaller area than the two fields now in operation. It would be completely out of sight with no smell at all. The land above might be used as a park, golf course or light recreational use, (dog park, whatever?)

Part of the problem with the spray fields, is the excessive volume of fluids. Whether people are using the system to dispose of sump discharge or downspouts or leaky faucets, the amount of fluid being sprayed is excessive. Last year was even worse due to the high amount of rainfall. A substantial amount of precipitation entered the system through the Lagoons, which then found its way to the spray fields. Why are you paying to dispose of rain water? Dairy and swine farmers over a certain number of Nutrient Units are required to cover their manure pits to avoid excessive fill. Why not here? By covering the lagoons, the volume of fluid would be reduced substantially. This could reduce the need to expand the fields. This would reduce the operating costs.

A few comments regarding your information package. The background information provided indicates that the effluent is treated, however, at the Open House, I was clearly told that the effluent was untreated, and in fact was toxic enough that cattle could not eat the grass grown on the spray fields for up to six months after the effluent was sprayed. If an animal with four stomachs can't eat a product grown from this stuff, what about all the animals with only one stomach? I don't suppose drinking it can be good for you either. It is unclear which contaminants are being tested for. Aside from the 'nutrients', what about the other things people may flush? I am more concerned about solvents, chemicals, pharmaceuticals, pathogens and the like all combined into this soup. Mother Nature can manage the 'nutrients' if they aren't overloaded. The other man-made concoctions often don't break down and disperse the same way. The runoff from these spray fields enters onto my property on its way to the creek. My cattle have access to this runoff. If it's that bad, I don't want it on my property anymore. Please make arrangements to have it diverted away from me ASAP. Thank you.

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PIC - FEBRUARY 24, 2011

The package goes on to state that there are no potential impacts to woodlands, wetlands and vegetation. I cannot disagree more strongly. The runoff from the north spray field impacts my property at two areas. At the north of my property, the runoff enters from the bush area between the two halves and proceeds easterly towards the Side Road 20 road allowance where it turns southerly to the creek. This is a low area of my farm and tends to be marshy year round. I cannot blame the spray field runoff completely; however, I feel it does contribute significantly to the loss of production in this area. At the south west corner of my property, runoff enters onto my property from a pipe draining the bush area between the two halves of the north spray field. The water lies in this field saturating the ground to the point where I cannot even walk on it anytime of the year. This was a reasonably dry pasture before the pipe was installed. I have seen this pipe running in years when all around is dry. I have never seen it not running. Both these areas have begun to grow more wetland type vegetation, where before they produced more grassy vegetation capable of maintaining cattle pasture.

Further along, the package states that spray irrigation does not result in noise or odour. Whoever, told you this is very much mistaken. Your shit does stink whether you think so or not. There have been occasions where the smell has been absolutely retching, causing headaches it was so bad. Mr. Stephen has been most accommodating during these times, shutting the system down on request. Generally, it's not that bad for us, depending on wind direction and certain times of the year. Even though it's not that bad, that's not to say it's good either. It still stinks, even when I don't complain. Usually we just leave, go into town if it's too bad. I haven't had any issues with the noise, just the usual sound from the spray heads.

Property values. Yes there will certainly be no change to the property values in Bayshore Village. Might even go up if we can find a cheaper way to flush their toilets. Problem is at my and my neighbours expense. Our property values certainly aren't going anywhere near up. If these fields don't impact property values; then how about we move them a little closer to BSV. I won't mind. There's a golf course there that could stand some irrigation. If there's no noise, smell, impact or deleterious property value impact, then try spraying this shit in their backyard instead of mine and we'll see if it still holds true.

My children will be the sixth generation to farm this property. We are strongly vested in its sustainability. We take pride in its ownership and stewardship and intend to maintain it as a working farm as our ancestors before us did. We strive to improve our water and soil and have taken great pains to do so, in an economically and environmentally viable manner. It is frustrating and heartbreaking to sit back and watch as others move in to the area and degrade the natural beauty and diversity of our little patch of Mara. We have been subsidizing the fortunes of the Bayshore residents, through lost and reduced property values and lost production of our farm land. Now you want more. Where will it end? When Bayshore is an island in a sea of spray fields? Stop it right now. Do the right thing and build a proper system that will last and get rid of this nonsense that doesn't work for anybody. It'll never get any cheaper.

J.L. Newlands.

Please complete the form and submit it to us today, or if you wish to complete this sheet at your convenience, **return by March 14, 2011** to:

Mayor Clarke and Members of Council

This letter is to re-state our concerns and objections to expanding the Bayshore Village spray fields in Ramara Township. The spray fields have been an ongoing concern for us for many years. We have followed the reports, met with the engineer from CC Tatham & Associates (now known as Tatham Engineering), attended Township Open Houses/Information Sessions, and have expressed our concerns both verbally and in writing to Ramara Township Council and staff since 2010. This letter is to repeat those concerns because we feel that they have not been addressed adequately or resolved.

In 2010, Tatham Engineering, a consulting firm hired by Ramara Township, initiated a study on the spray fields and identified the issues with this system. Their report stated that the Township needs to find the most appropriate solution for the disposal of the effluent waste. Suzanne Troxler of Tatham Engineering stated that a two-phase approach is the preferred solution to deal with the effluent waste. In correspondence to us dated October 10, 2017, she stated that in the short term, an additional spray field should be established to deal with the then “pressing concerns” about the existing spray fields. She further stated that “In the longer term, it was concluded that the existing sewage treatment facility should be upgraded to a tertiary treatment plant with an effluent discharge to Wainman’s Creek, and that effluent spray irrigation be discontinued.” This information can also be found in documents on the Ramara Township website. We support the recommendation to create a permanent tertiary treatment plant and to discontinue the spray fields.

Expanding the spray fields does not address the underlying issue that this system does not work effectively. This system does not have the capacity to deal with the increasing volume of effluent waste and the land does not have the capacity to absorb the sprayed effluent waste. This creates environmental issues. Our position opposing the spray field is provided in detail on the Public Comment Sheet which we submitted in February 2011 after attending a public meeting about this issue. As mentioned in our Public Comment Sheet, we complained that it is not only the effluent waste, but also the additional pharmaceuticals, solvents, chemicals and other toxic substances that are flushed into the system, sprayed into the air and onto the soil. The information that we have received is that the Bayshore system is not tested for pharmaceuticals, metals, contaminants or bacteria. These substances are being sprayed into the air and onto the sprayfields, which are located on two sides of our property, and ultimately into Wainman’s Creek.

Our concerns about the smell of the spray fields were also included in our comments on the Public Comment Sheet in 2011 and have been included in other discussions throughout this process to support why the spray field system should be discontinued. There have been occasions when the stench has been so disgusting that we have requested the sprays be shut off because it has directly interfered with the use and enjoyment of our property. In the fall of 2021, two Township workers came to our property to conduct part of the septic system inspection program. When they questioned where the smell of sewage was coming from, we pointed to the spray fields which were operating that day. These workers said that they noticed this stench as they drove along Sideroad 20. This spring, the stench was very strong along Sideroad 20 and Concession 8. We have spoken with neighbours about this, and they have noticed it as well. Although the Township states that the tests indicate that the spray effluent is safe, other information states that this spray system is not tested for contaminants and bacteria. We do not feel that the stench from the spray fields in the air that we breathe is healthy for anyone, nor do we feel that effluent which is “safe” would smell so much like sewage.

During the spring and summer of 2020, we saw that the Township trucked many, many loads of dirt onto the north side of the south spray field to create a berm between the edge of the spray field property and Concession 8. The purpose of the berm is not clear as it does not hide the spray field activity, nor does it mitigate the smell of the spray fields. The berms have, however, created a safety issue for us and anyone travelling east along the paved portion of Concession 8 who turn left onto the gravel portion of Concession 8 as the berms block the view of oncoming traffic travelling around the bend on Sideroad 20. This is a busy roadway with a speed limit of 80 km/hr and some vehicles travel at speeds greater than that. When we questioned the purpose of constructing the berms, we were told that the work was part of a long-term plan to dismantle the spray field and use another system.

The money being considered for any spray field expansion should be used to create a permanent tertiary treatment plant. In 2016, Tatham Engineering's report included a cost estimate for each of the recommendations to deal with the spray fields. Since that time, no substantive action has been taken by Councils, and the costs have increased dramatically. Since no action was taken to act on these recommendations, the spray fields have fallen into a position of non-compliance with the Ministry of Environment, Conservation and Parks (MECP) and the Township was forced to request an extension from the Province to allow more time to take action on this matter. An extension is not resolving our concerns. A decision to expand the spray fields is a "quick fix" which uses the fastest method to meet the compliance requirement, but it does not follow the recommended and most appropriate option of building a permanent treatment plant to properly deal with the effluent waste. The costs associated with expanding the spray fields would be more appropriately used towards creating the permanent treatment plant and discontinue the spray fields completely. It does not make economic sense to spend millions of dollars on a "temporary solution" like a spray field expansion. Further delays will only increase the cost of building a responsible, permanent treatment plant which the Province will force upon the Township eventually. If action was taken at the time of the recommendations, the costs towards discontinuing the spray fields would be more manageable. In the interim, if the effluent spray is considered safe, then re-direct it back to Bayshore Village and use it as an irrigation system for their green spaces and golf course since that land is already available at no additional cost.

The Bayshore Village Sewage Works 2018 Inspection Report identified that this system was operating at near capacity at that time and there is no reserve capacity available. This report strongly recommended that further development within the Bayshore Village subdivision be prohibited or restricted until more system capacity is available. This report also confirmed that there were days when the spray field system had been operating "when the recorded wind velocity was above 15 km/hr, with a maximum recorded value of 35 km/hr". This is in contravention of the conditions of the Certificate of Approval that the "application of effluent does not occur when the wind speed is above 15km/hr".

The current Council discussed the spray fields during a meeting on February 7, 2022. During this meeting, it was stated that expanding the spray fields has now become the option for a permanent solution, not as a temporary solution that every report and expert has recommended. This change to have the temporary solution become the permanent solution does not align with the reports and recommendations made by the experts who were hired by the Township for this matter. The discussion during the February 7, 2022 council meeting to have the spray field expansion be used as a permanent solution is not consistent with any information that has been provided to us.

On June 13, 2022, during a Committee of the Whole meeting, Council had further discussion about the spray fields. Council reverted back to the information provided in the report from Tatham Engineering that the permanent solution is to build a treatment facility. Council passed a motion that they would

request a meeting with the Minister of Environment, Conservation and Parks, and with our local MPP, Minister Dunlop, to discuss this solution. It was stressed during this meeting that Council needed to have this matter resolved before they became a “lame duck” council prior to the fall election. Council has delayed taking action towards a permanent solution for several years, but is now in a rush to make a decision which should have been made several years ago and will impact many residents.

Additionally, the spray fields have a negative effect on the value of our property and any property surrounding them. Expanding the spray fields will devalue the land further. A comment made during the meeting on June 13th identified this issue.

We support building a tertiary treatment plant and discontinuing the spray fields. Township Council needs to follow the advice of the hired experts and build a tertiary treatment plant to properly deal with the effluent waste. If the appropriate steps to obtain approvals and build the plant had been taken at the time of the initial reports several years ago, this would no longer be an issue and the costs would have been less.

Expansion of the spray fields as a solution only wastes taxpayers dollars, delays any resolution to the ongoing environmental issues and would only prolong the impacts on the enjoyment of our lives at our property.

Jim and June Newlands

Mayor Clarke and Council

This letter is to follow-up on our ongoing issues regarding the Bayshore Village spray fields. We have expressed our concerns about the spray fields to the Township for many years. On May 16, 2023, we met with Zack Drinkwalter, Josh Kavanagh, Dyana Marks, Nick Leroux, Councillors Gary Hetherington and Jen Fisher, Mark Wainman and Neil Wainman at Mark Wainman's property to discuss our concerns. Another meeting was held at the Wainman property with Josh Kavanagh and Councillor Dana Tuju on October 2, 2023.

During these meetings, we pointed out three specific areas on our property where effluent spills from the spray fields occur consistently when the spray fields are operating. Two of these spill areas are created by the north field, and one spill area is created by the south field. Each time the spray fields are operating, they are creating spills onto our property.

The clay soil in the spray fields is saturated and there is no capacity to absorb the volume of sprayed effluent, causing it to overflow into the ditches, onto our property and out into Lake Simcoe. Each summer, we have seen burst pipes in the spray fields, and effluent flooding on the north field. The spray field system is not an appropriate waste disposal system for the Bayshore Village subdivision and the system does not work. Clearing the ditches to improve drainage would lessen the spillage onto our property but would allow the effluent to flow more freely into Lake Simcoe and is not a solution to the over spraying and the spills occurring on our property.

On October 24, 2023, we met with representatives from the Ministry of Environment to complain about the spray fields and to report and view the spills on our property.

We were disappointed and concerned that the Ministry of Environment granted an extension for the Township to spray until December 15, 2023. That decision to extend the spraying season would negatively impact our property by creating additional spills if the Township had continued to operate the spray fields to lower the effluent levels in the lagoons. Fortunately for us, the colder weather prevented further spraying and further spills onto our property.

Many times this summer when discussing these issues, the common response we receive is that this is the first time they have heard of the problem. It has been very frustrating and tiresome to hear this because, since 2011, we have expressed our concerns to the Township of Ramara staff and several Council members verbally and in writing. These complaints have included the constant spills onto our property resulting in a loss of part of our usable farmland, our concerns about the contaminants in the effluent, the stench from the lagoons and sprays, and the fact that the system does not work and should not be expanded. We have been reassured by the Township that action will be taken to rectify these problems. These problems have not been resolved and the spray fields continue to operate in a manner which negatively impacts our property and our quality of life. We have taken the position that we have had enough of this effluent on our property and want it to stop.

We have watched and waited as decisions about the spray field system have been deferred from Council to Council over many years. The entire spray field system is not working and needs to be replaced with an effective and healthier waste disposal system that does not include spray irrigation.

The current spray field system allows the effluent to flow onto the property of neighbouring landowners and then directly into Lake Simcoe and is unacceptable.

It is our position is that the spraying on the north and south fields be discontinued completely and the spray fields should not be expanded.

It is past time that a proper system is built which can be used year-round and has the capacity to handle the volume of waste that is generated. A proper and effective system would stop the issues of over-spraying, spilling effluent onto neighbouring properties and contaminating Lake Simcoe.

Jim and June Newlands

From: [Mark Wainman](#)
To: [Suzanne Troxler](#)
Cc: [INFO mailbox](#)
Subject: Bayshore Spray Fields
Sent: 2/11/2024 10:27:01 PM

CAUTION: This email originated from outside of Tatham Engineering or Envision-Tatham. Do not click on links or open attachments unless you know the sender and have verified the sender's email address and know the content is safe.

Hello Ms. Troxler:

I am sending this email to you regarding Tatham Engineering's (formerly C.C. Tatham & Associates) work on the Bayshore Village spray fields.

Please review a letter I sent to the CAO of Ramara. If you take the time to review the pictures and videos along with the matchings captions in the letter, I think you will have a better idea of how this a totally inefficient system and is only operating by dumping on other peoples property. A site visit when they are spraying could confirm this a lot better than sitting at a desk.

I attended a meeting on March 25, 2011 with my brother and my neighbour. The purpose of the meeting was to address a constant overspray of effluent onto our properties.

I said at this time, that the effluent was often controlled by siphoning out of the lagoons over the side onto other people's private property. This was denied at the time by Mr. Stephen and since I had no proof, it was written in your reports that there had never been any spills. Since this meeting we have taken videos and pictures of such actions. I have a video from July 2013 of a pump pumping effluent over the side.

At this same meeting Mr. Bates suggested ditching be reviewed in this area. The only ditching done to alleviate the flooding was a big ditch was dug along an unused road allowance with its sole purpose to run over-sprayed effluent away from the road ditch. To understand the volume of over-sprayed effluent please look at Video 1 from 2012.

The area that this ditch drains has not been used since OCWA took over the operations. In 2022, 137,000 cubic metres was sprayed on a much smaller land area forcing flooding in other areas such as my backyard.

It was also determined at this meeting that the small lagoon was never relined with imported clay but in many later reports you refer to both lagoons being clayed lined. This is misleading.

You have also said that "the effluent looks like water and feels like water". This is also very misleading.

This is No. 1 treated sewage with no ultraviolet light or chemical treatment. A grab sample taken off the top of the lagoon will not test the same as what is pumped off the bottom of the lagoon and churned through a rotating screen then shot up in the air out of sprinklers. I have results from Aquatic and Environmental Laboratory taken August 29, 2023 that says it has a coliform count of 192 and an E-coli count of 88, which is available on request.

At one of the meetings held in Ramara Chambers many years ago, I asked Mr. Readman, yourself and Mr. Collingwood why you didn't go back into the Chamber after the meeting break and admit to the people how bad the situation was. Mr. Readman replied to me that if that was done, the MOE would force them to truck all the effluent somewhere to be treated.

The operators have changed several times since then, but as I sit here in 2024 they are trucking effluent to the Lagoon City sewage treatment plant. It is not the operators that are the problem, it is the system and the people above the operators that try to justify this as an efficient working system. There is no way anyone can operate it without most of the over-spray effluent coming onto my property, or my neighbors, and going down the creek to the lake.

The most important point I would like to make is the acreage used to generate the rate of application is very wrong and must be corrected. For many years the spray fields have been defined as 26 ha even though at least two distinct sections have not been used in years. There are also more than 30 sprinklers behind my house that were not in use when the MOE visited in October 2023. Using google earth at the end of last year, I estimated approximately 16 ha was being used. If anyone disagrees, I will gladly walk around and do an accurate measurement. I did notice that you estimated 25 ha total in a recent presentation (Dec 11, 2023). This is not even close to accurate and the shaded area

in the picture (Alternative 3 of your presentation to Council on Dec 11, 2023) even shows it spraying on the travelled road. Over estimation of acreage alone makes every report since 1996 inaccurate. AGAIN misleading.

When my father built this house in 1989, he had a proper well drilled and the water tested clean and free from coliform and e-coli. As soon as spraying started in 1994 he had to install a UV light for household water use. Over the years the well has tested clean during the seven months that effluent is not sprayed. Yet during the five months when effluent is being sprayed, I have water tests that show anything from contaminated to overgrown. I know nothing else that can explain this other than Bayshore's shit.

I for many years felt safe using this water as long as we were diligent in maintaining the UV light. I have been advised by the people that installed my light that it only works to remove the coliform and e-coli. It will not remove whatever kinds of pharmaceutical cocktails that are being flushed into the sewer system in Bayshore Village. Besides that, my outside taps do not go through the UV light making that water unusable. I feel that 30 years of misuse and deliberate circumvention of operating procedures at the north field have made it completely unusable and not at all safe to use anymore.

I have many more complaints, but for now, I must insist that my property not be used as a dumping ground for Bayshore No. 1 treated effluent. I insist that the north field not be used in 2024 and beyond.

Mark Wainman
3628 Concession Road 8
Ramara, ON. L3V 0M4
(705)321-4140

From: [Jim & June Newlands](#)
To: [Suzanne Troxler](#)
Cc: [Mark Wainman](#); zdrinkwalter@ramara.ca; jkavanagh@ramara.ca; [Dyana Marks](#); sheri.broeckel@ontario.ca; [Munce, Carly \(MECP\)](#);
Subject: Bayshore Village Spray Fields
Attachments: [Troxler 2024 \(final\).pdf](#); [March 25, 2011 meeting minutes.pdf](#); [2008 MOE Guidelines for Sewage Works.pdf](#);
Sent: 5/11/2024 8:48:36 PM

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Good evening Ms Troxler

Attached is a letter that we are submitting for your information, review and comments regarding the Bayshore Village Spray Fields.

We have attached the minutes from the March 25, 2011, meeting with you and the 2008 MOE Guidelines for Sewage Works.

We will forward a copy of the email which we sent to MECP Director Ahmed and MECP District Manager Hyde on April 14, 2024.

It would be appreciated if you could please acknowledge receipt.

Please contact us if you have any questions.

Thank you
Jim and June Newlands

*please note that our previous email address which you may have in your records (4jfarms@orilliapronet.com) is no longer valid.

Dear Ms. Troxler

We are writing to ask your opinion regarding the operation, management and effectiveness of the Bayshore Village Spray Irrigation System, and to request that any options that include spray irrigation be screened out of the updated report to Ramara Council.

You are aware that we have been complaining about the overspray resulting in effluent flooding onto our beef farm property in three locations, since we met with you in 2011. Township Councils have not resolved our concerns, despite knowing the harm they are causing to us and our property. There has been effluent spilled onto our property every year, causing lost productivity to our farm and undue stress and concern to us. In 2023, we reported the spills to the Ministry of Environment, Conservation and Parks (MECP) to stop the damage because several Township Councils wouldn't. Our health and property were sacrificed to avoid the costs of safe and effective disposal of their sewage.

The Bayshore Village Effluent Spray Irrigation Class EA Update report dated December 11, 2023, includes a "Problem Statement" page containing the points "Need to find the most appropriate solution for the disposal of the lagoon effluent", and "Public concerns with potential runoff and impacts of humans/farm animals, aerosols, drainage" identified as issues to be addressed in any future sewage system. In a previous email to you, we said: 'The Problem Statement page of the Bayshore Village Effluent Spray Irrigation Class EA Update, dated December 11, 2023, states that there are "Public concerns with potential runoff and impacts on humans/farm animals, aerosols, drainage". We would like to bring to your attention that these concerns are real and not just potential, as we have been dealing with significant effluent runoff during each spray season and have experienced negative impacts regarding quality of life, loss of the use of farmland, stench from the lagoons/sprays, and flooding onto our properties. Each year, there has been over-spraying resulting in our properties being used as a secondary sewage lagoon. This over-sprayed effluent flows through our properties, into the creek and directly into Lake Simcoe. We are not part of the lands zoned for effluent disposal, yet the Township has willingly and knowingly used it as such.' We stand by this statement. The EA report also lists Main Considerations, and includes "provide the required effluent disposal capacity without runoff to ditches and Wainman Creek", and "address adjacent residents' concerns" as two considerations. The current spray field system does not provide the disposal capacity because there is constant runoff into the ditches, onto our properties and into Wainman's Creek and Lake Simcoe. This runoff has been reported to, and observed by, the MECP and has been identified as spills from the spray fields. In order to achieve the goals of finding the appropriate solution with the required capacity, and addressing the residents' concerns, we are asking that any options containing spray irrigation be screened out of the report.

We have reviewed the Annual Wastewater Performance Report prepared by the Ontario Clean Water Agency (OCWA) dated March 28, 2024. OCWA reported they have received exemptions from the MECP for conditions 1.2 and 1.3 of the Certificate of Approval (C of A). The exemptions were for the volume limitations of 55m³/ha/day and for the duration of the spray season which was extended into December 2023. This report states that 93,481m³ of effluent was applied on approximately 26ha during 64 days. This resulted in a reported 56.18m³ average for the season. We measured the area of the fields which were actually used for spray irrigation and counted a very generous 19ha. We included the service roads and right to the edge of the wooded areas. An actual survey should confirm that the acreage used for spraying is less than our measurements and far less than the "approximately 26 ha" stated in the report. The new calculations using 19ha results in an average of 76.87m³ being applied. We brought this to the

attention of MECP, and we are still awaiting a response from them. Attached is a copy of the email we sent to Director Ahmed. We sent the same information under a separate email to Ramara Council.

On April 29, 2024, representatives of OCWA presented their report to Ramara Council. Armed with our calculations, Council was able to pose some questions regarding the volume of spray on the newly calculated area. The OCWA Operations Manager explained the 55m³ was an average amount sprayed over the course of the season. The amount sprayed could be higher on sunny days and less on overcast days. He repeated several times they had received an exemption from the volume limitations from the MECP. The OCWA manager stated that the 26ha figure was just a number they had always used to calculate acreage, but that they were still in compliance no matter the acreage because they had received an exemption. Councillor Snutch stated that 'What I'm hearing is it doesn't matter how much you spray.' The response from the OCWA manager was 'The past few years it wouldn't have because there was an exemption.'

We know you are preparing for the Public Meeting on May 22. We are looking forward to your presentation and hope to hear that our concerns are included and addressed in that presentation. Could you please take the time to review the Committee of the Whole meeting of April 29, 2024 for the discussion about the OCWA report and comment on your observations of that discussion? Specifically, how important is the 55m³? Is that a firm cap or is it flexible and can it be averaged? How did the 55m³ come to be? The Operations Manager says that's "kind of a grey area". We have been told by Township staff that the 55m³ is a provincial average. If it just an average, why is an exemption required? At our meeting with you in 2011, you indicated the 55 number was based on the soil characteristics. Attached is a copy of the minutes of that March 25, 2011 meeting for your reference. If the spray rate is based on the capacity of the soil to absorb it, which we believe it should be; then maybe even 55m³ is too high. These fields have not been looked after and are severely compacted from years of abuse. The soils in the fields "have reduced infiltration capacity" according to the EA report of December 13, 2023, acknowledging that the soil characteristics have changed over time. You recommended years ago they be rejuvenated and rested, but that has not happened. We believe the capacity is far less than 55m³. OCWA may think it doesn't matter, but it matters to us. When the soil is at capacity, the rest of the sprayed effluent runs directly onto our property. An exemption from the C of A does not exempt them from the laws of physics. You can't get 7 gallons of effluent in a 5-gallon pail no matter how many exemptions you get. Could you recommend a safe and effective amount that can be sprayed in the near future until a permanent solution can be chosen and implemented? A solution that won't allow this waste to runoff onto our property as it has for the past 13+ years. Please comment.

Ramara Council is currently considering three options of the ten in your EA study to replace the current ineffective disposal system. Two of these options are merely variants of what is already there and hasn't ever worked properly. The only viable option in our opinion is #8 – build an effluent disposal bed and completely discontinue spray irrigation. For more than 13 years, the Township has flooded our property with human waste from both the North and South Spray Fields at three locations. We have asked repeatedly for corrective action to stop this obscene intrusion on our lives to no avail. Over the years, the Township has not taken any steps to protect us from the harm that they have caused and have allowed the spray fields to continue over spraying. It is difficult to trust that a decision to correct this will be made. We will object vehemently to any version of spray irrigation anywhere near us. Until this year, four spigots in the North Field were so close to our fence line that effluent was sprayed over twenty feet onto our property. We told OCWA about this before the spray season began in 2023 but the spigots

were not moved. The spraying started for the season and the spigots sprayed effluent directly onto our property. OCWA had to be told two more times, on different days, about this overspray before the offending spigots were shut off. This is one example which demonstrates that OCWA did not follow section 1.4 of the C of A (the requirement to ensure that sprayed effluent remains within the limits of the approved spray irrigation fields). If the inspection processes were followed when the sprays are turned on, the overspray would have been seen and shut off immediately. We should not have had to make the same complaint three times for the over spray to stop. This spill was not included in Community Complaints section of the 2023 annual report. It is hard to believe this is a result of just incompetence. It is a perfect example of just how mismanaged this system has become. We have become collateral damage in the name of “efficiency.” Dispose of this product on us and our neighbour’s property, not to mention Lake Simcoe, to save the hundreds of votes from Bayshore Village at the cost of only our four votes lost. This over spraying may only spill onto the property of four people, but those four people count, and is four people too many.

You have stated continually that the effluent is treated. It has baked in the sun for 30 days, as if that makes it a safe product to spray onto the ground. Consider this - last year, OCWA plugged the overflow pipe between the two lagoons and bypassed the sewage straight into the storage lagoon, because the settling lagoon was in danger of being breached from being too full (a chronic problem). This bypass started on April 5, 2023, and continued for 1866 hours and 33 minutes ending on June 22, 2023. (OCWA report page 15, Table 20.) The spray season began on May 18, 2023. This meant the raw human waste hadn’t even received the rudimentary sun treatment before being sprayed, ultimately ending up on our property, in our neighbour’s water well and property, and into Lake Simcoe. So, let’s not hear any more about treated effluent being sprayed. It is not treated and is not disinfected. It contains bacteria, pathogens, viruses, hormones, drug residue, micro-plastics, “forever chemicals”, and whatever the users flush down the toilets and pour down the drain. We don’t even know everything that’s in there because we haven’t tested for all the possibilities. It is not “just like water” as we have been told in the past. Bypasses have been occurring for years and there is no guarantee this will not continue in the future with expanded or hybrid spray fields.

A common thread describing the difficulties the operators have had disposing of the effluent always relates to weather. Discussion at the Committee of the Whole meeting on December 13, 2023 included the comments that the spray irrigation system is “100% weather dependent” and that the Township “has never been able to get ahead of lowering the levels in the lagoons”. No matter how many days they are given in their exemptions, the average spray season remains at 65 days. The suitability of many of these days is questionable if the C of A is followed to the letter. There are just not enough dry, wind free days available. The C of A is routinely breached to draw the levels in the lagoons down. Spraying occurs when it is too windy, too wet, and when there is ponding on the fields. Last year, they were forced to truck effluent to the Lagoon City Sewage Treatment Plant for disposal to prevent the sewage lagoons from breaching. This was at a cost of over \$700,000 and it wasn’t enough. This spring the lagoon levels were still too high and the bypassing started in March until they were caught by MECP. Currently, pumping from the top of the small lagoon to the large lagoon continues, which is still defeating the ‘treatment’ process. Along with the levels in the lagoons, the trucking costs will continue to rise as will the tempers with the road closures and increased truck traffic in Lagoon City. Trucking will continue to be a contingency disposal option for the spray fields, and the costs of this should be reflected in the costs of running the spray field system.

The lagoons were not included in this study but any option presented as a solution requires them. Any version of spray irrigation will still require a minimum of 10 months lagoon storage (probably not enough) and will require a contingency for weather-related events. The large lagoon has a 10-inch clay lining and is chronically short of storage. The small lagoon which is used for settling the solids is not clay lined as per our meeting of March 25, 2011, however, the C of A states that both lagoons are clay-lined. The C of A also states that both lagoons contain a “sludge storage bottom dead zone”. It is interesting that the clay lined lagoon is expected to contain the sewage, but the clay soil in the fields is expected to absorb it. Both lagoons are situated squarely in the middle of Bayshore Village’s Wellhead Protection Area, meaning the ground water that charges their drinking water well comes from beneath the unlined, unprotected raw sewage storage that is always on the verge of collapse. If the contamination of our neighbour’s well isn’t important enough to warrant corrective action, then this one probably isn’t either.

The non-compliance issues identified in the MECP inspection (in the 2023 OCWA Performance Report) identified the modifications made to the spray system pipes and equipment over the years which have altered the original engineered design of the system thereby defeating the effectiveness of the overall operation. MECP is now monitoring OCWA and ensuring that the integrity of the system is being restored. Any version of a spray irrigation will always be vulnerable to the limitations of the people who operate it. OCWA and the previous operators, the Township of Ramara, have always managed this system from a strictly economically efficient priority. The safety and concerns of the two families affected the most have never been a consideration. Only the cost to the people in the Township who can afford it the most, at the expense of the people who feed them, has driven these decisions. Save money by cutting corners and using faulty equipment with little or no maintenance. The pipes are constantly breaking or coming uncoupled. The system is over 40 years old and has not aged well. New piping is not compatible with the old. Parts fail often and repairs are delayed because there is no replacement inventory. Any version of spray irrigation will always be bound to the human element. For over 40 years this system has failed the people who rely on it and the people who live next to it. Expanding it won’t make it better, only bigger. If a small system can’t be managed properly, how can a bigger system not be worse? All your engineering expertise and the science behind it will be for naught once they get their hands on it. After 40 years they still can’t figure it out. Are we to expect MECP to look over their shoulder for the next how many years?

Set backs had been discussed during our meeting in 2011. Last spring and for many years prior, the spray irrigation from the North Field was actually falling directly onto our property even on calm days because the spray spigots were so close to the property line. It also falls across the fence directly onto our neighbour’s property, close to his home, because the spigots are near the property line. During our meeting in 2011, you indicated that setbacks are required from the sprinklers to the property line. Post meeting, you noted that Ministry of Environment (MOE) Guidelines suggest a 150 m setback from spray nozzles to the property line. The current C of A has not followed these recommendations and does not include any setback requirements. OCWA has taken full advantage of this to the detriment of our neighbours and us. Surely you would insist on a 150 m setback to any spray field options as per the guidelines. This would virtually eliminate any practical use of the North Field and reduce the South Field considerably. The actual usable acreage remaining would dramatically reduce the volume, unless of course, we use OCWA’s calculations, then it doesn’t matter. If it does matter, the Township will have to acquire substantially more land to meet their objectives. At the nearly \$2 million they paid for a swamp; we can only wonder how much suitable land would cost. And how far away to get it? We are deeply

concerned that any spray field operation will continue to cause extreme harm to our farms, our health, our animals' health and the continued viability of our livelihood. Our representatives have refused to take action to mitigate our concerns and have continued to allow raw human waste and sometimes treated effluent to be spilled onto us and into the lake. We cannot trust that the same will not happen when no one is looking. We are concerned that Council will choose the cheapest option over the right one. Some politicians seem to be motivated by their desire to remain in power and avoid decisions that cost them political capital. We may only be four votes in this township, but this is a very serious issue to resolve properly.

We have struggled to understand why the spray fields have been allowed to continue for such a long time. In the cattle industry, we must follow strict regulations surrounding nutrient management. Non-compliance with these regulations can result in severe penalties. The MOE Design Guidelines for Sewage Works 2008, section 15.9.6 describes the Treatment Requirements for crops and pastures. The recommendation states that the land which has had treated effluent on it should not be used for pasture or crop purposes for 30 days to six months. These regulations are written for the management of land which has been intentionally used for spray irrigation, not for the spray field's neighbouring landowners to follow as a result of "treated effluent" being spilled onto their property and needing to manage livestock and crops around that carelessness. It has been very frustrating to watch other agencies demonstrate a lack of compliance for regulations for years without consequences, and it has been extremely upsetting that our lives and our properties have been so deeply impacted by the results of their non-compliance. It is completely unacceptable that, in this country and in 2024, we have to continually explain (as we have for many years) that we do not want human waste from a faulty sewage system spilling onto our properties. We do not know how we can make our serious situation any clearer.

You have been tasked to provide options to consider and to design a system that works. You can't design the weather or the people who operate your system. At least one Councillor has indicated to us that she wouldn't attend our properties for first hand experience of our complaints, preferring to rely solely on the advice of the experts. You have been identified as THE expert in this matter, we are asking you to reconsider the spray irrigation options given our concerns. Please withdraw any variation of spray irrigation from your proposal, so Council will only have one option, the effluent disposal bed. It is the only option which meets all the criteria for a safe, efficient, affordable and effective disposal system. It eliminates the weather problems, reduces the storage requirements in the lagoons, keeps the costs of acquiring enough land and operating a labour-intensive system to a minimum, reduces the human element/interference and the impulse to tweak a system. It is the only design that works every hour of every day with only gravity to operate the flow, eliminating weather, odour, faulty pipes and sprinkler heads and incompetence.

During this long and exhausting ordeal, you are one of the few who has listened to our issues and responded to them. We sincerely hope you are still listening. We look forward to hearing from you and hope to see that our concerns are addressed in your presentation/comments for the May 22 Public Information Session.

Thank you for your consideration to our situation and requests. Please contact us if you have any questions about our information.

Jim and June Newlands

mi/hr). Effluent disinfection should also be considered in addition to the above measures.

Lagoon and irrigation areas should be enclosed with suitable fencing to exclude livestock and to discourage trespassing. Vehicle access gates should be provided where necessary to accommodate maintenance and supply vehicles and agricultural equipment. All access gates should be locked. The perimeter fences and gates should be provided with appropriate signs designating the nature of the facility and prohibiting trespassing.

15.9.5 Pilot Testing

On-site pilot testing is recommended to determine the feasibility of land application of treated effluent and to provide design data on application rates and quantities.

15.9.6 Treatment Requirements

Treated effluent cannot be irrigated on crops used for direct human consumption. Land which has been previously irrigated with secondary effluent, or equivalent, can be used for such crops, provided that a period of at least 6 months has elapsed since the last effluent application.

With crops used for animal consumption, land application of sewage treatment lagoon effluent or normally disinfected (chlorination at 0.5 mg/L residual and 30 minute contact time) secondary effluent from other treatment processes may be used.

For dairy cattle pastures, the sewage should have received the equivalent of secondary treatment plus disinfection to the bacteriological criteria for swimming and bathing use of water (geometric mean densities of less than 100 *E. coli* per 100 mL). Treatment provided by a facultative lagoon is designed to the criteria outlined in *Section 12.3.1.1 - Facultative Lagoons* for seasonal discharges. At least 30 days retention time since the last addition of raw sewage prior to spraying is considered equivalent to secondary treatment and may achieve the above mentioned bacteriological criteria without disinfection being required.

For pasture, silage, haylage, orchards, and other food crops, the effluent should be normally disinfected (chlorination to 0.5 mg/L residual and 30 minutes contact time). For orchards, non-spray application methods should be used, (e.g. ridge and furrow or gated pipe). In all cases, the crop should be allowed to dry before harvesting or pasturing.

In all of the above cases, if the land is not to be used for at least one-half year after spraying, disinfection will not be necessary.

With recreational lands such as golf courses, the treatment requirement is secondary biological activated sludge treatment or equivalent, with the resulting effluent being discharged to the first of two ponds connected in series, each with a retention period of not less than 30 days. The effluent to be



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MEETING MINUTES

Meeting Date: March 25, 2011 **Time:** 9:00 a.m. **CCTA File:** 100080-2

Location: Township of Ramara, Council Chambers

Attendees:	Rick Bates	Township of Ramara
	David Stephen	Township of Ramara
	Mark Wainman	Resident
	Jim Newlands	Resident
	Neil Wainman	Resident
	Suzanne Troxler	C.C. Tatham and Associates Ltd. (CCTA)
	Keith Shular	CCTA

Purpose: Bayshore Village Effluent Spray Irrigation Expansion Class EA
Meeting with Residents – Revised Minutes April 21, 2011

Meeting Item	Action
<p>1. Class EA Process</p> <p>Rick Bates and Suzanne Troxler (Suzanne) explained briefly the Class Environmental Assessment (Class EA) process and that it applies to all major municipal water and wastewater projects. A Class EA requires that review agencies, interested parties and the public be consulted during the assessment of alternatives. Public input is very important in order to understand and appropriately take into account the issues of concern and the potential impacts of the alternatives under consideration.</p> <p>Suzanne clarified in answer to Neil Wainman's (Neil) question that a field survey of existing environmental features is not part of the study scope; existing information is used for the natural environment impact assessment.</p> <p>Following their review of the comments received during the Bayshore Village Effluent Spray Irrigation Class EA, CCTA will identify the preferred solution and make a recommendation to Ramara Council.</p>	

Meeting Item	Action
<p>2. Concern: Potential for Spills or Exfiltration from Bayshore Village Sewage Lagoons</p> <p>In response to questions from the residents regarding the possibility of spills and exfiltration from the Bayshore Village sewage treatment lagoons, David Stephen (David) confirmed that no spills from the lagoons have occurred since he took over their operation. Typically, there are two to three feet of freeboard in the lagoons. He also explained that the large lagoon is lined with 10 inches of clay, while the small lagoon is not clay-lined but has significant deposits of settled solids that prevent exfiltration. Annual mass balances, tracking sewage flows into and pumped out of the lagoons plus precipitation and minus evaporation, do not indicate that exfiltration occurs.</p>	
<p>3. Concern: Surface Runoff from Spray Irrigation Operation</p> <p>The residents expressed a great deal of concern about surface runoff from the effluent spray irrigation onto their properties. They indicated that surface runoff from the North and South Fields has been observed during spray irrigation operations since the early days and particularly after the large spray irrigation pump was installed in 1996. In their opinion, the spray irrigation operation does not and has never worked properly as there has always been a lot of runoff.</p> <p>Runoff or flooding has been observed in the following areas:</p> <ul style="list-style-type: none"> • The low-lying pasture area in the northern portion of the Wainman's farm directly west of the North Field. Two to three feet of water has been observed in the area. • The low-lying area on the western property line of Jim Newland's (Jim) field directly east of the low-lying area in the North Field. Jim indicated that flooding has reversed the flow direction of the drainage ditch from east-to-west to west-to-east, causing flooding of the low-lying area around Wainman's Creek on Jim's eastern property line. • The low-lying area around Wainman's Creek in the south-western corner of Jim's property. Jim believes this flooding is caused by the 200 mm pipe that drains the middle low-lying area of the North Field to the drainage ditch along the western edge of Jim's property. • The low-lying areas in the field east of the South Field. Runoff is believed to flow from the South Field through the culvert to the drainage ditch along the old Sideroad 20 on the east side of the re-aligned Sideroad 20. This drainage ditch overflows to the low-lying areas of the field east of the South Field. 	

Meeting Item	Action
<ul style="list-style-type: none"> <li>• The area west of the South Field, where runoff has been observed towards Wainman's Creek. <p>The residents stated that although these areas are often flooded during the spring, they usually dry up during the summer. In their opinion, runoff from spray irrigation contributes to year-round flooding, rendering their land unusable and decreasing productivity.</p> <p>Mark Wainman (Mark) expressed the opinion that due to the high clay content of the soils in the spray irrigation fields, tilling and/or aerating the land will not improve the soil's infiltrative capacity to the extent required to eliminate runoff from the spray irrigation fields. Machinery used to cut the grass on the Township's spray fields further compacts the soils and reduces their infiltrative capacity.</p> <p>Jim asked whether the overall drainage in the area could be improved to reduce and/or eliminate the runoff. David has observed that many of the drainage ditches are overgrown with vegetation, which obstructs the flow of surface runoff. Rick Bates indicated the Township will consider conducting an assessment of the overall drainage in the area.</p>	
<p>4. Concern: Effluent Quality</p> <p>The residents expressed concern about contaminants and pathogens in the spray irrigated effluent, and their potential impacts on humans and cattle.</p> <p>Suzanne explained that the lagoons provide physical and biological treatment of the sewage to produce an effluent of quality suitable for spray irrigation on land. The effluent is applied at a rate that was established based on the soil's characteristics, such that some evaporates and some infiltrates into the ground.</p> <p>Suzanne indicated that the Township produces each year an operations report on the Bayshore Village sewage works and spray irrigation that is available to the public. Suzanne provided Jim with a copy of the Township's groundwater, surface water, and soil monitoring data that is included in those annual reports. A copy of the data was sent earlier to Mark by e-mail.</p> <p>Jim indicated that he was told at the February 24 PIC that cattle could not consume hay grown on the spray fields until six months after spraying. CCTA confirmed, after reviewing the MOE Guidelines, this restriction only applies to crops destined for direct human consumption.</p> <p>Mark indicated his veterinarian cautioned against cattle eating crops that were spray irrigated with effluent, or drinking runoff water from the spray fields. His concern arises from the potential presence of man-made chemicals such as pharmaceuticals that could have been disposed to the sewers.</p>	

Meeting Item**Action**

Jim asked if the effluent is tested for pharmaceuticals. Suzanne indicated that it is not. This is an emerging field in the water and wastewater industry. Testing for pharmaceuticals is not required at the Bayshore Village sewage works.

Mark asked if the lagoon effluent is tested for metals. Suzanne indicated that it is not and explained that the Bayshore Village sewage works treats residential sewage (there are no industries in Bayshore Village), which typically has very low concentrations of metals. CCTA referred to the very low concentrations of metals in sludge generated at the Lagoon City Sewage Treatment Plant (STP), which also treats residential only sewage. This sludge is applied to land.

Neil and Mark Wainman asked if spray irrigated effluent is subject to the same regulations as STP sludge (biosolids) applied to land as fertilizer. David explained that biosolids are subject to more stringent regulations, including limited application rates, due to the higher concentrations of nutrients, organics and metals.

Jim expressed concern about the presence of pathogens in the effluent aerosols that occasionally occur during spray irrigation. CCTA explained that the additional spray irrigation land considered in this Class EA would enable the Township to reduce the number of spray irrigation days in less than ideal wind conditions. The Township and CCTA agreed that disinfecting the lagoon effluent with ultraviolet light prior to spraying would significantly reduce pathogens. Suzanne indicated that setbacks are required from the sprinklers to the property line that would minimize the impact of aerosols. Post-meeting note: MOE Guidelines suggest a 150 m setback from spray nozzles to the property line.

The Township and CCTA also indicated it would be possible to add alum to assist in precipitating solids and phosphorus in the large lagoon prior to the spray irrigation season.

Mark and Jim expressed concern that the presence of effluent spray irrigation fields adjacent to their farm may negatively impact the public's perception of their farm products, as the lagoon effluent is misunderstood to be raw human sewage.

5. Other Concerns: Further Residential Development and Property Values

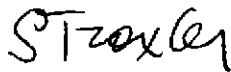
Mark expressed concern that increasing the number of spray irrigation fields could promote additional development in the area. Suzanne explained that the spray irrigation expansion would not increase the rated capacity of the Bayshore Village Sewage Works, and thus would not permit additional development.

Mark and Jim indicated that they believe the presence of spray fields adjacent to their properties lowers the property value. This would get worse if there were more spray fields.

Meeting Item	Action
<p>6. Spray Irrigation Alternatives</p> <p>During the meeting, there was discussion about the type of crop that would be the most helpful to maintain the soils' infiltration capacity. There was also discussion of the type of spray irrigation sprinklers. David indicated that he would like to install buried piping and sprinklers that facilitate crop harvesting. CCTA also clarified that the new spray fields would be tile drained to ensure that there is an unsaturated layer of soil to maximize infiltration of effluent.</p> <p>However, the residents were of the opinion that expanding the spray irrigation fields would not be a sustainable solution. They suggested alternatives to the lagoons and to effluent spray irrigation.</p> <p>The following alternatives were mentioned and briefly discussed during the meeting:</p> <ul style="list-style-type: none"> <li>• Constructing a sewage forcemain from Bayshore Village to the Lagoon City STP. <li>• Replacing the lagoon treatment system with a mechanical treatment plant. <li>• Spraying effluent on a nearby golf course such as the small Bayshore Village golf course. <li>• Utilizing the surrounding wetlands for further lagoon effluent treatment. <li>• Spraying lagoon effluent into nearby woods and/or wetlands. <li>• Disposing the effluent in a large raised tile bed. <p>Suzanne indicated that the Lake Simcoe Protection Act does not allow the construction of new sewage treatment plants with effluent discharge into Lake Simcoe. Effluent disposal has to be either to the subsurface (tile bed) or to land (spray irrigation).</p> <p>Suzanne explained that the Class EA's current problem statement is to identify the best way to improve the operation of the effluent spray irrigation system. The Class EA may need to have an expanded scope to find a solution that addresses the concerns expressed by the residents.</p>	
<p>7. Concluding Remarks</p> <p>Suzanne thanked Mark, Jim and Neil for taking the time to meet with CCTA and the Township to explain their concerns with the spray irrigation operation to date and the potential for expanding the spray irrigation areas. Their comments will be given due consideration during the Class EA study.</p>	

Meeting Item	Action
8. Errors & Omissions	
Please report any errors or omissions to the author within seven days of receipt of these minutes otherwise they will be deemed correct.	All

Respectfully submitted,
C.C. Tatham & Associates Ltd.



Suzanne Troxler, M.Sc., P.Eng.
Manager, Environmental Engineering
KES/ST:rlh

Distribution
All present

I:\Wpdocs\100080\Spray Irrigation EA\Meeting Minutes\MM - March 25-2011Rev.1.doc

From: [Jim & June Newlands](#)
To: [Suzanne Troxler](#)
Subject: Fw: Bayshore Village Sewage Works
[8. North Field. Late summer 2023. Google maps..jpg](#);4. North Field. 1.2 ha. Early summer 2023. [Simcoe maps..jpg](#);3. North Field. 6.11ha. Early summer 2023. [Simcoe maps..jpg](#);5. North Field. 2.8ha. Early summer 2023. [Simcoe maps..jpg](#);2023 OCWA report comments to MECP. April 2024.pdf;6. North Field. Late summer 2023. [Google maps..jpg](#);7. North field. Early summer 2023. [Simcoe maps..jpg](#);Letter to send to Zack, cc josh and mayor.eml;2. South Field. Late summer 2023. [Google maps..jpg](#);1. South Field. 8.76ha. Early summer 2023. [Simcoe maps..jpg](#);9. North Field 01Oct2023. [Newlands photo of ruts and ponding. .jpg](#);
Sent: 5/11/2024 9:01:01 PM

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From: Jim & June Newlands <4jfarms1996@gmail.com>
Sent: Saturday, May 11, 2024 8:34 PM
Subject: Fw: Bayshore Village Sewage Works

From: Jim & June Newlands <4jfarms1996@gmail.com>
Sent: Sunday, April 14, 2024 5:21 PM
To: aziz.ahmed@ontario.ca <aziz.ahmed@ontario.ca>; chris.hyde@ontario.ca <chris.hyde@ontario.ca>
Cc: zdrinkwalter@ramara.ca <zdrinkwalter@ramara.ca>; jkavanagh@ramara.ca <jkavanagh@ramara.ca>; Dyana Marks <DMarks@ramara.ca>; sheri.broeckel@ontario.ca <sheri.broeckel@ontario.ca>; Munce, Carly (MECP) <carly.munce@ontario.ca>; Mark Wainman <mhwainman@gmail.com>; jill.dunlop@ontario.ca <jill.dunlop@ontario.ca>
Subject: Bayshore Village Sewage Works

Director Ahmed and District Manager Hyde

We are sending these documents and photos to you for your information and consideration. Your signatures are on correspondence in the Annual Wastewater Performance Report for the Bayshore Village Sewage Works prepared for the Township of Ramara by the Ontario Clean Water Agency, dated March 28, 2024.

We would appreciate hearing your comments on this matter.

Thank you
Jim and June Newlands



○ Click to start drawing



Concession Rd 8

Concession Rd 8

Concession Rd 8

Sideroad 20

Sideroad 20

Sideroad 20

Sideroad 20

Sideroad 20

Google



Click to start drawing

Concession Rd. 8

4



Concession Rd. 8

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Concession

Concession Rd 8

Concession Rd 8

Concession Rd 9

Sideroad 20

7
SIMCOE



SPRING 2023 SPRAY NOZZLES AT PROPERTY LINE



Google



We are writing to inform you of our complaints regarding the Bayshore Village Sewage Works and the negative impact it has had on our property and, by extension, our personal lives. We are the owners of a multi-generational beef cattle farm and two sides of our farm borders on the spray fields. The property has been in our family since 1946 and we have lived here since 1997. The spray fields have been an issue since we started living here. The effluent from the spray fields has always overflowed onto our property in three locations. It has flooded our land enough to change the vegetation from pasture grasses to swampy wetland grasses that the cattle won't eat. This has resulted in lost farm productivity and caused added expenses by having to purchase supplemental feed to compensate for the lost pasture and questionable health risks to the animals consuming it. We have endured the stench from the spray fields which, at times, has been so overpowering it causes headaches. There were occasions in the past when we called the Township to ask for relief and they would make changes to the spray field system which resulted in the smell dissipating. In 2011, we wrote a letter to the Township describing our complaints with the spray irrigation system, and offered suggestions to rectify our issues. We felt that ditching would be the most practical way to divert the overflow from our property. We also expressed strongly that ditching may divert the overflow effluent from our property, but it does not resolve the issue that there is overflow effluent spilling from the spray fields on a continual basis during the spray seasons. Since 2011, we have informed the Township in writing and verbally about our concerns with the spray fields. Thirteen years later, we are still complaining about the exact same flooding and our local representatives have not indicated that the spills and flooding will stop.

The Annual Wastewater Performance Report from 2023, includes letters which have granted exemptions from the conditions of the Certificate of Approval (C of A) for the Bayshore Village spray field operating season. The letter from District Manager Chris Hyde, dated May 4, 2023, grants relief from Conditions 1.2 and 1.3 of the C of A. The letter from Director Ahmed, dated Sept 26, 2023, grants an extension to the Township of Ramara's request to extend the spray season to December 15, 2023 in order to allow for "emergency disposal of effluent". We ask that no further exemptions are granted in the future, and that consideration is given to revoke the permit for all spray irrigation until such time as the Township can assure complete compliance with all conditions of the C of A. The Township has not complied with the C of A for most years since 2014, due mostly to unstable weather conditions which limit the number of days available for spraying. The result is chronic overloading of the system, causing flooding onto our fields, onto our neighbour's property and into Lake Simcoe via Wainman Creek.

Please consider the following information taken from the 2023 Wastewater report to aid your decision.

Exemptions were asked for and granted to conditions 1.2 and 1.3 of the C of A before the spray season was even started. This indicates that the spray field operators knew in advance that the requirements of the C of A could not be met, so a blanket exemption was requested before the spray season began. A decision had been made to ignore the science and engineering capacity of the system in order to meet the only real goal of this exercise; to get rid of this sewage by any means and by the cheapest way possible. The operators know this system cannot function as designed and found a work-around to avoid the expense of safe and effective disposal. This work around solution was approved and the exemptions were granted. These exemptions granted relief from both the volume of effluent sprayed and the duration requirements of the spray season. Both of these indicate that the system does not have the capacity to operate effectively. This exemption permits the over spraying to continue and the excess effluent has to go somewhere which means onto our property, onto Mark Wainman's property (our neighbour) and into Lake Simcoe.

The County of Simcoe interactive maps website provides excellent aerial photos of the spray fields, including a measuring tool to calculate the actual areas involved. These photos appear to have been taken in the early summer of 2023 before the spray season commenced on May 18. The areas covered by the spray pipes can easily be seen in the attached photos from this website. By using the available measuring tool, it can be determined that the actual spray field area used on the South Field is approx. 8.76 ha. OCWA's report is clear that sewage was applied to 14ha on the South Field. The actual area used on the North Field is calculated by combining three adjoining areas for a total of 10.11 ha. The OCWA report infers that approx. 12 ha were used in the North Field. The OCWA report states that approximately 26 ha from the North and South Fields were utilized, however, the calculations from the aerial photos indicate that only approximately 19 ha were used. Subsequent calculations of 93,481 m³ divided by 26 ha, divided by 64 days equals 56.18 m³/ha/day. This is only slightly over the 55 m³/ha/day limit, but still exceeds the limit stated in Condition 1.2 of the C of A. However, when using the actual numbers of 93,481 m³ divided by 19 ha, divided by 64 days, the amount of spray equals 76.87 m³/ha/day. This is almost 40 per cent over the permitted limit of 55 m³ per day. Where did it all go? Again, it has flooded onto our property, our neighbour's property and into Lake Simcoe. We have included some photos from Google Maps website that appear to have been taken in September 2023. When the photos taken in May are compared with the photos taken in September, it is obvious that the ground in the spray field appears dry in May but the September photo shows that there is standing water in the ruts in the same field. This is an example of how OCWA has been misleading the Township and the Ministry by reporting blatantly inaccurate numbers to make their operation of this system appear to comply with the C of A. The exemptions which have been granted to legitimize this operation have been based on incomplete and misleading information provided by OCWA. The result of the over spray is poisoning us, our property, our neighbour's property and our waterways.

Page five of the OCWA report describes the operating procedures that are followed. These include daily inspections to ensure favourable conditions. Our experience has been that this does not occur. On May 16, 2023, we met at Mark Wainman's property with Township representatives, including members of Council, Staff and the Operations Manager of OCWA. Several issues about the spray fields were discussed. Again, we expressed our concerns and insisted that OCWA stop spraying onto our property as they have for years. We offered suggestions which might address the issues affecting us, and we requested that the ditch be cleared to divert the overflow effluent away from our property and directly into Wainman Creek out to Lake Simcoe. We were advised that there was no money in the budget for this ditching to be done. Mr. Wainman's property is directly adjacent to the North Field, and during this meeting, he showed excellent videos of the volume of effluent that spills onto his property from the North Field and the damage that has been caused as a result. Mr. Wainman has tested the water from the well on his property which supplies drinking water to his home. During the spray seasons, these water tests have indicated that the well water is contaminated and not safe to drink. Mr Wainman informed the others at this meeting about the water tests, but the issue was not addressed fully or resolved. The Township and OCWA felt that more tests and studies were required to prove that the contamination was a result of the spray field effluent. In addition, the Township and OCWA were shown where the effluent floods onto our property in three separate areas, but refused to acknowledge the word 'spill.' They sympathized and expressed concern, but would not commit to a solution. It was apparent that Council and Staff were hearing of these issues for the first time and that the spray field operators had never reported these matters to the Township in the past. On May 18, 2023, the spray season started. On May 31, 2023, we observed 4 spigots in the north spray field spraying effluent across

our fence approximately 20 feet onto our property. This occurred only two weeks after we expressly told the OCWA manager that we wanted this to stop. We called the Township office and asked them to stop the spraying onto our field. The very next day we checked the location again and found the spray was still falling on our property. We called to report this again. On June 3, 2023 we checked our fence line and saw that the offending spigots had been removed and the direct spray issue had been resolved. On June 7, 2023, that particular area of our farm bordering the North Spray field had dried up. We also made a note that the weather app indicated a windspeed of 21 km/hr gusting to 32. The spray fields were operating, and with these wind conditions, they were in violation of condition 3.3 of the C of A. OCWA reports that daily inspections of their system are conducted, however, this does not occur. If it did, the operator would have seen the effluent spraying onto our property, and the ponding that occurs, during their inspection. OCWA was told they were spraying on our property and continued to do so without regard to us or their own operating procedures. We brought it to their attention three times before any corrective action was taken. The 2023 report did not mention this particular "spill".

The spraying continued during the summer of 2023. The weather was not co-operative which made disposal of the effluent an impossible task if the C of A was to be adhered to. OCWA's simple solution was to ignore the C of A and continue spraying. Complaints were ignored as they've always done and don't report the spills, just call them leaks. Attached photos show an aerial view of the North Field taken in the early summer of 2023. The spigots close to our property line are clearly visible as are two vehicles. One is a pickup truck and the other vehicle is used to cut the grass. This vehicle is not a proper lawnmower but is a sidewalk snowblower fitted with a mower deck serving double duty. This is a fairly heavy piece of equipment using truck tires, not flotation or turf tires normally fitted on purpose-built lawn equipment. Operating this machinery on wet soil causes considerable compaction to the ground underneath as can be seen by the ruts in the photo. Using this machinery further deteriorates the absorptive qualities of the soil causing more runoff. Another aerial photo depicts the same field in September 2023. The ruts are unmistakable because effluent is pooling in the area as evidenced by the dark patches. We have attached a photo taken October 1, 2023 from our property showing the standing water in the north half of the North Spray field. The spraying had stopped for the day but restarted the next day in clear violation of Section 1.4 of the C of A. At that point the ground was completely saturated and effluent was pooling. The effluent being sprayed was running off, much of it onto our property and our neighbour's property. The rest of the over sprayed effluent flowed into the creek and on to Lake Simcoe. On the very next day, the pipe burst where it crosses the creek from the South Field to the North Field. The volume of spray from this burst pipe was so great that Concession Road 8 was showered with effluent to the centre line of the roadway. It was loud and it was very clear to everyone who had to drive through it. If the system had been checked, it would not have taken a couple hours to shut off this burst pipe.

On October 24, 2023, Ministry of Environment, Conservation and Parks Water Compliance Supervisor Sheri Broeckel and Water Investigator Carly Munce attended and met with Mark Wainman, Neil Wainman and us at the Wainman's property. We toured the North Spray field while it was operating and Sherri and Carly could plainly see the effluent was spilling onto our property. They acknowledged the Township was spilling onto our property in three locations. That was the first time the word "spill" had been used by anyone in authority. They accepted our verbal complaint and stated that they would investigate further. During this meeting, we expressed our disappointment that an extension had been

granted to extend the spray season into December 2023. The spraying was stopped in November 2023 because of deteriorating weather conditions, not because they were polluting us and the lake.

To prepare for 2024, we have taken a proactive approach by writing the individual members of Council insisting they make changes to keep their effluent off our properties. They have refused to make any changes as they have for the last thirteen years. The Ramara Township CAO met with Mark Wainman and us to discuss what could be done. We discussed ditching along Concession 8 and along the service road west of our property as a solution to the flooding of our property in two locations caused by the spraying from the South Field. If the ditch at the north part of the North Field was blocked, we would be saved from over spraying from the North Field. This would result in the effluent taking a direct route to Lake Simcoe and accumulate more on the Wainman's but not spill onto our property. This does not resolve the bigger issue of an inadequate system which over sprays effluent, nor does it stop the effluent spills onto Mr Wainman's property or into Lake Simcoe. The Township has historically been unable or unwilling to prevent this from occurring as a review of the Annual Wastewater reports back to 2014 will attest. We also stated that we wanted the spraying on the North Field to stop and that field be de-commissioned.

As part of the 2011 EA study, Tatham Engineering proposed a Sewage Treatment Plant be built as the best option to dispose of Bayshore Village sewage. The Ramara Council of the day agreed and pursued the matter arguing that the spray system was an existing treatment facility in need of upgrading rather than a new facility. The Ministry of Environment, Conservation and Parks refused to permit any new STP's to discharge treated effluent into the Lake Simcoe watershed and wouldn't recognize the existing system. So, by exempting the restrictions of the C of A and permitting the continuation of the demonstrated violations we have listed, the Ministry is in effect allowing untreated effluent into Lake Simcoe. The Ministry wasn't aware of the extent of the violations due to the lack of honest and accurate reporting by the Township in their Annual Reports. Now the Ministry has been made aware, so we expect corrective action to be taken immediately. The current Ramara Council has boasted at meetings as to how economically efficient the spray system is compared to Lagoon City's Sewage Treatment Plant. We and the taxpayers of Ontario are picking up the (tab) every time they flush their toilets.

The Township of Ramara is currently considering three options to dispose of Bayshore Village sewage, two of which employ some variant of spray irrigation on substandard soils. Council cannot be trusted to make the right decision, so these spray options should be removed. We are concerned they will choose the cheapest method relying on us to subsidize their polluting, destructive ways for another generation. The right action to take is to stop spray irrigation, especially when it negatively impacts neighbouring properties. It is requested that the Ministry of the Environment, Conservation and Parks support the option of replacing spray irrigation with a properly engineered and built underground weeping bed; given that the best option of a sewage treatment plant is not permitted. An underground system would eliminate the need to grant exemptions for a system that does not work properly.

It is our firm position that the conditions of the C of A have not been followed, and the spray fields need to be discontinued and replaced with a system that is efficient, sustainable, not dependent on weather, can be used year-round, and has the capacity to handle the volume of waste that is generated. The Bayshore Village spray field system should not be allowed to continue to operate at the expense of neighbouring properties. Lowering the levels in the Bayshore Village's sewage lagoons has been a

higher priority than addressing our concerns. We are asking that we be respected and that our property is respected by not continuing to pollute it with human waste.

For all of the reasons noted in this letter, we are asking for your support and not allow any further exemptions for the Bayshore Village spray field operations. The conditions of the C of A have not been followed and the information in the OCWA report, which informs your decisions, is misleading. In order to prevent effluent spilling onto our property it is requested that spray irrigation not be permitted until the ditching is completed. It is strongly requested that spray irrigation on the North Field be discontinued due to the flooding and damage created by the over sprayed effluent. This field is saturated and is unable to absorb the volume of effluent that is sprayed on it. Trucking the sewage to the Lagoon City Treatment Plant is an option that has been recently used to reduce the sewage levels in the Bayshore Village lagoons, and could be utilized again.

We have attached the photos which we have referenced in this letter. Additionally, we are providing a copy of an email Mr. Wainman sent to Ramara Township CAO Zach Drinkwalter showing videos and photos he had taken. You may have already seen these, but if not, please take a few minutes to view them. We find them very compelling, describing the extent of how bad this system truly is.

Thank you for your consideration and we look forward to hearing your comments.

Jim and June Newlands

Emily Park

From: Mark Wainman <mhwainman@gmail.com>
Sent: Monday, December 4, 2023 4:12 PM
To: 4jfarms1996@gmail.com
Subject: Letter to send to Zack, cc josh and mayor

I am writing this email as a follow up to an email sent in the spring. I have seen over many years how the spray irrigation does not work. The scale of effluent involved in this is way bigger than most approved spray irrigation sites. It is only class 1 treatment and many years such as 2023, the little lagoon was bypassed for a period of time in the spring when it is too full. The spray irrigation can only be done seasonally when the weather is good. This puts too much pressure on the aging lagoons. All reports that I have seen written since 1996 say that the south field effluent is sprayed on 13.6 ha involving 146 sprinklers. The north field is 10 ha and 148 sprinklers. Due to failures and community complaints, the area sprayed on and the number of sprinklers involved is way less. The system was originally designed to have 4 different application rates as defined by hydrogeological testing. From meeting 2011 we and Mr. Newlands complained about how much overspray effluent was escaping the north and south fields to flood our and surrounding properties. To my surprise it was discussed that there should be a review of drainage in the area, no mention of a real solution to the overspray of effluent. The only ditching that was done a result of this meeting was a large deepening of an old ditch along an abundant road allowance on sideroad 20. The only purpose it served was to dispose of overspray effluent from the south field, see video 1 to get a concept of the volume. I believe this is in direct violation of the C of A section 1.5. this ditch has not been used as much recently as some of the spray areas are not utilized. My goal in showing old video is to show the volume of over sprayed effluent. It is only showing the volume that goes off one area while at the same time there was a large amount going to the south ditch, that can be heard running but hard to capture on video because of the cat tails.

Now to the present and how it affects my property. I have included videos and pictures from 2022 and 2023. Even though OCWA 2022 report says;

“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.”

I have found my property flooded from 4 sides.

This is caused from overspray and broken pipes not repaired some for months at a time. Included videos to show proof. On may 16, 2023 I held a site visit to my property that was attended by councillor Hetherington and Fisher, Zack Drinkwater, Josh Cavanaugh, Nick Leroux, Dyana Marks, Jim and June Newlands and myself. We used this opportunity to air some of our complaints, at this time I felt I clearly showed everyone attending with pictures and videos where my property was being flooded from. They started spraying May 26 and did not repair any of the leaks I had clearly pointed out, they continued to spray May 27-29th at which time I phoned Dyana and complained about their work. They came out and repaired one pipe and shut one off. on May 31st the pipe by the bush was gushing 20ft in the air again so I phoned josh about that and another leak I had found. The point I am trying to make here is inspection should have been done especially when I pointed out problems, it was started up run for 4 days with major leaks, not repaired from the year before. THIS IS NOT MY JOB, you can see how much effort has to be put into it in just one week. On oct 2nd I had another site visit from Dana Tuju and Josh. We showed Josh exactly where pipe was broke and gushing for 3 straight days. I

could see this from my deck. We discovered many holes drilled in main pipe and suspected leaky connections. On oct 4th OCWA started spraying without any repairs, I phoned Dyana Marks asking for someone come out and repair, they shut the one line off, but I don't believe any repairs were made to holes drilled in main pipe. Many workers drive by these holes shooting effluent 20 feet into the trees but choose to ignore these and many other leaks.

I hear from many different sources that this is the first they have heard of any of these problems. I know for many years my complaints were just verbal and fell on deaf ears. But our complaints in regard to the meeting held on mar 25, 2011 in relations to class e a assessment are well documented and available on your website. However, I do not feel our concerns regarding overspray of effluent which in turn floods our property were never addressed. Since flooding of effluent has occurred every year since 1994, I must insist that the pipe across the creek to the north field not be installed in 2024. I have been promised many improvements over the years, but this situation just gets worse.

I am completely exhausted by the constant battle to have my opinion valued. So, I must insist that no section of the north field be used for spray irrigation in 2024 because there is no control of over sprayed effluent.

Video Number 1 - June 10, 2012

Depicts effluent that was over sprayed in the south spray field. Just trying to visualise the volume of over sprayed effluent.

Video Number 2 - Aug 2, 2020

Shows volume flowing to road ditch after rain event. They sprayed most of the day even though thunderstorm was predicted. They often rush to spray before forecasted rain events. Something like this is the result.

Video Number 3 – Aug 8, 2020

Shows volume of effluent entering ditch on a dry day when they sprayed.

Picture Number 4 – Aug 10, 2022

Shows ditch south of my house. The week before we received 1.5inches of rain in 2 different rain events. But in that week, they only sprayed 1-2hours on Aug 7th.

Video Number 5 – Aug 16, 2022 5:36pm

Shows same section of ditch directly south on my house but have been spraying for 7 straight days. There has been no rain in between, but it did rain .5 inch after this video. However they sprayed on Aug 17th and 18th.

Picture Number 6 – Oct 4, 2022

Shows damage to alfalfa field west of my house. This is overpowering a systematically tile drained field and is being taken by the road ditch to result in the previous picture. The effluent flows freely from under the fence of the spray field in the north west part. This flooding has occurred every day since July 20th. I showed similar pictures on May 16th 2023 site visit and pointed over the fence to the area in question but yet spraying was started up in 2023 and run for 4 days flooding like the 2022 year until I complained.

Picture number 7 – July 22, 2022

Picture shows broken pipe shooting effluent 10-15 feet in the air. This was not repaired until July 26th even though you could clearly see this driving east on Concession Road 8. There were similar leaks in behind the bush not repaired all year.

Picture 8A – Sept 17, 2023 9:19am

Along fence at my bush lot directly east of house.

Video 8B – Sept 17, 2023 12:43pm

Same spot after spraying all morning.

Video Number 9 – Sept 30, 2023 3:10pm

Shows same path ending with 4inches of effluent at the edge of my lawn. This result after 18 sprinklers closest to the area have been disconnected or turned off. Zack this is the same area you walked May 16th in your dress shoes. It has not rained for a week to 10 days but they have sprayed effluent for 5 days and continued to spray for 2 more until they had a pipe bust at the creek on Oct 2nd.

Picture 10A – Sept 27, 2023 7:12am

A little further down the trail to the east before the easement.

Picture 10B – Sept 27, 2023 4:47pm

After spraying effluent all day.

Picture number 11 – Sept 29, 2023 2:58pm

Shows spraying going into ponding but also notice no sprinklers are on closer to the bush where previous pictures showed flooded areas.

Picture Number 12 – Sept 29, 2023 2:59

This area directly north of our property looks flooded and saturated even though no sprinklers in this area have been utilized.

I fear from what I had seen in many years previous that because an extension was granted that whatever amount of effluent needed to be drawn out of the lagoons for the winter period would be dumped on me in October. So, I phoned the MEO Barrie office on Sept 28th.

To summarize I only concentrated pictures 4-12 on the area around my house. This was not the only place where effluent overflowed onto my property (have many more pictures if required). I do appreciate your consideration of the pictures I have sent, many of which I believe could be defined as spills.

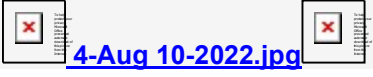
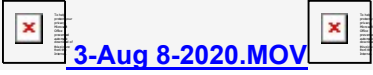
In closing Mr. Drinkwater, I feel bad about you and your staff having to deal with a problem that was created many years ago. Over the last couple of years, I reviewed many reports and been to many meetings where it says these spray fields are operated properly within the C of A from 1996. I don't believe this to be true so how can proper decisions be made from this.

Thank you for your consideration

Mark Wainman

(705)321-4140





From: [Mark Wainman](#)
To: [Suzanne Troxler](#)
Cc: [Zach Drinkwalter](#); [Josh Kavanagh](#); [Dyana Marks](#); [Basil Clarke](#); kbell@ramara.ca; [Dana Tuju](#); [David Snutch](#); jfisher@ramara.ca; sbell@ramara.ca; jgough@ramara.ca;
Subject: Baysshore Spray Fields
Sent: 5/19/2024 11:10:27 PM

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Hello Suzanne,

I have sat silently through many meetings on BAYshore Spray fields. There has been endless discussion on the spray rate of 55 meters meters cubed a day. Most reports you read are calculated down to 2 decimal points for rate of application, but if you are using the wrong acreage these are not accurate.

Much more talk is centered about the number of spray days available to dispose of effluent, anything from 65-100. Anything from bad luck to climate change has been blamed for an inability to empty the contents of the lagoon. I do understand some exceptions from the rate of application that has been granted by the MECP. There has never been an exception from 3.1, 3.2 and 3.3 of the 1996 C of A.

3.1 The Owner should ensure that the application of effluent to individual irrigation sites within the approved spray irrigation field(s) and rotation of the irrigation sites is carried out in a manner that maximizes evapotranspiration and allows the soil to dry out periodically.

3.2 The Owner should ensure that whenever ponding or run-off if sprayed effluent occurs, the application of effluent to the affected area of the spray irrigation field is immediately terminated, and adequate time is allowed before resumption of the application of effluent to that area for the area to dry to a degree that would preclude immediate recurrence of ponding or run-off.

3.3 The Owner should ensure that no effluent application to the spray irrigation fields takes place during rainfall, when the ground is saturated, and when the wind velocity exceeds 15km/hr.

If staff operating the Spray fields had obeyed the conditions as required and reported spills when they went into surrounding properties and road ditches, there would have been many less than the number of days you used to calculate the operation of the spray fields (If you need more pictures or videos to support this statement, please ask).

Until the overflow of effluent is addressed these fields will always be in breach of rules 3.1, 3.2 and 3.3 of the C of A.

Thank you for your time
Please comment
Mark Wainman
(705)321-4140

From: [Jamie Wainnan](#)
To: [Suzanne Troxler](#)
Subject: Bayshore Spray Fields
Sent: 5/20/2024 6:50:38 PM

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Hello Suzanne,

I am writing to you today to voice my displeasure with the Bayshore Spray fields. I live on a property that borders one of the spray fields and have seen first hand the damage they are causing. The constant overspray and broken pipes results in our property being flooded from 4 different sides. It is very concerning to me, when I am unable to walk through our fields, due to the large amounts of ponding effluent coming from the Spray fields. It makes parts of our property and field completely unusable for farming purposes. I am extremely concerned about the safety of our well. The Bayshore Spray fields do not operate safely and I fear they have created irreversible damage to our property.

Thank you for your time,

Jamie Wainman

May 21, 2024

Delivered by hand to the Township of Ramara

Josh Kavanagh
Township of Ramara
Director of Infrastructure
705-484-5374 ext. 290
jkavanagh@ramara.ca

Suzanne Troxler, P. Eng.
Tatham Engineering
Senior Engineer
705-444-2565 ext. 2089
stroxler@tathameng.com

Re: Bayshore Village Effluent Spray Irrigation System
Municipal Class Environmental Assessment Update

In the year 2023 the treatment cell B (small lagoon) was by passed for a period of time at least from April 5th-June 22nd, meaning if correct that untreated sewage was pumped directly into cell A (large lagoon) which was then pumped directly out to the spray fields. In March of 2024 Cell B was also directly by passed again to Cell A. Recently a large pump is being used to pump from Cell B to Cell A. Could you please explain this process and which method if any is correct?

Neil Wainman
2182 Concession Rd 9,
Ramara, ON, L0K 1B0
(705)345-5604





**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE - MAY 22, 2024

COMMENT SHEET

NAME: Jamie Wainman

ORGANIZATION: _____

ADDRESS: 3628 Concession Rd 8, Ramara

EMAIL: _____

DATE: May 25, 2024

Do you wish to be added to the project mailing list? You will be notified when the study report is available for review.

Yes

No

Please note your comments, questions, or suggestions

I live on a property that borders the North field. The overspray constantly floods our property. I have seen broken pipes spraying up in the air and go unfixed for days on end. I have seen lawn mower stuck that required a backhoe to assist. These are just a few of the concerning ~~the~~ things I witness from my backyard. I do support option 8, however I cannot stress enough that additional action must be taken in the mean time to address the concerns with the current spray irrigation system.



**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION SYSTEM
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT UPDATE**

PUBLIC INFORMATION CENTRE - MAY 22, 2024

COMMENT SHEET

NAME: Mark Wainman

ORGANIZATION: Self

ADDRESS: 3638 Concession Rd 8, Ramara, ON

EMAIL: mhwainman@gmail.com

DATE: May 25/24

Do you wish to be added to the project mailing list? You will be notified when the study report is available for review.

Yes

No

Please note your comments, questions, or suggestions

I thought the staff did a good job with the ~~set~~^{set} up of the PIC. The engineer in charge was present as were most of council to listen to the presentation. I was disappointed to see spray irrigation still presented as an option, it wasn't the preferred option but it being listed as viable shows a total disregard for all the problems that the system has experienced the past 30 years. I felt during the question period many of the answers given by staff or Township engineers were either weak or inaccurate. In particular, their answers to treatment, bypass, prospects of future trucking of effluent, were very vague. I will seek further clarification by email.

From: [Mark Wainman](#)
To: [Josh Kavanagh](#)
Cc: [Dyana Marks](#); [Suzanne Troxler](#);
Subject: Fwd: Bayshore Spray Fields
Sent: 5/26/2024 7:51:17 PM

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----- Forwarded message -----

From: Mark Wainman <mhgwainman@gmail.com>
Date: Sun, Feb 11, 2024 at 10:26 PM
Subject: Bayshore Spray Fields
To: <stroxler@tathameng.com>
Cc: <info@tathameng.com>

Hello Ms. Troxler:

I am sending this email to you regarding Tatham Engineering's (formerly C.C. Tatham & Associates) work on the Bayshore Village spray fields.5

Please review a letter I sent to the CAO of Ramara. If you take the time to review the pictures and videos along with the matchings captions in the letter, I think you will have a better idea of how this a totally inefficient system and is only operating by dumping on other peoples property. A site visit when they are spraying could confirm this a lot better than sitting at a desk.

I attended a meeting on March 25, 2011 with my brother and my neighbour. The purpose of the meeting was to address a constant overspray of effluent onto our properties.

I said at this time, that the effluent was often controlled by siphoning out of the lagoons over the side onto other people's private property. This was denied at the time by Mr. Stephen and since I had no proof, it was written in your reports that there had never been any spills. Since this meeting we have taken videos and pictures of such actions. I have a video from July 2013 of a pump pumping effluent over the side.

At this same meeting Mr. Bates suggested ditching be reviewed in this area. The only ditching done to alleviate the flooding was a big ditch was dug along an unused road allowance with its sole purpose to run over-sprayed effluent away from the road ditch. To understand the volume of over-sprayed effluent please look at Video 1 from 2012.

The area that this ditch drains has not been used since OCWA took over the operations. In 2022, 137,000 cubic metres was sprayed on a much smaller land area forcing flooding in other areas such as my backyard.

It was also determined at this meeting that the small lagoon was never relined with imported clay but in many later reports you refer to both lagoons being clayed lined. This is misleading.

You have also said that "the effluent looks like water and feels like water". This is also very misleading.

This is No. 1 treated sewage with no ultraviolet light or chemical treatment. A grab sample taken off the top of the lagoon will not test the same as what is pumped off the bottom of the lagoon and churned through a rotating screen then shot up in the air out of sprinklers. I have results from Aquatic and Environmental Laboratory taken August 29, 2023 that says it has a coliform count of 192 and an E-coli count of 88, which is available on request.

At one of the meetings held in Ramara Chambers many years ago, I asked Mr. Readman, yourself and Mr. Collingwood why you didn't go back into the Chamber after the meeting break and admit to the people how bad the situation was. Mr. Readman replied to me that if that was done, the MOE would force them to truck all the effluent somewhere to be treated.

The operators have changed several times since then, but as I sit here in 2024 they are trucking effluent to the Lagoon City sewage treatment plant. It is not the operators that are the problem, it is the system and the people above the operators that try to justify this as an efficient working system. There is no way anyone can operate it without most of the over-spray effluent coming onto my property, or my neighbors, and going down the creek to the lake.

The most important point I would like to make is the acreage used to generate the rate of application is very wrong and must be corrected. For many years the spray fields have been defined as 26 ha even though at least two distinct sections have not been used in years. There are also more than 30 sprinklers behind my house that were not in use when the MOE visited in October 2023. Using google earth at the end of last year, I estimated approximately 16 ha was being used. If anyone disagrees, I will gladly walk around and do an accurate measurement. I did notice that you estimated 25 ha total in a recent presentation (Dec 11, 2023). This is not even close to accurate and the shaded area in the picture (Alternative 3 of your presentation to Council on Dec 11, 2023) even shows it spraying on the travelled road. Over estimation of acreage alone makes every report since 1996 inaccurate. AGAIN misleading.

When my father built this house in 1989, he had a proper well drilled and the water tested clean and free from coliform and e-coli. As soon as spraying started in 1994 he had to install a UV light for household water use. Over the years the well has tested clean during the seven months that effluent is not sprayed. Yet during the five months when effluent is being sprayed, I have water tests that show anything from contaminated to overgrown. I know nothing else that can explain this other than Bayshore's shit.

I for many years felt safe using this water as long as we were diligent in maintaining the UV light. I have been advised by the people that installed my light that it only works to remove the coliform and e-coli. It will not remove whatever kinds of pharmaceutical cocktails that are being flushed into the sewer system in Bayshore Village. Besides that, my outside taps do not go through the UV light making that water unusable. I feel that 30 years of misuse and deliberate circumvention of operating procedures at the north field have made it completely unusable and not at all safe to use anymore.

I have many more complaints, but for now, I must insist that my property not be used as a dumping ground for Bayshore No. 1 treated effluent. I insist that the north field not be used in 2024 and beyond.

Mark Wainman
3628 Concession Road 8
Ramara, ON. L3V 0M4
(705)321-4140

From: [Mark Wainman](#)
To: [Josh Kavanagh](#)
Cc: [Dyana Marks](#); [Suzanne Troxler](#);
Subject: Fwd: Bayshore Spray Fields
Sent: 5/26/2024 7:53:14 PM

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3 of 8

----- Forwarded message -----

From: **Mark Wainman** <mhgwainman@gmail.com>
Date: Sun, May 5, 2024 at 9:37 PM
Subject: Fwd: Bayshore Spray Fields
To: <stroxler@tathameng.com>

Hello Suzanne,

I understand your firm has been doing some work on air quality and wind drift of aerosoles in regards to the spray fields. I am beginning to question whether I should plant a garden or eat produce grown in the backyard. I am also concerned about the clothes line near the line fence.

The attached video from June 2023 is further back in the North field. However, I do believe it is useful if you watch it until the end. It is useful to see OCWA spraying on a windy day. The droplets are being blown over the fence in a bucket to collect. I would be interested to know if my backyard is safe. Please reply. If this is not under your study then I apologize but please let me know who to contact.

Thanks
Mark Wainman
(705)321-4140



PXL_20230608_155250884.mp4

From: [Mark Wainman](#)
To: [Josh Kavanagh](#)
Cc: [Dyana Marks](#); [Suzanne Troxler](#);
Subject: Fwd: Bayshore Spray Fields
Sent: 5/26/2024 7:56:41 PM

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4 of 8

----- Forwarded message -----

From: **Suzanne Troxler** <stroxler@tathameng.com>
Date: Mon, May 6, 2024 at 12:14 PM
Subject: RE: Bayshore Spray Fields
To: Mark Wainman <mhgwainman@gmail.com>
Cc: Dyana Marks <DMarks@ramara.ca>, Josh Kavanagh <JKavanagh@ramara.ca>, Brad Laking <blaking@tathameng.com>

Mark,

We did air quality modelling for the Bayshore Village spray fields. The results are that under existing conditions, the spray irrigation operation's modelled emissions for ammonia, hydrogen sulphide and suspended solids are all below the MECP criteria at the property limits. The model considered a worst-case scenario in terms of proportion of sprayed treated effluent that goes into the air vs to the ground.

As you know, the treated effluent is not disinfected before spray irrigation, so although the bacterial content is significantly reduced in the lagoons, there remains bacteria in the effluent, and therefore could be in the aerosols from spraying. Washing your vegetables before eating them would be the safe thing to do.

Hope this helps.

Suzanne



Suzanne Troxler P.Eng.
Senior Engineer

stroxler@tathameng.com T 705-444-2565 x2089 C 705-888-0898
115 Sandford Fleming Drive, Suite 200, Collingwood, Ontario L9Y 5A6

tathameng.com A row of small, light-colored icons for social media platforms including LinkedIn, Facebook, and Twitter.



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[PXL_20230608_155250884.mp4](#)

From: [Mark Wainman](#)
To: [Josh Kavanagh](#)
Cc: [Dyana Marks](#); [Suzanne Troxler](#);
Subject: Fwd: Bayshore Spray Fields
Sent: 5/26/2024 7:58:20 PM

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5 of 8

----- Forwarded message -----

From: **Mark Wainman** <mhwainman@gmail.com>
Date: Sun, May 19, 2024 at 11:10 PM
Subject: Bayshore Spray Fields
To: <stroxler@tathameng.com>
Cc: Zach Drinkwalter <ZDrinkwalter@ramara.ca>, Josh Kavanagh <jkavanagh@ramara.ca>, Dyana Marks <DMarks@ramara.ca>, Basil Clarke <bclarke@ramara.ca>, <kbell@ramara.ca>, Dana Tuju <DTuju@ramara.ca>, David Snutch <DSnutch@ramara.ca>, <jfisher@ramara.ca>, <sbell@ramara.ca>, <jgough@ramara.ca>

Hello Suzanne,

I have sat silently through many meetings on BAyshore Spray fields. There has been endless discussion on the spray rate of 55 meters cubed a day. Most reports you read are calculated down to 2 decimal points for rate of application, but if you are using the wrong acreage these are not accurate.

Much more talk is centered about the number of spray days available to dispose of effluent, anything from 65-100. Anything from bad luck to climate change has been blamed for an inability to empty the contents of the lagoon. I do understand some exceptions from the rate of application that has been granted by the MECP. There has never been an exception from 3.1, 3.2 and 3.3 of the 1996 C of A.

3.1 The Owner should ensure that the application of effluent to individual irrigation sites within the approved spray irrigation field(s) and rotation of the irrigation sites is carried out in a manner that maximizes evapotranspiration and allows the soil to dry out periodically.

3.2 The Owner should ensure that whenever ponding or run-off if sprayed effluent occurs, the application of effluent to the affected area of the spray irrigation field is immediately terminated, and adequate time is allowed before resumption of the application of effluent to that area for the area to dry to a degree that would preclude immediate recurrence of ponding or run-off.

3.3 The Owner should ensure that no effluent application to the spray irrigation fields takes place during rainfall, when the ground is saturated, and when the wind velocity exceeds 15km/hr.

If staff operating the Spray fields had obeyed the conditions as required and reported spills when they went into surrounding properties and road ditches, there would have been many less than the number of days you used to calculate the operation of the spray fields (If you need more pictures or videos to support this statement, please ask).

Until the overflow of effluent is addressed these fields will always be in breach of rules 3.1, 3.2 and 3.3 of the C of A.

Thank you for your time
Please comment
Mark Wainman
(705)321-4140

From: [Mark Wainman](#)
To: [Josh Kavanagh](#)
Cc: [Dyana Marks](#); [Suzanne Troxler](#);
Subject: Fwd: Bayshore Spray Fields
Sent: 5/26/2024 8:01:32 PM

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6 of 8

----- Forwarded message -----

From: **Nick Leroux** <NLeroux@ocwa.com>
Date: Fri, Apr 21, 2023 at 8:15 AM
Subject: Bayshore Spray Fields
To: mhgwainman@gmail.com <mhgwainman@gmail.com>
Cc: Josh Kavanagh <JKavanagh@ramara.ca>, Dyana Marks <DMarks@ramara.ca>, Wesley Henneberry <WHenneberry@ocwa.com>, Christine Craig <CCraig@ocwa.com>, Ellen Campbell <ECampbell@ocwa.com>

Hey Mark,

I was forwarded the below message regarding the Annual Bayshore Spray Irrigation Report. I understand your concern regarding that statement as under normal circumstances the effluent would have exceeded the C of A requirements, as it did for some years previous. The Bayshore Spray Irrigation site was granted regulatory relief by the MECP for the 2022 Spray season with regards to the effluent application rate. Further on in the report where it speaks to the effluent application it does specifically state that the regular application rate noted in the C of A was exceeded. See below for that section.

A total effluent volume of 137,325 m³ was applied to the spray fields. The average effluent application rate for the reporting period was:

- 51.02 m³/ha/day on the 14 ha utilized for 10 days
- 86.32 m³/ha/day on 26 ha utilized for 58 days*
- 77.67 m³/ha/day on 26 ha utilized for the total 68 days*

*These values exceed the Certificate of Approval limit of 55 m³/ha/day, although relief was given from Conditions 1.2 and 1.3 during the 2022 spray season. See Appendix I: EPB Letter for Bayshore Village Sewage Works.

I agree that these reports are very important as they are indeed used to make important decisions. The township and local residents are very aware of the ongoing effluent disposal issues at the Bayshore Village spray fields and OCWA continues to work diligently with the Township to resolve these issues.

Thanks,

Nick Leroux

Senior Operations Manager

OCWA Kawartha Lakes West Cluster

From: [Mark Wainman](#)
To: [Josh Kavanagh](#)
Cc: [Dyana Marks](#); [Suzanne Troxler](#);
Subject: Fwd: Bayshore Spray Irrigation
Sent: 5/26/2024 8:05:53 PM

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8 of 8

Bayshore Spray Fields



Mark Wainman <mhwainman@gmail.com>

to [zdrinkwater](#), [Josh](#), [Dyana](#), [bclarke](#), [kbell](#), [David](#), [jfisher](#), [dana.tuju](#), [sbell@ramara.ca](#) 

Dec 5, 2023,
6:37 AM



Good morning Zack,

I am writing this email as a follow up to an email sent in the spring. I have seen over many years how the spray irrigation does not work. The scale of effluent involved in this is way bigger than most approved spray irrigation sites. It is only class 1 treatment and many years such as 2023, the little lagoon was bypassed for a period of time in the spring when it is too full. The spray irrigation can only be done seasonally when the weather is good. This puts too much pressure on the aging lagoons. All reports that I have seen written since 1996 say that the south field effluent is sprayed on 13.6 ha involving 146 sprinklers. The north field is 10 ha and 148 sprinklers. Due to failures and community complaints, the area sprayed on and the number of sprinklers involved is way less. The system was originally designed to have 4 different application rates as defined by hydrogeological testing. From meeting 2011 we and Mr. Newlands complained about how much overspray effluent was escaping the north and south fields to flood our and surrounding properties. To my surprise it was discussed that there should be a review of drainage in the area, no mention of a real solution to the overspray of effluent. The only ditching that was done a result of this meeting was a large deepening of an old ditch along an abandoned road allowance on sideroad 20. The only purpose it served was to dispose of overspray effluent from the south field, see video 1 to get a concept of the volume. I believe this is in direct violation of the C of A section 1.5. this ditch has not been used as much recently as some of the spray areas are not utilized. My goal in showing old video is to show the volume of over sprayed effluent. It is only showing the volume that goes off one area while at the same time there was a large amount going to the south ditch, that can be heard running but hard to capture on video because of the cat tails.

Now to the present and how it affects my property. I have included videos and pictures from 2022 and 2023. Even though OCWA 2022 report says; "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."

I have found my property flooded from 4 sides.

This is caused from overspray and broken pipes not repaired some for months at a time. Included videos to show proof. On May 16, 2023 I held a site visit to my property that was attended by councillor Hetherington and Fisher, Zack Drinkwater, Josh Cavanaugh, Nick Leroux, Dyana Marks, Jim and June Newlands and myself. We used this opportunity to air some of our complaints, at this time I felt I clearly showed everyone attending with pictures and videos where my property was being flooded from. They started spraying May 26 and did not repair any of the leaks I had clearly pointed out, they continued to spray May 27-29th at which time I phoned Dyana and complained about their work. They came out and repaired one pipe and shut one off. on May 31st the pipe by the bush was gushing 20ft in the air again so I phoned josh about that and another leak I had found. The point I am trying to make here is inspection should have been done especially when I pointed out problems, it was started up run for 4 days with major leaks, not repaired from the year before. THIS IS NOT MY JOB, you can see how much effort has to be put into it in just one week. On oct 2nd I had another site visit from Dana Tuju and Josh. We showed Josh exactly where pipe was broke and gushing for 3 straight days. I could see this from my deck. We discovered many holes drilled in main pipe and suspected leaky connections. On oct 4th OCWA started spraying without any repairs, I phoned Dyana Marks asking for someone come out and repair, they shut the one line off, but I don't believe any repairs were made to holes drilled in main pipe. Many workers drive by these holes shooting effluent 20 feet into the trees but choose to ignore these and many other leaks.

I hear from many different sources that this is the first they have heard of any of these problems. I know for many years my complaints were just verbal and fell on deaf ears. But our complaints in regard to the meeting held on mar 25, 2011 in relations to class e a assessment are well documented and available on your website. However, I do not feel our concerns regarding overspray of effluent which in turn floods our property were never addressed. Since flooding of effluent has occurred every year since 1994, I must insist that the pipe across the creek to the north field not be installed in 2024. I have been promised many improvements over the years, but this situation just gets worse.

I am completely exhausted by the constant battle to have my opinion valued. So, I must insist that no section of the north field be used for spray irrigation in 2024 because there is no control of over sprayed effluent.

Video Number 1 - June 10, 2012

Depicts effluent that was over sprayed in the south spray field. Just trying to visualise the volume of over sprayed effluent.

Video Number 2 - Aug 2, 2020

Shows volume flowing to road ditch after rain event. They sprayed most of the day even though thunderstorm was predicted. They often rush to spray before forecasted rain events. Something like this is the result.

Video Number 3 – Aug 8, 2020

Shows volume of effluent entering ditch on a dry day when they sprayed.

Picture Number 4 – Aug 10, 2022

Shows ditch south of my house. The week before we received 1.5 inches of rain in 2 different rain events. But in that week, they only sprayed 1-2 hours on Aug 7th.

Video Number 5 – Aug 16, 2022 5:36pm

Shows same section of ditch directly south on my house but have been spraying for 7 straight days. There has been no rain in between, but it did rain .5 inch after this video. However they sprayed on Aug 17th and 18th.

Picture Number 6 – Oct 4, 2022

Shows damage to alfalfa field west of my house. This is overpowering a systematically tile drained field and is being taken by the road ditch to result in the previous picture. The effluent flows freely from under the fence of the spray field in the north west part. This flooding has occurred every day since July 20th. I showed similar pictures on May 16th 2023 site visit and pointed over the fence to the area in question but yet spraying was started up in 2023 and run for 4 days flooding like the 2022 year until I complained.

Picture number 7 – July 22, 2022

Picture shows broken pipe shooting effluent 10-15 feet in the air. This was not repaired until July 26th even though you could clearly see this driving east on Concession Road 8. There were similar leaks in behind the bush not repaired all year.

Picture 8A – Sept 17, 2023 9:19am

Along fence at my bush lot directly east of my house.

Video 8B – Sept 17, 2023 12:43pm

Same spot after spraying all morning.

Video Number 9 – Sept 30, 2023 3:10pm

Shows the same path ending with 4 inches of effluent at the edge of my lawn. This result after 18 sprinklers closest to the area have been disconnected or turned off. Zack this is the same area you walked May 16th in your dress shoes. It has not rained for a week to 10 days but they have sprayed effluent for 5 days and continued to spray for 2 more until they had a pipe bust at the creek on Oct 2nd.

Picture 10A – Sept 27, 2023 7:12am

A little further down the trail to the east before the easement.

Picture 10B – Sept 27, 2023 4:47pm

After spraying effluent all day.

Picture number 11 – Sept 29, 2023 2:58pm

Shows spraying going into ponding but also notice no sprinklers are on closer to the bush where previous pictures showed flooded areas.

Picture Number 12 – Sept 29, 2023 2:59

This area directly north of our property looks flooded and saturated even though no sprinklers in this area have been utilized.

I fear from what I had seen in many years previous that because an extension was granted that whatever amount of effluent needed to be drawn out of the lagoons for the winter period would be dumped on me in October. So, I phoned the MEO Barrie office on Sept 28th.















To summarize I only concentrated pictures 4-12 on the area around my house. This was not the only place where effluent overflowed onto my property (have many more pictures if required). I do appreciate your consideration of the pictures I have sent, many of which I believe could be defined as spills.

In closing Mr. Drinkwater, I feel bad about you and your staff having to deal with a problem that was created many years ago. Over the last couple of years, I reviewed many reports and been to many meetings where it says these spray fields are operated properly within the C of A from 1996. I don't believe this to be true so how can proper decisions be made from this.

Thank you for your consideration

Mark Wainman

(705)321-4140

 1-June 10-2012.3gp
 2-Aug 2-2020.MOV
 3-Aug 8-2020.MOV
 4-Aug 10-2022.jpg
 5-Aug 16-2022.mp4
 6-Oct 4-2022.jpg
 7-July 22-2022.jpg
 8a-Sep 17-2022 morning.jpg
 8b-Sep 17-2023 afternoon.mp4
 9-Sep 30-2023.mp4
 10a-Sep 27-2023 morning.jpg
 10b-Sep 27-2023 afternoon.mp4
 11-Sep 29-2023-1.JPG
 12-Sep 29-2023-2.JPG

Ms. Troxler,

June 1, 2024

In response to your PIC of May 22, 2024, these are our further comments. On May 11, 2023 we submitted a five page letter to you, outlining our issues about the spray fields, asking you to respond to them in your presentation. We were of course extremely disappointed our concerns were not addressed during your presentation, but you did advise us beforehand that you had received our correspondence and could not discount it. This was all new information to you and there was a lot of it to consider, so you ignored it and proceeded to endorse your recommendations as planned. We chose not to speak at the PIC for several reasons. The anger we are feeling towards your lack of consideration of our concerns would not be well contained which would only derail the meeting and destroy any good will we have nurtured with the audience. Our neighbours did speak briefly before choosing to walk away with their frustration visible to all in attendance. We likely wouldn't display the same courtesy, so we chose not to speak and let the others have their say. But don't take our silence on this matter in any way as an endorsement of your proposal.

Page three refers to treated effluent, completely ignoring the bypasses that occur regularly. The OCWA report outlines the steps taken to direct raw human waste straight into the large lagoon while it is being sprayed onto the saturated fields with predictable runoff onto our properties then into the creek before reaching Lake Simcoe. The lady from Val Harbour specifically asked about this pollution because her children like to swim and play in the creek. She was told it was partially treated. How can that be? Raw sewage coming in and going out simultaneously. Exactly what is your definition of treated. What is removed and more importantly, what remains for those kids to be swimming in?

Page 3 says the soils appear to be compacted. Have you ever done a site visit? The soils ARE compacted and cannot absorb the quantity of fluids you suggest. That's why 55m³, which we agree is a very small amount, cannot be absorbed the way you think. You have constantly predicted the soils would become more and more compacted over time if they were not rejuvenated. The over spraying and driving heavy equipment on the wet soil has compacted the clay so much, it is not physically capable of absorbing any more. The 55m³ may have been a viable rate 30 years ago when the land was still fresh and could absorb more moisture. Now after years of continued abuse it cannot. It needs to be worked to break up the compaction and rested. In its present condition coupled with the chronic over spraying, the effluent can only run off, onto our property and into Lake Simcoe. OCWA over states the land being used to spray on which skews the calculations to fix the application rates which are already too high for the capacity of the soil. You are invited to tour the sites which you are recommending for spray irrigation to see first hand. It is the only way you can possibly make an informed opinion. Otherwise, it's just a guess. The runoff is not occasional and the impacts on us and others are not potential. They are constant and very real.

Page four lists six considerations deemed NEEDS for a preferred solution. Not wants. Not nice to haves. Two of those needs refer to costs; capital and operation & maintenance. One need is to eliminate runoff into ditches and Wainman Creek. We notice our property has been left out suggesting runoff onto us is acceptable. Always nice to know where we stand on the list of priorities.

Page 7 considers the reasoning for screening out some of the alternatives. One option was dropped for lack of capacity. Why was it ever included for consideration in the first place if it wasn't a viable alternative? It was always a throw-away. Just a place holder. Two options were not considered due to cost. Money is always a consideration, as it should be. But is it more important than health? More

important than the environment? More important than our property, but we already knew that. The last reason for dropping an option was MECP. Do you really think MECP will approve your spray fields as designed given their disastrous thirty year history. Will there not be setbacks as per their very own recommendations. Substandard soils, provincially significant wetlands, proximity to Lake Simcoe? How do you expect to convince MECP, particularly since they are now fully aware and are frequently on site due to the incompetence and mismanagement that was found during a surprise inspection after our complaints. Surely you can't expect to continue to operate under an outdated Certificate of Approval from 1996. Times have changed and regulations with them. The current operating procedures do not meet the modern standards for Environmental Compliance Approval. People expect and demand a higher standard to protect our environment and your proposal falls far short.

Page 8. Do nothing. Really? Is that even an option? Do we need to speak to that?

Page 9. Add more land and keep spraying. We have already provided information regarding the acreage used for the spray fields, proving your calculations are faulty. These should have been adjusted in your presentation to provide an accurate estimate of the costs involved. Page 2 describes the North Field as 10ha in area. Pages 8 and 9 list 11.4ha. That is certainly one way to balance your calculations. Just make up numbers. The South Field is stated as 13.6ha and includes the paved portion of Sideroad 20 for a total of 25ha. OCWA has consistently reported the North and South Fields combined as 26ha. Does anybody know how much land is available? We do. It took 5 minutes to measure the area used in 2023 using publicly available information at Simcoe County interactive maps. This information was provided to you in our email of May 11, 2023. You could have and should have included it in your presentation, because it is the starting point of all your calculations. The Township Council has directed staff to survey the two fields to determine the exact acreage in use and available for use. That report will be presented to Council on June 3, 2024. It claims 10.068ha in the North field were sprayed on during the 2023 season. It includes an area of approximately 0.3ha at the extreme north boundary of the North field that doesn't have any pipes laid out and hasn't had for years. It simply was not used last year and we can not explain why the staff report would include it when it is very easily proven false. Our letter to you on May 11, 2024 included our estimate of the same field which totalled 10.11ha. The additional 0.3ha is available for use in the future but it was not used in the past and should not be part of the 2023 calculations. The staff report goes on to say the South field used 10.466ha to spray on during 2023. Absolutely did not happen. Their measurement extends right to the edge of the paved portions of Con 8 and SR 20, deviating only around the berm they installed to create a traffic hazard. There are no pipes that close to the edge of the road and never were. Our calculations of the South field were 8.76ha based on the easily identifiable pipes on the ground and the obvious discolouration of the vegetation. We stand by our figures. These can easily be verified by anyone in the world with a computer. You should make your own calculations and judge for yourself. Simcoe County interactive maps. The additional 3.71ha the staff report identifies to be added to the 2024 spray season are also incorrect, unless they intend to spray into the ditches along both sides of SR 20, as the diagram suggests. Be curious to see how they fit a circular spray pattern from the nozzles into those sharp corners of the fields. You should take your own measurements of the practical land available for use to calculate your spray field proposals. These numbers are completely unreliable. A site visit easily debunks these patently false figures. This report is a shameful attempt to perpetuate the false narrative surrounding these spray field since their inception. Your alternative 3 proposal can not be sufficient to dispose of the annual volume in 65 days, because you don't have the land or the days you think you have. The staff report records only two years of the last 7

where more than 65 days were used. The 7 year average is 55 days. Many of them include extensions for the time frame and all of them include exemptions to the volume. You have glossed over the potential haulage costs, which will almost certainly be required for the next 20 years. It will never be less than the bargain price of \$700,000 last year. It's already 14 per cent higher due to the carbon tax, and only going to climb. Easily costing 1 million and more for the next 20 years. Estimate 2 wet years in the next 20 and we very quickly approach that magic cost that triggers a 'screen out.' Add equipment replacement and field rejuvenation and this game is over. This option only 'reduces' the other needs such as runoff, surface water, aesthetics and aerosols when the main considerations clearly 'needs' to eliminate them. Do you think MECP will be OK with reducing the potential when other options eliminate them? And you can be confident this does not address our concerns. If this was even a real consideration on your part, this option would not be on the list. Really makes us question your commitment to resolving our concerns.

Pages 10 and 11 are more of the same. Numbers are too low. Concerns are not eliminated, only reduced. A similar spray field option requiring piping to our sister's property on the next concession was ruled out at 11 million. Why are we still considering this one at 11.3?

Page 12. Finally, something we can all live with. An option we suggested in 2011.

We propose a couple other options just for arguments sake. Individual septic beds. Why weren't septic beds suggested? They meet every one of the main considerations listed on page 4 with the added bonus of zero cost to the Township. Everybody looks after their own and they control their own costs. If they want to discharge their sumps into their own septic, then they pay for it rather than everyone paying trucking to Lagoon City. The second option is port-a-potties. Outhouses are an approved class one sewage disposal system not requiring MECP approval. Don't even need a permit from the Township and they meet all the needs of the main considerations. Why did you propose a system that has caused us unmeasurable grief and can't ever possibly meet your own criteria and totally ignore two valid alternatives which are proven methods used for centuries? Don't bother answering, we know why. Yes these are stupid suggestions, but still better than your spray field options.

Page 16 indicates the Township has committed to operate the spray fields in strict compliance with the Certificate of Approval. What a sad statement. After 40 years of violating every meaningful requirement and under reporting, misrepresenting and denying the facts, why now the sudden epiphany? We have been asking the Township to abide by the rules for over a decade and just now they decided to. Every promise ever made has been broken and here is another. The cynics in us just want to scream. Don't tell us what we want to hear; show us.

On May 31, 2024 the south spray field was operating. The Weather Network indicated wind speed of 16kmh gusting to 30kmh. There was 37mm of rain earlier that week, leaving the soil still wet. The strict compliance promise from the Township lasted 9 days.

The Township is paying a considerable sum for your opinion and advice to resolve this very important issue. If this report is not part of the Bayfield Sewage solution, it is part of the problem. Your reputation and credentials as a professional engineer are at stake here. Are you willing to continue endorsing spray fields given the preponderance of damning evidence to the contrary? Potential risk to the good name of Tatham Engineering?

We are taking this strong approach to your suggestions because we are fighting for our health and the well being of our farm. Our heritage and our legacy are at stake. This is the most important thing we have to do in our lives right now. We have too much to lose to turn back now. These spray fields are poisoning our property, our water and our air. We have been here for four generations. We are not going away. Our son was the last speaker at your presentation. We were not aware he was going to speak or what he was going to say. We have always wanted his memories of growing up on the farm to be positive, after all the farm has been instrumental in creating the man he has become. He truly was born to farm. Cutting hay and raising his own cattle on the same land that his great-grandfather did molds the way a person sees the world. When he described the headaches he would get as a young boy from the spray fields you are continuing to endorse, a chord was struck with the audience and we appreciate the support. Not one person there spoke to support your spray field proposal. We hope to one day introduce the fifth generation to the joy and pride of farming the same family land. We will do everything we can to ensure he or she can do it without headaches from the stench of nearby effluent.

From: [Jim & June Newlands](#)
To: [Suzanne Troxler](#)
Cc: [Mark Wainman](#); [Dyana Marks](#); [zdrinkwalter@ramara.ca](#); [jkavanagh@ramara.ca](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [David Snutch](#); [Dana Tuju](#); [jfisher@ramara.ca](#); [sbell@ramara.ca](#); [Joe Gough](#); [Ahmed, Aziz \(MECP\)](#); [Hyde, Chris \(MECP\)](#); [Munce, Carly \(MECP\)](#); [sheri.broeckel@ontario.ca](#);
Subject: Staff Report ID-24-25 comments
Attachments: [Staff Report ID-25-24. page 2..pdf](#); [North Spray Field 2023. 21.62m spray circle..pdf](#); [Troxler calculations.pdf](#); [North Spray Field 2023. 20.46m spray circle..pdf](#); [North Spray Field 2022. 21.8m spray circle.pdf](#);
Sent: 6/3/2024 1:53:23 AM

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Suzanne

In response to Staff Report ID 24-25, attached are our thoughts on the calculations on the area in the spray fields.

We would appreciate your opinion on this matter.

Thank you
Jim and June Newlands

Ms. Troxler

Jun 2, 2024

Just before the PIC meeting of May 22, 2024, you took a few moments to speak to us. One of the things you said was the effluent spray was a very small amount – 5.5 mm per day. We have given that a lot of thought. You are quite right. It is a very small amount; so why is so much running off?

Here are a couple ideas we would like your opinion on. Firstly, the soil is extremely compacted. We are firmly convinced it can not absorb as much as it should were it not damaged so severely. Secondly, there is too much spray being applied. The staff report ID 25-24 to be presented to Ramara Council on June 3, 2024 confirms as such, using their calculations of 20.534 ha. The Township measured the area of the two fields currently in use to arrive at that figure. That may be the land that is available but that is not the actual area being used. The aerial photos available from Simcoe County interactive maps clearly show the lay-out of the pipes on the ground and the change in colour of the vegetation in the arcs of the spray nozzles. There is a lot of unused ground not being sprayed on. The circles of the spray arcs measure approximately 21.8 metres across. Area of a circle is calculated using $\text{Pi } r^2$.

$$10.9 \text{ m} \times 10.9 \text{ m} = 118.81 \text{ m}^2$$

$$118.81 \text{ m}^2 \times 3.14 = 373.0634 \text{ m}^2 \text{ per spray nozzle.}$$

All the documentation we could find indicates there are 146 spray nozzles in the South field and 148 in the North for a total of 294. If there really are 294 nozzles in use, then the calculations would be as follows. The actual area in use would be reduced by .0373 ha for every nozzle turned off or not installed.

$$294 \times 373.0634 \text{ m}^2 = 109,680.6396 \text{ m}^2$$

$$10.968 \text{ ha}$$

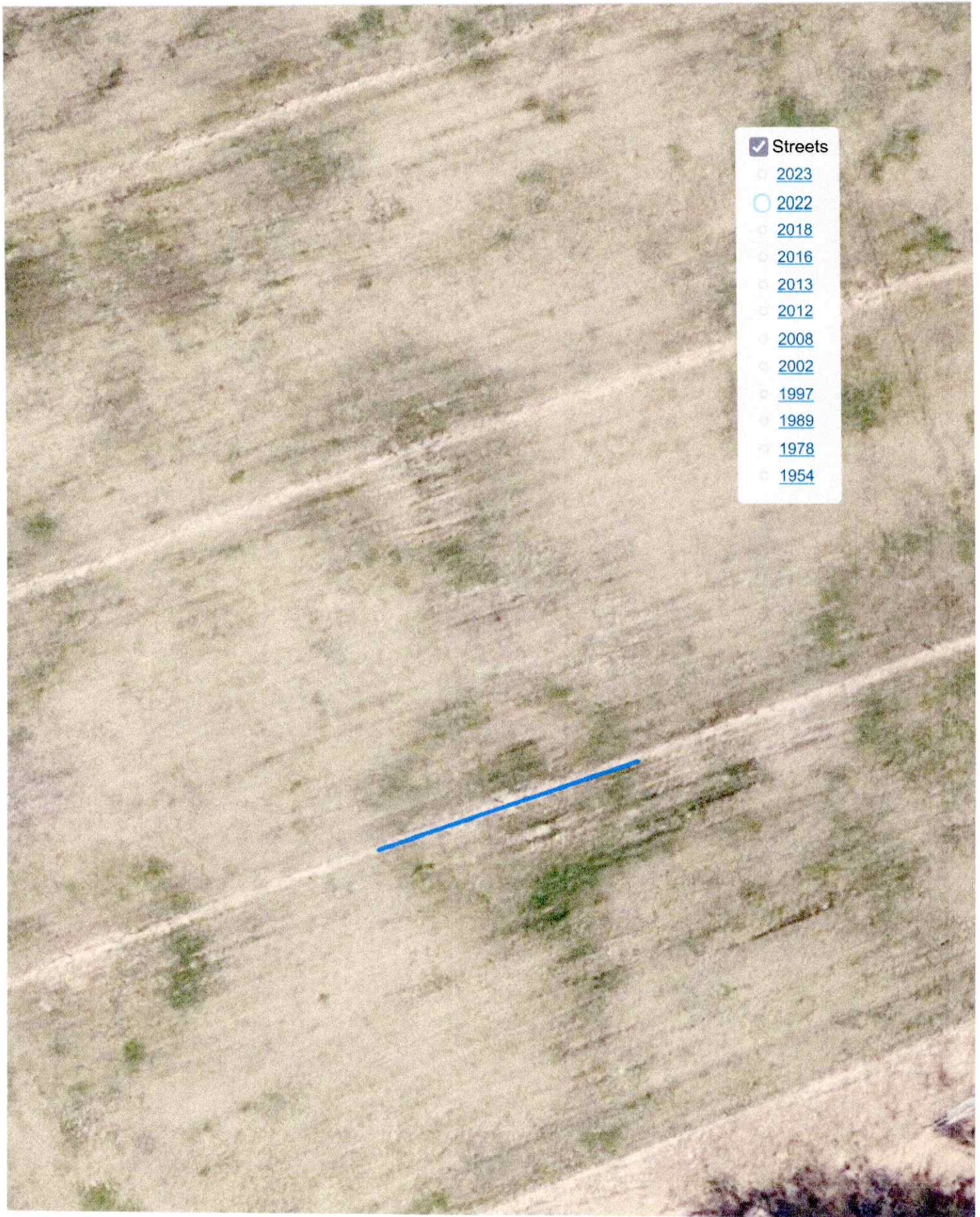
Even though there are 20.534 ha available to spray on, only 10.968 ha is actually receiving all that spray; leaving 9.566 ha getting nothing. Could that account for the extremely excessive runoff we have been experiencing for all these years.

Would adding more nozzles allow for better coverage to maximize the available land, thereby providing better absorption over a larger area? Would that stop the overflow until option 8 is implemented?

The chart on page 2 of Staff Report ID 25-24 already clearly shows the volume of overspray using 20.534 ha as a baseline back to 2020. 26 ha has not been available since SR 20 and Con 8 was renovated by putting the big bend inside the original spray field. Photos from 1978 show the original square cornered gravel road with the spray irrigation piping going to the edge of the corners of the south field. That extra land was lost when the curve was put in and paved sometime after 1985 and has not been available for spray irrigation since. Yet, it has still been used to calculate the effluent application rate. The excessive overspray problem can never be resolved until we can agree on how much land is being used.

2023 was the lowest application rate on the chart. If we use the actual land used for spraying rather than what was available but unused, the new calculation would be 133.172 m³/ha/day rather than the 71 mm reported. 133 mm is not a small amount. Given that OCWA originally claimed 56.18 in their report dated March 28, 2024, it's not hard to see why we are so concerned about the lack of reliable reporting. The years prior to 2023 are even worse.

Jim and June Newlands



- Streets
- 2023
- 2022
- 2018
- 2016
- 2013
- 2012
- 2008
- 2002
- 1997
- 1989
- 1978
- 1954

21.8 m
71.52 ft.

10 m

NORTH FIELD



20.46 m
67.12 ft

NORTH FIELD



21.62 m
70.93 ft.

NORTH FIELD

10 m

Bayshore Spray Irrigation what's sprayed vs what's in the EA to Spray

Once the two sections in the South field are reconnected it will add 3.71 ha bring the total sprayed area up to 24.244 ha.

Below staff recalculated the application rate back to 2020 when the irrigation pipes were changed and the two sections disconnected.

Year	Start	End	Total Effluent Applied	# Days	Application Rate m3/ha/day	Total Flow In Year	Ha
2017	June 7	Sept 28	133,736	47	109	132,829	26
2018	June 4	Sept 27	126,442	41	119	132,841	26
2019	June 17	Sept 10	88,997	44	78	136,671	26
2020	June 25	Nov 19	93,460	55	83	146,785	20.534
2021	May 18	Oct 28	128,966	67	94	135,221	20.534
2022	May 18	Oct 28	137,325	68	98	91,475	20.534
2023	May 18	Nov 6	93,481	64	71	98,817	20.534

Strategic Priority Areas:

Do the recommendations of this report advance the Strategic Priority Areas of the Township?

- Yes
 No
 N/A

Which Priority Area(s) does this report support?

- Workforce that is skilled and motivated
- Community that is involved and engaged
- Operations and services that are defined, prioritized and sustained
- Growth is planned, promoted and fostered

Recommended Action:

That the spray areas be received as information.

Attachments:

- [North Spray Field](#)
- [South Spray Fields](#)

Reviewed By

From: [Jim & June Newlands](#)
To: [Suzanne Troxler](#); [jkavanagh@ramara.ca](#); [Dyana Marks](#);
Cc: [Mark Wainman](#); [Munce, Carly \(MECP\)](#); [sheri.broeckel@ontario.ca](#); [Zach Drinkwalter](#); [Ahmed, Aziz \(MECP\)](#); [Hyde, Chris \(MECP\)](#);
Subject: Fwd: FW: Sewage effluent from Bayshore Village
Sent: 6/5/2024 11:34:01 AM

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Good morning

Below is an email which our veterinarian, Dr Drew Hunnisett, sent to Mark Wainman and us about the health and environmental risks associated with the effluent on our properties from the Bayshore Village spray fields.

We have received veterinary advice in the past on this issue and have made informed and responsible decisions regarding herd and crop management for years. We have been aware of these risks and health hazards and have been forced to take pasture and cropland out of production for the safety of our cattle and ourselves. We have reduced the size of our herd to avoid using contaminated land for pasture purposes because our usable pasture area has been reduced. We have had to buy hay from other farmers to supplement the lost productivity of our own land because the size of our crops is reduced due to the reckless actions of the Township continually depositing hazardous material from the spray fields.

Please include this email in the Bayshore Village Sprayfield Class EA study.

Thank you

Jim and June Newlands

----- Forwarded message -----

From: **Jim Newlands** <4jfarms@orilliapronet.com>
Date: Wed, Jun 5, 2024 at 9:43 AM
Subject: FW: Sewage effluent from Bayshore Village
To: <4Jfarms1996@gmail.com>

From: Central Ontario Veterinary Services <info@centralontariovet.com>
Sent: Wednesday, June 5, 2024 9:17 AM
To: Jim June James John <4jfarms@orilliapronet.com>; mchwainman@gmail.com
Subject: Fwd: Sewage effluent from Bayshore Village

----- Forwarded message -----

From: **Central Ontario Veterinary Services** <info@centralontariovet.com>
Date: Wed, Jun 5, 2024 at 9:11 AM
Subject: Sewage effluent from Bayshore Village
To: Jim Newlands <outlook_C59462562B3E10EA@outlook.com>, <mchwainman@gmail.com>

Dear Mr Newlands and Mr Wainman,

Contamination of agricultural land with untreated or minimally-treated human sewage poses risks to farm livestock, wildlife, humans, the food chain, and the environment. I have serious concerns about the current and planned wastewater spraying system for managing effluent from Bayshore Village in the Township of Ramara. You have documented multiple instances of inadequate treatment, overspray, and spillage onto your agricultural properties.

Bacterial, viral, and protozoan pathogens present in human sewage can infect and cause disease in animals grazing affected land and drinking standing water on affected land. Several serotypes of *Salmonella species*, bacteria which can cause diarrhoea and septicaemia in cattle, are shed into sewage by people with diarrhoea. Likewise, oocysts of *Cryptosporidium parvum*, which causes diarrhoea in calves and people, are shed into sewage by people who are infected with the parasite. These oocysts are resistant to environmental degradation. Human sewage is also the recognised source of eggs of the human tapeworm that causes cysticercosis in cattle. When humans consume undercooked meat containing tapeworm cysts, they develop the adult tapeworm in their digestive tracts.

Many viruses are found in untreated and minimally-treated human sewage. Coronaviruses, including SARS-CoVi 2, the cause of COVID-19 disease, are routinely detected in sewage and can survive for variable periods in the environment. Animals including cats, dogs, deer, and mink have acquired the virus and developed disease following contact with infected humans. Although it is unknown if spread through untreated sewage occurred during the Covid-19 pandemic, it is a risk that should be taken seriously.

Soil-borne bacteria readily exchange genetic material, including genes for antimicrobial resistance, with other bacteria. Antimicrobial resistance develops during treatment of human and animal infections with antibiotics. Both antibiotics and bacteria carrying genes for antimicrobial resistance are found in human sewage. These pose a risk to both animal and human health by increasing the population of bacteria in soil and surface water that are resistant to life-saving antimicrobial drugs.

Human sewage is rich in nutrients such as nitrogen and phosphates, both of which can contaminate surface water and then drain into streams, rivers, and lakes. This drainage is the cause of toxic algal blooms in lakes and ponds. While some of these nutrients are retained in sewage sludge and may be applied to agricultural lands as fertilizer, the flow and spray of untreated or minimally-treated sewage allows nutrients suspended or dissolved in the liquid phase to spread into areas where contamination of surface water is likely, such as the low-lying land of the Wainman and Newlands farms in the Township of Ramara.

In my opinion, leaks of untreated or minimally-treated human sewage and overspray of sewage outside areas designed to prevent run-off pose risks to the health of your herds, to humans, and to the environment.

Yours truly,

Drew E. Hunnisett, DVM



ReplyForward

Add reaction

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Drew E. Hunnisett, DVM

Central Ontario Veterinary Services Professional Corporation

132 Commerce Park Drive, Barrie ON

t. 705-722-3232

e. info@centralontariovet.com

--

Central Ontario Veterinary Services Professional Corporation

132 Commerce Park Drive, Barrie ON

t. 705-722-3232

e. info@centralontariovet.com

From: [Mark & Cathy Wainman](#)
To: [Suzanne Troxler; jkavanagh@ramara.ca](mailto:Suzanne.Troxler@ramara.ca);
Cc: DMarks@ramara.ca
Subject: Notice of Public Information Centre – May 22, 2024
Sent: 6/6/2024 6:50:24 PM

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Re: Bayshore Village Effluent Spray Irrigation System Municipal Class Environmental Assessment Update – Notice of Public Information Centre – May 22, 2024

I am responding to the above-noted Notice of Public Information Centre, issued on the Township's website on May 6, 2024, and request for comments.

At the May 22, 2024 PIC I asked about the bypass of the little lagoon. I did not find the answer satisfactory, could I please get some further clarification? In the attached photo which was taken on March 31, 2024 you can see the white pipe in the large lagoon running effluent out the top. Since then, I have seen a large portable pump, pumping from the small lagoon to the large lagoon. Was the bypass being done incorrectly on March 31, 2024, and in many past years, as well? Specifically, was it done wrong April 5, 2023 – June 22, 2023 when the bypass was reported in incident 1-34ITD3? There appeared to be effluent coming out the white pipe that it was going directly into the large lagoon avoiding the settling lagoon which was plugged. During the past method of bypass was raw sewage being pumped directly into the large lagoon? And why was the method of bypassing changed to include this portable pump from the small lagoon?

Neil Wainman



From: Jim & June Newlands
To: jkavanagh@ramara.ca; Suzanne Troxler;
Mark Wainman; Dyana Marks; sheri.broeckel@ontario.ca; [Munce, Carly \(MECP\)](mailto:Munce, Carly (MECP)); zdrinkwalter@ramara.ca; [Ahmed, Aziz \(MECP\)](mailto:Ahmed, Aziz (MECP));
[Hyde, Chris \(MECP\)](mailto:Hyde, Chris (MECP)); bclarke@ramara.ca; kbell@ramara.ca; Dana Tuju; David Snutch; jfisher@ramara.ca; Joe Gough;
sbell@ramara.ca; jconnor@ramara.ca; Leah Emms;
Subject: Bayshore Village EA Report
Attachments: [North Field 2023 Measurements.pdf](#); [S Troxler - Calculations-June 7, 2024.pdf](#); [South Field 1997 Even spacing.pdf](#); [South Field 2023 Measurements.pdf](#); [North Field 1997.pdf](#); [South Field 1997 Portion Not Used In 2023.pdf](#);
Sent: 6/7/2024 3:04:17 PM

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Good afternoon

Please include these documents in the Bayshore Village Class EA report.
Thank you.
Jim and June Newlands

Further to our letter of June 2, 2024, regarding our calculations of the Bayshore Village Spray Fields, we would like to submit the following information for your response.

On June 3, 2024, Council was presented with Staff Report ID 25-24. Council had requested this report to clarify how much acreage is actually used for spray irrigation. The report states that 20.534 ha is used for effluent application, but these calculations included substantial portions of the fields that haven't any pipes installed and couldn't possibly have received any effluent spray.

During discussions on this report, Council requested clarification of the actual area in use, given that the effluent is applied to a relatively small portion in a circular pattern, totalling 10.968 ha (as explained in our June 2, 2024, email) but the Township has calculated the entire area of the field for effluent application. It was explained to Council that the area of the spray fields which effluent is not applied to is still included in the acreage counted because the effluent would "permeate" from the sprayed circle out to the edges of the fields. It is all measured as allowable spray area and allows for aerosol drift.

The 2017 EA report states that 296 spray nozzles are in use. Staff has confirmed there are less than that, but the exact number is not provided. Comparing our calculations of acreage used to the calculations in Report ID 25-24, there is a 9.566 ha discrepancy. To have the effluent permeate to the unused portion, almost twice the amount of effluent must be applied to the smaller circle. So, we overspray a smaller area by a factor of two, to include the entire available area. How does the effluent know where to go? How does it know when to stop? If we were to water our garden, would we normally put the sprinkler in the middle and keep watering until the corners are permeated? No. Most of us would move the hose and water the entire garden evenly otherwise the middle drowns, and the corners dry out.

On the Simcoe County interactive map website, the overall lay-out of the pipes in the fields can be viewed and, very clearly, are not evenly spaced apart from each other. All the nozzles apply a consistent circular pattern of effluent of approximately 21.8 metres in diameter. Township staff have advised the arc of the spray can be adjusted by the amount of pressure applied by the pump, but too much pressure can create problems. Some of the pipes in the South field are 46.38 metres (Identified as measurement A on attached photo of the South field) apart while others are only 19.05 metres (meas. B). With a radius of 10.9 metres, there will be 24.58 metres between the largest gap, and this gap receives no direct spray at all. That means there is a lot of permeating going on. The narrowest gap creates a small spray overlap of 2.75 metres. The Ministry of Environment, Conservation and Parks has approved exemptions for the spray limits which has resulted in at least double the amount of spray being applied from each nozzle. With an overlap of spray circles occurring, combined with an increased amount of effluent being applied, there is now four times the amount of effluent being applied to the small overlapping areas. Does the effluent know to stop permeating or does it runoff as gravity has intended? In the South field, the largest space is between the eastern most pipe and SR 20 and measures 50.62 metres (meas. C). The effluent is expected to permeate all that way and then stop before going into the ditch. It is perhaps more aesthetically pleasing to not have the travelling public seeing the spray so close to the edge of the fields. The EA report indicates that aesthetics is a higher priority to address than the adjacent residents' concerns. There are eight rows of spray irrigation pipes spanning 227.67 metres across

the South field (meas. D), yet the Township calculations include all the space in the Field that is not covered by the pipes.

The North field being much more private, has ten rows of pipes across 243.28 metres (meas. E in attached photo of the North field). The piping is spaced from 29.87 metres (meas. F) to 18.64 metres (meas. G); ranging from 8.07 metres unused space to 3.16 metres overlap in the south half of the North field. At the south end of the North field, the nearest pipe to the neighbouring property is 20.44 metres (meas. H). Immediately south of the North field is an alfalfa crop. Areas of this alfalfa crop have been drowned out by the overspray and the damage is obvious by the discolouration in the photo. The effluent obviously did not stop permeating when it reached the fence line. The north half of the North field shows where four nozzles were operating last spring 6.58 metres (meas. I) from our fence line (they have since been removed after insisting three times to do so). Does anyone think the effluent permeates back across the fence line; uphill? After 13 years of asking nicely, it is difficult to continue to be nice. The distance from the northern most pipes to the north boundary of the North field is 61.94 metres (meas. J), an unused area of 51.04 metres. A conspiracy theorist might think this is no coincidence.

As you can see by these calculations, there is a significant portion of the available land not in use. Does this comply with your design? Can this system operate effectively as built? Does your proposed new spray field design have a similar lay-out? Do you think MECP would approve? Would it not be more efficient to have the pipes laid out evenly to maximize evapotranspiration as per section 3.1 of the C of A? The current lay-out ensures non-compliance of the C of A because of excessive over application in small, concentrated areas and virtually no or minimal use of almost half the available area. It will not permeate, it will run off across the surface where gravity makes it go, and we live downhill from it.

Resting the fields periodically has been recommended in each EA report since 2011 but has not been implemented. The rotation system “has been difficult to implement” and “appears to be designed with sufficient pumping capacity to spray all fields concurrently” (BV Class EA report 26 Sep 2017). The Ministry of Environment, Conservation and Parks inspection report dated March 2024 states that the “North spray irrigation fields can not be sprayed with out the South spray irrigation field being sprayed which doesn’t allow for a rotation of the spray irrigation fields as the C of A states”. The result is that the fields have never been allowed to rest as recommended in the original design. The soil in the fields is saturated, compacted and does not have the capacity to absorb the amount that is over sprayed onto them. This failure to rest the fields was noted on the Problem Statement and Background pages of the 2011 EA report which stated, “the soil conditions are becoming compacted, which, if not addressed, will impact the capacity of the spray irrigation facility”. The 2014 EA report states that the “soils have become compacted and observed to have a reduced absorption capacity”. The wording in the 2017 EA report (page 12) states “the spray fields’ surface soils have become compacted over the years and their infiltrative capacity visibly reduced” and “The spray fields were not aerated in many years. In 2016, deep aeration was completed on the South field. No significant improvement in the soil’s infiltration capacity was noted.”. The 2024 updated EA states that the “soils appear to have become compacted and to have less infiltration capacity”. Why has the assessment of the soils changed from “*are becoming compacted*” (2011), “*have become compacted*” (2014 and 2017), to “*appear to have become compacted*” (2024)? The wording in the 2024 report is inaccurate. The soils have become worse over time, they have not

been rested, C of A 3.1 has not been followed, and the deep aeration did not work – so why does the report state that the fields are only “appearing” to be compacted? The fields are compacted and the excess pouring out of the spray nozzles is flooding onto our property, our neighbour’s well and property, and then on into Lake Simcoe. This spray irrigation system does not work.

Because we expect to continue to have spray irrigation for the foreseeable near future, the area used for spray irrigation is paramount to determine a safe and lawful application rate. Ramara Township Council, OCWA and MECP have been shown extensive evidence of the damage caused by the reckless over application of this patently unsafe product onto our properties. Does your engineering design allow for permeation? Can you explain how ‘permeation’ works because we can certainly show you how it does not. The photos very clearly show where the vegetation is greener where the spray is applied and a lighter shade of tan where the permeation theory is employed. The 2017 Class EA report states that “it has become increasingly difficult for Township operators to spray irrigate the entire content of lagoon Cell A within the allowed 5-month spray irrigation period while meeting the preferred operation guidelines to minimize runoff. Runoff from *less permeable* areas occurs more frequently.”.

The 2017 EA report states that the North field was not used extensively at that time due to the “lower infiltration capacity” and that the spray fields’ surface soils “have become compacted over the years and their infiltrative capacity visibly reduced”. In 2018 photos of the fields, there are ten rows of evenly spaced pipes in the South field and the small field on the east side of SR 20 appears to have been in use. The North field has pipes in the far north area, the pipes are set further back from the northeast border and there are no pipes visible along the southern area. There were no issues of well contamination then. Even though this compaction information was available in the 2017 EA report, as well as the information that a lack of capacity continued to be an issue with the current spray field system, nine additional lines of spray irrigation pipes were installed in the south half of the North spray field and only eight rows of pipes remained in the South field. The extra pipes in the North Field allowed for more effluent to be over sprayed on soils that did not have the capacity to absorb it, causing more runoff. It has been discussed in both Township and Council meetings that the previous management had made changes to the pipe systems and design, but these changes were never addressed or rectified by OWCA staff when they took over the system management. Images of these pipes can be clearly seen on the Simcoe County interactive maps website.

Will you provide an explanation as to how the application rate can be calculated using the land that is actually being used rather than the land available for use. The area should be calculated by multiplying the coverage of the nozzles by the number in use. There is a disproportionately higher number of pipes and nozzles on the smaller North field compared to the South field resulting in a greater amount of applied effluent. This is a major factor contributing to the runoff experienced on our properties. If some of the excess piping is taken from the North field and installed in the South field to fill in the empty spaces, that would distribute the spray more evenly, reducing the load on our neighbour’s well. More pipes could be moved to the extreme north area of the North field thereby reducing the impact on our neighbour even more. The same amount of effluent could be sprayed with a far safer and efficient result. If the Township’s method of calculating the application rate is used, it will ensure flooding of our property and non-compliance of the C of A, as it always has in the past. This is not a viable solution to reduce our concerns. If your proposed West field is

brought online for spray irrigation, where no one can see what is happening, then we expect the effluent to be over sprayed into the Lake.

The concerns of the adjacent residents have been identified as an issue to be resolved in each report since 2011. Our concerns have not been resolved. The 2024 EA update again lists adjacent residents' concerns as one of the criteria for the main considerations of this project. The report then continues with options which include spray irrigation stating that it "does not fully address" or "may reduce" our concerns. The spills on our property are the result of over spraying on both the North and South fields. Alternative six continues the spray irrigation on the South field which "may reduce" the overspray spills on our property. Presenting an alternative which would cause effluent spills onto our property from one just one spray field, not both spray fields, is not acceptable. Any form of spray irrigation does not address the adjacent residents' concerns. It is completely irresponsible to continue to include options that impact our health, contaminate the environment, and do not meet the project's main considerations. It needs to be acknowledged that the spray irrigation system being used does not work and eliminate it, instead of wasting money to modify or expand it and make the problems worse.

There have been Bayshore Village Class EA reports prepared and presented to Council in 2011, 2014, 2017 and 2023/24. Each of these reports has included options for finding the most appropriate solution for the disposal of Bayshore Village sewage. The option of "do nothing" (for comparison purposes and has been screened out) has been included in each report since 2011. Despite all the alternative options that have been presented, Councils have continued to opt for the do-nothing option. Over the past years, the do-nothing response has knowingly allowed the overspray and contamination of our properties to continue and to worsen. Our complaints were brought to the Township's attention 13 years ago and have not been resolved. The do-nothing approach has made the situation worse and has placed the current Council in a position where a very important decision must be made. This important decision is being based on "expert information" from the EA report and we are counting on that information to be accurate. The decision making should emphasize the importance of health and the environment, not what is the cheapest method to dispose of sewage. This is an issue that should have been resolved years ago. The timeline for the proper solution must be accelerated. Waiting three more years for implementation of a safe and healthy solution is not acceptable.

We will not tolerate another two or three years of this intrusion on our lives.

Many years of effort, money and resources were wasted pursuing a sewage treatment plant, only to find out that MECP approval was never going to be obtained. Why would the time and resources be spent on spray field options if they will not meet modern, current guidelines and receive MECP approval? It makes more sense to learn from all the mistakes relating to the spray fields and to focus time and resources on a solution that meets all the requirements that are needed to meet the project main considerations as listed in the EA report. There is only one alternative in the EA report that meets all the project's main considerations, and this alternative does not include spray irrigation.

It is our position that any options involving spray irrigation be removed from the EA report to move ahead with building a proper system to deal with the sewage from Bayshore Village.

Submitted for your information and response.

Jim and June Newlands



NORTH FIELD
1997

100 m



NORTH FIELD
2023



1997

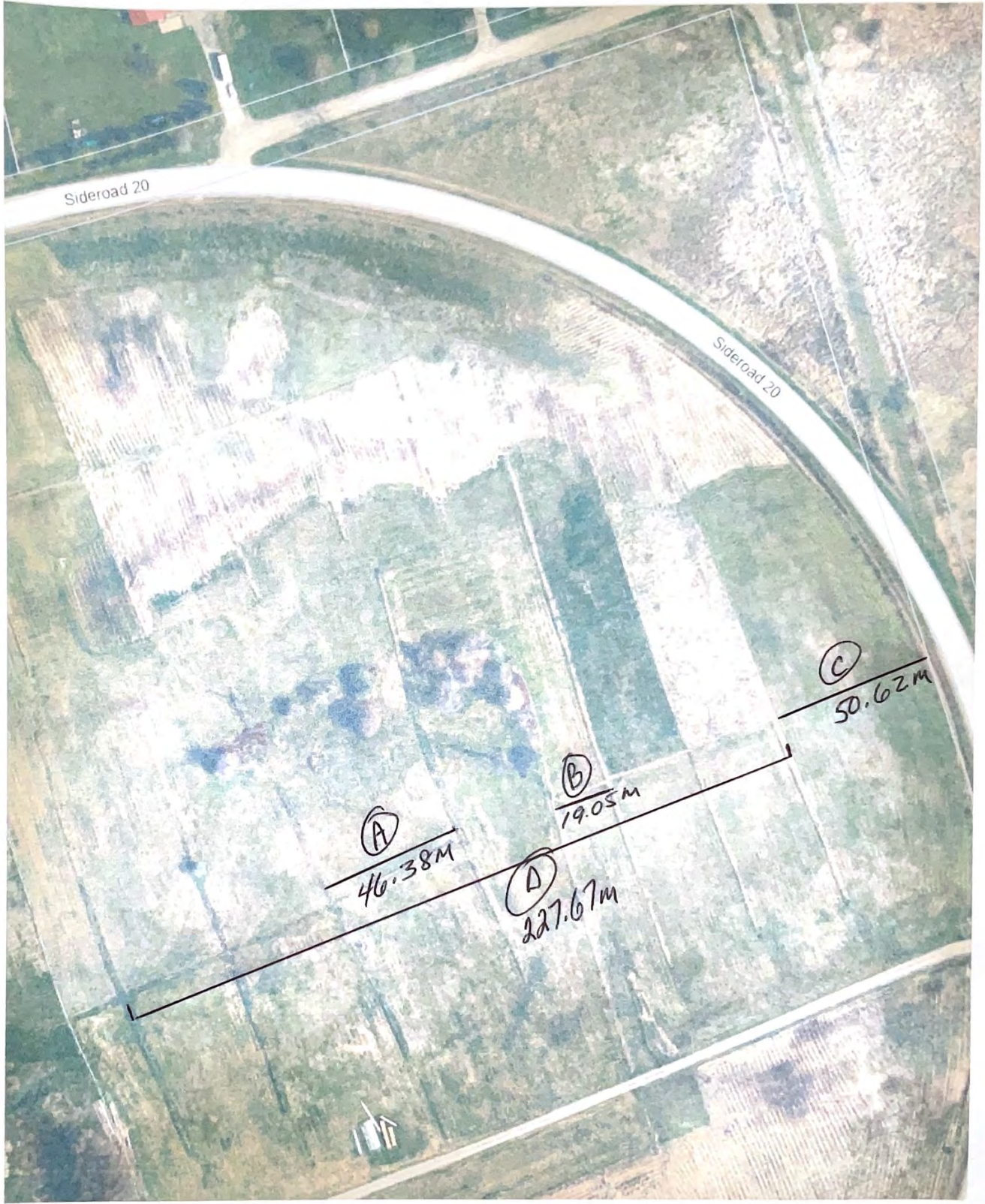
SOUTH FIELD
EVEN SPACING

50 m



1997

SOUTH FIELD
 PORTION NOT USED IN 2023



South Field
2023

From: [Jim & June Newlands](#)
To: [jkavanagh@ramara.ca](#); [Suzanne Troxler](#);
[Mark Wainman](#); [Dyana Marks](#); [zdrinkwalter@ramara.ca](#); [sheri.broeckel@ontario.ca](#); [Munce, Carly \(MECP\)](#); [Ahmed, Aziz \(MECP\)](#);
Cc: [Hyde, Chris \(MECP\)](#); [bclarke@ramara.ca](#); [kbell@ramara.ca](#); [Dana Tuju](#); [David Snutch](#); [Joe Gough](#); [jfisher@ramara.ca](#);
[sbell@ramara.ca](#); [jconnor@ramara.ca](#);
Subject: Bayshore Village EA Report
Attachments: [Spray field acreage.pdf](#); [ID-25-24 - Pdf.pdf](#);
Sent: 6/7/2024 4:01:45 PM

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Good afternoon
Please include these documents in the EA report.
Thank you
Jim and June Newlands



Staff Report #ID-25-24

Meeting: Committee of the Whole - 03 Jun 2024
Staff Contact: Josh Kavanagh, Director of Infrastructure
Subject: Bayshore Spray Irrigation what's sprayed vs what's in the ECA to Spray

Suggested Motion

That Council receive report ID-25-24 as Information

Background & Discussion

At the April 29th 2024 Committee of a Whole meeting as part of the discussion of the annual waste water performance reports, questions were asked about the areas that are actually sprayed on and what is approved in the current ECA for operations at the Bayshore Spray fields.

The bayshore spray fields are broken out into two areas, The North Fields and the South Fields, both of the two sections can be broken out further The North Fields - North and South Section (separated by a wetland in the center), and the South fields - the Main field - North of the entrance driveway along Sideroad 20/con 8, Main field - South of the entrance driveway, and finally the main field East of Sideroad 20.

In the Current ECA it is listed that the allowable spray area is 26 ha - the South field is 14 ha and the North field is 12 ha, when staff attended the site and mapped out the current spray areas it was calculated that we are currently spraying on 10.466 ha in the South Field and 10.068 ha in the North Field, based on this calculation the application rate for 2023 would have been 71 m³/ha/day vs the reported 56 m³/ha/day, although even though the rate increased the township was granted regulatory relief by the MECP from the application rate in 2022, and 2023, were still to abide by the rest of the conditions of the ECA.

While staff was investigating the current area that was sprayed, it was noted the two sections in the South field were non operational, when it was discussed with the operators it was determined that when the irrigation piping was replaced in 2020 by the township that these sections were disconnected and never reconnected. With these two areas being offline it reduces the total sprayed area by 3.71 ha. Staff have instructed the operator to reconnect these areas back into the irrigation system to be utilized for 2024 and future years.

The total calculated areas that staff considered to be sprayed on are as follows.

South main field - 10.466 ha
 North field (north of swamp divide) - 4.262 ha
 North field (south of swamp divide) - 5.806 ha
 20.534 ha is the total spray area that has been currently sprayed on.

Bayshore Spray Irrigation what's sprayed vs what's in the EA to Spray

Once the two sections in the South field are reconnected it will add 3.71 ha bring the total sprayed area up to 24.244 ha.

Below staff recalculated the application rate back to 2020 when the irrigation pipes were changed and the two sections disconnected.

Year	Start	End	Total Effluent Applied	# Days	Application Rate m3/ha/day	Total Flow In Year	Ha
2017	June 7	Sept 28	133,736	47	109	132,829	26
2018	June 4	Sept 27	126,442	41	119	132,841	26
2019	June 17	Sept 10	88,997	44	78	136,671	26
2020	June 25	Nov 19	93,460	55	83	146,785	20.534
2021	May 18	Oct 28	128,966	67	94	135,221	20.534
2022	May 18	Oct 28	137,325	68	98	91,475	20.534
2023	May 18	Nov 6	93,481	64	71	98,817	20.534

Strategic Priority Areas:

Do the recommendations of this report advance the Strategic Priority Areas of the Township?

Yes

No

N/A

Which Priority Area(s) does this report support?

- Workforce that is skilled and motivated
- Community that is involved and engaged
- Operations and services that are defined, prioritized and sustained
- Growth is planned, promoted and fostered

Recommended Action:

That the spray areas be received as information.

Attachments:

[North Spray Field](#)

[South Spray Fields](#)

Reviewed By





Ms. Troxler

June 7, 2024

During the April 29, 2024 Committee of the Whole Meeting, OCWA presented their 2023 Annual Wastewater Performance Report. During the subsequent discussion, Council determined they “need to know what the application rate is”. One of the Councillors asked if “it’s based on the number of hectares that we have in the spray fields?”. The OCWA Operations Manager responded that “it’s based on a rate you can apply per hectare, not the number of hectares. If you make the number of hectares you’re spraying on less, but your volume stays the same, it works out to a higher per hectare rate”. Council passed a motion for Staff to provide a report with respect to calculating the average effluent application rate using the actual amount of land being sprayed on.

On June 3, 2024, Staff Report ID-25-24 was presented to Council responding to the above noted motion. The report included aerial photos of the North and South fields with shaded areas totalling 20.534 ha, delineating the acreage they think they are spraying on. It also included two smaller sections totalling 3.71 ha at the southernmost portion of the South field that they discovered were available but had not been sprayed upon for several years. The report states that grand total acreage when all the pipes are connected will provide 24.244 ha for spraying for 2024 and beyond. The chart on page 2 reflects the adjusted application rates back to 2020 using 20.534 ha. From 2019 back to 2017 the acreage used is 26 ha; an amount of land that has never been available. They just stated in the previous sentence the best they could come up with is 24.244 ha.

We challenge these figures used to calculate the rate of application. We have determined in a previous letter dated June 2, 2024, the actual area sprayed upon is a maximum 10.968 ha. We do not consider ‘permeation’ and aerosol drift to be an accurate spray application protocol. Council is focusing on the 3.71ha in the South field that were not used to apply effluent and completely missing the 9.566 hectares that were not sprayed on within the spray fields. As the OCWA Operations Manager said at the April 29, 2024 presentation, ‘It wouldn’t matter.’ The acreage (26 ha) was already used in the calculations whether it was sprayed on or not. If it had been used to actually spray on, that would have changed how much ran off on to our property, but it would not have lowered the levels in the lagoons. If the pipes had been evenly spaced in the South field using all the available land including the 3.71 ha, rather than the excessive over spray on the North field including using 20 feet directly onto our property, the bulk of the runoff would have been at SR 20 for all to see. Because the Township is only spraying directly on about half of the available land, but using all and more to calculate the application rate, they will always be over spraying, always be over taxing the system, always operating over the design capabilities, always not in compliance with the C of A, and always, always, always spraying on our properties.

We are requesting that MECP, a third party; survey the spray field properties currently in use to determine an unbiased opinion of the actual acreage used, not just available for use. Then strictly stick to the C of A figure of 55m³ applied to the exact acreage (not the number always used, not an approximate) and we’ll see how it goes. Better put a tender out for trucking now to get the best deal rather than wait for winter to deal with frozen pipes and working in the dark.

Jim and June Newlands

From: [Jim & June Newlands](#)
To: [Munce, Carly \(MECP\)](#); [sheri.broeckel@ontario.ca](#); [Suzanne Troxler](#); [jkavanagh@ramara.ca](#);
Cc: [Mark Wainman](#); [Dyana Marks](#); [Ahmed, Aziz \(MECP\)](#); [Hyde, Chris \(MECP\)](#); [zdrinkwalter@ramara.ca](#); [bclarke@ramara.ca](#);
[kbell@ramara.ca](#); [Dana Tuju](#); [David Snutch](#); [jfisher@ramara.ca](#); [Joe Gough](#); [sbell@ramara.ca](#); [jconnor@ramara.ca](#);
Subject: Bayshore Village EA - MECP Inspection Report 2024 comments
Attachments: [MECP inspection report comments - 07 June 2024.pdf](#)
Sent: 6/7/2024 5:00:39 PM

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Good afternoon
Please include this document in the Bayshore Village EA.
Thank you
Jim and June Newlands

07 June 2024

MECP Water Inspector C Munce

MECP Water Compliance Supervisor S Broeckel

Re: Bayshore Village Waste Water Inspection 2024

We have read the Ministry of Environment, Conservation and Parks Inspection Report dated March 4, 2024, and prepared by Water Inspector Carly Munce.

As the cover letter on the report states, “The primary focus of this inspection was to confirm compliance with the Ministry of Environment legislation and control documents, as well as conformance with Ministry wastewater related policies for the inspection period. The Ministry is implementing a rigorous and comprehensive approach in the inspection of wastewater treatment systems that focuses on the collection, treatment, and discharge components as well as wastewater treatment system management practices.”. The report states that the Bayshore Village sewage works had not been inspected since July 4, 2018.

The areas of non-compliance listed in this report are very significant but, having had to deal with the years of spills onto our property from the spray fields, are not surprising. It is appalling to see, in writing, the lack of regard for spill identification, notification and action, not operating the equipment to achieve compliance, not inspecting, monitoring, testing and evaluating equipment, failing to maintain the required freeboard levels and berm maintenance. This is shameful, especially considering that we were told on April 29, 2024, in the lobby of the Township office, that OCWA is the gold standard of water/waste water management in the province. It is embarrassing, and potentially very dangerous, to read that senior staff who have held their water/wastewater positions and credentials for years were required to attend Spills 101 training.

The inspection report also states that the “facility’s Environmental Compliance Approval does not contain certain conditions consistent with a modern Environmental Compliance Approval” such as bypass/overflow and effluent limits. Would you be able to advise what conditions a modern Environmental Compliance Approval document would include? Would there be any changes to the spray schedule, amount of land required, amount of effluent that can be sprayed, or if setbacks are included?

The Tatham Class EA Report, dated May 22, 2024, specifically states that the preferred solution for the disposal of the lagoon effluent needs to “be acceptable to MECP so that an approval can be obtained”. Spray irrigation options are still included in this report, even though these options do not meet all the main considerations needed as listed on page 4. A significant consideration needed is MECP approval.

The EA report also states that the Township has committed to “operate the spray fields in strict compliance with the Certificate of Approval” and “supervise the spray irrigation operation as per MECP requirements”. Would this mean that no exemptions or extensions would be approved by the MECP? At the April 29, 2024, Committee of the Whole meeting, the OCWA Operations Manager told Council that “it didn’t matter” how much effluent was sprayed because they had an exemption

from the MECP. We are questioning this interpretation of exemption permissions with the signing authorities at the MECP and with Tatham Engineering and Council because the amount of spraying does matter. It matters because the over spray ends up on our property. We have asked the MECP signing authorities to stop issuing these exemptions due to the damage it causes us and our neighbour. It would be extremely disappointing if a system that has been non-compliant, does not report spills onto neighbouring properties, and requires micromanaging still meets MECP approval.

MECP approval has been a large piece of any solution to replace the spray fields with a system that has the required capacity and does not present health and environmental risks to neighbouring residents. With the information that we, and our neighbours, have provided to MECP about the spills we have endured for years, OCWA's serious non compliance and lack of regard to follow regulations and maintain equipment, and that a modern, updated Environmental Compliance Approval would contain more restrictive operating requirements, how could these spray fields be considered as a viable and safe option to consider for MECP approval? This system is flawed and has been mismanaged with no regard to the environment or neighbouring residents. The priority has been to lower the levels in the lagoons, at the expense of us. The inspection report clearly shows that OCWA was non-compliant in many significant areas and "got caught".

If MECP approval rules are clear, it would be negligent to allow the spray fields to continue in any form. Many years of effort, money and resources were wasted pursuing a sewage treatment plant, only to find out that MECP approval was never going to be obtained. Why would the time and resources be spent on spray field options if they will not meet modern, current guidelines and receive MECP approval? It makes more sense to learn from all the mistakes relating to the spray fields and to focus time and resources on a solution that meets all the requirements that are needed to meet the project main considerations as listed in the EA report. There is only one alternative in the EA report that meets all the project's main considerations, including receiving MECP approval, and this alternative does not include spray irrigation.

We look forward to receiving your response to our inquiries.

Thank you for your time on this matter.

Jim and June Newlands

From: [Mark Wainman](#)
To: [Basil Clarke](#)
Cc: kbell@ramara.ca; [David Snutch](mailto:David.Snutch@ramara.ca); jfisher@ramara.ca; [Dana Tuju](mailto:Dana.Tuju@ramara.ca); jgough@ramara.ca; sbell@ramara.ca; [Zach Drinkwalter](#); [Josh Kavanagh](#); [Dyana Marks](#); [Suzanne Troxler](#);
Subject: Bayshore Village Effluent Spray Irrigation System Municipal Class EA Update – PIC – May 22, 2024
Sent: 6/7/2024 11:49:40 AM

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Hello Mayor Clarke

I often hear from many people talking about the sprayfields and lagoons, they had no idea how bad the conditions are. Many times, former staff and Councillors get blamed for the situation. It is true many mistakes have been made in the past, but things have changed over 40 years. The developer who was originally in control of the sprayfields from day one until the early 1990's used to control too much effluent in the ponds by siphoning effluent into the nearby swamp.

I hoped for better things when the Township took over, but too much effluent was then controlled by disconnected pipes or trashpump pumping effluent into the swamp further out of site from the road and closer to the lake.

I do believe there is no use in looking back as most current staff and council were not involved. I will concentrate my complaints on the last two years of OCWA's work. I have already sent you pictures and videos of my property and how spills from the north field occur daily across my property when they are spraying. I asked you not to install the pipe to the north field because of this, but you insisted that you must.

I can't change your mind about respecting my property and my family's way of life. I do think you and others involved, should respect the creek and Lake Simcoe because most of the oversprayed effluent is just travelling across my property on the way to the ditches, creek and lake.

In respect of the operation of the sprayfields in 2023, the OWCA report for 2023 contained a number of non-compliance orders. The 27 page report from the MECP dated March 4, 2024, addressed to Zach Drinkwalter, CAO, and available on your website goes into much more detail:

- spills not reported (had to retrain staff on what a spill was);
- pipe in north field which wasn't in the original designed sprayfield;
- overfull lagoons;
- holes drilled in pipe shooting effluent 20 feet into the air (when asked about these, I was told they were drainage holes because the pipe was too heavy to unhook in the fall. Seems funny that the holes were drilled on the top and not the bottom);
- no inspections for runoff, no documentation of inspections.

But the most concerning thing I found in the MECP report states:

"Spill occurred on October 2, 2023, which the Ministry was made aware by a member of the public. When the ministry was on site OCWA was repairing the issues, but the spill hadn't been reported to the Spills Action Center (SAC), until after it had been repaired and MECP staff asked.

A second spill occurred on October 24, 2023, in the North fields that was observed by MECP staff. The spill occurred along the main pipe that carries the effluent to the back part of north field, there were three different spots with uncontrolled spraying of effluent into the low-lying land that separates the north field. The low-lying land that the spill was occurring to has a drainage pipe that was installed by the township about 12 years ago . This pipe leads to the drainage ditch which flows into Wainman Creek which leads to Lake Simcoe . This is a spill that was not reported to the Ministry."

The spill that occurred on October 2, 2023, was from a bad connection of a pipe on the south side of the creek. Effluent was spraying in large volumes directly across the creek and going as far as the road, a distance of 100 feet or more. This effluent entered the creek directly and OCWA apparently saw no need to report it.

In the past, I have indicated to you that I hope all parties involved can work together. I find now everyone is just playing the blame game. I have to look out for myself and my family and request you to NOT spray in the north field.

Mark Wainman

From: [Jim & June Newlands](#)
To: [Suzanne Troxler](#)
Cc: [Mark Wainman](#)
Subject: Bayshore Village spray fields. Awaiting your response.
Sent: 7/1/2024 8:42:26 PM

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Good evening Ms Troxler

We have submitted several letters to your attention which describe the issues that we have experienced due to the over spraying on the Bayshore Village spray fields for many years.

We spoke to you at the Public Information meeting on May 22, 2024, and you stated that the information in our letters was new to you and that you could not discount it. At that meeting, you told us that you would be responding to us in approximately two weeks. To date, we have not received your response.

We have sent further correspondence to you (dated June 2 and June 7) stating that the calculations used by the Township and OCWA to determine the actual number of hectares used for spraying are not accurate. We have asked for your response on the hectares which are used for the spraying, but we have not received it.

So far this summer, there has been minimal spraying on a small section of the south field. In the past years, the spray would be on each day, even if it was too windy or too wet, to the point of excessive run off. Lowering the levels in the lagoons has always been the priority, at the expense of us and our neighbours. With minimal spraying occurring, how are the lagoon levels being lowered this summer? Our concern is that the sprays will be turned on full blast and we will be back to the spills onto our property and into our neighbour's well. It has been established that OCWA feels they can obtain an exemption and spray excessively because "it doesn't matter" what the spray limits are.

To date, there has not been any spraying in the north field, but work has been done there to remove a catch basin and underground pipes leading to Wainman's Creek that were not part of the original design. The Township has spent several weeks digging a deep ditch along the east side of that field. While digging this ditch, the excavator has also dug up at least one additional underground drainage pipe that had been installed in that field and diverted liquids towards our property and Wainman's Creek. Page 2 of the May 22, 2024 Bayshore Village Class EA Update report states that "effluent disposal is by evapotranspiration and infiltration". If these are the methods of disposal, why is a deep ditch required to drain the north field into Wainman's Creek, and then out to Lake Simcoe? This ditch may lessen the spills onto our property in that area, but does not solve the problems of over spraying, operational mismanagement, and non-compliance. This ditch will not prevent our neighbour's well from being contaminated by the over spraying - only discontinuing spray irrigation completely will prevent that.

The next report will be presented to Council this month and it is very important that the information in the report is accurate.

When can we expect to receive your response about our concerns, which you could not discount, and the calculations of the hectares used for spraying?

We are looking forward to hearing from you.
Thank you
Jim and June Newlands

From: [Jim & June Newlands](#)
To: [Ahmed, Aziz \(MECP\)](#); [Hyde, Chris \(MECP\)](#);
Cc: [Munce, Carly \(MECP\)](#); sheri.broeckel@ontario.ca; [Mark Wainman](#); [Suzanne Troxler](#);
Subject: Bayshore Village Spray Fields
Attachments: [ID-33-24 - Pdf.pdf](#)
Sent: 7/11/2024 2:43:15 PM

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Good afternoon

On 09 July 2024, the Ontario Clean Water Agency representative for the Bayshore Village spray fields, participated in presenting Staff Report #ID-33-34 to Ramara Council at the Committee of the Whole meeting. This message is to request clarification from the Ministry of Environment, Conservation and Parks about any exemptions that may be approved for this system for 2024.

Staff Report #ID-33-34 states that the contents of the Bayshore Village sewage lagoons will need to be hauled to the sewage treatment plant in Lagoon City. The Report describes that the levels in the sewage lagoons are high, and the spray irrigation system could not be used to sufficiently lower these levels. The reasons noted in the Report include not having enough spray area, the wet weather conditions, work that was required in the north field, and that the lagoons were fuller this spring because not enough effluent was disposed of last year. There is no contingency plan for sewage disposal, other than trucking it to a treatment plant at an estimated cost to the system users of at least \$1.5 million. A contingency plan has never been needed in the past because the contents of the lagoons were over sprayed onto the fields, causing our property and our neighbour's property to be used as secondary lagoons. The contents of lagoons ended up on our properties and in Lake Simcoe, not in the sewage treatment plant where it belonged.

During the discussions with Council about this Report, the representative from the Ontario Clean Water Agency (OCWA) stated that it is hoped to be able to use spray irrigation, in addition to hauling, to lower the lagoon levels this summer. He stated that it is hoped to spray as much of the lagoon contents as was sprayed last year, but it is doubtful that this is possible.

We have had very minimal response to any of our inquiries from the agencies and experts that we have contacted about the spray fields. In the absence of information from the authorities, we have little confidence in the proper and lawful operations of the spray fields. We have been reassured verbally and it has been documented on page 16 of the Tatham Class EA report dated 22 May 2024 that there will be strict compliance with the Certificate of Approval. There have been fewer days when the sprays have been on this summer, but on at least two of these days, the sprays were on when the wind speed exceeded the limits stated in the Certificate of Approval, continuing the non-compliance practices that we have been exposed to for years. This non-compliance was reported to the MECP and the sprays were turned off within 30 minutes. One of our concerns is that the sprays will be turned on fully to lower the levels in the lagoons, and the spills onto our properties and into our neighbour's well will continue. Earlier correspondence has identified that OCWA stated "it doesn't matter" how much is sprayed because MECP exemptions were approved.

The challenges in trying to use the spray field system this year, while being bound by the conditions of the Certificate of Approval; being under closer scrutiny by the stakeholders in this process; being monitored by the MECP; and having to address many areas of non-compliance with regulations, support the position that the spray fields are not a feasible, economical, or efficient system to lawfully dispose of Bayshore Village sewage.

The improper methods of sewage disposal that have been used in the past may have saved the Township money, but the true costs of those decisions are becoming more obvious. Legislation and regulations are in place to appropriately and lawfully dispose of sewage. There is a cost to following these rules, and the costs for trucking the lagoon contents are consistent with the costs of lawfully disposing of sewage.

Although Report #ID-33-34 did not discuss the areas of non-compliance that were captured on Inspector C Munce's Ministry of Environment, Conservation and Parks Inspection Report dated 04 March 2024, the Report disclosed that an engineering firm has been hired to complete an assessment of the lagoon's berms. Page 14 of the Inspection Report describes the non-compliance issues regarding the freeboard and vegetation growth on the berms. The engineering firm's assessment and report may result in additional costs to maintain this inadequate system.

We have sent correspondence in April and May 2024 to the MECP describing our concerns about approving exemptions to both the volume of spray allowed, and the length of the spray season. On 31 May 2024, Director Hyde responded stating, "Your input on the outcome of the relief issued to the Township in the past 2 years will be considered should an application for relief from ECA conditions be received in the future. At the present time, the Township has not submitted an application for relief for the 2024 operating season. A request to begin operations of the spray irrigation system was received on April 29, 2024. Given the warm, dry spring conditions this request was approved for the South Fields only. All other conditions of the ECA applied during this extended period and additional conditions were included regarding field inspection."

To clarify, Director Hyde stated that our input related to the past 2 years of relief that has been issued, however, our concerns have related to extensions that have been approved for several years, and we have been complaining about the spray fields since 2010.

This message is to ask for confirmation if any other exemptions or applications for relief for the Bayshore Village spray field system have been requested, approved, or are under consideration for 2024. We are very concerned that if an exemption is granted, OCWA will try to make up the lost time and spray excessively. These exemptions have a very real and direct impact on our health and well being. We brought up the application rate in previous letters dated 02 June 2024 and 07 June 2024, questioning the actual area the effluent is applied onto. The Township's position is to spray on part of the site and allow it to 'permeate' to the unused portions. This alone creates conditions for runoff onto our properties. An exemption exacerbates the problem. The Township is applying effluent to a maximum of 10,968 ha assuming all 294 nozzles are in use, despite their insistence that upwards of 24,244 ha are used. They are already overspraying.

We look forward to hearing your response.

Thank you.

Jim and June Newlands



Staff Report #ID-33-24

Meeting: Committee of the Whole - 09 Jul 2024
Staff Contact: Josh Kavanagh, Director of Infrastructure
Subject: Bayshore Village Sewage Works Effluent Hauling

Suggested Motion

That Report ID-33-24 regarding hauling effluent from the Bayshore Village Sewage Works be received as information.

Background & Discussion

The purpose of this report is to notify Council that effluent will need to be pumped from the Bayshore Village sewage lagoons and hauled to the Lagoon City sewage treatment plant for disposal, beginning this fall.

The reason hauling will be required this year is due to a combination of factors such as insufficient spray area, wet conditions, work needed in the north field and the lagoons were higher than normal again this spring. The MECP raised concerns with insufficient storage volume in the lagoons and OCWA has provided the following information to address those concerns with the Ministry. We have also retained Cambium Engineering to complete a berm assessment of the lagoons to verify the stability of the berms to allow reduced freeboard.

The Bayshore Village Sewage Works consists of two facultative lagoons (Cell A, large cell and Cell B, small cell) that receive and treat wastewater and a spray irrigation system that sprays effluent onto two fields.

Under normal operation, flow is directed to Cell B from the East Pump Station in Bayshore Village. Cells B and A are connected by a 200mm buried pipe with a normally open control valve. Once passing through Cell B, the effluent is stored to be sprayed from Cell A.

The berms on Cell A are higher than Cell B on three sides, but as the cells are connected by an overflow pipe and buried 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 0.5 m less than Cell A. A diagram of the cell elevations is shown below.

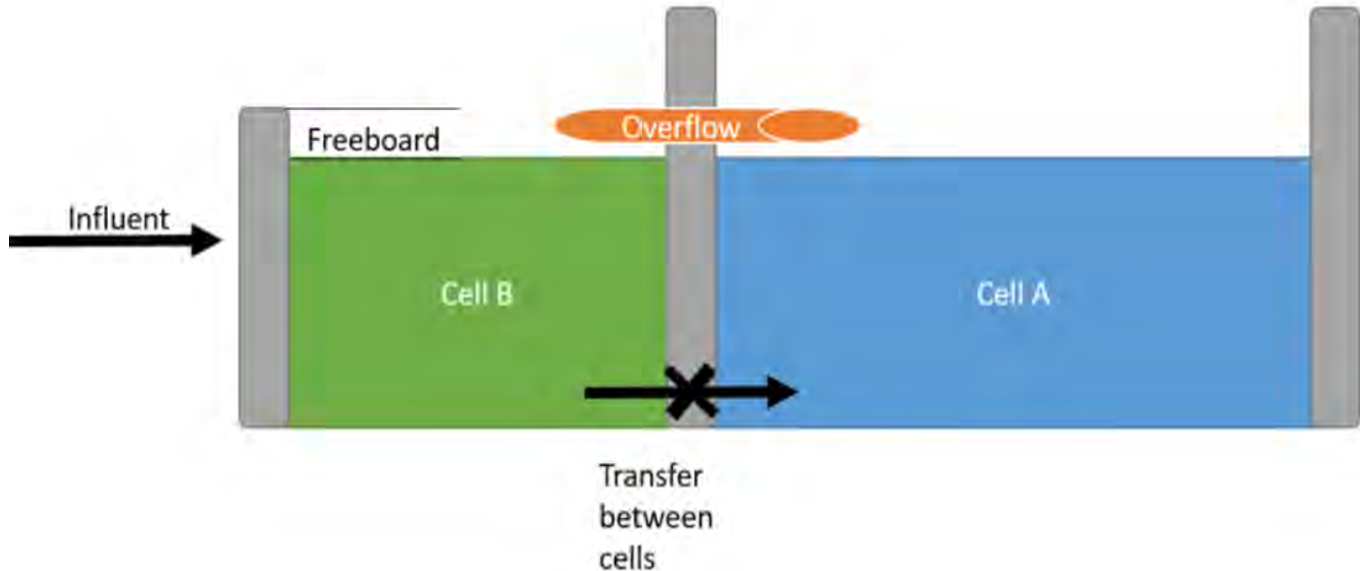
The reduced capacity of Cell A as a result of the interconnected hydraulics between the two cells has not been included in the design documents. Cell B height is displayed in the Certificate of Approval as 3.1 m. However, considering the freeboard requirement in the C of A, the operating height of Cell B is 2.6 m. The Certificate of Approval states there is total depth of 3.1 m including a 0.3 m sludge storage at the bottom and 0.66 m freeboard. The actual height of the berms around 3 sides of Cell B are

Bayshore Village Sewage Works Effluent Hauling

lower than Cell A and do not seem to include the 0.66 m freeboard as stated in the C of A. To maintain a freeboard of 0.66 m the lagoons must be operated at a lower level than designed.

The effluent level in the lagoons (specifically Cell B) was approaching the freeboard level this spring and operational intervention was required to maintain the freeboard of 0.66 m in Cell B, as per the C of A requirements.

The Bayshore STP has an available 107,418 m³ of storage through the 232 day period in which the irrigation system does not run. Due to the limitations in irrigation, the lagoons had residual volume in the spring of 2023, therefore, effluent had to be hauled from the lagoons in 2023. Based on current lagoon volumes, effluent will need to be hauled again this year. We are estimating around 90,000 cubic meters will need to be pumped and hauled away for disposal to ensure sufficient storage volume over the 2024 winter and to start the 2025 season with little to no residual volume.



Alternatives

Currently, there are no provisions made to discharge effluent from the lagoons, other than by spray irrigation. The Township's contingency plan for insufficient storage volume in the lagoons is to pump and haul the effluent away to be disposed of at an alternative treatment facility. Staff is still working on the possibility of using the west field for temporary irrigation, however it is undergoing further studies as required for the Class EA study. That option cannot be relied upon this year for an alternate solution to hauling.

Bayshore Village Sewage Works Effluent Hauling

Financial Information

The estimated cost for pumping and hauling effluent from the Bayshore Village lagoons to the Lagoon City sewage treatment plant this year is \$1,534,000.00 plus HST. This estimate is based on the rates that were paid in 2023. Staff is investigating options to mitigate costs with proposed changes at the site which includes moving the location of where trucks fill to a straight section of road on Concession Road 8, investigating the installation of a loading arm from the small lagoon and/or the Township renting the loading pumps outside of the contractor supplying them.

Strategic Priority Areas:

Do the recommendations of this report advance the Strategic Priority Areas of the Township?

Yes

No

N/A

Which Priority Area(s) does this report support?

- Workforce that is skilled and motivated
- Community that is involved and engaged
- Operations and services that are defined, prioritized and sustained
- Growth is planned, promoted and fostered

Recommended Action:

That we prepare a tender for the hauling and bring back a report to COW in August.

Reviewed By

Approved By:	Department:	Status:
<i>Josh Kavanagh, Director of Infrastructure</i>	Council/COW Agenda Circulation (Staff)	Approved - 02 Jul 2024
<i>Jennifer Connor, Legislative & Community Services Director/Clerk</i>	Council/COW Agenda Circulation (Staff)	Approved - 02 Jul 2024
<i>Robin Dunn, Chief Administrative Officer</i>	Council/COW Agenda Circulation (Staff)	Approved - 02 Jul 2024

File 100080-2

September 5, 2024

Jim and June Newlands
3456 Concession Road 8
Ramara, Ontario L3V 0M4
4jfarm1996@gmail.com

Re: Bayshore Village Effluent Disposal Class EA Update
Response to Comments Received

Dear Jim and June:

We have received and reviewed the letters and emails you sent to the Township, MECP and Tatham from February to July 2024, to provide comments on the Bayshore Village effluent disposal Class Environmental Assessment, to describe the impacts of effluent spray irrigation on your farm and your family over the years, and to question the operation and management of the spray irrigation system. This correspondence has provided very valuable information and insight that was considered in the assessment of alternatives and recommendations for the preferred effluent disposal solution.

The purpose of this letter is to provide answers to some of the questions that were asked in these letters and emails. We do not have answers to all your questions but can explain some of the rationales for our analysis and assessments. We trust the Class EA Update Report, which will be made available for review in the fall, presents solutions that adequately address the significant concerns that you clearly communicated.

The Bayshore Village sewage lagoons are facultative stabilization ponds that provide biological treatment of the raw sewage. Sewage treatment is brought about by aerobic, anaerobic and facultative bacteria in each layer of the lagoon that decompose and digest the sewage and slowly form sludge at the bottom. The small lagoon has sufficient operational volume to provide approximately 75 days of treatment at the system's daily rated capacity, which is more than the minimum retention time typically required. Monitoring data on the characteristics of the small lagoon content confirm it reduces BOD and suspended solids by over 80% and reduces nitrogen by 50%. The large lagoon, which exists mostly for effluent storage over the winter, reduces BOD further (to 90% removal) and is effective at reducing the level of phosphorus (to 65% removal) and nitrogen (to 89% removal). The effluent that is spray irrigated is treated to the level expected of stabilization ponds. Raw sewage from Bayshore Village that is pumped into Cell B mixes with

and is diluted in the content of the lagoon and is biologically treated as noted above. The content of the small lagoon (Cell B) that flows into Cell A is partially treated sewage, not raw sewage.

From the OCWA reports, we understand that in April 2024, some of the Cell B content was pumped into Cell A to lower the liquid level in Cell B that was too high because of rain and snow accumulation. As the pump was near the transfer pipe, the pumped liquid was of the same quality as if it had normally flowed by gravity to Cell A. Biological treatment in the large lagoon continued as typical and expected. The situation was more critical in April 2023 when raw sewage from the Bayshore Village pumping station was pumped directly into Cell A to avoid overflowing Cell B. Considering the long retention and treatment time in Cell A, most of the organic and nutrient content of the bypassed volume was reduced significantly through biological digestion and dilution in Cell A's much larger volume. The Cell A effluent quality data for May 2023 confirmed that the lagoon content was treated before spray irrigation.

With regards to the spray irrigation rate, we cannot recommend a different rate than what is specified in the Certificate of Approval (C of A). We note that the C of A maximum spray irrigation rate of 55 m³/ha/day is defined as an average over the spray season (total volume of effluent applied to a field during the spray irrigation season divided by the number of days the effluent was applied to that field). The soil information we have reviewed from the original design, and from the in-situ soil permeability tests Tatham completed in December 2023, indicate that the soils in most areas of the spray fields have permeabilities higher than the 5.5 mm/day (55 m³/ha/day) that is allowed. However, there is the caveat that the soils should dry out between applications (not be saturated when spray irrigation starts).

Should it be necessary to operate the system outside the approved spray season (May 18 to September 28), written approval by the MECP Barrie District Manager is required. Although, MECP inspectors have conducted assessments to check compliance with provincial legislation and control documents such as the C of A, it remains the responsibility of the Township to ensure compliance with all applicable regulatory requirements. The Council of the Township of Ramara has committed to adhering to all C of A conditions and requirements.

The Class EA Update Report will recommend, for the interim period during which effluent spray irrigation must continue, that an as-built plan be prepared to confirm the actual area used for spray irrigation based on the current layout of the pipes and sprinkler heads, because as you noted, there have been many changes since the original surface area of the spray fields was established and approved by the MOE. We note that the spray irrigation area is not just the area directly below the spray heads because evapotranspiration is relied on as well as infiltration in the soil. The original design site plans show very little space between the areas covered by the sprinkler heads, and the calculations of spray area for design purposes considered the total area of the fields, rather than the sum of the areas covered by each sprinkler.



The original design of the system did not include any buffer areas or minimum setbacks to adjacent properties. Current MECP design guidelines require them. In the interim until spray irrigation is abandoned, the Class EA Update Report will recommend that sprinkler heads near the property line that are directly affecting the adjacent properties be shut off.

The sewage lagoons and part of the South Field are within the modelled 5-year capture zone (WHPA-C) for the Bayshore Village municipal wells. The North Field and the area west of the lagoons are outside of the WHPA. The lagoons and spray fields were not identified as a potential Significant Drinking Water Threat to the Bayshore wells. The water quality at the municipal wells is monitored and there have been no water quality issues.

Again, thank you for your contribution to the information base that was used to complete this Class EA project. We look forward to your comments on the Class EA Update Report.

Yours truly,

Tatham Engineering Limited



Suzanne Troxler, B.Eng., M.Sc., P.Eng.

Senior Engineer

ST:rlh

copy: Josh Kavanaugh
Dyana Marks

Township of Ramara
Township of Ramara

jkavanaugh@township.ramara.on.ca
dmarks@township.ramara.on.ca



File 100080-2

September 5, 2024

Mark Wainman
3628 Concession Road 8
Ramara, Ontario L3V 0M4
mhgwainman@gmail.com

Re: Bayshore Village Effluent Disposal Class EA Update
Response to Comments Received

Dear Mark:

We have received and reviewed the letters, emails, photos and videos you sent to the Township, MECP and Tatham from February to June 2024, to provide background and history and express your concerns with the operation of the Bayshore Village spray irrigation system, describe and document the impacts of effluent spray irrigation on your property and your well, and provide comments on the Bayshore Village effluent disposal Class Environmental Assessment. This correspondence has provided very valuable information and insight that was considered in the assessment of alternatives and recommendations for the preferred effluent disposal solution.

The purpose of this letter is to address some of the questions and comments that were asked in these letters and emails. We do not have answers to all your questions but can explain some of the rationales for our analysis and assessments. We trust the Class EA Update Report, which will be made available for review in the fall, presents solutions that adequately address the significant concerns that you clearly communicated.

The Class EA process requires a comparison of potential solutions, including Do Nothing. For this project, alternate solutions had to be compared with the alternative of continuing with spray irrigation, for an informed evaluation and determination of the preferred solution.

Our analysis was based on information available from Township and OCWA reports including the historical number of spray days. We understand that closer adherence to the Performance Conditions of the Certificate of Approval may have resulted in fewer or shorter spray days each season.

Regarding the treatment of sewage, the Bayshore Village sewage lagoons are facultative stabilization ponds that provide biological treatment of the raw sewage. Sewage treatment is brought about by aerobic, anaerobic and facultative bacteria in each layer of the lagoon that decompose and digest the

sewage and slowly form sludge at the bottom. The small lagoon has sufficient operational volume to provide approximately 75 days of treatment at the system's daily rated capacity, which is more than the minimum retention time typically required. Monitoring data on the characteristics of the small lagoon content confirm it reduces BOD and suspended solids by over 80% and reduces nitrogen by 50%. The large lagoon, which exists mostly for effluent storage over the winter, reduces BOD further (to 90% removal) and is effective at reducing the level of phosphorus (to 65% removal) and nitrogen (to 89% removal). The effluent that is spray irrigated is treated to the level expected of stabilization ponds. Raw sewage from Bayshore Village that is pumped into Cell B mixes with and is diluted in the content of the lagoon and is biologically treated as noted above. The content of the small lagoon (Cell B) that flows into Cell A is partially treated sewage, not raw sewage.

From the OCWA reports, we understand that in April 2024, some of the Cell B content was pumped into Cell A to lower the liquid level in Cell B that was too high because of rain and snow accumulation. As the pump was near the transfer pipe, the pumped liquid was of the same quality as if it had normally flowed by gravity to Cell A. Biological treatment in the large lagoon continued as typical and expected. The situation was more critical in April 2023 when raw sewage from the Bayshore Village pumping station was pumped directly into Cell A to avoid overflowing Cell B. Considering the long retention and treatment time in Cell A, most of the organic and nutrient content of the bypassed volume was reduced significantly through biological digestion and dilution in Cell A's much larger volume. The Cell A effluent quality data for May 2023 confirmed that the lagoon content was treated before spray irrigation.

We understand, based on your and Jim Newlands' observations, that there have been many changes to the spray irrigation setup since the original surface area of the spray fields was established and approved by the MOE. As many, and different, estimates of the current spray field area have been calculated and presented, it is our recommendation that the actual area be confirmed before the 2025 spray irrigation season to better assess if the effluent volume applied meets the C of A criteria. The report will recommend an as-built plan be prepared to show the current layout of the pipes and sprinkler heads, and actual spray field area.

The original design of the system did not include any buffer areas or minimum setbacks to adjacent properties, as currently included in MECP design guidelines. In the interim until spray irrigation is abandoned, the Class EA Update Report will recommend that sprinkler heads near the property lines that are directly affecting the adjacent properties be shut off.

The Township of Ramara has committed to adhering to the C of A conditions as well as on site supervision of the spray irrigation operation, to minimize the potential for runoff from the Township property. It is the intent that with proper supervision, the potential for runoff, unaddressed broken pipes, and operation in



ground and weather conditions that do not comply with the C of A requirements, will be minimized if not absent in the next spray season.

Again, thank you for your contribution to the information base that was used to complete this Class EA project. We look forward to your comments on the draft report.

Yours truly,

Tatham Engineering Limited



Suzanne Troxler, B.Eng., M.Sc., P.Eng.
Senior Engineer
ST:rlh

copy:	Josh Kavanaugh	Township of Ramara	jkavanaugh@township.ramara.on.ca
	Dyana Marks	Township of Ramara	dmarks@township.ramara.on.ca

O:\Collingwood\2000 Projects\100080\Spray Irrigation EA\2023 Update\Comments Received\Responses\L - Response to Comments - Mark Wainman - Sept 5 2024.docx



Review Agency Comments

From: [Coordinator LRC HSM](#)
To: [Suzanne Troxler](#)
Cc: jkavanagh@ramara.ca
Subject: Municipal Class EA for Effluent Spray Irrigation System
Sent: 5/14/2024 1:18:23 PM

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Good Afternoon,

Thank you for including the Historic Saugeen Métis (HSM) in your consultation efforts via mailed letter regarding the Bayshore Village Effluent Spray Irrigation System Municipal Class EA Update. While HSM is pleased to be considered, unfortunately the project is well beyond the boundaries of the traditional harvesting territory of the Historic Saugeen Métis, and as such, we cannot provide comments on the project.

Thank you for your consideration.

Regards,

Georgia Lumley

Coordinator, Lands, Waters & Consultation
Historic Saugeen Métis
204 High Street
Southampton, ON
saugeenmetis.com
519.483.4000



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From: [EA Notices to CRegion \(MECP\)](#)
To: [Emily Park](#); [Suzanne Troxler](#);
Cc: jkavanagh@ramara.ca; DMarks@ramara.ca; [Brad Laking](#);
Subject: RE: Bayshore Village Effluent Spray Irrigation System Municipal Class EA Update - Notice of Public Information Centre (Tatham File No. 100080)
Sent: 5/21/2024 3:00:28 PM

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Hi Emily,

Thanks so much for sending along the Notice of PIC for the Bayshore Village Effluent Spray Irrigation System Municipal Class EA. We've filed it for our records.

Kind regards,

Krish Selvakumar, MFC (he/him)
Environmental Resource Planner/Assessment Coordinator
Environmental Assessment Services Section
Environmental Assessment Branch
Ministry of the Environment, Conservation and Parks
T: (437) 240-5922 | krishna.selvakumar@ontario.ca



From: Emily Park <epark@tathameng.com>
Sent: May 7, 2024 1:17 PM
To: Emily Park <epark@tathameng.com>; Suzanne Troxler <stroxler@tathameng.com>
Cc: jkavanagh@ramara.ca; DMarks@ramara.ca; Brad Laking <blaking@tathameng.com>
Subject: Bayshore Village Effluent Spray Irrigation System Municipal Class EA Update - Notice of Public Information Centre (Tatham File No. 100080)

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Good afternoon,

The Township of Ramara is hosting a Public Information Centre on May 22, 2024, for the Bayshore Village Effluent Spray Irrigation System Municipal Class EA update. Please find attached the Notice of Public Information Centre.

We welcome all questions, concerns, and input as we proceed with the study.

Please advise if further notices and communications should be sent to a different contact within your organization or if you do not want to receive any further notices of this study.

Thank you,

Emily Park



Emily Park EIT
Engineering Intern

epark@tathameng.com
41 King Street, Unit 4, Barrie, Ontario L4N 6B5

tathameng.com



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**Ministry of Citizenship
and Multiculturalism**

Heritage Planning Unit
Heritage Branch
Citizenship, Inclusion and
Heritage Division
5th Flr, 400 University Ave
Tel.: 416-301-4797

**Ministère des Affaires civiques
et du Multiculturalisme**

Unité de la planification relative au
patrimoine
Direction du patrimoine
Division des affaires civiques, de
l'inclusion et du patrimoine
Tél.: 416-3101-4797



June 5, 2024

EMAIL ONLY

Josh Kavanagh
Director of Infrastructure
Township of Ramara
2297 Highway 12
Brechin, ON L0K 1B0
jkavanagh@ramara.ca

MCM File : **0020971**
Proponent : **Township of Ramara**
Subject : **Municipal Class Environmental Assessment Update – Schedule B –
Public Information Centre**
Project : **Bayshore Village Effluent Spray Irrigation System**
Location : **Township of Ramara, Simcoe County**

Dear Josh Kavanagh:

Thank you for providing the Ministry of Citizenship and Multiculturalism (MCM) with the notice of Public Information Centre for the above-referenced project.

MCM's interest in this project relates to its mandate of conserving Ontario's cultural heritage, which includes:

- archaeological resources, including land and marine;
- built heritage resources, including bridges and monuments; and
- cultural heritage landscapes.

Under the EA process, the proponent is required to determine a project's potential impact on known (previously recognized) and potential cultural heritage resources.

Project Summary

The Township of Ramara is updating the Class Environmental Assessment (Class EA) that was previously completed in 2017 for the effluent spray irrigation system at the Bayshore Village Sewage Works. Treated effluent from the Bayshore Village sewage treatment lagoons is spray irrigated on two fields near Concession Road 8 and Sideroad 20. The Class EA is updating the evaluation of alternatives for effluent disposal to address current capacity and operational issues.

The Class EA update follows the Schedule B requirements of the Municipal Engineers Association (MEA) Municipal Class Environmental Assessment.

Identifying Cultural Heritage Resources

While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation.

Archaeological Resources

Our records indicate that a Stage 1 archaeological assessment (AA) (under Project Information Form number P439-0197-2024) has been completed for this project. The Stage 1 report has been entered into the Ontario Public Register of Archaeological Reports. The Stage 1 report recommended Stage 2 AA for the entirety of the study area. Our records indicate that the Stage 2 AA has been initiated under Project Information Form number P1059-0151-2024.

Please note that archaeological concerns have not been fully addressed until reports have been entered into the Ontario Public Register of Archaeological Reports where those reports recommend that:

1. the archaeological assessment of the project area is complete and
2. all archaeological sites identified by the assessment are either of no further cultural heritage value or interest (as per Section 48(3) of the Ontario Heritage Act) or that mitigation of impacts has been accomplished through excavation or an avoidance and protection strategy.

Proponents should wait to receive the MCM's review letter indicating that the report(s) has been entered into the Register before issuing a decision or proceeding with any ground disturbing activities.

Proponents must follow the recommendations of the archaeological assessment report(s). MCM recommends that further stages of archaeological assessment (if recommended) be undertaken as early as possible during detailed design and prior to any ground disturbing activities.

Built Heritage Resources and Cultural Heritage Landscapes

This EA project may impact built heritage resources and cultural heritage landscapes. Please advise whether the study area has been screened for built heritage resources or cultural heritage landscapes and/or is the subject of a cultural heritage assessment. If technical cultural heritage studies have been previously undertaken for this study area, please send us an electronic copy of the study(ies).

If the study area, including any temporary roads, detours or work areas associated with the project, has not been previously screened or assessed, then the Ministry's [Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes](#) should be completed to help determine whether this EA project may impact known or potential built heritage resources and/or cultural heritage landscapes.

If there is potential for built heritage resources and/or cultural heritage landscapes within the project area, then a Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment should be undertaken for the entire study area during the planning phase and will be summarized in the EA Report. This study will:

1. Describe the existing baseline cultural heritage conditions within the study area by identifying all known or potential built heritage resources and cultural heritage landscapes, including a historical summary of the study area. The Ministry has developed screening

criteria that may assist with this exercise: [Criteria for Evaluating for Potential Built Heritage Resources and Cultural Heritage Landscapes](#).

2. Identify preliminary potential project-specific impacts on the known and potential built heritage resources and cultural heritage landscapes that have been identified. The report should include a description of the anticipated impact to each known or potential built heritage resource or cultural heritage landscape that has been identified.
3. Recommend measures to avoid or mitigate potential negative impacts to known or potential built heritage resources and cultural heritage landscapes. The proposed mitigation measures are to inform the next steps of project planning and design.

Given that this project covers a large study area, MCM recommends that the Cultural Heritage Report is carried out so that step 1 described above is undertaken early in the planning process. Then, steps 2 and 3 can be undertaken once the preferred alternatives have been selected.

Cultural Heritage Reports will be undertaken by a qualified person who has expertise, recent experience, and knowledge relevant to the type of cultural heritage resources being considered and the nature of the activity being proposed.

Community input should be sought to identify locally recognized and potential cultural heritage resources. Sources include, but are not limited to, municipal heritage committees, historical societies and other local heritage organizations.

Cultural heritage resources are often of critical importance to Indigenous communities. Indigenous communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Indigenous communities includes a discussion about known or potential cultural heritage resources that are of value to them.

Environmental Assessment Reporting

All technical cultural heritage studies and their recommendations are to be addressed and incorporated into EA projects. Please advise MCM whether any technical cultural heritage studies will be completed for this EA project, and provide them to MCM before issuing a Notice of Completion or commencing any work on the site. If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the completed checklists and supporting documentation in the EA report or file.

Please note that the responsibility for administration of the *Ontario Heritage Act* and matters related to cultural heritage have been transferred from the Ministry of Tourism, Culture and Sport (MTCS) to the Ministry of Citizenship and Multiculturalism (MCM). Individual staff roles and contact information remain unchanged. Please continue to send any notices, report and/or documentation **via email only** to both Karla Barboza and myself.

- Karla Barboza, Team Lead - Heritage | Heritage Planning Unit (Citizenship and Multiculturalism) | 416-660-1027 | karla.barboza@ontario.ca
- Liam Smythe, Heritage Planner | Heritage Planning Unit (Citizenship and Multiculturalism) | 416-301-4797 | Liam.Smythe@ontario.ca

Thank you for consulting MCM on this project and please continue to do so throughout the EA process. If you have any questions or require clarification, please do not hesitate to contact me.

Sincerely,

Liam Smythe
Heritage Planner
Liam.Smythe@ontario.ca

Copied to: Emily Park, Tatham Engineering
Suzanne Troxler, Tatham Engineering
Brad Laking, Tatham Engineering
Dyana Marks, Township of Ramara
Karla Barboza, MCM

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. The Ministry of Citizenship and Multiculturalism (MCM) makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MCM be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out an archaeological assessment, in compliance with Section 48(1) of the *Ontario Heritage Act*.

The *Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33* requires that any person discovering human remains must cease all activities immediately and notify the police or coroner. If the coroner does not suspect foul play in the disposition of the remains, in accordance with *Ontario Regulation 30/11* the coroner shall notify the Registrar, Ontario Ministry of Public and Business Service Delivery, which administers provisions of that Act related to burial sites. In situations where human remains are associated with archaeological resources, the Ministry of Citizenship and Multiculturalism should also be notified (at archaeology@ontario.ca) to ensure that the archaeological site is not subject to unlicensed alterations which would be a contravention of the *Ontario Heritage Act*.

From: [Simcoe County Federation of Agriculture](#)
To: jkavanagh@ramara.ca; [Suzanne Troxler](#);
Cc: [Source Water Chair Lynn Dollin](#); b.thompson@srca.on.ca; mhgwainman@gmail.com; 4jfarms1996@gmail.com;
Minister.mecp@ontario.ca; sheri.broeckel@ontario.ca; [Leah Emms](#); [Paul Maurice](#);
Subject: Municipal Class EA letter
Attachments: [Bayshore village EA letter 2024.docx](#)
Sent: 6/6/2024 9:52:22 PM

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Dear Mr. Kavanagh and Ms. Troxler,

The SCFA would like to share a letter with regards to the Bayshore Village Effluent Spray Irrigation System Municipal Class Environmental assessment.

Thank you for your time,

Nicole Cross
Office Administrator
Simcoe County Federation of Agriculture

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1110 Highway 26 Midhurst ON L9X 1N6

(705) 726-9300 ext. 1224
simcty.fed.agriculture@outlook.com

June 7, 2024

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

Suzanne Troxler, P. Eng.
Tatham Engineering
Senior Engineer
stroxler@tathameng.com

Re: Bayshore Village Effluent Spray Irrigation System Municipal Class Environmental Assessment

The Simcoe County Federation of Agriculture (SCFA) is one of 52 county and regional federations supported by the Ontario Federation of Agriculture across the province. We strive to develop and consolidate farmers' positions for the protection and promotion of activities with the County of Simcoe and the municipalities which will improve the welfare of the farmer and the agriculture industry. We also bring the viewpoints and concerns of our membership to the Ontario Federation of Agriculture (OFA) as well as facilitate the spread of information of concern within the agriculture industry to all farmers in the county. Ultimately, the SCFA primary goal is to advocates on behalf of farm families in Simcoe County on local agricultural issues.

We appreciate the opportunity to provide our comments to the Bayshore Village Effluent Spray Irrigation System Municipal Class Environmental Assessment.

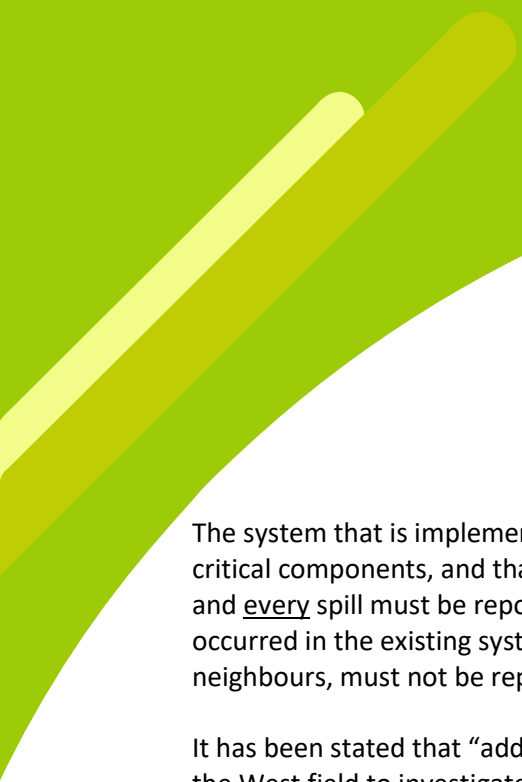
We are very pleased to see that the “Do Nothing option has been eliminated from further consideration. Continuing with the status quo is not an option. The current approach of spraying effluent on nearby fields for disposal through evapotranspiration and infiltration is causing significant negative impacts on neighbouring farmers, and this cannot be permitted to continue. This current system has not been operated according to the legally binding conditions of the environmental approvals, and this legacy must not be handed over to a new system. There is a long history of complaints and non-compliance issues left unaddressed, so trust must also be rebuilt with the surrounding community.

Ultimately, we believe the most environmentally sound, long-term solution is to process the sewage from Bayshore Village in an appropriate wastewater treatment plant with a tertiary-level or greater treatment system.

Any solution chosen for addressing the sewage from Bayshore Village through the current Class Environmental Assessment (Class EA) process must ensure long term protection from pollution to neighbouring properties, ground and surface water, and the environment. The long-term solution must also consider the damage and degradation of the existing spray fields and minimize, if not eliminate, their use for application in the future.

We have significant concerns about the continued use of spray irrigation of effluent. This is an antiquated approach to the disposal of sewage effluent. While it may have been a common practice in the 1980's when this system was originally developed, that is no longer the case. It is crucial that Ramara Township hold themselves accountable for utilizing the technology and knowledge available to them, to move beyond a 'reduced potential for run-off, negative impacts to surface water and aerosols' minimum approach to wastewater disposal, and to select a long term, viable option that encompasses modern, responsible wastewater treatment practices that are protective of human health and the environment.

Any new treatment system must be diligent in providing appropriate levels of wastewater stabilization. For instance, the proposed addition of UV treatment noted in a few alternatives under consideration must involve installation of approved infrastructure that provides measurable UV disinfection of wastewater effluent. The effect of UV as sunlight on the existing lagoons is not a viable UV treatment.



The system that is implemented must also include assurances that oversight and monitoring will be critical components, and that approval conditions will be enforced. The system must run as designed, and every spill must be reported and appropriately rectified. The lapses in compliance that have occurred in the existing system, which have caused significant economic and quality of life impacts to neighbours, must not be repeated.

It has been stated that “additional field investigations (archaeological, geotechnical)” are taking place on the West field to investigate viability. We also request hydrogeological studies be completed on all fields/sites that are considered for use for this project. This is critical to ensure the protection of water sources, including the private well water used for households in the area. SCFA would also like assurances that any new solutions or approaches are consistent with local source water protection policies.

The presentation at the Public Information Centre Update held May 22, 2024, referenced that precipitation patterns and quantities have changed since the existing system was originally designed. There is a history of the spray effluent fields not being able to accommodate the application and volume dating at least back to 1996 when an extension to the spray season was granted by amendment to the Certificate of Approval. Despite significant efforts to reduce the sewage generated in Bayshore Village, we believe that the system must be designed with spare capacity, to account for these changing precipitation patterns along with the potential future increases to the population served by this system. In addition to this spare capacity, there must also be viable, detailed contingency plans.

Since this Class EA is updating and finalizing efforts from 2017, time is of the essence. Little has been done to move the issues identified with the spray effluent treatment approach since 2017. It is imperative that Ramara Township expedite implementation of a preferred solution that addresses the long-standing issues with the existing system, while providing responsible wastewater treatment for the long term.

SCFA is also concerned about the operation of the existing spray effluent system in the interim, until the new system is implemented and functional. The slide deck presented on May 22, 2024, stated that, in the interim, the Township is committed to:

- Operate the spray fields in strict compliance with the Certificate of Approval
- Supervise the spray irrigation operation as per MECP requirements
- Repair piping and adjust spray heads in spray fields as needed
- Continue sanitary sewer repairs in Bayshore Village
- Implement the contingency plan (haulage) if needed

While we are supportive of these compliance measures, we believe they do not go far enough. Tatham Engineering very clearly states that the “soils appear to have become compacted and to have less infiltration capacity” and that “the system was designed with the basis that there would be less rain than has been in the last 10 years – so there has been change over time of the soil, of the weather...” These changes in climatic conditions, along with mismanagement of the spray effluent application, have in turn negatively impacted the ability of the system to function as designed.

Tatham Engineering reports also demonstrate that the spray effluent system is not operating as designed, specifically with respect to spare capacity so that fields can be taken out of service for aeration/tilling, spraying for short periods of time daily to not exceed soil absorptive capacity, varying application rates to accommodate soil hydraulic capacity to prevent runoff and ponding and fulltime oversight to monitor and respond immediately to incidences of ponding, pooling or runoff. Instead, one maximum application rate is applied to all fields concurrently, for seven to eight hours per day, and with no full-time oversight.

Further, extension of the spray effluent season is regularly requested, as the volume of wastewater cannot reasonably be managed during the approved spray period of May 18 through September 28 annually. Requests for relief from the spray application season can be traced back to 1996, the year the current Certificate of Approval was issued.

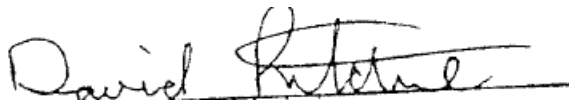
The need for an extended spray season is exacerbated by a lack of reserve capacity in the current lagoon operating system. While recent efforts to decrease flow through inflow and infiltration work are appreciated, there is still a lack of capacity to achieve appropriate lagoon retention time, ensuring treatment and stabilization of wastewater prior to spraying, and to store effluent on an annual basis.

Every effort must be made to ensure that the current negative impacts to neighboring properties are eliminated immediately and to bring the system into operational compliance. This includes the use of the haulage contingency plan, as needed.

In addition to full compliance with the Certificate of Approval and Environmental Compliance Approval, it is critical that compliance with any source water protection requirements is also demonstrated and enforced.

The Simcoe County Federation of Agriculture welcomes any opportunity to discuss our concerns and recommendations in further detail. We trust that our opinions will be given due consideration in the decision-making process.

Sincerely,

A handwritten signature in black ink, appearing to read "David Ritchie". The signature is fluid and cursive, with a horizontal line underneath the name.

Dave Ritchie
President of the Simcoe County Federation of Agriculture

Cc: MECP Minister's Office – Minister.mecp@ontario.ca
MECP Barrie District Office - sheri.broeckel@ontario.ca
Lynn Dollin, Chair, South Georgian Bay Lake Simcoe Region Source Protection Committee
Bill Thompson, Manager Watershed Plans and Strategies, Lake Simcoe Region Conservation Authority
Mark Wainman
Jim and June Newlands

From: [Darby Wheeler](#)
To: jkavanagh@ramara.ca; [Suzanne Troxler](#);
Cc: junewlands@gmail.com; Sebastian.Bonham-Carter@ontario.ca; sheri.broeckel@ontario.ca;
Subject: Beef Farmers of Ontario Submission to Bayshore Village Effluent Spray Irrigation System Municipal Class Environmental Assessment
Attachments: [2024_06_07 Beef Farmers of Ontario Submission to Bayshore Village Effluent Spray Irrigation Class EA.pdf](#)
Sent: 6/7/2024 6:30:06 PM

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Hi Josh and Suzanne,

Please find Beef Farmers of Ontario's submission to the Bayshore Village Effluent Spray Irrigation System Municipal Class Environmental Assessment attached.

Best Regards,
Darby



 **Darby Wheeler**
Policy Advisor
Beef Farmers of Ontario
 Phone 519.824.0334 Mobile 613.360.4020
 Web www.ontariobeef.com | www.ontbeef.ca
 Email darby@ontariobeef.com
 130 Malcolm Road, Guelph, ON N1K 1B1

If you're in need of support, please reach out to the Farmer Wellness Initiative - from the tractor, from the barn, or from the house after the sun sets on another long day. Call 1-866-267-6255 or visit www.farmerwellnessinitiative.ca. Accessible 24 hours a day, seven days a week, every day of the year.



June 7, 2024

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

Suzanne Troxler, P. Eng.
Tatham Engineering
Senior Engineer
stroxler@tathameng.com

Dear Josh Kavanagh and Suzanne Troxler,

Re: Bayshore Village Effluent Spray Irrigation System Municipal Class Environmental Assessment

Beef Farmers of Ontario (BFO) appreciates the opportunity to provide our comments to the Bayshore Village Effluent Spray Irrigation System Municipal Class Environmental Assessment. BFO represents the 19,000 beef farmers in Ontario by advocating in the areas of sustainability, animal health and care, environment, food safety, and domestic and export market development.

BFO is providing our comments to the Township of Ramara's Class Environmental Assessment as this matter has been brought to our attention by BFO members with farms neighbouring the effluent spray fields. Our members have communicated their serious concerns with the current process, the negative impacts to their properties, especially to their farmland, and health concerns for their families and their livestock.

Continuing on with the current effluent spray process is unacceptable. We were pleased to see in the Public Information Centre (PIC) Update presentation Problem Statement that public concerns with runoff and impacts on humans, farm animals, aerosols and drainage were referenced. We are also very pleased to see that the "Do Nothing" option, as presented during the session, will not be an option considered moving forward. The current system has not been operated according to the legally binding conditions of the environmental approvals and a new system must address these issues. There is a long history of complaints and non-compliance issues that have been left unaddressed and trust must be rebuilt with impacted stakeholders.

We strongly believe the most environmentally sound, long-term solution is to process the sewage from Bayshore Village in an appropriate wastewater treatment plant with a tertiary-level or greater treatment system.

Any solution chosen for addressing the sewage from Bayshore Village through the current Class Environmental Assessment process must ensure long term protection from pollution to neighbouring properties, ground and surface water, and the environment. The long-term solution

must also consider the damage and degradation of the existing spray fields and minimize, if not eliminate, their use for application in the future.

We have significant concerns about the continued use of spray irrigation of effluent. This is an outdated approach to the disposal of sewage effluent and it is crucial the Township of Ramara select a long term, viable option that encompasses modern, responsible wastewater treatment practices that are protective of human health and the environment.

Compliance issues that have occurred with the existing system, which have caused significant economic and quality of life impacts to neighbours, must not be repeated. The new system that is implemented must also include assurances that oversight and monitoring will be critical components, and that approval conditions will be enforced.

It has been stated that “additional field investigations (archaeological, geotechnical)” are taking place on the West field to investigate viability. We also request hydrogeological studies be completed on all fields/sites that are considered for use for this project. This is critical to ensure the protection of water sources, including the private well water used for households in the area.

The presentation at the PIC referenced precipitation patterns and quantities have changed since the existing system was originally designed. There is a history of the spray effluent fields not being able to accommodate the application and volume dating at least back to 1996 when an extension to the spray season was granted by amendment to the Certificate of Approval. Despite significant efforts to reduce the sewage generated in Bayshore Village, we believe the system must be designed with spare capacity, to account for these changing precipitation patterns along with the potential future increases to the population served by this system. In addition to this spare capacity, there must also be viable, detailed contingency plans.

Issues with the spraying of effluent on the fields and impacts to neighbouring property owners is longstanding. It is imperative the Township expedite implementation of a preferred solution that addresses the longstanding issues with the existing system, while providing responsible wastewater treatment for the long term.

Concerns have also been expressed about what will be done in the interim to address these longstanding issues. The interim plan, as presented during the PIC stated:

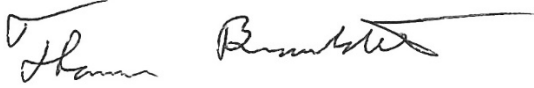
- Operate the spray fields in strict compliance with the Certificate of Approval
- Supervise the spray irrigation operation as per MECP requirements
- Repair piping and adjust spray heads in spray fields as needed
- Continue sanitary sewer repairs in Bayshore Village
- Implement the contingency plan (haulage) if needed

We believe these actions do not go far enough. As presented during the PIC, “soils appear to have become compacted and to have less infiltration capacity”, and it is increasingly difficult to dispose of all effluent from May to October due to weather and the available number of spray days is less than the number of spray days as designed by the process. Changes in climatic conditions, along with mismanagement of the spray effluent application, have in turn negatively impacted the ability of the system to function as designed.

Every effort must be made to ensure the current negative impacts to neighboring properties are eliminated immediately and to bring the system into operational compliance. This includes the use

of the haulage contingency plan, as needed. In addition to full compliance with the Certificate of Approval and Environmental Compliance Approval, it is critical compliance with any source water protection requirements is also demonstrated and enforced.

Sincerely,

A handwritten signature in black ink, appearing to read 'Thomas Brandstetter', with a long horizontal flourish extending to the right.

Thomas Brandstetter
Manager of Policy and Issues

cc: Sebastian Bonham-Carter (MECP)
MECP Barrie District Office
Jim and June Newlands

ALDERVILLE FIRST NATION



11696 Second Line Road
Roseneath, Ontario K0K 2X0
Phone: (905) 352-2011
Fax: (905) 352-3242
www.alderville.ca

Chief: Taynar Simpson
Councillor: Dawn Marie Kelly
Councillor: Lisa McDonald
Councillor: Nora Sawyer
Councillor: Jason Marsden

VIA E-MAIL

June 13, 2024

Josh Kavanagh
Township of Ramara
Director of Infrastructure
2297 Highway 12
Breachin, Ontario, L0K 1B0
Tel: 705-484-5374 ext. 290
Email: jkavanagh@ramara.ca

Dear Josh Kavanagh,

RE: Bayshore Village Effluent Spray Irrigation System Municipal Class EA Update

I would like to acknowledge receipt of your correspondence, which was received May 7th, 2024, regarding the above noted project.

As you may be aware, the area in which this project is proposed is situated within the Traditional Territory of Alderville First Nation. Our First Nation's Territory is incorporated within the Williams Treaties Territory and was the subject of a claim under Canada's Specific Claims Policy, which has now been settled. All 7 First Nations within the Williams Treaties have had their harvesting rights legally re-affirmed and recognized through this settlement (2018).

In addition to Aboriginal title, Alderville First Nation rights in its Reserve and Traditional Territory and/or Treaty Territory include rights to hunt, fish and trap, to harvest plants for food and medicine, to protect and honour burial sites and other significant sites, to sustain and strengthen its spiritual and cultural connection to the land, to protect the Environment that supports its survival, to govern itself, sustain itself and prosper including deriving revenues from its lands and resources, and to participate in all governance and operational decisions about how the land and resources will be managed, used and protected.

Alderville First Nation is requiring a File Fee for this project in the amount of \$300.00. This Fee includes administration, an initial meeting, project updates as well as review of standard material and project overviews. Depending on the number of documents to be reviewed by the Consultation Department, additional fees may apply.

Proudly working together to build a prosperous and healthy environment that promotes independence, honours and respects our values, and enhances our way of life.

Please make this payment to Alderville First Nation and please indicate the project name or number on the cheque. If you do not have a copy of Alderville First Nation's Consultation Protocol, it is available at: alderville.ca/wp-content/uploads/2017/02/AFNProtocol2.pdf. Please note that the mapping in this document needs updating to reflect the Williams Treaties First Nations Settlement Agreement 2018.

In order to assist us in providing you with timely input, please provide us with a Notice of Request to Consult containing relevant information and material facts in sufficient form and detail to assist Alderville First Nation to understand the matter in order to prepare a meaningful response. Guidance for giving notice can be found on pages 11-12 of our Consultation Protocol. Based on the information that you have provided us with respect to the notice of the **Bayshore Village Effluent Spray Irrigation System Municipal Class EA Update**, Alderville First Nation may require a mutual agreement to establish a special consultation process for this project. After the information is reviewed it is expected that you or a representative will be in contact to discuss this matter in more detail and possibly set up a date and time to meet with Alderville First Nation in person or virtually.

Although we have not conducted exhaustive research nor do we have the resources to do so, there may be the presence of burial or archaeological sites in your proposed project area. Please note, that we have particular concern for the remains of our ancestors. Should excavation unearth bones, remains, or other such evidence of a native burial site or any other archaeological findings, we must be notified without delay. In the case of a burial site, Council reminds you of your obligations under the *Cemeteries Act* to notify the nearest First Nation Government or other community of Aboriginal people which is willing to act as a representative and whose members have a close cultural affinity to the interred person. As I am sure you are aware, the regulations further state that the representative is needed before the remains and associated artifacts can be removed. Should such a find occur, we request that you contact our First Nation immediately.

Furthermore, Alderville First Nation also has available, trained Archaeological Liaisons who can actively participate in the archaeological assessment process as a member of a field crew, the cost of which shall be borne by the proponent. Alderville First Nation expects engagement at Stage 1 of an archaeological assessment, so that we may include Indigenous Knowledge of the land in the process. We insist that at least one of our Archaeological Liaisons be involved in any Stage 2-4 assessments, including test pitting, and/or pedestrian surveys, to full excavation.

Although we may not always have representation at all stakeholders' and rights holders' meetings, it is our wish to be kept apprised throughout all phases of this project.

Should you have further questions or if you wish to hire a liaison for a project, please feel free to contact Julie Kapyrka, Consultation Coordinator, at 905-352-2662 or via email at jkapyrka@alderville.ca .

Yours sincerely,



Chief Taynar Simpson
Alderville First Nation

Proudly working together to build a prosperous and healthy environment that promotes independence, honours and respects our values, and enhances our way of life.

Appendix I: Hydrogeological Assessment

File 100080

March 19, 2025

Andrew Schell, C.E.T.
Township of Ramara
2297 Highway 12
Breachin, Ontario L0K 1B0
aschell@ramara.ca

Re: Bayshore Village Sewage Works Effluent Spray Irrigation Class EA Update
Hydrogeological Assessment

Dear Mr. Schell:

As part of the Bayshore Village Sewage Works Class EA Update, and in response to comments from MECP, this letter presents our hydrogeological assessment of the preferred solution for the disposal of the treated effluent from the Bayshore Village sewage lagoons. The Class EA Update determined the preferred effluent disposal solution is a large subsurface disposal bed.

INTRODUCTION

Subject Property

The Township of Ramara (Township) owns a 120 ha property (3700 Barnstable Drive) adjacent to the existing sewage lagoons, which are located at 3407 Barnstable Drive (Concession Road 8/Sideroad 20). The property borders Concession Road 8 to the north and includes both banks of Wainman's Creek. Lake Simcoe borders the land to the west; and the southern property boundary is the Bayshore Village development. The property at 3700 Barnstable Drive contains a 22 ha field (West Field), which is currently farmed, surrounded by forested wetlands and Lake Simcoe. This field is proposed for the construction of a large subsurface disposal bed.

Effluent Disposal

Currently, treated effluent from the lagoons is pumped to two spray irrigation fields, one on the lagoon site and the other to the north at 3582 Barnstable Drive.

It is noted the average annual precipitation in the area when the sewage treatment and effluent spray irrigation system was originally approved in the late 1980s was significantly lower than it is now. This change to a wetter climate has reduced the number of days available for spray irrigation, and as a result, the effluent has been sprayed in suboptimum conditions, causing ponding and runoff.

SITE HYDROGEOLOGY

Topography and Drainage

The lands surrounding the sewage lagoon and spray fields are gently sloping and have a maximum elevation of 224 masl compared with the elevation of Lake Simcoe, which is 218 masl.

The site is in the Lake Simcoe watershed and the Ramara Creeks sub watershed. The sewage lagoons and the South and North spray irrigation fields are in the Wainmance Creek catchment area, as shown on Figure 1 (LSRCA, 2010).

Geological Setting

The area around the site is a low relief drumlinized limestone plain with forested wetland or swamp between the drumlin ridges, as shown on Figure 2, which illustrates the Quaternary geology of the area. Drumlins are composed of a consolidated silty sand to sandy silt till, which is likely correlative with the Newmarket till to the south. The till at the site has a blocky, hard texture and an enhanced secondary permeability in the weathered zone.

Geological evidence indicated the drumlins are erosional in origin and were formed by catastrophic releases of subglacial meltwater stripping overburden down to the bedrock surface in places. The drumlinized surface over much of Ramara Township has a subdued topographic relief and the lands between the drumlins have poor drainage as a result. These subglacial meltwater floods are also known for their depositional landforms, i.e., the Oro Uplands to the west. The sand and gravel deposited in the sub-aquatic fans of the Oro Uplands are derived from crystalline rocks of the Canadian Shield and host numerous sand and gravel pits.

The bedrock surface is exposed east of Highway 12 and at scattered locations within 2 km east and north of the site. The overburden thickens toward the west where it is 16 m at the Val Harbour municipal wells and 11 m at the Bayshore Village wells.

Water Supplies

The Bayshore Village water supply is provided by three drilled wells located in the community at 143 Bayshore Drive, as shown on Figure 3. These wells draw water from a confined artesian aquifer. The sewage lagoons and the South spray field are partly in WHPA C, which represents a 2 to 5-year travel-time for groundwater in the aquifer. The West Field where the subsurface disposal bed is proposed is outside the WHPA zones. The lagoons/spray irrigation system has been operating for almost 40 years and the municipal wells show no sign of impact from the effluent disposal system (OCWA, 2022).

Of the five homes near the site, two have water well records. These records indicate till overburden is approximately 6 m thick. The water well records indicate the source of water to be the Palaeozoic bedrock aquifer.



Conditions in the West Field

Four boreholes were drilled on the West Field (Terraprobe, 2010). These boreholes indicated elevated lands of the field are underlain by a hard till, identified as sandy silt to silty sand till (Finnamore and Bajc, 1982). Guelph Permeameter testing (Tatham, 2024) indicates soil infiltration rates are 2 to 4×10^{-4} cm/sec, corresponding to a T-time of 12 to 50 min/cm. We understand generally, the Township CBO uses a T-time of 50 min/cm for the design of septic beds to be constructed on these materials.

Groundwater levels on the drumlin are further from the ground surface on the crest of the drumlin than they are on the flanks (Terraprobe, 2010). This indicates groundwater flows away from the crest of the drumlin toward low-lying areas to the north, south, and west.

ASSESSMENT

Nutrient Loading

It is not expected the change of disposal method, i.e. spray irrigation versus subsurface disposal, will result in an increase in the nutrient loading in the Wainmance Creek catchment area. There also will be no change in the ultimate receptor of the nutrient loading in the Wainmance Creek catchment area. The operational challenges of the spray irrigation system that have caused direct runoff will be addressed with the subsurface disposal of effluent, thus reducing the projected nutrient loading.

The lands at 3700 Barnstable Drive between the West Field, where the disposal bed is proposed, and surface water are owned by the Township of Ramara. There is no potential for water supply wells to be constructed between the proposed disposal bed and Lake Simcoe or its tributaries, and since the site abuts surface water, the Reasonable Use assessment in the Design Guidelines (MOE, 2008) does not apply. It is expected the lagoon effluent low residual ammonia concentration (2 mg/L average from 2015 to 2024) will convert fully to nitrate in the disposal bed and intervening land. Therefore, there is no concern with aquatic impacts from unionized ammonia.

Lagoon monitoring data for the past 10 years have shown the existing sewage lagoons produce an effluent with an average phosphorus concentration of 0.8 mg/L. It is expected most of this phosphorus will be retained in the imported sand fill of the fully raised disposal bed (Robertson et al, 2019). The sand fill will be obtained from a nearby sand pit in the Oro Uplands. This sand is derived from crystalline aluminosilicate Precambrian rocks. The minerals derived from these rocks and deposited as sand are feldspar, amphibole, and mica rich in aluminum and provide excellent sites for phosphorus adsorption and mineral precipitation. Further, the distance to surface water is more than 300 m on all sides of the proposed bed, which is sufficient to ameliorate phosphorus retention.



Preliminary Bed Design

An area of approximately 6 ha on the West Field is sufficient to accommodate the Bayshore Village sewage works' rated capacity of 399 m³/day. The 22 ha field has sufficient area to accommodate a 6 ha bed, plus additional area for redundancy and replacement cells if needed in the future, and to maintain 300 m offsets to Lake Simcoe and tributaries.

The high T-time of the native soil requires a fully raised bed with imported fill mantle. The area for the bed's gravel and distribution piping is proposed to be approximately 2 ha and to be hydraulically loaded at 18 L/m²/day, which is reasonable in our experience. The bed is proposed to be comprised of multiple individual cells capable of being dosed individually through dosing pumps and splitter boxes. The contact area of the bed, including the mantle, will have an overall loading rate of 8 L/m²/day, which is supported by field observations and meets Table 22-1 (MOE, 2008) for effluent with BOD of 30 mg/L.

The preliminary mounding assessment indicates an effluent mound will be developed within the imported sand to a height of approximately 1.5 m. The mounding solution assumes mounding upon a flat surface. The existing gradual slopes of the sides of the drumlin can be accommodated in the bed design such that the prepared grade will retain the slope of the native topography. This will minimize the amount of soil to be moved and will retain the hydraulic characteristics of the weathered till. The slope of the prepared grade will facilitate the lateral movement of effluent and reduce the overall mound. Imported sand will be used to raise the distribution piping to 0.6 m above the effluent mound. The mantle will extend away from the bed with a slope of approximately 7:1 to contain the effluent mound and provide an adequate contact area for infiltration.

CONCLUSION

A large (6 ha) subsurface disposal bed can be sited within the 22 ha West Field at 3700 Barnstable Drive, considering the site's location and hydrogeological considerations. It is expected the lagoon effluent phosphorus and ammonia concentrations will be reduced within the proposed subsurface disposal bed, if constructed with sand of Precambrian aluminosilicate rock origin, so nutrient loadings in the Wainmance Creek catchment area will be lower than the already low concentrations resulting from effluent spray irrigation fields. The site is adequate to accommodate the required conservative design of this large disposal bed on native till with low permeability.





REFERENCE
LSRCA, 2010

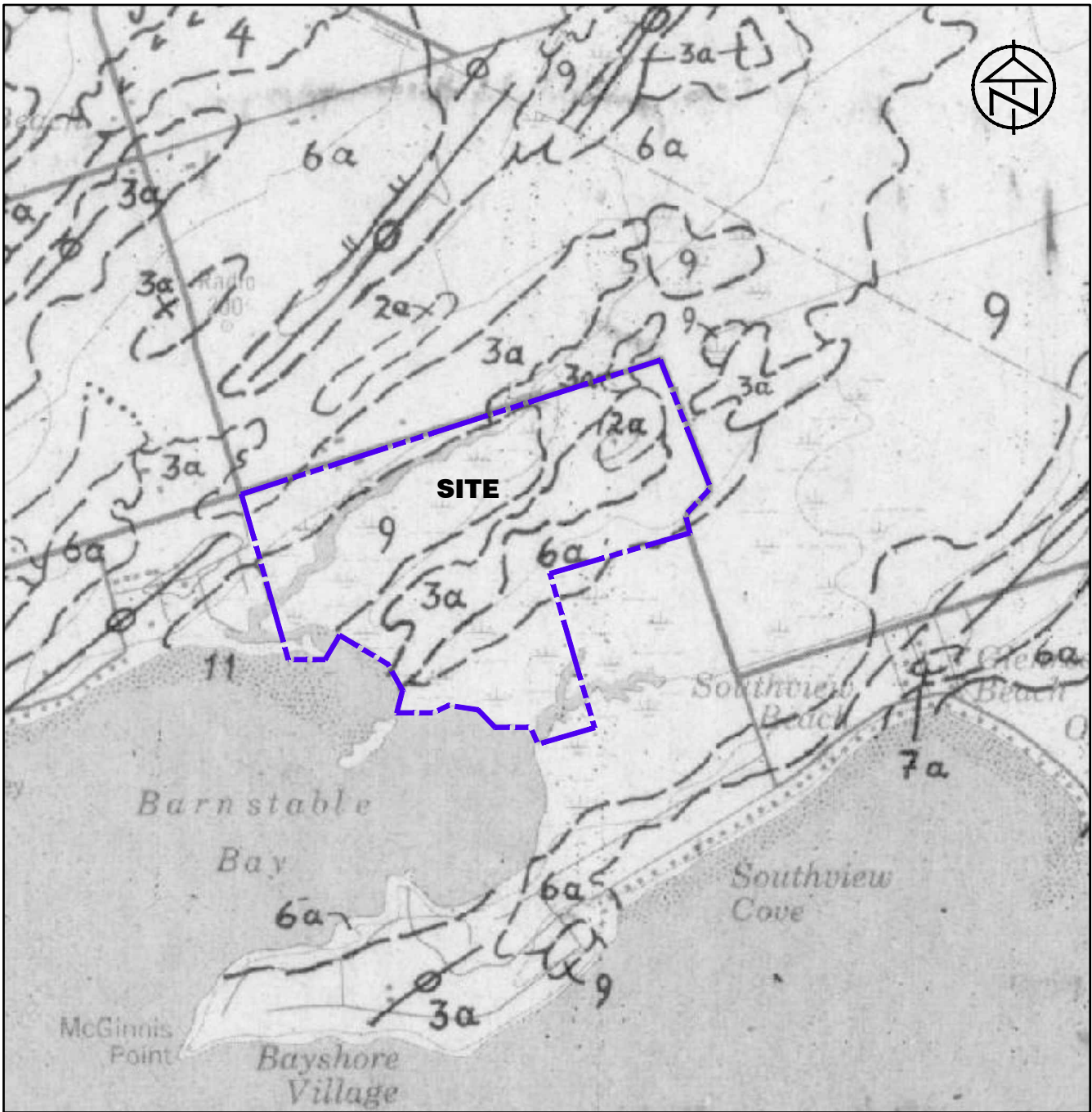


HYDROGEOLOGICAL ASSESSMENT
RAMARA CREEKS SUB WATERSHED AND CATCHMENTS MAP

SCALE: N.T.S.

DATE: MAR/25

FIGURE 1



LEGEND

PHANEROZOIC CENOZOIC QUATERNARY RECENT

9 BOG AND SWAMP DEPOSITS: MUCK AND PEAT, SOME MARL

PLEISTOCENE

7a GLACIOLACUSTRINE SAND AND MINOR GRAVEL

6a GLACIOLACUSTRINE VARVED SILT AND CLAY, MASSIVE TO LAMINATED CLAY

4 ICE-CONTACT STARTIFIED DRIFT: POORLY SORTED SAND AND GRAVEL TO GRAVELLY SAND, SILTY IN PLACES, OCCURS IN EKSERS, KAMES, AND MORAINES

3a SANDY SILT TO SILTY SAND TILL, VARIABLE STONE CONTENT

2a PALEOZOIC BEDROCK-DRIFT COMPLEX: DISCONTINUOUS DRIFT, IN PLACES SUFFICIENTLY THICK TO SUBDUE BEDROCK TOPOGRAPHY

SYMBOLS

⊖ DRUMLIN, DRUMLINOID RIDGE

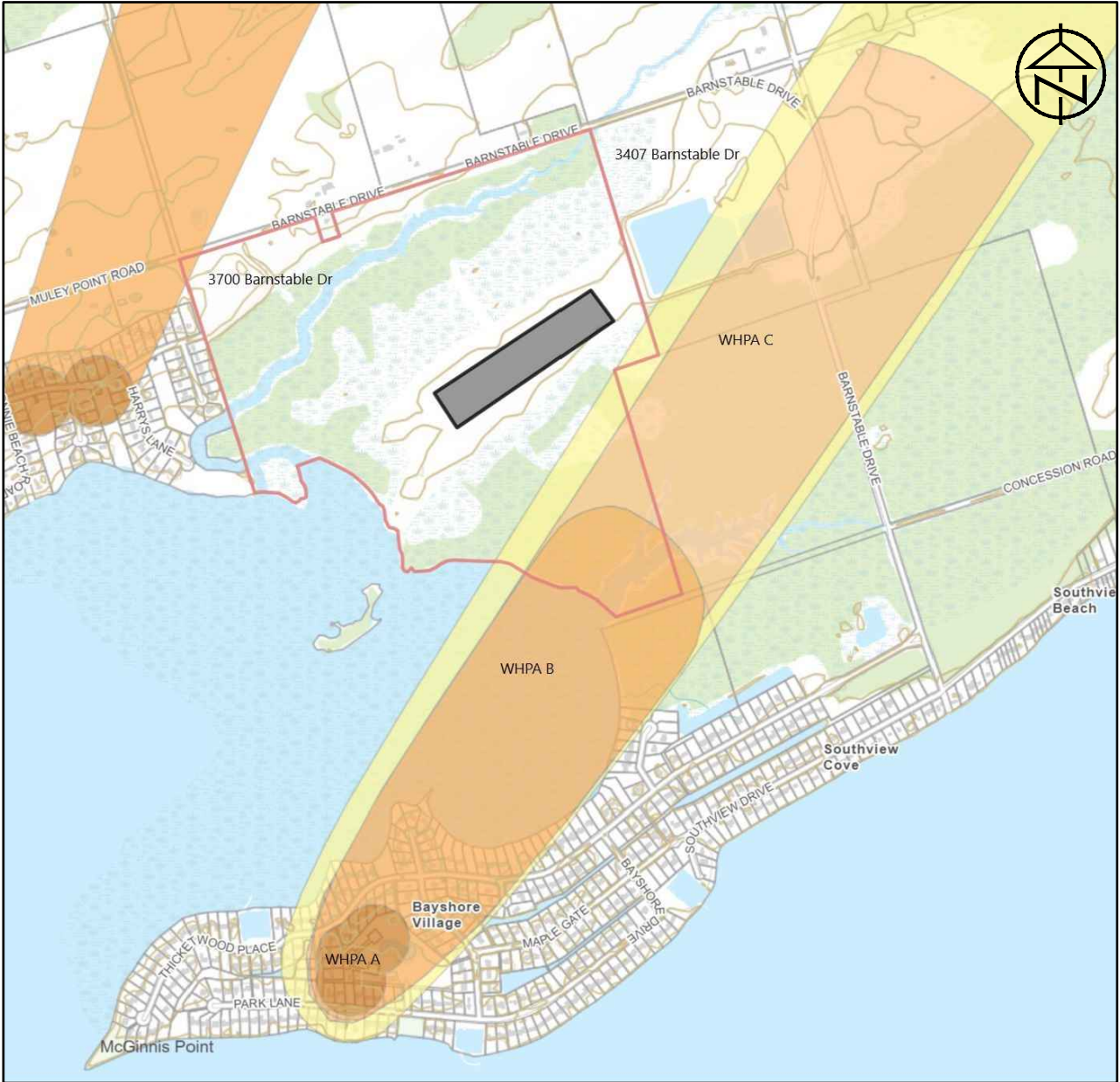


HYDROGEOLOGICAL ASSESSMENT
QUATERNARY GEOLOGY

SCALE: N.T.S.

DATE: MAR/25

FIGURE 2



HYDROGEOLOGICAL ASSESSMENT
SITE LOCATION MAP

SCALE: N.T.S.

DATE: MAR/25

FIGURE 3