Memorandum to the Council of

Corporation of the Municipality of Temagami

Subject: Temagami North and South Sewage Lagoons - 2024 Annual Performance

Memo No: 2025-M-082

Date: April 10, 2025

Attachment: Appendix A – OCWA 2024 APR for the Temagami North Sewage Treatment

Appendix B – OCWA 2024 APR for the Temagami South Sewage Treatment

Prepared By: Laala Jahanshahloo - CAO/Treasurer

Recommendation

BE IT RESOLVED THAT Council receives Memo 2025-M-082 as presented.

Contents

1.Executive Summary

This report presents a comprehensive overview of the performance of the Temagami North and Temagami South Sewage Treatment Lagoons for the 2024 reporting period. Both systems are operated by the Ontario Clean Water Agency (OCWA) on behalf of the Municipality of Temagami and are regulated by their respective Environmental Compliance Approvals (ECAs).

Overall, both facilities operated within regulatory compliance throughout 2024. Minor exceedances of design objectives - rather than compliance limits - were observed at both lagoons, largely attributable to environmental factors such as rainfall and spring thaw. Corrective actions were implemented immediately, and planned infrastructure upgrades and proactive maintenance ensured continued protection of the environment and public health.

2. Background

The Municipality of Temagami owns and operates two sewage treatment lagoons:

- Temagami North Lagoon, located at 37 Cedar Avenue, services the Temagami North area.
- Temagami South Lagoon, located at 22 Jack Guppy Way, services the Temagami South area.

Each facility operates under its own Environmental Compliance Approvals and is classified as a Class 1 wastewater treatment and collection system under Ontario Regulation 129/04.

OCWA is contracted by the Municipality to manage daily operations, monitoring, maintenance, and regulatory reporting. The 2024 reporting period spans January 1 to December 31, and includes system performance, effluent quality, flow data, maintenance activities, and any non-compliance or abnormal events.

3. System Description

3.1. Temagami North Sewage Treatment Lagoon

- ECA Numbers: 1636-BMMLKY, 4250-D59RYU

- Capacity: 390 m^3/day (avg), 1200 m^3/day (peak)
- Service Population: 300
- Effluent Receiver: Net Lake → Cassels Lake
- Major Process: Two-celled aerated lagoon with UV disinfection (operational Nov 1, 2024)

3.2. Temagami South Sewage Treatment Lagoon

- ECA Number: 3-1567-98-006
- Capacity: 232 m^3/day (avg)
- Service Population: 350
- Effluent Receiver: Snake Island Lake
- Major Process: Two-celled phosphorus removal lagoon with seasonal discharge

4. 2024 Performance Summary

4.1. Compliance Status

- Temagami North:
  - Met all effluent compliance limits.
  - Objective exceedances:
    - ✓ $cBOD_5$ and TSS in April (due to peak flows: 1479 m^3/day)
    - ✓ pH exceeded objectives on three occasions
- Temagami South:
  - Met all effluent compliance limits.
  - Objective exceedance:
    - ✓ TSS during Spring discharge (initial high concentration corrected through ferric dosing)

4.2. Flow Data

- Temagami North:
  - Avg. Influent Flow: 299 m^3/day (77% of rated capacity)
  - Peak Flow: 1479 m^3/day (April)
- Temagami South:
  - Avg. Influent Flow: 154 m^3/day (66% of rated capacity)
  - Peak Flow: 318 m^3/day (April)

5. Operational Highlights

5.1. Upgrades and Capital Works

- Temagami North:
  - Installed UV disinfection system (Nov 2024)
  - Repaired Cell 2 liner and added baffles (June)
  - Modified inlet/outlet structures (Sept)
- Temagami South:
  - Removed 1385 m^3 of sludge from South Cell (Nov)
  - Replaced alarm dialer at sewage pumping station

5.2. Routine Maintenance and Calibration

- North Lagoon:
  - Quarterly sludge monitoring
  - Biannual calibration of flow meters and pH probes
- South Lagoon:
  - Scheduled maintenance via OCWA's Workplace Maintenance System
  - Influent flow meter calibrated (99.3% accuracy)

- pH analyzer calibrated quarterly

6. Corrective Actions

6.1. North Lagoon:

- Increased aeration and adjusted retention during April exceedances
- Alkalinity testing and buffering added for pH control

6.2. South Lagoon:

- Adjusted ferric dosing to correct TSS levels in spring
- Dredging improved effluent clarity and phosphorus reduction

7. Proposed 2025 Upgrades

7.1. North Lagoon:

- Installation of real-time telemetry and remote monitoring
- Expand collection system to reduce inflow/infiltration during storm events

7.2. South Lagoon:

- Monitor impact of 2024 dredging on spring effluent quality
- Continue proactive maintenance and lagoon optimization

8. Conclusion

The Municipality of Temagami's sewage treatment systems continue to operate within compliance and demonstrate strong operational performance under OCWA management. Both lagoons faced isolated challenges primarily due to environmental stressors, but timely corrective actions and infrastructure investments mitigated risks and ensured compliance with ECAs. The continued focus on system upgrades, preventive maintenance, and environmental stewardship in 2025 will support the long-term sustainability and effectiveness of both treatment facilities.

2024 Annual Performance Report for the Temagami North Sewage Treatment Lagoon & Sewage Collection System

January 1, 2024 to December 31, 2024

PREPARED BY

Ontario Clean Water Agency
on behalf of the Municipality of Temagami

Date: March 26, 2025
Rev: 0

Revision History

Rev. No.	Date	Prepared by:	Approved by:	Description
0	March 26, 2025	I. Bruneau, PCT	B. Logan, Senior Operations Manager/ORO	Report issued

Table of Contents

List of Tables

List of Figures

Executive Summary

The Temagami North Sewage Treatment Lagoon is located at 37 Cedar Avenue in the village of Temagami North. The lagoon is designed to treat a daily average flow of 390 m^3/day and a peak flow of 1200 m^3/day. It is classified as a Class 1 wastewater treatment system under Ontario Regulation 129/04 and operated under Environmental Compliance Approval (ECA) No. 1636-BMMLKY for Municipal and Private Sewage Works (April 30, 2020) until ECA 4250-D59RYU was issued on May 28, 2024.

The Temagami North Lagoon Sewage Collection System is a Class 1 wastewater collection system under Ontario Regulation 129/04 that follows the requirements of ECA No. 201-W601 for Municipal Sewage Collection Systems issued on May 16, 2023.

This report summarizes the requirements of each Approval and describes the operational performance of the system to ensure production of quality effluent.

The Temagami North Lagoon operated well in 2024 producing a high quality effluent that met all of the effluent compliance limits specified in the system's ECA, however the system failed to meet the monthly effluent design objective for cBOD and TSS in April during periods of heavy rainfall. It also failed to meet the effluent objective for pH on three days in 2024. Corrective actions described in Section 5 of this report were performed in an attempt to lower levels within their respective objective ranges.

The system met the rated capacity limit having an annual average daily flow to the lagoon of 299 m3, which is 77% of the rated capacity. The total volume of influent flow measured in 2024 was 109,108 m^3.

The Temagami North Lagoon exceeded its peak design capacity twice in 2024. An extreme rainfall event caused the lagoon to exceed its allowable peak flow capacity of 1200 m^3/day having a maximum flow of 1479 m^3/day on April 12th and 1431 m^3/day on April 13th.

All requirements specified in the system's ECA and any issues experienced at the facility are further explained throughout the report.

Introduction

Condition 11(4) of ECA No. 4250-D59RYU requires the Owner to prepare and submit a performance report to the Ministry of the Environment's District Manager on an annual basis by March 31st for the preceding calendar year. The 2024 Annual Performance Report was prepared by the Ontario Clean Water Agency (OCWA) on behalf of the Municipality of Temagami and is based on information kept on record by OCWA. The report has been completed in accordance with the approval and contains, but is not limited to the following information outlined in the ECA:

- a summary and interpretation of all Influent monitoring data, and a review of the historical trend of the sewage characteristics and flow rates;
- a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, loading and a comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;
- a summary of all operating issues encountered and corrective actions taken;
- a summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus or mechanism forming part of the Works;
- a summary of any effluent quality assurance or control measures undertaken;
- a summary of the calibration and maintenance carried out on all influent, and final effluent monitoring equipment to ensure that the accuracy is within the tolerance of that equipment as required in this Approval or recommended by the manufacturer;
- a summary of efforts made to achieve the design objectives in this Approval, including an assessment of the issues and recommendations for pro-active actions if any are required under the following situations:
    a. when any of the design objectives is not achieved more than 50% of the time in a year, or there is an increasing trend in deterioration of Final Effluent quality;
    b. when the Annual Average Daily Influent Flow reaches 80% of the Rated Capacity;
- a tabulation of the volume of sludge generated, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed; a tabulation of the measured volume of sludge accumulated in the lagoon cells in five year intervals and the estimated volume in the interim years and when sludge was disposed of during the reporting period, a summary of disposal locations and volumes of sludge disposed at each location;
- a summary of any complaints received and any steps taken to address the complaints;
- a summary of all Bypasses, Overflows, other situations outside Normal Operating Conditions and spills within the meaning of Part X of EPA and abnormal discharge events;

- a summary of all Notice of Modifications to Sewage Works completed under Paragraph 1.d. of Condition 10, including a report on status of implementation of all modification;
- a summary of efforts made to achieve conformance with Procedure F-5-1 including but not limited to projects undertaken and completed in the sanitary sewer system that result in overall Bypass/Overflow elimination including expenditures and proposed projects to eliminate Bypass/Overflows with estimated budget forecast for the year following that for which the report is submitted;
- any changes or updates to the schedule for the completion of construction and commissioning operation of major process(es) / equipment groups in the Proposed Works;
- a summary of any deviation from the monitoring schedule and reasons for the current reporting year and a schedule for the next reporting year;
- a tabulation of the temperature and dissolved oxygen profile data;
- calculation of the mean volume weighted hypolimnetic dissolved oxygen (MVWHDO) following the guidance set out in Appendix C of the Ministry's *Lakeshore Capacity Assessment Handbook; Protecting Water Quality in Inland Lake on Ontario Precambrian Shield;*
- trend analysis of the MVWHDO over time.

Condition 4.0(4.6) of ECA No. 201-W601 for the Temagami North Lagoon Sewage Collection System requires the Owner to prepare and submit an annual performance report to the Ministry of the Environment's Director on or before March 31st of each year and covers a period from January 1st to December 31st of the preceding calendar year. This report must include, but is not limited to the following information;

- If applicable, includes a summary of all required monitoring data along with an interpretation of the data and any conclusion drawn from the data evaluation about the need for future modifications to the Authorized System or system operations;
- Includes a summary of any operating problems encountered and corrective actions taken;
- Includes a summary of all calibration, maintenance, and repairs carried out on any major structure, equipment, apparatus, mechanism, or thing forming part of the Municipal Sewage Collection System;
- Includes a summary of any complaints related to the Sewage Works received during the reporting period and any steps taken to address the complaints.
- Includes a summary of all Alterations to the Authorized System within the reporting period that are authorized by this Approval including a list of Alterations that pose a Significant Drinking Water Threat;
- Includes a summary of all Collection System Overflow(s) and Spill(s) of Sewage, including: dates, volumes and durations. If applicable, loadings for total suspended

solids, BOD_5, total phosphorus, and total Kjeldahl nitrogen, and sampling results for *E.coli*, disinfection, if any and any adverse impact(s) and any corrective actions, if applicable;

- Includes a summary of efforts made to reduce Collection System Overflows, Spills, STP Overflows, and/or STP Bypasses, including the following items, as applicable:
    a) A description of projects undertaken and completed in the Authorized System that result in overall overflow reduction or elimination including expenditures and proposed projects to eliminate overflows with estimated budget forecast for the year following that for which the report is submitted.
    b) Details of the establishment and maintenance of a PPCP, including a summary of project progresses compared to the PPCP's timelines.
    c) An assessment of the effectiveness of each action taken.
    d) An assessment of the ability to meet Procedure F-5-1 or Procedure F-5-5 objectives (as applicable) and if able to meet the objectives, an overview of next steps and estimated timelines to meet the objectives.
    e) Public reporting approach including proactive efforts.

The two reports have been merged into one and is presented as the 2024 Annual Performance Report. The report was prepared by the Ontario Clean Water Agency (OCWA) on behalf of the Municipality of Temagami and is based on information kept on record by OCWA.

1 System Description

Sewage System Name:	**Temagami North Sewage Treatment Lagoon**
Sewage System Works Number:	120000783.
Sewage System Address:	37 Cedar Avenue, Village of Temagami North
Sewage System Owner:	Corporation of the Municipality of Temagami
ECA Numbers:	1636-BMMLKY, issued April 30, 2020 4250-D59RYU, issued May 28, 2024
Reporting Period:	January 1, 2024 to December 31, 2024

Capacity of Works:	390 m^3/day annual average, 1200 m^3/day peak
Service Area:	Temagami South, District of Nipissing
Service Population:	300
Effluent Receiver:	Net Lake, then Cassels Lake
Major Process:	Two-celled Continuously Discharging Aerated Lagoon

The Temagami North Sewage Treatment Lagoon is designed to treat a daily average flow capacity of 390 m^3/day with a peak flow rate of 1200 m^3/day.

The treatment lagoon consists of the following;

- Cell No. 1 is a lined primary stabilization, facultative lagoon equipped with an aeration system. It has an approximate depth of 3.05 m and an approximate surface area of 1,300 m^2 for a total holding capacity of 4,105 m^3. The aeration system consists of twelve fine bubble aeration units with a design capacity of 148 m^3/hr that evenly distributes air within the entire cell. The water level in the lagoon is controlled by a weir in the interconnecting manhole between Cell No. 1 and Cell No. 2. The manhole contains a valve near the bottom of the weir separating the two chambers and can be opened to empty Cell No. 1.
- Three (3) BIOFIXE modules were installed in Cell No. 1 in June of 2022 as a pilot project for BOD and ammonia removal. The first two units were positioned to remove BOD load and the third unit was positioned to remove ammonia as shown Figure 1 below.

  The floating units are anchored in the middle of the lagoon for optimal air dispersion. Three (3) stainless steel valves and three (3) pressure gauges were added to the aeration lines to aid in the Biofixe system optimization.

Figure 1 – Location of BIOFIXE Modules

- Cell No. 2 is a lined secondary stabilization with an approximate depth of 1.5 m and an approximate surface area of 13,300 m^2 for a total holding capacity of approximately 20,950 m^3. It is also equipped with an aeration system that consists of twenty two fine bubble aeration units with a design capacity of 148 m^3/hr that distributes air within the first half portion of the cell. Approximately 6 m of 400 mm diameter pipe from the Cell No. 2 discharges to a control structure before flowing to a UV disinfection system. The control structure consists of a 2400 mm diameter manhole with a flow control orifice and 5m long 300 mm primary outlet pipe to the UV building, an overflow spill weir and outlet pipe equipped with a gate valve that can discharge to a rip rap channel and then into Net Lake during times of high flows.
- Three air blowers each with a rated capacity of 82 m^3/hr at 62 kPa (two on duty, one on standby) are located in a blower building and are equipped with air distribution and cleaning systems.
- A chemical feed system is used to add ferric sulphate between Cell No. 1 and Cell No. 2 for pH stabilization.
- The UV building is equipped with a manual bar screen, a package UV disinfection system, a palmer-bowles flume with level transmitter, an effluent auto-sampler, a PLC control panel, auto-dialer, control structure level transmitter, a sump pit equipped with floats, heating and ventilation.

The TrojanUV3000 PTP UV disinfection system was installed in 2024. The unit is capable of a peak disinfection flow rate of 50 m^3/hour (1200 m^3/day). It is comprised of two banks in series within a U-turn channel that can deliver a dose of 30 mJ/cm^2 at a UV transmittance of 55%.

Effluent continuously discharges from the UV building into Net Lake, which feeds into Cassels Lake. In 2024, no effluent flow occurred from July 16th to November 1st when the effluent valve was closed to allow the Cell No. 2 to fill up. The cell was lowered to allow the installation of a new inlet pipe to a new UV building and to allow the removal of an existing outlet structure. Once the lagoon reached the required elevation, the effluent flow resumed.

The Temagami North Sewage Collection system consists of trunk sewers, separated sewers and forcemains that transmit sanitary sewage to two sewage pumping stations (SPSs) that direct flow to the lagoon for treatment.

Cedar Street SPS is the main pumping station and is located off Cedar Avenue adjacent to the Temagami North water Treatment plant. It collects all sewage from the community and pumps it to Cell No. 1 of the treatment lagoon via three 5.5 hp sewage pumps (2 duty and 1 standby). Each pump is rated at 22.2 L/second at 10 TDH. A flow meter that measures the influent into the lagoon is located at this station.

A 72 kW diesel generator with automatic start and a fuel tank volume of 620 L is available in case of power failures.

Spruce Drive SPS collects sewage from a mobile trailer park and homes on Spruce Drive. It discharges to the main sewer line using two submersible sewage pumps (1 duty and 1 standby), each rated at 6.3 L/second. Sewage from this line is directed to the Cedar Street SPS and then pumped to the lagoon. A 25 kW natural gas standby generator is installed next to the SPS for back-up power supply.

There are no designed overflow points at these stations.

2 Monitoring Program

2.1 Monitoring Program as Outlined in the Environmental Compliance Approval

Table 1: Analytical Parameters

BOD_5	Five Day Biochemical Oxygen Demand – is measured in an unfiltered sample; includes carbonaceous and nitrogenous oxygen demand. It refers to the amount of oxygen consumed by organic matter in a specific volume of water at a specific temperature over a 5 day period. High BOD_5 in effluent means a large quantity of oxygen was needed to break down the organic matter and identifies a large amount of organic matter in the effluent indicating inadequate treatment.
$cBOD_5$	Five-day carbonaceous biochemical oxygen demand – represents the oxygen depletion associated with the biodegradation of organic compounds and the oxidation of inorganic compounds such as ferrous iron and sulphide within 5 day period and at a specific temperature. High $cBOD_5$ in sewage effluent means a

Table 1: Analytical Parameters

	large quantity of oxygen was needed to break down the organic and inorganic matter in the effluent indicating inadequate treatment.
TSS	Total Suspended Solids – the dry weight of suspended particles that are not dissolved in water and can be filtered. TSS is composed of settleable solids and non-settleable solids depending on the size, shape and weight of the solid particles. Settable solids are large sized particles that tend to settle more rapidly in a given period of time. High TSS may decrease water's natural dissolved oxygen levels and increase water temperature which may prevent organisms from surviving in the waters.
TP	Total Phosphorus – a measure of all phosphorus found in a sample, whether it is dissolved or particulate. Phosphorus is an essential nutrient that contributes to plant productivity. TP is commonly used to determine the health of water bodies and excess TP can stimulate algae and weed growth that may cause fluctuations in dissolved oxygen in the receiving waters.
TAN	Total Ammonia Nitrogen – the total amount of nitrogen in the forms of Ammonium (NH_4) and Ammonia (NH_3). Ammonia is one of several forms of nitrogen that exist in aquatic environments and can cause direct toxic effects on aquatic life. High levels of ammonia can corrode and damage critical pieces of infrastructure.
TKN	Total Kjeldahl Nitrogen – measures both total organic nitrogen and ammonium. Excess nitrogen in water bodies can lead to harmful algal blooms and other negative impacts on aquatic ecosystems.
NH_3	Un-ionized Ammonia - a neutral toxic form of nitrogen in an un-ionized state. Ammonia is an environmental concern, especially because of its danger to human or aquatic life.
DO	Dissolved Oxygen – the amount of oxygen that is available in water to sustain life, including living bacteria.
E. coli	*Escherichia coli* – Thermally tolerant forms of Escherichia bacteria that can live in the intestines of humans and warm-blooded animals. There are hundreds of *E. coli* strains and most are relatively harmless, however a notorious exception is *E. coli* strain 0157:H7, an emerging pathogen that produces a powerful toxin and can cause severe illness. *E. coli* is used as the most widely adopted indicator of faecal pollution in water and wastewater.
pH	Potential of Hydrogen – expresses the degree or intensity of both acidic and alkaline reactions on a scale from 0 to 14 with 7 being neutral, number less than 7 signify increasingly greater acidic solutions, and numbers greater than 7 signify increasingly basic or alkaline reactions. Very high or very low pH levels can be

Table 1: Analytical Parameters

	corrosive to pipes, screening equipment and pumps, can damage biological processes and form undesirable toxic gases or heavy metals.

Table 2: Sampling Requirements for the Raw Sewage (Influent)

Parameter	Type of Sample	Minimum Frequency
BOD_5	24 hour composite	weekly
TSS	24 hour composite	weekly
TP	24 hour composite	weekly
TKN	24 hour composite	weekly

Table 3: Sampling Requirements for the Final Effluent

Parameter	Type of Sample	Minimum Frequency
$cBOD_5$	24 hour composite	weekly
TSS	24 hour composite	weekly
TP	24 hour composite	weekly
TAN (NH_3^- + NH_4 as N)	24 hour composite	weekly
E.coli	grab	weekly
DO	grab/field	weekly
pH	grab/field	weekly
Temperature	grab/field	weekly
Unionized Ammonia	calculation	weekly

Note: pH and temperature of the Final Effluent are determined in the field at the time of sampling for Total Ammonia Nitrogen in order to calculate unionized ammonia.

Table 4: Influent and Effluent Monitoring Schedule

2024 Schedule	2024 Sample Dates	2025 Sample Dates
Weekly on Tuesdays (Refer to Appendix A)	Refer to Appendix A	Weekly on Wednesdays (Refer to Appendix A)

Table 5: Net Lake Sampling for Mean Volume Hypolimnetic Dissolved Oxygen (MVWHDO)

Deepest Locations in Net Lake	Parameters	Frequency
In the Eastern Basin	DO and Temperature	Annually between August 15th to September 15th
In the West Arm		

2.2 Deviations from the Monitoring Program

In 2024, influent samples were collected on a rotational basis between 0800 hours to 1600 hours every Tuesday unless, it was holiday (i.e. Easter Monday, Canada Day, Christmas Day, New Year Day etc…) or samples did not arrive to the laboratory on time due to shipping issues or frozen samples upon delivery. Sample dates were never changed due to effluent quality.

Effluent samples were also collected weekly every Tuesday until the effluent valve was closed on July 16, 2024 at 9:17 AM stopping the effluent flow. As part of the UV disinfection project, Cell No. 2 was lowered to allow the installation of a new inlet pipe to the UV building and the removal of the existing outlet structure. The effluent valve was closed to allow the cell to fill up. The last effluent sample collected was on July 16th before the valve was closed.

Once the lagoon reached the required elevation and effluent began to flow through the new UV disinfection system and new outfall, an effluent sample was taken. Effluent flow started at approximately 3:00 PM on Friday, November 1st and a 24 composite sample was collected on Saturday, November 2nd. Regular weekly sampling of the effluent started on November 5, 2024.

Two sampling deviations occurred during in 2024:

- **Scheduled Sample Date: Tuesday, December 24th** – samples were collected on Monday, December 23rd to allow the samples to be brought to the laboratory for December 24th for processing. December 25th and 26th were STAT holidays
- **Scheduled Sample Date: Tuesday, December 31st** – samples were collected on Monday, December 30th to allow the samples to be brought to the laboratory for December 31st for processing. January 1st was a STAT holiday.

Sampling will occur on every Wednesday in 2025 because regular sampling on Mondays is impractical as the auto-sampler has to be turned on the day before sampling and having an operator working each Sunday is unfeasible. Thursday and Friday could also result in extra weekend charges, not to mention, if the sample didn't arrive at the laboratory due to courier issues or freezing then the system would be out of compliance with no opportunity to resample for the week. Sampling on the weekend is also not feasible due to excess shipping, lab and overtime charges.

Refer to Appendix A for the 2024 and 2025 Sample Schedule for the Temagami North Sewage Treatment Lagoon.

3 Interpretation of Monitoring and Analytical Data

3.1 Influent Flow

The influent flow is a measurement based on the total volume of wastewater taken in each day. The system is equipped with a raw sewage flow meter is installed at the Cedar Street sewage pumping station located upstream from the lagoon.

The rated capacity of the Temagami North Lagoon is 390 m3/day (average daily flow). As described in the ECA, the annual average daily influent flow is defined as the cumulative total of sewage flow of influent to the sewage treatment plant during a calendar year divided by the number of days which sewage was flowing to the sewage treatment plant that year.

Compliance is achieved when the average daily influent flow does not exceed 390 m^3/day or a peak design flow of 1200 m^3/day. The average daily flow for 2024 was 299 m^3/day which is 77% of the average rated capacity. This has increased from 2023 (265 m^3/day).

A peak flow of 1479 m^3/day was reached on April 13th during an extreme rainfall event. Refer to Figure 2 for comparison of historical influent flows.

The total amount of sewage received by the lagoon in 2024 was 109,108 m^3.

In an effort to keep annual flows below 80% of the rated capacity, the municipality has performed significant work in repairing manholes in 2021 and 2022 to minimize ground infiltration and conducted smoke testing to help identify sources of inflow and restrictive conditions in the sanitary sewer system.

Figure 1 compares the monthly influent flow rates recorded in 2024 to the rated capacity and peak capacity of the plant.

Flow trends are critical to assessing the adequacy of size of the treatment system. Figure 2 shows both the annual average and annual peak values from 2014 to 2024 plotted against the rated capacity and peak flow capacity of the wastewater system.

3.1.1 Monthly Influent Flows

Table 6: Comparison of the Monthly Influent Flows to the Rated Capacity

2024	Total Influent Flow (m^3/d)	Average Daily Influent Flow (m^3/d)	% of the Avg. Capacity (390 m^3/d)	Maximum Influent Flow (m^3/d)	% of the Max. Capacity (1200 m^3/d)
January	7525	243	62%	307	26%
February	6477	223	57%	431	36%
March	13,408	433	111%*	930	78%
April	18,801	627	161%*	1479*	123%*

2024	Total Influent Flow (m^3/d)	Average Daily Influent Flow (m^3/d)	% of the Avg. Capacity (390 m^3/d)	Maximum Influent Flow (m^3/d)	% of the Max. Capacity (1200 m^3/d)
May	10,617	342	88%	660	55%
June	6748	225	58%	439	37%
July	6204	200	51%	357	30%
August	4674	151	39%	227	19%
September	6932	231	59%	467	39%
October	7392	238	61%	701	58%
November	12,678	423	108%	1069	89%
December	7654	247	63%	664	55%

* Snow melt and heavy rainfall resulted in the system exceeding its average rated capacity in March and April.

* The system exceeded the maximum allowable peak flow rate of 1200 m^3/day on April 12th and 13th due to extreme rainfall.

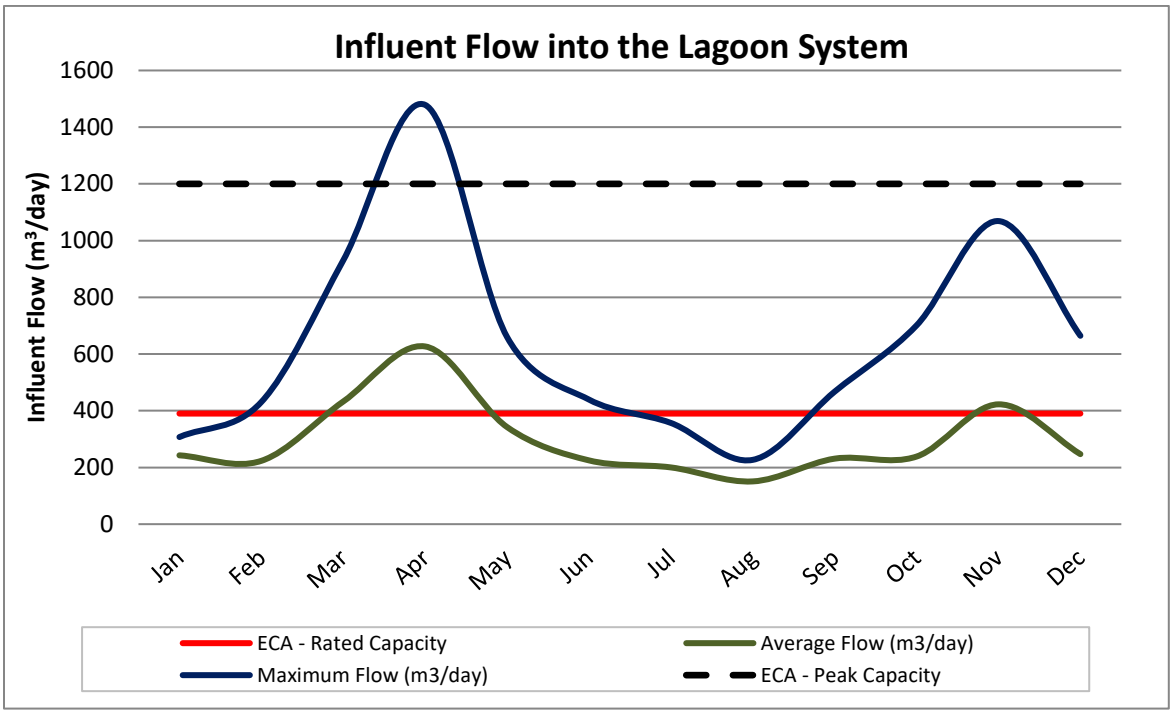


Figure 2 – 2024 Influent Flow Temagami North Lagoon

3.1.2 Annual Influent Flows

Table 7: Comparison of the Annual Influent Flow to the Rated Capacity

Rated Design Capacity (m^3/day)	390	Maximum Flow Capacity (m^3/day)	1200
2024 Average Flow (m^3/day)	299	2024 Maximum Flow (m^3/day)	1479
Percent of Capacity (%)	77%	Percent of Capacity (%)	123%
Total volume of sewage influent in 2024		109,108 m^3	

3.1.3 Historical Influent Flows

Table 8: Comparison of Historical Influent Flows (2014 to 2024)

Year	Total Influent Flow (m^3/d)	Average Day Flow (m^3/d)	% of the Avg. Capacity (390 m^3/d)	Maximum Influent Flow (m^3/d)	% of the Max. Capacity (1200 m^3/d)
2024	109,108	299	77%	1479	123%
2023	96,694	265	68%	1201	100%
2022	90,572	248	64%	1563	130%
2021	118,174	324	83%	1473	123%
2020	141,592	387	99%	1278	107%
2019	137,393	376	96%	1552	129%
2018	113,180	310	79%	1314	109%
2017	119,914	329	84%	1500	130%
2016	111,312	288	74%	1201	100%
2015	117,594	323	83%	2340	195%
2014	120,523	330	85%	1563	130%

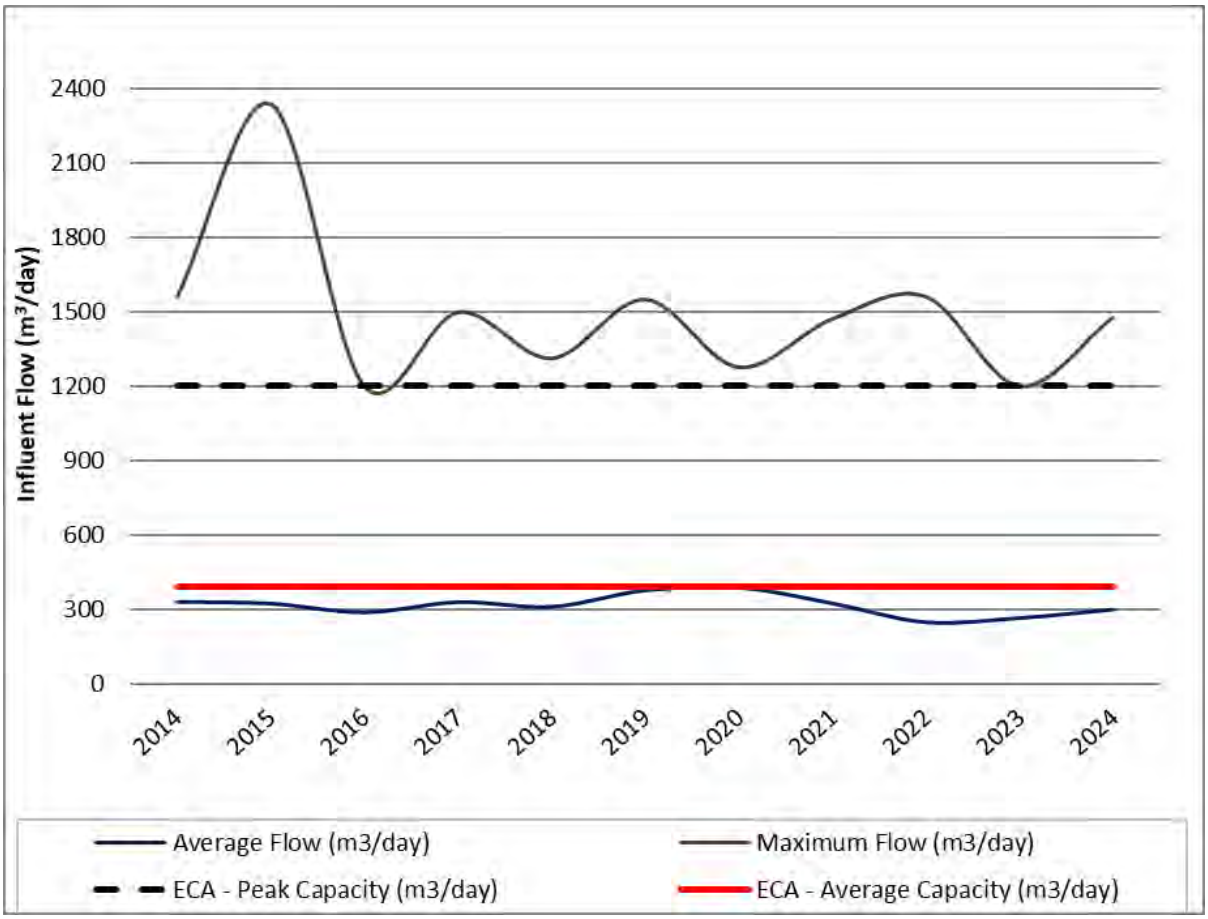


Figure 3 – Historical Influent Flow Trends (2014 to 2024)

3.2 Effluent Flows

The Temagami North Lagoon continuously discharges into Net Lake, which feeds into Cassels Lake. In 2024, the effluent flow was measured using the influent flow meter as the flow streams are similar in flow rate and quantity. It should be noted that on November 1st, 2024, a new effluent flow measuring device was installed, but for this report, the influent flow will be used as the effluent flow.

A summary and interpretation of the influent flow data is found in Section 3.1 on Page 14.

3.3 Influent (Raw Sewage) Quality

Influent samples are required to be collected on a weekly basis. This section summaries the annual average and annual maximum concentrations of analytical parameters tested in 2024. A monthly summary of the influent data is available in Appendix B.

Table 9: Influent Concentrations

Parameter	Annual Average	Annual Maximum
BOD_5 (mg/L)	51	190
TSS (mg/L)	70	260
TP (mg/L)	1.66	5.21
TKN (mg/L)	15	42

3.3.1 Historical Trends of Influent Characteristics

The characteristics of the raw wastewater influence the design and efficacy of the wastewater treatment process. Influent data and trends for BOD_5, TSS, TP and TKN from 2014 to 2024 are provided in Appendix C.

The trends show that the average BOD_5 concentration varied from 27 to 362 mg/L over the past 11 years with a maximum level of 2000 mg/L in 2021.

The average TSS concentration varied from 45 to 725 mg/L with a maximum concentration of 3650 mg/L in 2021.

The average TP levels over the last 11 years range from 0.9 to 8.5 mg/L with a maximum result of 71 mg/L in 2021.

The average TKN concentration ranged from 10 to 49 mg/L with a maximum concentration of 244 mg/L in 2021.

3.4 Effluent Quality

The Temagami North sewage effluent quality is based on the carbonaceous biochemical oxygen demand ($cBOD_5$), total suspended solids (TSS), total phosphorus (TP) and total ammonia (TAN) levels. In 2024, the lagoon produced a very good quality effluent which met the compliance limits specified in the system's ECA. Summaries of the minimum and maximum monthly averages for the final effluent concentrations are shown in Table 10, along with the annual minimum and maximum pH and temperature results. The effluent loadings are shown in Table 11.

Table 10: Effluent Concentrations

Parameter	Monthly Average (minimum)	Monthly Average (maximum)	Compliance Limit (monthly average)	Exceedance
$cBOD_5$ (mg/L)	< 1.13	17.2	20	No
TSS (mg/L)	< 1.1	24.6	30	No
TP (mg/L)	0.017	0.217	0.6	No

Parameter	Monthly Average (minimum)	Monthly Average (maximum)	Compliance Limit (monthly average)	Exceedance
TAN (mg/L)	< 0.20	2.95	6	No
E.coli (cfu/100mL)	1	2595	N/A (results for entire reporting period)	N/A
E.coli (Nov - Dec)	1	2	200* (*geomean*)	No
DO (mg/L)	7.17	15.8	N/A	N/A
Un-ionized Ammonia (mg/L)	0.0003	0.0298	N/A	N/A

Parameter	Annual Minimum	Annual Maximum	Compliance Limit	Exceedance
pH (Jan – Oct)	6.47	8.68	6.0 to 9.0** (inclusive)	No
pH (Nov – Dec)	6.77	7.19	6.5 to 9.0** (inclusive)	No
Temperature (°C)	0.4	24.6	N/A	N/A

"<" means values include results that were less than the laboratory's method detection limit.
cfu ≡ colony forming units.

Notes:

* The *E.coli* limit of 200 cfu/100mL came into effect when the UV disinfection system was put into operation on November 1, 2024. No *E.coli* exceedances occurred in November and December.

** A pH limit of 6.0 to 9.0 was required from January to October 2024. The pH limit of 6.5 to 9.0 came into effect when the UV system was put into operation on November 1, 2024. No *pH* exceedances occurred from January to October and from November to December.

Table 11: Effluent Loadings

Parameter	Annual Average	Annual Maximum	Compliance Limit
$cBOD_5$ (kg/d)	1.18	10.8	N/A
TSS (kg/d)	2.2	15	N/A
TP (kg/d)	0.02	0.12	N/A
TAN (kg/d)	0.19	0.74	N/A

Appendix B includes a Monthly Process Data Report which summarizes the effluent monitoring and analysis conducted at the facility during the reporting period.

3.5 Sewage Treatment Program Success and Adequacy

The Performance Summary shows the efficiency of the lagoon performance through pollutant removal rates from raw sewage through to the final effluent.

Table 12 demonstrates that the lagoon treatment process was very successful in reducing the levels of BOD_5, TSS, TP and total ammonia (TKN/TAN) from the influent, producing high quality effluent.

Table 12: Performance Summary

Parameter	Influent (annual average)	Effluent (annual average)	% Removal
BOD_5 (mg/L)	51	< 4.97	90%
TSS (mg/L)	70	< 9.2	87%
TP (mg/L)	1.66	0.102	94%
TKN/TAN (mg/L)	15 (TKN)	< 0.80 (TAN)	95%

4 Effluent Quality Assurance and Control Measures Undertaken

The following activities are included in regular operator and supervisory activities to assure high level performance of the sewage treatment operations including high effluent quality and accurate flow monitoring:

- Operational staff has current and appropriate level of certification for the operation of the facility and continue to learn and achieve knowledge of the process and equipment. Experienced staff has a high level of regulatory competence. New staff receives on-going training to achieve operational knowledge and regulatory competence.
- The pumping stations and lagoon site are inspected by a certified OCWA operator regularly during the work week.
- Certified operators conduct daily reviews of selected data from continuous monitoring equipment which is captured on-site via data logging devices or by a remote monitoring system.
- In-house tests; pH, temperature and DO are conducted by licensed operators for monitoring purposes using standard methods for Water and Wastewater.

- Samples are collected as required and analyzed by Testmark Laboratories. Analysis of the samples is conducted in accordance with the Standard Council of Canada (SCC), in cooperation with the Canadian Association for Laboratory Accreditation Inc. (CALA). Quality control procedures are method specific and include laboratory duplicate samples, spiked blanks and spiked duplicates.
- A sampling system which includes an excel sample calendar, which is updated at the beginning of each year, and a chain of custody binder are used to ensure all samples are collected as per the requirements identified in the system's ECA.
- Operations and Compliance staff review facility round sheets and laboratory reports to monitor the routine operation of the treatment system and ensure compliance with the ECA.
- All process and laboratory data is logged in a process data management system.
- Routine maintenance is scheduled and tracked to completion using OCWA's Workplace Maintenance System (WMS). Instrumentation equipment is tested and maintained as per manufacturer's recommendations.
- Certified operators monitor chemical usage and make adjustments as required.
- Ferric Sulphate is added to the lagoon prior to discharge to increase the settling of solids and help maintain pH levels.
- Any bypass or upset events that occur in the system are tested, monitored and reported to the local Health Unit and Spills Action Center (SAC) and local Health Unit.
- All flow, influent and effluent quality data is reviewed by the Overall Responsible Operator and Compliance staff to identify any changes in concentrations and/or emerging trends. All non-compliances are reported to Ministry's Spills Action Center (SAC) and the local MECP inspector.
- The Temagami North Lagoon has a history of elevated pH but this is being controlled by monitoring the pH closely and increasing the ferric addition when the pH starts to rise. The pH was within the compliance limit range all year demonstrating that the control measures were effective in 2024.

5 Efforts Made to Meet Effluent Objectives

The Effluent Design Objectives are those levels of performance which can be achieved by treatment processes treating normal strength municipal sewage under optimum conditions. A sewage treatment facility should be able to produce annual average effluent quality approximately equal to the Effluent Design Objectives, but should not exceed the Effluent Compliance Limits. The objectives are used to promote continuous improvement in the operations of the works and to trigger corrective action before environmental impairment occurs.

OCWA uses a number of best efforts to achieve the Effluent Objectives.

- Certified operational staff have a high level of process knowledge and regulatory proficiency.
- The mechanical elements in the facility are regularly inspected, well maintained and kept in good repair. OCWA uses a computerized maintenance management program which generates works orders to ensure maintenance of equipment is proactively performed.
- Raw wastewater and effluent samples are collected as required and analyzed by Testmark Laboratories, an accredited laboratory. OCWA reviews these results on a regular basis to confirm compliance with ECA objective and limits.
- In-house sampling and testing for selected operational parameters provides real-time results which are used to enhance process and operational performance.
- Operations, maintenance and emergency procedures are available to ensure facilities are operated in compliance with applicable legal instruments. Facility staff has access to a network of operational compliance and support experts at the region and corporate levels.
- Ferric is added between Cell No. 1 and Cell No. 2 to manage the pH in the warmer months in an effort to meet effluent objectives.
- A new UV disinfection system was installed in 2024 to ensure effluent *E.coli* levels are maintained within regulatory limits and objectives.
- The Municipality approved the permanent installation of the BIOFIXE modules which have achieved notable reductions in effluent TAN, BOD and TSS.
- A five year rolling recommended capital and major maintenance report is used to assist the Owner and OCWA with planning infrastructure needs for the short and long terms. A letter summarizing capital work recommendations a provided to the Owner each year for their approval.

The systems' ECA requires a summary of efforts made to achieve the design objectives in the Approval, including an assessment of the issues and recommendations for proactive actions if any are required under the following situations:

- when any of the design objectives is not achieved more than 50% of the time in a year, or if there is an increasing trend in deterioration of final effluent quality;

The Temagami North Sewage Treatment Lagoon failed to meet the monthly effluent objectives for cBOD5 and TSS in April. An extreme rainfall event may have disturbed the solids in the lagoon causing the high levels. Operators added ferric sulphate on April 11th and made adjustments in an attempt to lower levels within the objective range.

The effluent also failed to meet the design objectives for pH three days in 2024 (January 2 = 8.68, April 9 = 8.62 and June 4 = 6.47) which represents 6% of the year. Operators monitored the pH

levels closely and made chemical adjustments to the ferric sulphate to lower levels within the objective range.

The design objectives were achieved more than 50% of the time for all parameters in 2024.

Table 13: Effluent Concentration Objectives

Parameter	Monthly Average (minimum)	Monthly Average (maximum)	Objective (monthly average)	Exceedance
BOD_5 (mg/L)	< 1.13	**17.2**	15	**YES**
TSS (mg/L)	< 1.1	**24.6**	20	**YES**
TP (mg/L)	0.02	0.22	0.4	No
TAN (mg/L)	< 0.20	2.95	5	No
E.coli (cfu/100 mL)	1	2	150* (*geomean*)	No
Parameter	**Annual Minimum**	**Annual Maximum**	**Objective**	**Exceedance**
pH	**6.47**	**8.68**	6.5 to 8.5 (inclusive)	**YES**

"<" means values include results that were less than the laboratory's method detection limit.
cfu ≡ colony forming units.

* Note: The *E.coli* objective of 150 cfu/100mL came into effect when the UV system was put into operation on November 1, 2024. The minimum and maximum averages shown in Table 17 is for November and December 2024.

6 Net Lake Monitoring

6.1 Dissolved Oxygen and Temperature Monitoring

Condition 9 (5) of the system's ECA requires that data for full depth dissolved oxygen and temperature profiles is collected from the deepest location in the Eastern Basin and the deepest location in the West Arm of Net Lake. Dissolved oxygen and temperature measurements are taken for the full depth of water at one meter intervals from the surface to one meter from the bottom of the Lake. The Temagami North Sampling SOP indicates that deepest location for the Eastern Basin is 43.6 m and Western Arm is 38.6 m which were determined via bathymetric map from I-Boating: Free Marine Navigation Charts & Fishing Maps @ fishing-app.gpsnauticalcharts.com.

Sampling was completed on September 4, 2024 and the deepest locations that could be reached for testing by touching the lake bottom was 44 m for the Eastern Basin and 34 m for the Western

Arm. A summary of the results are shown in Table 15. A complete set of results are found in Appendix D and trended below (4 and 5).

OCWA reviewed the map for or Net Lake at I-Boating: Free Marine Navigation Charts & Fishing Maps and found that the locations of the deepest points are a bit different than those identified in the Temagami North Lagoon Sampling SOP. By using this map and google maps more accurate GPS co-ordinates were determined. In 2025, the new GPS co-ordinates will be verified using a fish finder before sampling is performed.

Table 14: Net Lake – Sample Co-ordinates

Location	Depth (m)	Original Co-ordinates		New Co-ordinates	
Eastern Arm	0 to 44	Latitude	47.130605	Latitude	47.103540
		Longitude	-79.766335	Longitude	-79.766970
Western Arm	0 to 34	Latitude	47.133721	Latitude	47.109794
		Longitude	-79.805572	Longitude	-79.795312

Table 15: Dissolved Oxygen & Temperature Results from Net Lake

Location	Depth (m)	Dissolved Oxygen (mg/L)			Temperature (°C)		
		Min	Max	Avg	Min	Max	Avg
Eastern Arm	0 to 44	1.55	9.0	7.3	4.7	19	6.7
Western Arm	0 to 34	0.1	8.7	6.8	4.4	20	7.6

A concentration of 5 mg/L DO is recommended for optimum fish health. Sensitivity to low levels of dissolved oxygen is species specific, however, most species of fish are distressed when DO falls to 2-4 mg/L. Mortality usually occurs at concentrations less than 2 mg/L.

The oxygen level in lakes changes with depth. In deep lakes that do not get very much wind, the oxygen levels go down as we get deeper. In all lakes, oxygen is generally low right at the bottom where water meets the lake sediment or mud. This is because there are many bacteria and animals that live and breathe in the sediment. These bacteria and animals decompose dead material that sinks to the bottom and uses up oxygen.

Results for 2024 show that the dissolved oxygen levels in the Eastern Basin drop below 5 mg/L at a depth of 44 meters and the dissolved oxygen levels in the Western Arm drop below 5 mg/L at a depth of 32 meters.

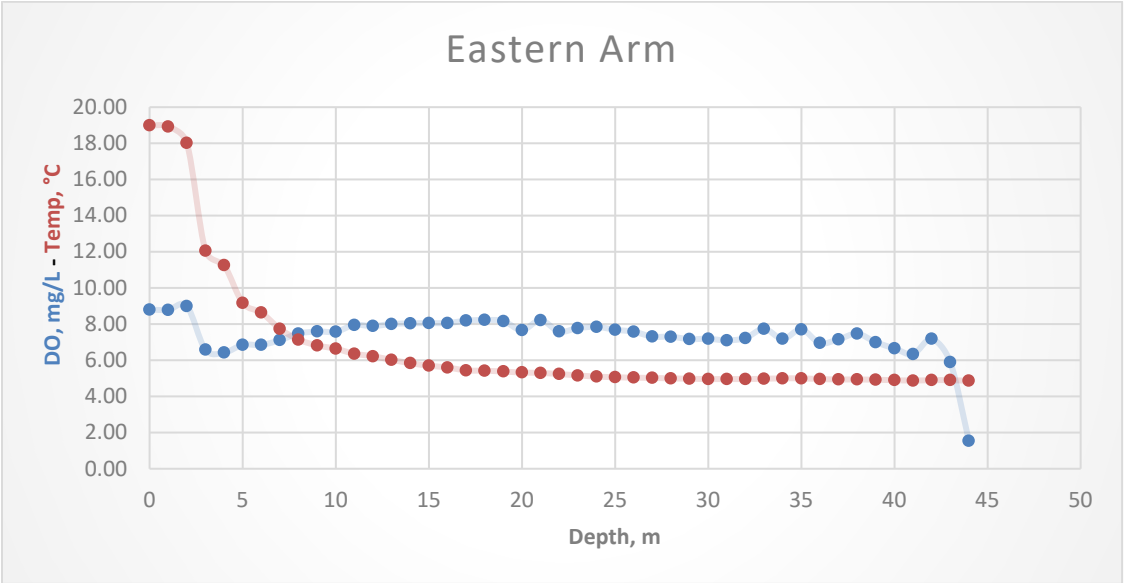


Figure 4 – Eastern Basin Dissolved Oxygen & Temperature

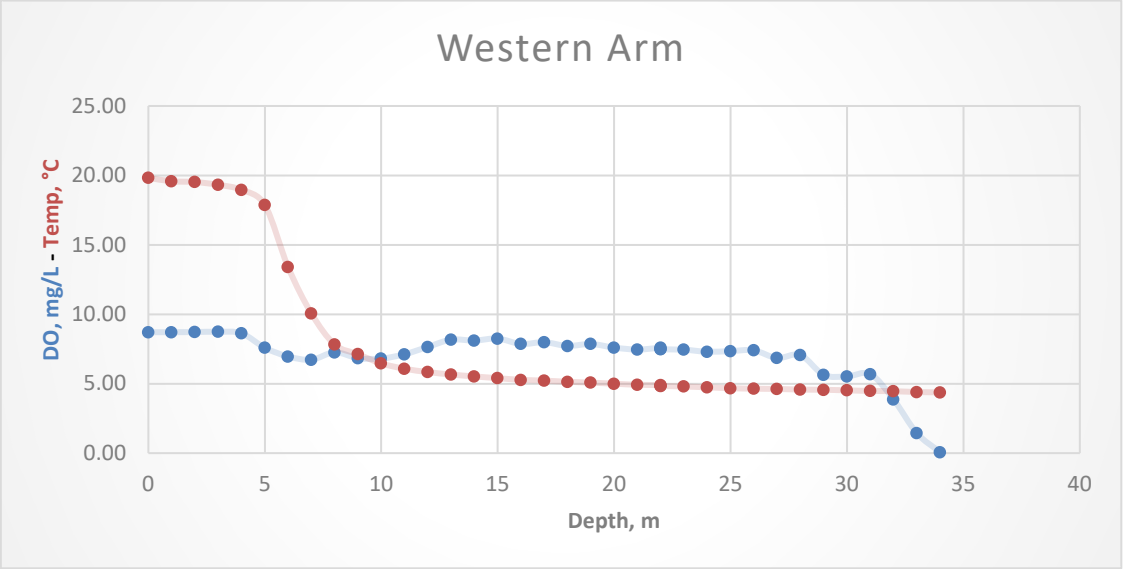


Figure 5 – Western Arm Dissolved Oxygen & Temperature

6.2 Mean Volume Weighted Hypolimnetic Dissolved Oxygen

The hypolimnion is the dense layer of cool water which extends to the bottom of a surface water body and tends to be undisturbed by the surface winds.

The calculation of the mean volume weighted hypolimnetic dissolved oxygen (MVWHDO) was completed following the guidance set out in Appendix C of the Ministry's *Lakeshore Capacity*

Assessment Handbook: Protecting Water Quality in Inland Lake on Ontario Precambrian Shield. A summary of the results are presented in the tables below.

Table 16: Mean Volume Weighted Hypolimnetic Dissolved Oxygen (MVWHDO) for 2024

Location	Volume (m^3)		MVWHDO		
	Total	Fraction	Average	Minimum	Maximum
Eastern Basin	40,404,354	1.0	7.625	6.954	7.997
Western Arm	19,011,927	1.0	7.909	7.564	8.313

Note: Total Area = 786.8 ha and Total Volume = 5934 m^3 x 10^4

Table 17: Mean Volume Weighted Hypolimnetic Dissolved Oxygen (MVWHDO) Over Time

Year	Eastern Basin - MVWHDO			Western Arm - MVWHDO		
	Average	Minimum	Maximum	Average	Minimum	Maximum
2020	7.521	7.058	7.991	8.212	7.341	8.978
2021	7.996	7.364	8.689	7.895	7.159	8.539
2022	7.645	7.149	7.967	7.485	6.834	7.987
2023	8.087	6.901	8.876	8.246	6.811	8.675
2024	7.625	6.954	7.997	7.909	7.564	8.313

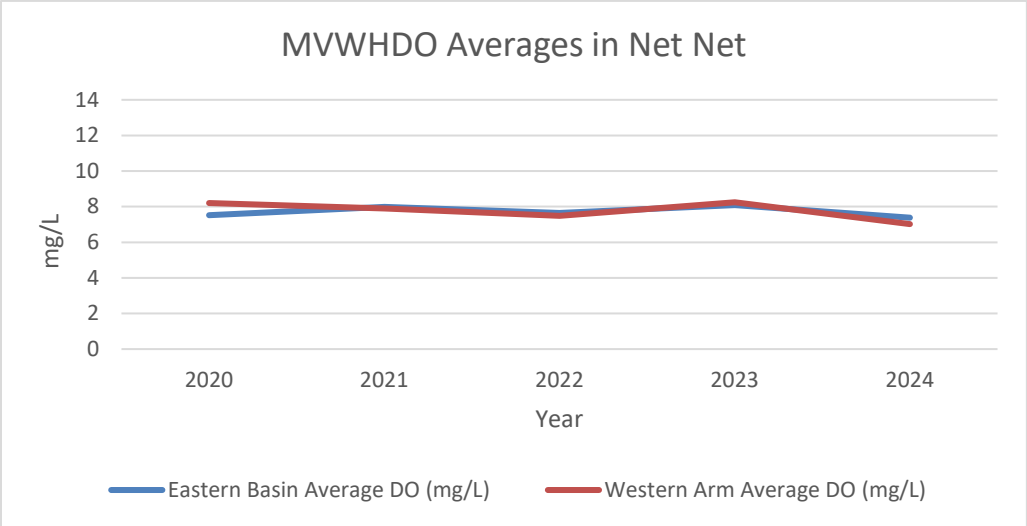


Figure 6 – Mean Volume Weighted Hypolimnetic DO in Net Let Over Time

The MVWHDO in both sections of Net Lake has been fairly consistent over the five year monitoring period from September 2020 to September 2024. Trending demonstrates that the MVWHDO is fairly stable for now and results indicate a healthy lake.

7 Operating Problems & Corrective Actions

Operating problems encountered during 2024 are summarized below.

The Temagami North Lagoon exceeded its peak design capacity twice in 2024. Heavy rainfall caused the lagoon to exceed its allowable peak flow capacity of 1200 m^3/day having a maximum flow of 1479 m^3/day on April 12th and 1431 m^3/day on April 13th. Additional sampling was conducted as required under Condition 9(2) of the system's ECA and results are included in the effluent monitoring.

The system failed to meet the effluent design objectives for cBOD and TSS for the month of April due to the heavy rains. Operators added and adjusted ferric sulphate to help lower results and maintain within the system objectives.

8 Maintenance Procedures Performed on the Works

Routine maintenance schedules are entered in OCWA's computerized Workplace Management System (WMS). This is a comprehensive maintenance program that is based on a pro-active and preventive approach. This program includes but is not limited to running weekly, monthly, and annually checks as required or as recommended by manufacturer's instructions. All routine and preventative maintenance was conducted in 2024. A summary of maintenance performed, which includes preventative work, capital projects and emergency repairs is available in Appendix F.

Significant maintenance and improvements that took place during 2024 include:

<u>Temagami North Lagoon</u>

- Purchased a new DO probe for monitoring Net Lake,
- Replaced three (3) existing Gardner-Denver air blowers with three (3) Blower Engineering Model TL10 C/S air blowers with a rated capacity of 82 m3/hour at 62 kPA. (two duty and one standby),
- New UV building with bar screen, package UV disinfection system, flume and level transmitter to measure effluent flow, automatic effluent sampler, sump pit equipped with floats, PLC control panel, auto-dialer, control structure level transmitter, heating and ventilation,
- New control structure consisting of a 2400 mm diameter manhole with a flow control orifice and 5m long 300 mm primary outlet pipe to the UV building, an overflow spill weir

and outlet pipe equipped with a gate valve that can discharge to a rip rap channel and then into Net Lake. The gate valve is normally closed,

- New outlet pipe from the lagoon to a control structure,
- New effluent outfall from the UV building to Net Lake.

Cedar Street Sewage Pumping Station

- Installed a data logger,
- Installed battery back-up for critical monitoring equipment.

Spruce Drive Sewage Pumping Station

- Generator servicing

9 Calibration & Maintenance of all Monitoring Equipment

Influent and effluent monitoring equipment is calibrated based on requirements of the system's ECA or manufactures recommendations. Flow meters are calibrated annually to ensure a required accuracy of +/- 15%. pH and DO meters are calibrated to ensure an acceptable tolerance and accuracy as specified by the manufacturer.

Routine maintenance was conducted as scheduled by qualified Instrumentation Technicians during the reporting period. Refer to Table 18 for a summary of calibrations conducted in 2024.

Table 18: Calibration Summary

Instrument	Calibration Date	% Accuracy	Requirement
Influent Flow Meter	May 14, 2024	98.5%	+/- 15%
Portable DO Analyzer	May 22, 2024	Within tolerance	
Portable pH Analyzer	Feb. 1, May 14, Aug. 20, Nov. 29, 2024	Within tolerance	

10 Sludge Generation and Disposal

The systems ECA requires sludge volumes to be measured every five years, but may be estimated in the interim years. Sludge and water depths were measured in 2019, 2020, 2021 (Cell 1 only), and 2023. Sludge depths were trended and were estimated in 2022 for Cell 1 and estimated in 2021 and 2022 for Cell 2. No sludge measurements were done in 2024.

No sludge was disposed of during this reporting period. The last sludge removal occurred in 2021. The Municipality budgets and plans for sludge removal every 3 to 5 years.

Table 19: Sludge Volume Cell 1

Date	Sample Points	Average Depths (m)		Sludge Volume (m^3)	% Capacity
		Water	Sludge		
Sept 19, 2019	9	2.4	0.25	325	8%
Oct 14, 2020	8	2.4	0.26	338	8%
Sept 1, 2021	8	2.4	0.57	741	18%
2022 (estimate)	-	-	0.57	741	18%
Sept 19, 2023	8	2.4	0.52	676	16%
2024	-	-	-	-	-

As per the ECA: Depth = 3.05 m, Capacity = 4105 m^3 and Surface Area = 1300 m^2

Table 20: Sludge Volume Cell 2

Date	Sample Points	Average Depths (m)		Sludge Volume (m^3)	% Capacity
		Water	Sludge		
Sept 19, 2019	18	1.8	0.29	3857	18%
Oct 14, 2020	11	1.9	0.31	4123	20%
2021 (estimate)	-	-	0.32	4256	20%
2022 (estimate)	-	-	0.34	4522	22%
June 29, 2023	16	1.5	0.35	4655	22%
2024	-	-	-	-	-

As per the ECA: Depth = 1.5 m, Capacity = 20,950 m^3 and Surface Area = 13,300 m^2

11 Abnormal Discharge Events

11.1 Overflow, Bypass and Spill Events

No bypass, overflow or spill events occurred during the reporting period, however the system exceeded its peak design capacity on two days in April; April 12th and 13th during periods of heavy rainfall.

11.2 Situations Outside Normal Operating Conditions

Condition 9(2) of ECA 7579-BTFKMN for the Temagami North Lagoon indicates that in addition to the scheduled monitoring program, the Owner shall collect daily sample(s) of the Final Effluent on any day when there is any situation outside Normal Operating Conditions, and analyze for all

effluent parameters outlined in Compliance Limits condition that require composite samples (cBOD5, TSS and TP). Normal operating conditions means the condition when all the unit process(es), excluding preliminary treatment in a treatment train is operating within design capacity.

The Temagami North Lagoon exceeded its peak design capacity during heavy rains which caused the lagoon to exceed its allowable peak flow capacity of 1200 m^3/day two days in 2024. A maximum flow of 1479 m^3/day was measured on April 12th and 1431 m^3/day on April 13th. Additional sampling was conducted as required under Condition 9(2) of the system's ECA and results are included in the effluent monitoring.

As part of the UV project, Cell No. 2 was lowered to allow the installation of a new inlet pipe to the new UV building and to allow the removal of an existing outlet structure. The cell was lowered starting on July 4th until the work was completed on July 16th. During this time additional effluent samples were collected as required under Condition 9(2) of the system's ECA and results were included in the effluent monitoring.

Effluent flow stopped on July 16th to November 1st when the effluent valve was closed to allow Cell No. 2 to fill up. Once the lagoon reached the required elevation, the effluent flow resumed.

11.3 Efforts Made to Reduce System Overflows and Bypasses

The Temagami North Lagoon operates well below its annual average rated capacity of 390 m^3/day. The system is designed to treat a peak flow rate of 1200 m^3/day which has been exceeded during period of heavy rain and/snow melt. The plant exceeded this peak design only twice in 2024 (April 13th and 14th) during a heavy rain event.

A review of historical data (2014 to 2024) indicates that no overflow or bypass events occurred at the lagoon site or sewage pumping stations.

In an effort to reduce and/or eliminate overflow, bypass and spill events and to confirm with Procedure F-5-1, the following are in place.

- In 2016, new submersible pumps with higher capacities were installed at Spruce Drive and Cedar Avenue Pump Stations.
- Emergency backup generators are installed at both sewage pumping stations.
- An alarm system is in place at the sewage pumping stations to alert operators of any issues; power failures, high level and equipment failures.
- Regular routine maintenance is performed to help reduce overflows, bypasses and spills events. For example; monthly generator tests to ensure the generators will start during a power failure and equipment will continue to operate normally, monthly alarm testing and equipment maintenance as outlined in the Maintenance Summary found in Appendix F.
- Repairs to the collection system are done promptly as issues occur.

- The Municipality approved the permanent installation of the BIOFIXE modules to improve effluent quality and to better prepare the municipality for future population growth.
- The lagoon seems to be adequate for the volume of wastewater being received and overflowing or bypassing has not been a concern. However, the Municipality is considering options to increase the lagoon's capacity to allow for future population growth.

11.4 Summary of Alterations to the System to Reduce Overflows

There have been no projects done in 2024 to reduce overflows, bypasses or spills.

11.5 Public Notification

The system has a Public Notification Procedure to notify the public and downstream users that may be adversely affected in the event of an overflow or bypass at the lagoon. No designed overflow points are located in the sewage collection system, therefore no public signage is required.

12 Complaints

No complaints were received during the reporting period.

13 Notice of Modifications on Sewage Works

- A Sewage Modification form was completed for the replacement of three (3) existing blowers.
- An ECA amendment was issued for the installation of a UV disinfection system and inlet control structure.

14 Proposed Alterations to the Works

- Installation of a fourth blower to improve aeration system performance,
- Generator for blower and UV building to ensure equipment remain operational during power failures,
- Heated building and feed line for ferric feed system for better performance in colder weather.
- Installation of a high level float at the bar screens in the UV building and wired into the PLC with alarms to prevent flooding and damage to the facility.

APPENDIX A

2024 and 2025 Influent and Effluent Sampling Schedule

For the Temagami North Lagoon Sewage Treatment System, influent and effluent samples are required to be collected and tested weekly as per Schedule D of the system's ECA No. 4250-D59RYU

2024 Schedule	2024 Sample Dates	2025 Sample Schedule
January 2, 2024	January 2, 2024	January 8, 2025
January 9, 2024	January 9, 2024	January 15, 2025
January 16, 2024	January 16, 2024	January 22, 2025
January 23, 2024	January 23, 2024	January 29, 2025
January 30, 2024	January 30, 2024	February 5, 2025
February 6, 2024	February 6, 2024	February 12, 2025
February 13, 2024	February 13, 2024	February 19, 2025
February 20, 2024	February 20, 2024	February 26, 2025
February 27, 2024	February 27, 2024	March 5, 2025
March 5, 2024	March 5, 2024	March 12, 2025
March 12, 2024	March 12, 2024	March 19, 2025
March 19, 2024	March 19, 2024	March 26, 2025
March 26, 2024	March 26, 2024	April 2, 2025
April 2, 2024	April 2, 2024	April 9, 2025
April 9, 2024	April 9, 2024	April 16, 2025
April 16, 2024	April 16, 2024	April 23, 2025
April 23, 2024	April 23, 2024	April 30, 2025
April 30, 2024	April 30, 2024	May 7, 2025
May 7, 2024	May 7, 2024	May 14, 2025
May 14, 2024	May 14, 2024	May 21, 2025
May 21, 2024	May 21, 2024	May 28, 2025
May 28, 2024	May 28, 2024	June 4, 2025
June 4, 2024	June 4, 2024	June 11, 2025
June 11, 2024	June 11, 2024	June 18, 2025
June 18, 2024	June 18, 2024	June 25, 2025
June 25, 2024	June 25, 2024	July 2, 2025
July 2, 2024	July 2, 2024	July 9, 2025
July 9, 2024	July 9, 2024	July 16, 2025
July 16, 2024	July 16, 2024	July 23, 2025
July 23, 2024	July 23, 2024*	July 30, 2025
July 30, 2024	July 30, 2024	August 6, 2025
August 6, 2024	August 6, 2024	August 13, 2025
August 13, 2024	August 13, 2024	August 20, 2025

2024 Schedule	2024 Sample Dates	2025 Sample Schedule
August 20, 2024	August 20, 2024	August 27, 2025
August 27, 2024	August 27, 2024	September 3, 2025
September 3, 2024	September 3, 2024	September 10, 2025
September 10, 2024	September 10, 2024	September 17, 2025
September 17, 2024	September 17, 2024	September 24, 2025
September 24, 2024	September 24, 2024	October 1, 2025
October 1, 2024	October 1, 2024	October 8, 2025
October 8, 2024	October 8, 2024	October 15, 2025
October 15, 2024	October 15, 2024	October 22, 2025
October 22, 2024	October 22, 2024	October 29, 2025
October 29, 2024	October 29, 2024	November 5, 2025
November 5, 2024	November 5, 2024*	November 12, 2025
November 12, 2024	November 12, 2024	November 19, 2025
November 19, 2024	November 19, 2024	November 26, 2025
November 26, 2024	November 26, 2024	December 3, 2025
December 3, 2024	December 3, 2024	December 10, 2025
December 10, 2024	December 10, 2024	December 17, 2025
December 17, 2024	December 17, 2024	December 24, 2025
December 23, 2024	December 23, 2024*	December 31, 2025
December 30, 2024	December 30, 2024*	

* Notes:

1. Effluent sampling stopped the week of July 23rd when the effluent flow ceased to allow Cell No. 2 fill up. The cell was lowered as part of the UV disinfection project and the installation of an new outlet pipe. An effluent sample was collected on November 2nd once the lagoon reached the required elevation and effluent began to flow. Regular weekly sampling of the effluent continued, starting on November 5, 2024.

2. Two (2) sampling deviations occurred in 2024 during the Christmas and New Years holidays.

APPENDIX B
Monthly Process Data Report

														2024			
Influent - Raw Sewage	**Jan 2024**	**Feb 2024**	**Mar 2024**	**Apr 2024**	**May 2024**	**Jun 2024**	**Jul 2024**	**Aug 2024**	**Sep 2024**	**Oct 2024**	**Nov 2024**	**Dec 2024**	**Total**	**Avg**	**Max**	**Min**
Biochemical Oxygen Demand: BOD5 - mg/L																
Lab Count	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	53.00			
Lab Month.Max	38.00	140.00	68.00	31.00	46.00	20.00	73.30	160.00	190.00	150.00	57.00	60.10			190.00	
Lab Month.Mean	25.96	88.25	38.00	21.20	30.23	16.75	43.26	107.85	101.10	72.74	34.48	48.02		51.37		
Lab Month.Min	1.80	45.00	17.00	15.00	3.90	12.00	2.00	49.00	4.40	43.00	4.90	33.00				1.80
Total Kjeldahl Nitrogen: TKN - mg/L																
Lab Count	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	53.00			
Lab Month.Max	11.30	23.30	11.20	9.30	14.30	15.90	34.60	41.50	28.40	28.10	18.20	19.40			41.50	
Lab Month.Mean	10.82	15.58	8.95	6.10	10.95	12.50	19.58	30.73	22.43	22.52	12.38	13.32		15.39		
Lab Month.Min	9.70	8.80	6.50	4.30	5.50	8.70	14.10	22.20	11.50	19.50	5.30	10.30				4.30
Total Phosphorus: TP - mg/L																
Lab Count	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	53.00			
Lab Month.Max	1.08	3.23	1.52	0.98	1.61	1.41	3.70	5.21	3.64	3.62	2.31	2.94			5.21	
Lab Month.Mean	0.79	1.98	0.89	0.66	1.12	0.95	1.87	3.27	2.65	2.56	1.67	1.68		1.66		
Lab Month.Min	0.48	0.81	0.45	0.44	0.90	0.61	0.97	1.48	1.20	1.43	0.72	1.09				0.44
Total Suspended Solids: TSS - mg/L																
Lab Count	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	53.00			
Lab Month.Max	46.00	177.00	122.00	41.00	84.00	42.00	116.00	200.00	260.00	135.00	94.00	139.00			260.00	
Lab Month.Mean	27.80	115.75	46.75	30.50	62.50	23.88	65.20	108.50	140.75	90.20	69.63	75.30		70.11		
Lab Month.Min	10.00	59.00	10.00	21.50	44.00	10.00	37.00	43.00	34.00	50.00	29.50	19.00				10.00

Effluent	**Jan 2024**	**Feb 2024**	**Mar 2024**	**Apr 2024**	**May 2024**	**Jun 2024**	**Jul 2024**	**Aug 2024**	**Sep 2024**	**Oct 2024**	**Nov 2024**	**Dec 2024**	**Total**	**Avg**	**Max**	**Min**
CBOD5 - WSER (Max 20 mg/L) - mg/L																
Lab Count	5.00	4.00	4.00	8.00	4.00	4.00	14.00	No effluent flow from July 16th to November 1st			5.00	5.00	53.00			
Lab Month.Max	5.60	4.50	13.00	37.00	6.80	1.30	2.90				2.20	2.40			37.00	
Lab Month.Mean	4.34	4.05	9.38	17.24	3.20	1.13	< 1.39				1.36	1.34		< 4.97		
Lab Month.Min	3.00	3.60	5.10	4.70	1.20	1.00	< 0.50				0.80	0.50				< 0.50
Dissolved Oxygen: DO Field: Lab Upload - mg/L																
IH Edited Count	5.00	4.00	4.00	5.00	4.00	4.00	3.00				5.00	5.00	39.00			
IH Month.Max	15.86	12.30	18.05	16.76	16.90	10.27	8.32				12.17	12.34			18.05	
IH Month.Mean	12.78	11.97	15.79	14.53	10.68	8.72	7.17				11.38	11.42		11.81		
IH Month.Min	10.97	11.66	13.60	10.86	4.50	7.97	5.16				10.46	10.65				4.50

E. Coli: EC - cfu/100mL																
GMD	407.31	2595.18	259.21	140.75	10.00	14.56	21.85				1.90	1.00				
Lab Count	5.00	4.00	4.00	5.00	4.00	4.00	3.00				5.00	5.00	39.00			
Lab Month.Max	12000.00	7000.00	320.00	800.00	40.00	300.00	139.00				5.00	< 1.00			12000.00	
Lab Month.Mean	2591.00	3675.00	263.75	262.00	15.00	80.50	53.00				< 2.00	< 0.20		< 783.90		
Lab Month.Min	40.00	800.00	190.00	45.00	5.00	2.00	5.00				0.00	0.00				0.00
Un-ionized Ammonia: NH3 - mg/L																
IH Edited Count	5.00	4.00	4.00	5.00	4.00	4.00	3.00				5.00	5.00	39.00			
IH Month.Max	0.0381	0.0186	0.0527	0.0183	0.0059	0.0016	0.0023				0.0015	0.0006			0.0527	
IH Month.Mean	0.0154	0.0092	0.0298	0.0042	0.0024	0.0008	0.0016				0.0007	0.0003		0.0071		
IH Month.Min	0.0045	0.0045	0.0147	0.0000	0.0001	0.0004	0.0006				0.0002	0.0001				0.0000
Total Ammonia Nitrogen: NH3 + NH4+ as N - mg/L																
Lab Count	5.00	4.00	4.00	8.00	4.00	4.00	14.00				5.00	5.00	53.00			
Lab Month.Max	2.86	3.09	2.65	0.51	2.29	1.28	0.63				0.95	0.53			3.09	
Lab Month.Mean	1.63	2.95	1.72	< 0.20	< 0.84	0.48	0.39				0.39	0.31		< 0.80		
Lab Month.Min	0.88	2.83	1.02	< 0.01	< 0.01	0.11	0.15				0.10	0.16				< 0.01
pH Field: Lab Upload (6.5 to 9.0) - ---																
Count	5.00	4.00	4.00	5.00	4.00	4.00	14.00				5.00	5.00	50.00			
IH Month.Max	8.68	7.72	8.46	8.62	8.40	6.95	7.68				7.19	7.15			8.68	
IH Month.Mean	7.92	7.44	8.24	7.68	7.41	6.71	7.03				7.10	6.97		7.32		
IH Month.Min	7.35	7.20	8.10	6.97	6.60	6.47	6.73				6.98	6.77				6.47
Temperature Field: Lab Upload - °C																
IH Edited Count	5.00	4.00	4.00	5.00	4.00	4.00	3.00				5.00	5.00	39.00			
IH Month.Max	2.40	4.00	3.20	9.70	21.10	24.60	22.80				8.20	7.10			24.60	
IH Month.Mean	1.42	2.13	1.68	6.66	17.50	21.48	22.07				6.78	4.40		8.55		
IH Month.Min	0.40	0.80	0.70	4.40	14.10	17.50	20.90				5.80	0.60				0.40
TP (Max 0.6 mg/L) - mg/L																
Lab Count	5.00	4.00	4.00	8.00	4.00	4.00	14.00				5.00	5.00	53.00			
Lab Month.Max	0.202	0.207	0.228	0.231	0.122	0.039	0.124				0.020	0.035			0.231	
Lab Month.Mean	0.140	0.194	0.217	0.189	0.075	0.031	0.066				0.017	0.020		0.102		
Lab Month.Min	0.105	0.183	0.208	0.112	0.031	0.026	0.037				0.013	0.013				0.013
TSS (Max 30 mg/L) - mg/L																
Lab Count	5.00	4.00	4.00	8.00	4.00	4.00	14.00				5.00	5.00	53.00			
Lab Month.Max	16.00	19.00	22.00	37.00	19.00	2.00	27.50				4.00	1.70			37.00	
Lab Month.Mean	12.60	12.00	18.50	24.63	7.50	< 1.38	< 4.04				< 1.63	< 1.07		< 9.20		
Lab Month.Min	8.50	7.00	11.50	2.00	2.00	< 1.00	< 1.00				< 0.67	< 0.67				< 0.67

Notes:

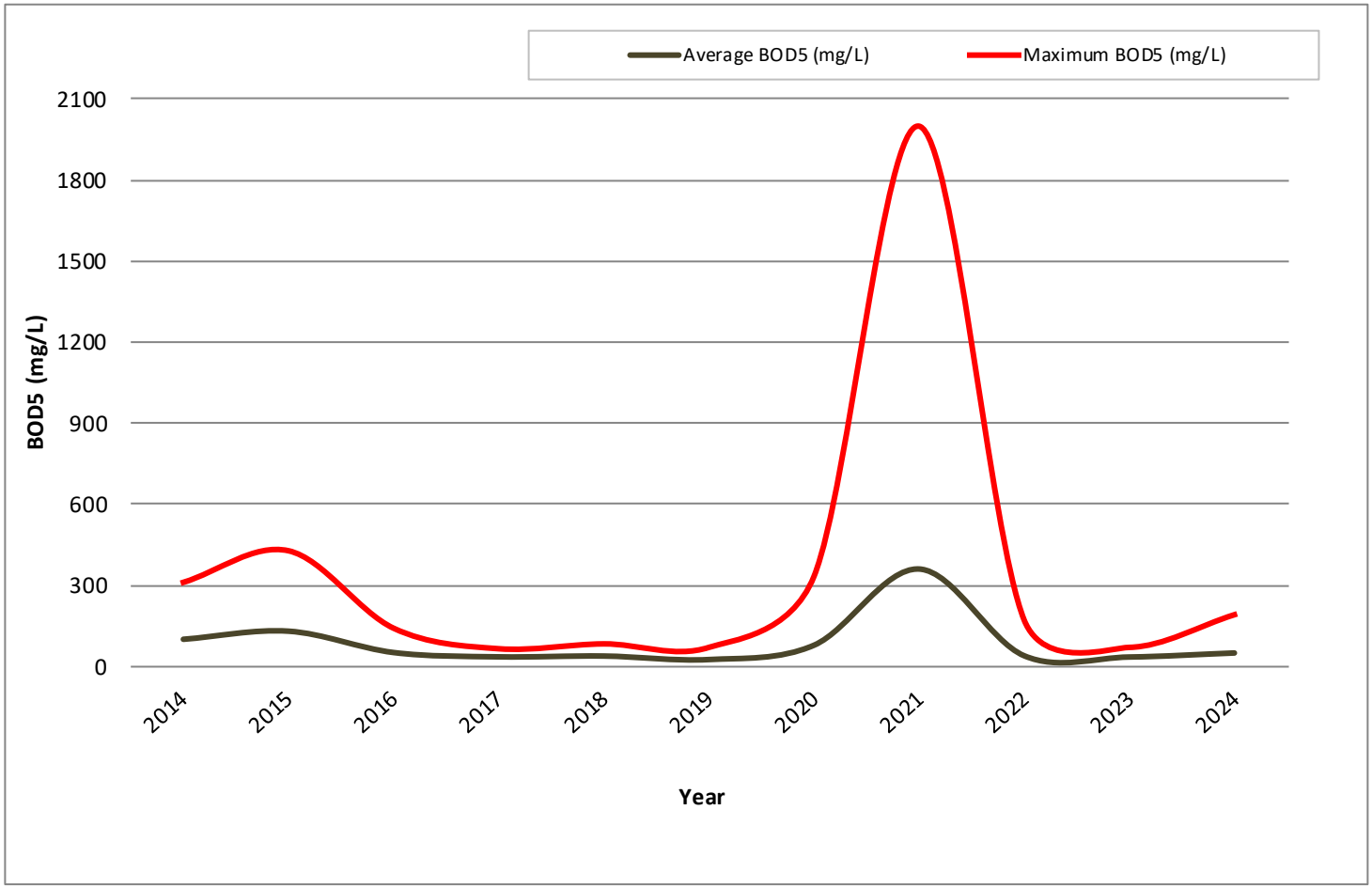
April - the effluent failed to meet the monthly design objectives for cBOD (15 mg/L) and TSS (20 mg/L) during a heavy rainfall event.
January 2 & April 9 - the effluent failed to meet the maximum design objective for pH (8.5)
June 4 - the effluent failed to meet the minimum design objective for pH (6.5)

APPENDIX C

Historical Trends of Influent Characteristics

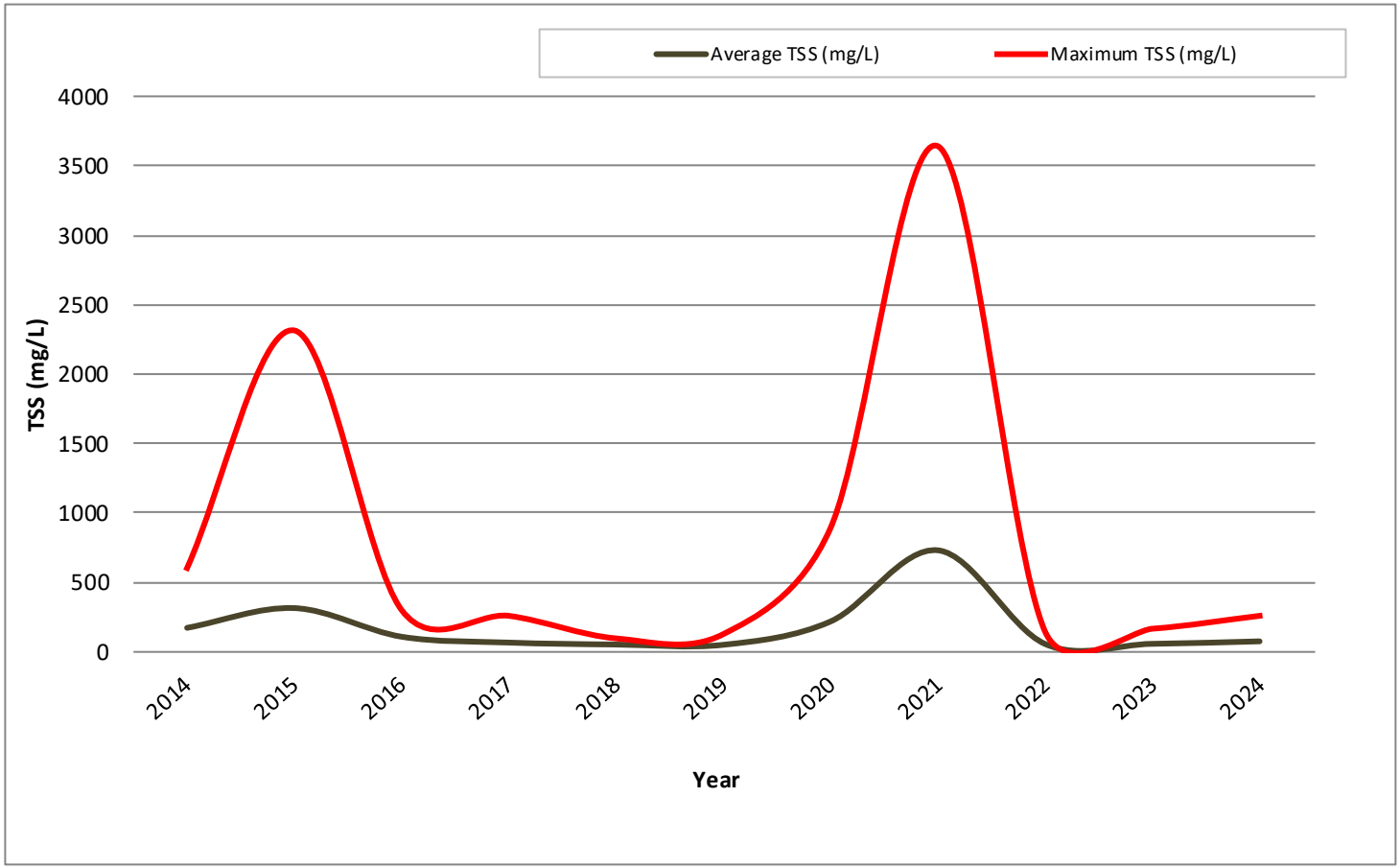
BOD5 – Five Day Biochemical Oxygen Demand

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Average BOD5 (mg/L)	102	132	53	37	40	27	80	362	41	36	51
Maximum BOD5 (mg/L)	310	427	140	64	82	69	332	2000	170	69	190



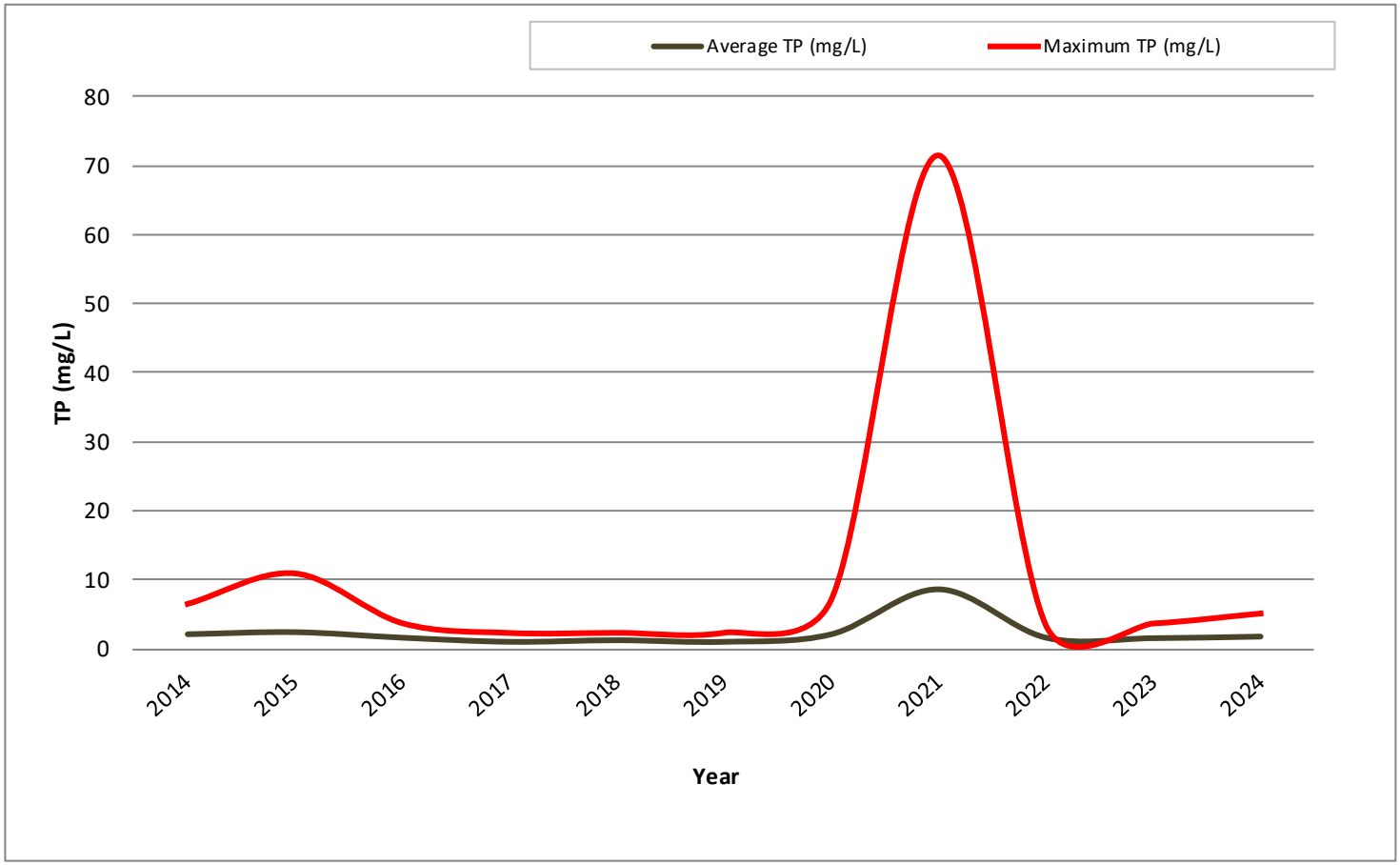
TSS – Total Suspended Solids

	2014	***2015***	***2016***	***2017***	***2018***	***2019***	***2020***	***2021***	***2022***	***2023***	***2024***
Average TSS (mg/L)	167	309	103	61	47	45	213	725	51	52	70
Maximum TSS (mg/L)	605	2320	302	260	97	128	895	3650	146	167	260



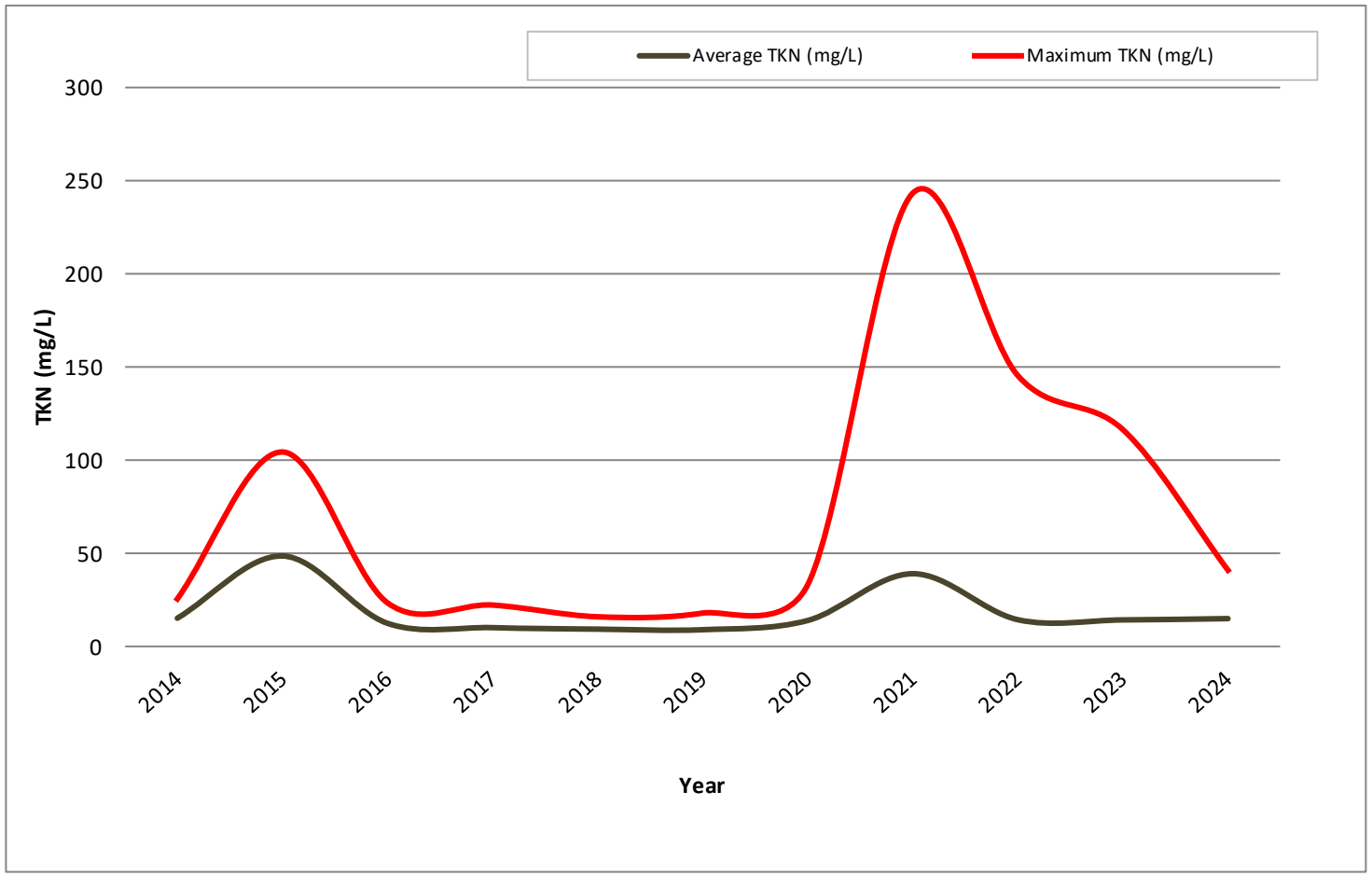
TP - Total Phosphorus

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Average TP (mg/L)	2.0	2.3	1.5	0.9	1.1	0.9	2.0	8.5	1.5	1.4	1.7
Maximum TP (mg/L)	7	11	3.8	2.4	2	2.4	7.3	71	3.5	3.8	5.2



TKN – Total Kjeldahl Nitrogen

	2014	***2015***	***2016***	***2017***	***2018***	***2019***	***2020***	***2021***	***2022***	***2023***	***2024***
Average TKN (mg/L)	16	49	13	11	10	10	14	39	15	15	15
Maximum TKN (mg/L)	26	105	24	23	17	19	34	244	146	117	42



APPENDIX D

Net Lake - Dissolved Oxygen and Temperature Results

Plot Title: **Net Lake - Eastern Basin Dissolved Oxygen & Temperature**

Date: **September 4, 2024**

Depth (m)	Time	DO (mg/L)	Temperature (°F)
0	9:14 AM	8.80	66.20
1	9:29 AM	8.79	66.06
2	9:44 AM	9.00	64.44
3	10:01 AM	6.58	53.71
4	10:05 AM	6.42	52.27
5	10:10 AM	6.85	48.52
6	10:15 AM	6.85	47.55
7	10:20 AM	7.11	45.93
8	10:25 AM	7.48	44.85
9	10:28 AM	7.59	44.28
10	10:31 AM	7.58	43.95
11	10:34 AM	7.95	43.45
12	10:37 AM	7.89	43.20
13	10:40 AM	8.01	42.84
14	10:43 AM	8.04	42.51
15	10:46 AM	8.06	42.26
16	10:49 AM	8.06	42.08
17	10:52 AM	8.19	41.79
18	10:55 AM	8.23	41.76
19	10:59 AM	8.17	41.68
20	11:01 AM	7.67	41.58
21	11:04 AM	8.22	41.54
22	11:08 AM	7.59	41.43
23	11:10 AM	7.78	41.29
24	11:13 AM	7.85	41.18
25	11:16 AM	7.69	41.11
26	11:18 AM	7.58	41.07
27	11:23 AM	7.31	41.04
28	11:26 AM	7.30	41.00
29	11:29 AM	7.17	40.96
30	11:32 AM	7.19	40.93
31	11:35 AM	7.10	40.93
32	11:38 AM	7.23	40.93
33	11:41 AM	7.74	40.96
34	11:43 AM	7.18	41.00
35	11:47 AM	7.71	41.00
36	11:49 AM	6.95	40.93
37	11:51 AM	7.16	40.89
38	11:54 AM	7.47	40.89
39	11:57 AM	7.00	40.86
40	12:01 PM	6.66	40.82
41	12:04 PM	6.34	40.78
42	12:06 PM	7.18	40.82
43	12:09 PM	5.89	40.82
44	12:15 PM	1.55	40.75

Plot Title: Net Lake - Western Arm Dissolved Oxygen & Temperature

Date: **September 4, 2024**

Depth (m)	Time (hours)	DO (mg/L)	Temperature (°F)
0	2:31 PM	8.71	67.68
1	2:47 PM	8.71	67.24
2	3:03 PM	8.72	67.14
3	3:19 PM	8.74	66.78
4	3:25 PM	8.63	66.13
5	3:30 PM	7.59	64.18
6	3:36 PM	6.96	56.12
7	3:42 PM	6.73	50.11
8	3:50 PM	7.26	46.08
9	3:54 PM	6.84	44.82
10	3:58 PM	6.81	43.63
11	4:02 PM	7.12	42.94
12	4:06 PM	7.65	42.51
13	4:10 PM	8.17	42.19
14	4:14 PM	8.11	41.94
15	4:18 PM	8.25	41.72
16	4:22 PM	7.86	41.50
17	4:26 PM	7.99	41.40
18	4:30 PM	7.72	41.25
19	4:34 PM	7.86	41.14
20	4:38 PM	7.60	41.00
21	4:42 PM	7.46	40.86
22	4:44 PM	7.59	40.82
22	4:45 PM	7.51	40.75
22	4:46 PM	7.47	40.71
23	4:49 PM	7.45	40.64
24	4:52 PM	7.30	40.53
25	4:55 PM	7.35	40.42
26	4:58 PM	7.40	40.35
27	5:01 PM	6.85	40.32
28	5:04 PM	7.06	40.24
29	5:07 PM	5.64	40.21
30	5:10 PM	5.52	40.14
31	5:13 PM	5.69	40.06
32	5:15 PM	5.43	40.06
32	5:16 PM	3.87	40.03
33	5:19 PM	1.44	39.92
34	5:21 PM	0.07	39.88

APPENDIX E

Net Lake - Mean Volume Weighted Hypolimnetic Dissolved Oxygen

Western Arm, Net Lake

Depth (ft)	Depth (m)	Area (km2)	Area (ha)	Volume (m3)	Volume Fraction	Average DO (mg/L)	V_Frac * DO	Min DO (mg/L)	V_Frac * DO	Max DO (mg/L)	V_Frac * DO
0	0	3.458	345.8	#N/A	#N/A	#N/A	#N/A				
10	3.048	1.718	171.8	7,735,199	0.4069	8.720	3.548	8.71	3.544	8.74	3.556
20	6.096	0.942	94.2	3,995,061	0.2101	7.727	1.624	6.96	1.463	8.63	1.813
40	12.192	0.341	34.1	3,758,721	0.1977	7.068	1.397	6.73	1.331	7.65	1.512
60	18.288	0.21	21	1,663,396	0.0875	8.017	0.701	7.72	0.675	8.25	0.722
80	24.384	0.125	12.5	1,009,942	0.0531	7.530	0.400	7.30	0.388	7.86	0.418
100	30.48	0.063	6.3	562,338	0.0296	6.637	0.196	5.52	0.163	7.40	0.219
120	36.576	0.021	2.1	244,598	0.0129	3.300	0.042	0.07	0.001	5.69	0.073
140	42.672	0	0	42,672	0.0022	#N/A	#N/A				
				19,011,927	**1.0000**		**7.909**		**7.564**		**8.313**
				Total	Fraction		Avg MVWHDO		Min MVWHDO		Max MVWHDO

Eastern Arm, Net Lake

Depth (ft)	Depth (m)	Area (km2)	Area (ha)	Volume (m3)	Volume Fraction	Average DO (mg/L)	V_Frac * DO	Min DO (mg/L)	V_Frac * DO	Max DO (mg/L)	V_Frac * DO
0	0	4.41	441	#N/A	#N/A	#N/A	#N/A				
10	3.048	2.621	262.1	10,597,688	0.2623	8.293	2.175	6.58	1.726	9.00	2.361
20	6.096	1.84	184	6,763,564	0.1674	6.707	1.123	6.42	1.075	6.85	1.147
40	12.192	1.124	112.4	8,945,087	0.2214	7.600	1.683	7.11	1.574	7.95	1.760
60	18.288	0.804	80.4	5,849,375	0.1448	8.098	1.172	8.01	1.160	8.23	1.191
80	24.384	0.572	57.2	4,174,034	0.1033	7.880	0.814	7.59	0.784	8.22	0.849
100	30.48	0.277	27.7	2,534,006	0.0627	7.373	0.462	7.17	0.450	7.69	0.482
120	36.576	0.094	9.4	1,081,762	0.0268	7.318	0.196	6.95	0.186	7.74	0.207
144	43.8912	0.036	3.6	458,839	0.0114	6.156	0.070	1.55	0.108	7.47	0.809
				40,404,354	**1.0000**		**7.625**		**6.954**		**7.997**
				Total	Fraction		Avg MVWHDO		Min MVWHDO		Max MVWHDO

APPENDIX F
Maintenance Summary

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	6029*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3708983			6029, Temagami North Lagoon	OPER	Inspection	1	YEARS	Daily O&M Activities Wastewater Treatment (1y) 6029	COMP	1/1/24 12:00 AM	1/13/25 12:48 PM	1/13/25 12:48 PM	- Rounded up parts to install a post by the lane and secure the old sampler power cable in a box.
3708988	0000115960	ENGINE DIESEL CEDAR SPS	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029	CLOSE	1/1/24 12:00 AM	1/12/24 10:55 AM	1/12/24 10:55 AM	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029 - Completed a genset test: checked fuel, coolant, block heater and oil. ok recorded running values on sheet. no abnormalities no faults displayed
3709004	0000277342	ENGINE DIESEL SPRUCE SPS	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029	CLOSE	1/1/24 12:00 AM	1/12/24 02:03 PM	1/12/24 02:03 PM	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029 - Filled out round sheet for monthly generator test. No issues found. Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029 - Trained Andrew
3709025	0000076655	PANEL ALARM/ DIALER OCWA	6029, Temagami North Lagoon, Process	PM	Inspection	1	YEARS	Critical Alarm/Dialer Testing (1y) 6029	COMP	1/1/24 12:00 AM	12/18/24 02:23 PM	12/18/24 02:23 PM	-Document attached for critical alarm testing
3709028	0000076655	PANEL ALARM/ DIALER OCWA	6029, Temagami North Lagoon, Process	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 6029	CLOSE	1/1/24 12:00 AM	2/8/24 07:44 AM	2/8/24 07:44 AM	Critical Alarm/Dialer Testing (1m) 6029 - Andrew completed the test.
3709032	0000115954	TANK WET WELL SEWAGE	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	YEARS	WET WELL INSPECTION CEDAR SPS (1Y) 6029	CLOSE	1/1/24 12:00 AM	9/23/24 03:51 PM	9/23/24 03:51 PM	WET WELL INSPECTION CEDAR SPS (1Y) 6029 - Completed Cedar wetwell inspection: Pumped the well down and the walls have some grease but very minimal. I would opt to reassess in the spring and see if it would need to be VAC

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	6029*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3709658			6029, Temagami North Lagoon	PM	Compliance	1	YEARS	Facility Emergency Plan Review (1y) 6029	CLOSE	1/1/24 12:00 AM	3/6/24 12:02 PM	3/6/24 12:02 PM	Facility Emergency Plan Review (1y) 6029 - Reviewed and updated the FEP binder
3709659			6029, Temagami North Lagoon	PM	HEALTH AND SAFETY	1	YEARS	WHMIS/SDS/NSF Review and Update (1y) 6029	CLOSE	1/1/24 12:00 AM	3/7/24 10:48 AM	3/7/24 10:48 AM	SDS Review & Update - Check for SDS updates. Copy/ organize for operator to take to site.
3710130			6029, Temagami North Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 6029	CLOSE	1/1/24 12:00 AM	2/8/24 09:10 AM	2/8/24 09:10 AM	Building and Grounds Maintenance (1m) 6029 - Completed: checked facility interior and exterior. ok
3713681	0000114147	BLOWER CENTRIFUGAL 03	6029, Temagami North Lagoon, Process	PM	Refurbish/ Replace/Repair	1	YEARS	Blower Air Cent 03 Service (1y) 6029	CLOSE	1/1/24 12:00 AM	4/10/24 03:23 PM	4/10/24 03:23 PM	check - check oil and belt
3713694	0000277345	BLOWER CENTRIFUGAL 02	6029, Temagami North Lagoon, Process	PM	Refurbish/ Replace/Repair	1	YEARS	Blower Air Cent 02 Service (1y) 6029	CLOSE	1/1/24 12:00 AM	4/10/24 03:24 PM	4/10/24 03:24 PM	check - check oil and belt
3713707	0000277346	BLOWER CENTRIFUGAL 01	6029, Temagami North Lagoon, Process	PM	Refurbish/ Replace/Repair	1	YEARS	Blower Air Cent 01 Service (1y) 6029	CLOSE	1/1/24 12:00 AM	4/10/24 03:25 PM	4/10/24 03:25 PM	
3732366			6029, Temagami North Lagoon	PM	Compliance	1	YEARS	Lagoon Sludge Depth Monitoring 6029	CLOSE	1/1/24 12:00 AM	11/1/24 07:51 AM	11/1/24 07:51 AM	skipping this year due to lagoon being drained for PC -
3766570	0000115960	ENGINE DIESEL CEDAR SPS	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029	CLOSE	2/1/24 12:00 AM	2/20/24 08:04 AM	2/20/24 08:04 AM	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029 - Completed genset test: checked fuel, oil, coolant, and block heater recorded running values no faults displayed on genset had a loss of comm for BCA, will investigate Wednesday

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	6029*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3766586	0000277342	ENGINE DIESEL SPRUCE SPS	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029	CLOSE	2/1/24 12:00 AM	2/19/24 09:27 PM	2/19/24 09:27 PM	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029 - Checked facility to record pumps hours and found generator running. Recorded running values and determined the generator had been running for approx. 2 hours Reported outage to Hydro One. Power was restored at 1800
3766602	0000076655	PANEL ALARM/ DIALER OCWA	6029, Temagami North Lagoon, Process	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 6029	CLOSE	2/1/24 12:00 AM	3/3/24 10:38 PM	3/3/24 10:38 PM	Critical Alarm/Dialer Testing (1m) 6029 - Completed high level wet alarm. Marc responded to the call
3767079			6029, Temagami North Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 6029	CLOSE	2/1/24 12:00 AM	3/3/24 10:42 PM	3/3/24 10:42 PM	Building and Grounds Maintenance (1m) 6029 - Completed building and maintenance: removed garbage from Cedar SPS checked facility exterior and interior. ok removed snow from entrances.
3769217	0000293651	ANALYZER PH PORTABLE	6029, Temagami North Lagoon, Process	PM	Inspection	3	MONTHS	ANALYZER PH PORTABLE CALIBRATION (3M) 6029	CLOSE	2/1/24 12:00 AM	2/2/24 12:50 PM	2/2/24 12:50 PM	

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	6029*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3803439			6029, Temagami North Lagoon Cedar Pumping Station	CAP	Refurbish/ Replace/Repair	0		Tem N SPS Data Logger 6029	CLOSE		5/10/24 07:27 AM	5/10/24 07:27 AM	- March 12/24 Installed JB and data logger, ran wires for level analog signal to data logger, programmed and tested. Marc 13/24 programmed flow signal in data logger. Wired and tested flow analog signal to data logger. Ran wires for run status of 3 pumps. Tested and proved discrete signal with the use of a 120v relay. Will have to install 3 relays and complete final wiring.
3805945			6029, Temagami North Lagoon	CAP	Compliance	0		Temagami N Lagoon Effluent UV 6029	CLOSE		10/29/24 11:13 AM	10/29/24 11:13 AM	
3806238			6029, Temagami North Lagoon Spruce Pumping Station	CORR	Refurbish/ Replace/Repair	0		install #2 pump 6029	CLOSE		2/22/24 08:30 AM	2/22/24 11:00 AM	install pump - install #2 pump and test put back in service - Help with pump install and wiring.
3808252	0000115960	ENGINE DIESEL CEDAR SPS	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029	CLOSE	3/1/24 12:00 AM	3/8/24 01:01 PM	3/8/24 01:01 PM	ran genset - did monthly test on generator at cedar sps wrote down numbers on generator sheet
3808268	0000277342	ENGINE DIESEL SPRUCE SPS	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029	CLOSE	3/1/24 12:00 AM	3/13/24 07:57 AM	3/13/24 07:57 AM	ran genset - ran monthly test and recorded numbers
3808284	0000076655	PANEL ALARM/ DIALER OCWA	6029, Temagami North Lagoon, Process	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 6029	CLOSE	3/1/24 12:00 AM	3/28/24 03:01 PM	3/28/24 03:01 PM	alarm dialer test - alarm dialer works good
3808853			6029, Temagami North Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 6029	CLOSE	3/1/24 12:00 AM	3/28/24 03:06 PM	3/28/24 03:06 PM	buliding and grounds - cleaned and swepted. nothing alarming to note

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	6029*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3852757	0000115960	ENGINE DIESEL CEDAR SPS	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029	CLOSE	4/1/24 12:00 AM	4/23/24 12:29 PM	4/23/24 12:29 PM	genset test - generator was ran by maintenance company on april 9th
3852773	0000277342	ENGINE DIESEL SPRUCE SPS	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029	CLOSE	4/1/24 12:00 AM	4/23/24 12:31 PM	4/23/24 12:31 PM	genset - maintenance company tested generator on April 9th
3852794	0000076655	PANEL ALARM/ DIALER OCWA	6029, Temagami North Lagoon, Process	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 6029	CLOSE	4/1/24 12:00 AM	5/14/24 01:22 PM	5/14/24 01:22 PM	
3853487			6029, Temagami North Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 6029	CLOSE	4/1/24 12:00 AM	5/14/24 01:14 PM	5/14/24 01:14 PM	clean - done by cassie last month
3899815			6029, Temagami North Lagoon Cedar Pumping Station	CAP	Refurbish/ Replace/Repair	0		Battery Backup For Critical Monitoring Equipment 6029	CLOSE		5/3/24 09:17 AM	5/3/24 09:17 AM	ordered UPS -
3900095			6029, Temagami North Lagoon	CAP	Refurbish/ Replace/Repair	0		Net Lake DO Probe 6029	CLOSE		6/27/24 10:53 AM	6/27/24 10:53 AM	Ordered parts -
3902648			6029, Temagami North Lagoon	CAP	Refurbish/ Replace/Repair	0		Net Lake DO Sensor 6029	CLOSE		4/18/24 11:25 AM	4/18/24 11:25 AM	Duplicate WO -
3905667	0000115960	ENGINE DIESEL CEDAR SPS	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029	CLOSE	5/1/24 12:00 AM	5/14/24 01:41 PM	5/14/24 01:41 PM	test - test during power outage record value on sheet
3905683	0000277342	ENGINE DIESEL SPRUCE SPS	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029	CLOSE	5/1/24 12:00 AM	5/14/24 01:42 PM	5/14/24 01:42 PM	test - test on power outage record value on sheet
3905699	0000076657	METER LEVEL PUMP STATION	6029, Temagami North Lagoon, Process	PM	Calibration	1	YEARS	Meter Level Inspection/Service (1y) 6029	CLOSE	5/1/24 12:00 AM	5/15/24 02:07 PM	5/15/24 02:07 PM	-New level transmitter without submergence cone. Measurement from transducer face to hatch lip is 2454 mm. Liquid level was 3383 mm below hatch lip. Tested all operation of LIT during alarm testing which included relays and LOE.

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	6029*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3905704	0000060220	SAMPLER EFFLUENT FINAL MONTHLY COMPOSITE	6029, Temagami North Lagoon, Process	PM	Refurbish/ Replace/Repair	1	YEARS	Sampler Inspection (1y) 6029	CLOSE	5/1/24 12:00 AM	5/15/24 02:46 PM	5/15/24 02:46 PM	- Performed a full inspection on all moving parts. Took a sample then inspected the sample hose. Replaced the hose and once set into position another couple samples were taken successfully.
3905713	0000277340	PANEL ALARM/ DIALER	6029, Temagami North Lagoon Spruce Pumping Station	PM	Inspection	1	YEARS	Critical Alarm/Dialer Spruce Testing (1y) 6029	COMP	5/1/24 12:00 AM	12/19/24 09:03 AM	12/19/24 09:03 AM	- Attempted alarm call outs as per critical alarm list however none of the alarms would call out. When Chris returns from leave in January we will put a plant together to replace the dialer in early spring and test all alarms.
3905716	0000076655	PANEL ALARM/ DIALER OCWA	6029, Temagami North Lagoon, Process	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 6029	CLOSE	5/1/24 12:00 AM	5/7/24 01:59 PM	5/7/24 01:59 PM	test - call on lost of echo UPS change reset ok
3906175			6029, Temagami North Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 6029	CLOSE	5/1/24 12:00 AM	5/14/24 01:46 PM	5/14/24 01:46 PM	clean - sweep floor
3908379	0000293651	ANALYZER PH PORTABLE	6029, Temagami North Lagoon, Process	PM	Inspection	3	MONTHS	ANALYZER PH PORTABLE CALIBRATION (3M) 6029	CLOSE	5/1/24 12:00 AM	5/15/24 10:22 AM	5/15/24 10:22 AM	-Calibrated PH probe with fresh 4.0 PH and 7.0 pouches.
3925844	0000293295	TRANSMITTER	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	YEARS	TEMAG N SPRUCE SPS LEVEL CONTROL TEST (1Y) 6029	CLOSE	5/1/24 12:00 AM	5/14/24 08:03 AM	5/14/24 08:03 AM	- Verified calibration of level transmitter by comparing a level shot against a physical measurement. All levels and relays functioned normally. Tested Hi level and loss of echo alarms from controller.
3931045	0000293652	ANALYZER DO PORTABLE	6029, Temagami North Lagoon, Process	PM	Inspection	1	YEARS	ANALYZER DO LAGOON CALIBRATION (1Y) 6029	CLOSE	5/1/24 12:00 AM	5/22/24 01:36 PM	5/22/24 01:36 PM	- Cleaned probe cap with clean water and dried it. Then calibrated unit with 100 % distilled water saturation as per manufactures instruction.
3947364			6029, Temagami North Lagoon Spruce Pumping Station	CAP	Refurbish/ Replace/Repair	0		Temagami North Lagoon Spruce Drive SPS Generator Service 6029	CLOSE		9/26/24 09:06 AM	9/26/24 09:06 AM	

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	6029*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3949337	0000060219	METER FLOW PUMP STATION	6029, Temagami North Lagoon, Process	PM	Calibration	1	YEARS	Meter Flow Calibration (1y) 6029	CLOSE	5/11/24 12:00 AM	5/15/24 10:03 AM	5/15/24 10:03 AM	-Verified calibration of sewage flowmeter with DNXP transit time flow calibrator. Pipe is 8" steel sch 80. Took an average of three samples of flowmeter and calibrator.
3954099	0000115960	ENGINE DIESEL CEDAR SPS	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029	CLOSE	6/1/24 12:00 AM	6/18/24 03:41 PM	6/18/24 03:41 PM	Checked and ran - Checked oil, coolant, fuel level and block heater. Recorded hours before running. Ran on test mode. No abnormal leaks, noises or vibrations detected. Recorded numbers as per the sheet. Recorded hours after running.
3954115	0000277342	ENGINE DIESEL SPRUCE SPS	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029	CLOSE	6/1/24 12:00 AM	6/18/24 03:45 PM	6/18/24 03:45 PM	Checked and ran - Checked oil, coolant, fuel level and block heater. Recorded hours before running. Ran on test mode. No abnormal noises, leaks or vibrations detected. Recorded numbers as per the sheet. Recorded hours after running.
3954131	0000076655	PANEL ALARM/ DIALER OCWA	6029, Temagami North Lagoon, Process	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 6029	CLOSE	6/1/24 12:00 AM	6/25/24 11:28 AM	6/25/24 11:28 AM	Checked -Turned pumps off for the Cedar SPS to make level reach high alarm. Level reached high and called out. Confirmed call with operator on call.
3954625			6029, Temagami North Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 6029	CLOSE	6/1/24 12:00 AM	6/25/24 11:30 AM	6/25/24 11:30 AM	Cleaned -Removed garbage from facility when full. Swept floors

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	6029*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4003464	0000115960	ENGINE DIESEL CEDAR SPS	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029	CLOSE	7/1/24 12:00 AM	7/22/24 06:05 AM	7/22/24 06:05 AM	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029 - Completed genset test: checked fuel, coolant, block heater and oil. ok no faults displayed recorded running values
4003480	0000115960	ENGINE DIESEL CEDAR SPS	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	YEARS	Diesel Generator Inspection/ Functional Test Cedar SPS (1y) 6029	CLOSE	7/1/24 12:00 AM	9/26/24 09:14 AM	9/26/24 09:14 AM	
4003492	0000277342	ENGINE DIESEL SPRUCE SPS	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029	CLOSE	7/1/24 12:00 AM	7/15/24 06:47 AM	7/15/24 06:47 AM	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029 - Completed genset test: checked oil, fuel, coolant and block heater. OK no faults displayed recorded running values on sheet visually inspected generator after run
4003508	0000277342	ENGINE DIESEL SPRUCE SPS	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	YEARS	Diesel Generator Inspection/ Functional Test Spurce SPS (1y) 6029	CLOSE	7/1/24 12:00 AM	9/26/24 09:12 AM	9/26/24 09:12 AM	completed by contractor -
4003525	0000076655	PANEL ALARM/ DIALER OCWA	6029, Temagami North Lagoon, Process	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 6029	CLOSE	7/1/24 12:00 AM	8/5/24 08:57 AM	8/5/24 08:57 AM	Critical Alarm/Dialer Testing (1m) 6029 - I completed a high wet well alarm at the Cedar SPS and it called out.
4004236			6029, Temagami North Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 6029	CLOSE	7/1/24 12:00 AM	8/4/24 09:22 AM	8/4/24 09:22 AM	Building and Grounds Maintenance (1m) 6029 - Checked facility- ok The buildings are currently under construction.
4046276			6029, Temagami North Lagoon	CAP	Refurbish/ Replace/Repair	0		Lowering of Temagami North Lagoon 6029	CLOSE		8/29/24 09:50 AM	8/29/24 09:50 AM	- Travel to site. Take an abnormal sample and remove logs from effluent structure to lower lagoon for contractors next week working on the UV building.

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	6029*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4047386			6029, Temagami North Lagoon	CALL	Predictive Maintenance	0		Lagoon Lowering Tem N Lagoon 6029	CLOSE		7/8/24 07:05 AM	7/8/24 07:12 AM	
4047388			6029, Temagami North Lagoon	CALL	Predictive Maintenance	0		Lagoon Lowering Tem N Lagoon 6029	CLOSE		7/8/24 07:15 AM	7/8/24 07:15 AM	- Travel to Temagami North lagoon to pull another log to lower lagoon for contractors to install a UV pipe and take abnormal samples.
4053238	0000115960	ENGINE DIESEL CEDAR SPS	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029	CLOSE	8/1/24 12:00 AM	8/20/24 11:53 AM	8/20/24 11:53 AM	Tested - Checked oil, coolant, block heater and fuel level. Recorded hours before running. Ran for about an hour on test mode. No abnormal noises, leaks or vibrations detected. Recorded numbers as per the sheet. Put it back to auto and recorded the hours after running.
4053254	0000277342	ENGINE DIESEL SPRUCE SPS	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029	CLOSE	8/1/24 12:00 AM	8/20/24 11:58 AM	8/20/24 11:58 AM	Tested - Checked oil, coolant, block heater and fuel level. Recorded hours before running. Ran on test mode for about an hour. No abnormal leaks, noises or vibrations detected. Recorded numbers as per the sheet. Put back to auto and recorded hours after running.
4053270	0000076655	PANEL ALARM/ DIALER OCWA	6029, Temagami North Lagoon, Process	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 6029	CLOSE	8/1/24 12:00 AM	8/23/24 07:10 AM	8/23/24 07:10 AM	Tested -Triggered a high level alarm and waited for the call. Alarm called out once the level reached the alarm call out.
4053710			6029, Temagami North Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 6029	CLOSE	8/1/24 12:00 AM	8/22/24 12:41 PM	8/22/24 12:41 PM	Cleaned -Cleaned facility. No garbage needed to be removed yet.
4055897	0000293651	ANALYZER PH PORTABLE	6029, Temagami North Lagoon, Process	PM	Inspection	3	MONTHS	ANALYZER PH PORTABLE CALIBRATION (3M) 6029	CLOSE	8/1/24 12:00 AM	8/21/24 01:24 PM	8/21/24 01:24 PM	

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	6029*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4095900			6029, Temagami North Lagoon	CAP	Compliance	0		Portable DO Sensor 6029	CLOSE		9/19/24 03:05 PM	9/19/24 03:05 PM	
4097572	0000115960	ENGINE DIESEL CEDAR SPS	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029	CLOSE	9/1/24 12:00 AM	9/17/24 03:41 PM	9/17/24 03:41 PM	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029 - Completed genset test: checked oil, fuel, coolant and block heater. no faults displayed recorded running values on sheet.
4097588	0000277342	ENGINE DIESEL SPRUCE SPS	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029	CLOSE	9/1/24 12:00 AM	9/16/24 05:43 AM	9/16/24 05:43 AM	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029 - Completed genset test: checked fuel, coolant, block heater and oil recorded running values on sheet no faults displayed
4097604	0000076655	PANEL ALARM/ DIALER OCWA	6029, Temagami North Lagoon, Process	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 6029	CLOSE	9/1/24 12:00 AM	10/1/24 08:26 AM	10/1/24 08:26 AM	Critical Alarm/Dialer Testing (1m) 6029 - Completed high level alarm and it called out.
4098061			6029, Temagami North Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 6029	CLOSE	9/1/24 12:00 AM	10/1/24 07:46 AM	10/1/24 07:46 AM	Building and Grounds Maintenance (1m) 6029 - Checked facility interior and exterior of Lagoon blower building and UV - ok
4147716	0000115960	ENGINE DIESEL CEDAR SPS	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029	CLOSE	10/1/24 12:00 AM	10/22/24 03:55 PM	10/22/24 03:55 PM	Tested - Checked oil, coolant, fuel level and block heater. Recorded hours before running. Ran on test mode for about an hour. No abnormal noises, leaks or vibrations detected. Recorded numbers as per the sheet. Put back to auto.

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	6029*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4147732	0000277342	ENGINE DIESEL SPRUCE SPS	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029	CLOSE	10/1/24 12:00 AM	10/22/24 03:56 PM	10/22/24 03:56 PM	Tested - Checked oil, coolant, fuel level and block heater. Recorded hours before running. Ran on test mode for about an hour. No abnormal noises, leaks or vibrations detected. Recorded numbers as per the sheet. Put back to auto.
4147753	0000076655	PANEL ALARM/ DIALER OCWA	6029, Temagami North Lagoon, Process	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 6029	CLOSE	10/1/24 12:00 AM	10/15/24 03:53 PM	10/15/24 03:53 PM	Tested - Triggered a high level alarm at Cedar SPS. Confirmed call out with operator on call.
4148543			6029, Temagami North Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 6029	CLOSE	10/1/24 12:00 AM	10/25/24 02:54 PM	10/25/24 02:54 PM	Cleaned -Checked facilities. Swept. Checked garbages, none ready to remove yet
4198337	0000115960	ENGINE DIESEL CEDAR SPS	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029	CLOSE	11/1/24 12:00 AM	11/11/24 05:02 PM	11/11/24 05:02 PM	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029 - Completed genset test: checked oil, fuel, coolant and block heater recorded running values on sheet no faults displayed
4198353	0000277342	ENGINE DIESEL SPRUCE SPS	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029	COMP	11/1/24 12:00 AM	11/29/24 02:12 PM	11/29/24 02:12 PM	Tested - Showed Trevor how to test the generator. Recorded hours before running. Checked oil, coolant, fuel level and block heater. Ran on test mode. No abnormal leaks, noises or vibrations detected. Recorded numbers as per the sheet. Put back to auto.

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date: Jan 1, 2024 12:00 AM
Report End Date: Dec 31, 2024 11:59 PM
Location: 6029*
Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4198369	0000076655	PANEL ALARM/ DIALER OCWA	6029, Temagami North Lagoon, Process	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 6029	COMP	11/1/24 12:00 AM	12/2/24 05:56 AM	12/2/24 05:56 AM	Critical Alarm/Dialer Testing (1m) 6029 - Completed high wetwell alarm and it called out on Nov 14, 2024
4198852			6029, Temagami North Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 6029	COMP	11/1/24 12:00 AM	12/2/24 07:42 AM	12/2/24 07:42 AM	Building and Grounds Maintenance (1m) 6029 - Checked facility. ok
4201003	0000293651	ANALYZER PH PORTABLE	6029, Temagami North Lagoon, Process	PM	Inspection	3	MONTHS	ANALYZER PH PORTABLE CALIBRATION (3M) 6029	COMP	11/1/24 12:00 AM	11/29/24 03:09 PM	11/29/24 03:09 PM	-Calibrated as per manufactures instructions. Please refer to shared drive for cal slip.
4203026	0000293269	AUTO SAMPLER CEDAR SPS RAW	6029, Temagami North Lagoon Cedar Pumping Station	PM	Predictive Maintenance	1	YEARS	AUTO SAMPLER CEDAR SPS - INSPECTION & MAINT. (1Y) 6029	COMP	11/1/24 12:00 AM	12/10/24 10:55 AM	12/10/24 10:55 AM	-Inspected sampler, performed maintenance on the hose, programmed sampler until mid March and tested for proper sampling by performing a manual grab sample.
4234561			6029, Temagami North Lagoon	CALL	Refurbish/ Replace/Repair	0		Abnormal Operations at Tem N Lagoon Due to Heavy Rain 6029	CLOSE		11/3/24 09:10 AM	11/3/24 09:12 AM	Abnormal Operations at Tem N Lagoon 6029 -Drove to site to collect effluent samples. Recorded pH, DO and temp. Drove the samples to the lab as there was an ecoli sample included.
4240411	0000115960	ENGINE DIESEL CEDAR SPS	6029, Temagami North Lagoon Cedar Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029	COMP	12/1/24 12:00 AM	12/11/24 04:36 PM	12/11/24 04:36 PM	Diesel Generator Inspection/ Functional Test Cedar SPS (1m) 6029 - Ran and tested Cedar SPS Gen set - Everything nominal and proper power transfer.
4240427	0000277342	ENGINE DIESEL SPRUCE SPS	6029, Temagami North Lagoon Spruce Pumping Station	PM	Refurbish/ Replace/Repair	1	MONTHS	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029	COMP	12/1/24 12:00 AM	12/11/24 04:34 PM	12/11/24 04:34 PM	Diesel Generator Inspection/ Functional Test Spruce SPS (1m) 6029 - Ran and tested Spruce SPS Gen set - Everything nominal and proper power transfer.

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	6029*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4240443	0000076655	PANEL ALARM/ DIALER OCWA	6029, Temagami North Lagoon, Process	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 6029	COMP	12/1/24 12:00 AM	12/21/24 12:39 PM	12/21/24 12:39 PM	Critical Alarm/Dialer Testing (1m) 6029 - Performed alarm testing for the cedar sps- Completed by Marc Doyon
4240874			6029, Temagami North Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 6029	COMP	12/1/24 12:00 AM	12/11/24 04:38 PM	12/11/24 04:38 PM	Building and Grounds Maintenance (1m) 6029 - Building and Grounds Maintenance; Cleared snow, cleaned floors at Lagoon

2024 Annual Performance Report for the Temagami South Sewage Treatment Lagoon & Sewage Collection System

January 1, 2024 to December 31, 2024

PREPARED BY

Ontario Clean Water Agency
on behalf of the Municipality of Temagami

Date: March 26, 2025
Rev: 0

Revision History

Rev. No.	Date	Prepared by:	Approved by:	Description
0	March 26, 2025	I. Bruneau, PCT	B. Logan, ORO/ Senior Operations Manager	Report issued

Table of Contents

List of Tables

List of Figures

Appendix D: Maintenance Summary

Appendix E: Spill Report

Executive Summary

The Temagami South Sewage Treatment Lagoon is located at 22 Jack Guppy Way in the community of Temagami South. The lagoon is designed to treat a daily average flow of 232 m^3/day. It is classified as a Class 1 wastewater treatment system under Ontario Regulation 129/04 and operates under Environmental Compliance Approval (ECA) No. 3-1567-98-006 for Municipal and Private Sewage Works issued on November 3, 1998.

The Temagami South Lagoon Sewage Collection System is a Class 1 wastewater collection system under Ontario Regulation 129/04 that follows the requirements of ECA No. 201-W601 for Municipal Sewage Collection Systems issued on May 16, 2023.

This report summarizes the requirements of each Approval and describes the operational performance of the system to ensure the production of quality effluent.

The Temagami South Lagoon operated well in 2024 producing a good quality effluent that met most effluent limits and objectives specified in the system's ECA with the exception of the total suspended solids (TSS) during the Spring discharge. Corrective actions described in Section 4 and 5 of this report were carried out to help reduce levels.

The system met the rated capacity limit having an annual average daily flow to the lagoon of 154 m3, which is 66% of the rated capacity. The total volume of influent flow measured in 2024 was 56,357 m^3.

There was one (1) spill event that occurred during the reporting period which is described in Section 10.

All requirements specified in the system's ECA and any issues experienced at the facility are further explained throughout the report.

Introduction

Condition 4(4.4) of ECA No. 3-1567-98-006 requires the Owner to prepare and submit a performance report to the Ministry of the Environment's District Manager on an annual basis within 90 days of the end of the reporting period, for the preceding calendar year. The 2024 Annual Performance Report was prepared by the Ontario Clean Water Agency (OCWA) on behalf of the Municipality of Temagami and is based on information kept on record by OCWA. The report has been completed in accordance with the approval and contains, but is not limited to the following information outlined in the ECA:

- a summary of all monitoring data including an overview of the success and adequacy of the sewage treatment program;
- a comprehensive interpretation of all monitoring data and analytical data obtained during the reporting period, and a comparison to the effluent quality and quantity criteria described in condition 1;
- a summary of any effluent quality assurance or control measures undertaken during the reporting period;
- a tabulation and description of all bypasses, emergency and upset conditions that took place during the reporting period;
- a summary of the calibration and maintenance procedures conducted on all monitoring equipment.

Condition 4.0(4.6) of ECA No. 201-W601 for the Temagami South Lagoon Sewage Collection System requires the Owner to prepare and submit an annual performance report to the Ministry of the Environment's Director on or before March 31st of each year and covers a period from January 1st to December 31st of the preceding calendar year. This report must include, but is not limited to the following information;

- If applicable, includes a summary of all required monitoring data along with an interpretation of the data and any conclusion drawn from the data evaluation about the need for future modifications to the Authorized System or system operations;
- Includes a summary of any operating problems encountered and corrective actions taken;
- Includes a summary of all calibration, maintenance, and repairs carried out on any major structure, equipment, apparatus, mechanism, or thing forming part of the Municipal Sewage Collection System;
- Includes a summary of any complaints related to the Sewage Works received during the reporting period and any steps taken to address the complaints.

- Includes a summary of all Alterations to the Authorized System within the reporting period that are authorized by this Approval including a list of Alterations that pose a Significant Drinking Water Threat;
- Includes a summary of all Collection System Overflow(s) and Spill(s) of Sewage, including: dates, volumes and durations. If applicable, loadings for total suspended solids, BOD_5, total phosphorus, and total Kjeldahl nitrogen, and sampling results for *E.coli*, disinfection, if any and any adverse impact(s) and any corrective actions, if applicable;
- Includes a summary of efforts made to reduce Collection System Overflows, Spills, STP Overflows, and/or STP Bypasses, including the following items, as applicable:
    a) A description of projects undertaken and completed in the Authorized System that result in overall overflow reduction or elimination including expenditures and proposed projects to eliminate overflows with estimated budget forecast for the year following that for which the report is submitted.
    b) Details of the establishment and maintenance of a PPCP, including a summary of project progresses compared to the PPCP's timelines.
    c) An assessment of the effectiveness of each action taken.
    d) An assessment of the ability to meet Procedure F-5-1 or Procedure F-5-5 objectives (as applicable) and if able to meet the objectives, an overview of next steps and estimated timelines to meet the objectives.
    e) Public reporting approach including proactive efforts.

The two reports have been merged into one and is presented as the 2024 Annual Performance Report. The report was prepared by the Ontario Clean Water Agency (OCWA) on behalf of the Municipality of Temagami and is based on information kept on record by OCWA.

1 System Description

Sewage System Name:	**Temagami South Sewage Treatment Lagoon**
Sewage System Works Number:	110002327
Sewage System Address:	Part of Parcels 19125 and 16810 (22 Jack Guppy Way), Municipality of Temagami, ON
Sewage System Owner:	Corporation of the Municipality of Temagami
ECA Numbers:	3-1567-98-006, issued November 8, 1998 and 3-1567-98-006 Notice No. 1, issued December 3, 2008
Reporting Period:	January 1, 2024 to December 31, 2024

Capacity of Works:	232 m3/day (annual average)
Service Area:	Temagami South, District of Nipissing
Service Population:	350
Effluent Receiver:	Snake Island Lake
Major Process:	Two-celled Phosphorus Removal Lagoon

The Temagami South Sewage Treatment Lagoon is designed to treat a daily average flow capacity of 232 m^3/day. It consists of a 7.0 acre two-celled waste stabilization lagoon with a combined storage capacity of 45,800 m^3. The North and South cells are equal in size, lined with an HDPE geo-membrane and equipped with an inter-cell flow control chamber.

A flow control structure consisting of a recirculating pump room, a three compartment flow separation chamber and a chemical storage room housing an 11,250 Litre chemical tank and feed system. The system provides phosphorus removal with the addition of ferric sulphate.

The Temagami South Sewage Collection system consists of a low pressure/shallow buried sanitary collector sewer system. Each home or business is equipped with a low-pressure grinder pump which directs wastewater to the collection system.

One (1) sewage pumping station located at 6612 ON Highway 11 discharges to the sewage collection system and ultimately to the lagoon. The Temagami Shores sewage pumping station services the Finlayson Point Provincial Park and the Temagami Shores motel and restaurant. It consists of one chamber (15 ft. 3 inches in depth and 93 inches in diameter) and houses two pumps (1 duty and 1 standby) each rated at 35.3 L/s. It is equipped with a carbon vent cap for odour control and has the following alarms:

- High level alarm
- Pump failure alarm

- Power failure alarm.

There are no designed overflow points at this station.

The Temagami South Lagoon discharges seasonally into Snake Island Lake. The discharge period occurs from May 1st to June 15th and from October 15th to November 30th each year, at a rate that is not to exceed 33.3 L/s or 2877.12 m^3/day.

In 2024, the Spring discharge occurred from May 6th to May 30th and the Fall discharge occurred from October 15th to November 25th.

2 Monitoring Program

2.1 Monitoring Program as Outlined in the Environmental Compliance Approval

Table 1: Analytical Parameters

BOD_5	Five Day Biochemical Oxygen Demand – is measured in an unfiltered sample; includes carbonaceous and nitrogenous oxygen demand. It refers to the amount of oxygen consumed by organic matter in a specific volume of water at a specific temperature over a 5 day period. High BOD_5 in effluent means a large quantity of oxygen was needed to break down the organic matter and identifies a large amount of organic matter in the effluent indicating inadequate treatment.
TSS	Total Suspended Solids – the dry weight of suspended particles that are not dissolved in water and can be filtered. TSS is composed of settleable solids and non-settleable solids depending on the size, shape and weight of the solid particles. Settable solids are large sized particles that tend to settle more rapidly in a given period of time. High TSS may decrease water's natural dissolved oxygen levels and increase water temperature which may prevent organisms from surviving in the waters.
TP	Total Phosphorus – a measure of all phosphorus found in a sample, whether it is dissolved or particulate. Phosphorus is an essential nutrient that contributes to plant productivity. TP is commonly used to determine the health of water bodies and excess TP can stimulate algae and weed growth that may cause fluctuations in dissolved oxygen in the receiving waters.
TAN	Total Ammonia Nitrogen – the total amount of nitrogen in the forms of Ammonium (NH_4) and Ammonia (NH_3). Ammonia is one of several forms of nitrogen that exist in aquatic environments and can cause direct toxic effects on aquatic life. High levels of ammonia can corrode and damage critical pieces of infrastructure.

Table 1: Analytical Parameters

TKN	Total Kjeldahl Nitrogen – measures both total organic nitrogen and ammonium. Excess nitrogen in water bodies can lead to harmful algal blooms and other negative impacts on aquatic ecosystems.
H_2S	Hydrogen Sulphide – a dissolved gas that gives a "rotten egg' odour and is poisonous and corrosive.
E. coli	*Escherichia coli* – Thermally tolerant forms of Escherichia bacteria that can live in the intestines of humans and warm-blooded animals. There are hundreds of *E. coli* strains and most are relatively harmless, however a notorious exception is *E. coli* strain 0157:H7, an emerging pathogen that produces a powerful toxin and can cause severe illness. *E. coli* is used as the most widely adopted indicator of faecal pollution in water and wastewater.
pH	Potential of Hydrogen – expresses the degree or intensity of both acidic and alkaline reactions on a scale from 0 to 14 with 7 being neutral, number less than 7 signify increasingly greater acidic solutions, and numbers greater than 7 signify increasingly basic or alkaline reactions. Very high or very low pH levels can be corrosive to pipes, screening equipment and pumps, can damage biological processes and form undesirable toxic gases or heavy metals.

Table 2: Sampling Requirements for the Raw Sewage (Influent)

Parameter	Type of Sample	Minimum Frequency
BOD_5	grab	quarterly
TSS	grab	quarterly
TP	grab	quarterly
TKN	grab	quarterly

Table 3: Sampling Requirements for the Lagoon Cell Contents

Parameter	Type of Sample	Minimum Frequency
TP	grab	prior to discharge
H_2S	grab	prior to discharge
E. coli	grab	prior to discharge

Table 4: Sampling Requirements for the Final Effluent

Parameter	Type of Sample	Minimum Frequency
$cBOD_5$	grab	five per discharge
TSS	grab	five per discharge
TP	grab	five per discharge
TAN (NH_3^- + NH_4 as N)	grab	five per discharge

Note: The effluent is to be collected from the lagoon outlet structure at least five (5) times during each seasonal discharge period; at the beginning (0%), 25%, 50%, 75% and at the end (100%) of the drawdown discharge.

3 Interpretation of Monitoring and Analytical Data

3.1 Influent Flows

The influent flow is a measurement based on the total volume of wastewater taken in each day. The system is equipped with a raw sewage flow meter installed in the basement of the Temagami Shores sewage pumping station located upstream from the lagoon.

The rated capacity of the Temagami South Lagoon is 232 m^3/day (average daily flow). As described in the ECA, the average daily sewage flow is defined as the total flow to the sewage works over twelve (12) consecutive calendar months divided by the number of days during the same period of time.

Compliance is achieved when the average daily influent flow does not exceed 232 m^3/day. The average influent flow in 2024 was 154 m^3/day which is 66% of the rated capacity. This was a slight increase from 2023 (141 m^3/day), but equal to the average flow in 2022 (154 m^3/day). A peak flow of 318 m^3/day was reached in April during an extreme rainfall.

The total amount of sewage received by the lagoon in 2024 was 56,357 m^3.

Figure 1 compares the monthly influent flow rates recorded in 2024 to the rated capacity of the plant.

Flow trends are critical to assessing the adequacy of size of the treatment system. Figure 2 shows both the annual average and annual maximum values from 2014 to 2024 plotted against the rated capacity of the wastewater system.

3.1.1 Monthly Influent Flows

Table 5: Comparison of the Monthly Influent Flows to the Rated Capacity

Month	Total Influent Flow (m^3/d)	Maximum Influent Flow (m^3/d)	Average Daily Influent Flow (m^3/d)	% of the Avg. Day Rated Capacity (232 m^3/d)
January	4492	172	145	63%
February	3896	146	134	58%
March	5384	199	174	75%
April	5587	318	186	80%
May	4573	167	148	64%
June	4544	168	151	65%
July	5393	224	174	75%
August	5527	224	178	77%
September	4196	160	140	60%
October	3906	151	126	54%
November	4499	283	150	65%
December	4360	151	141	61%

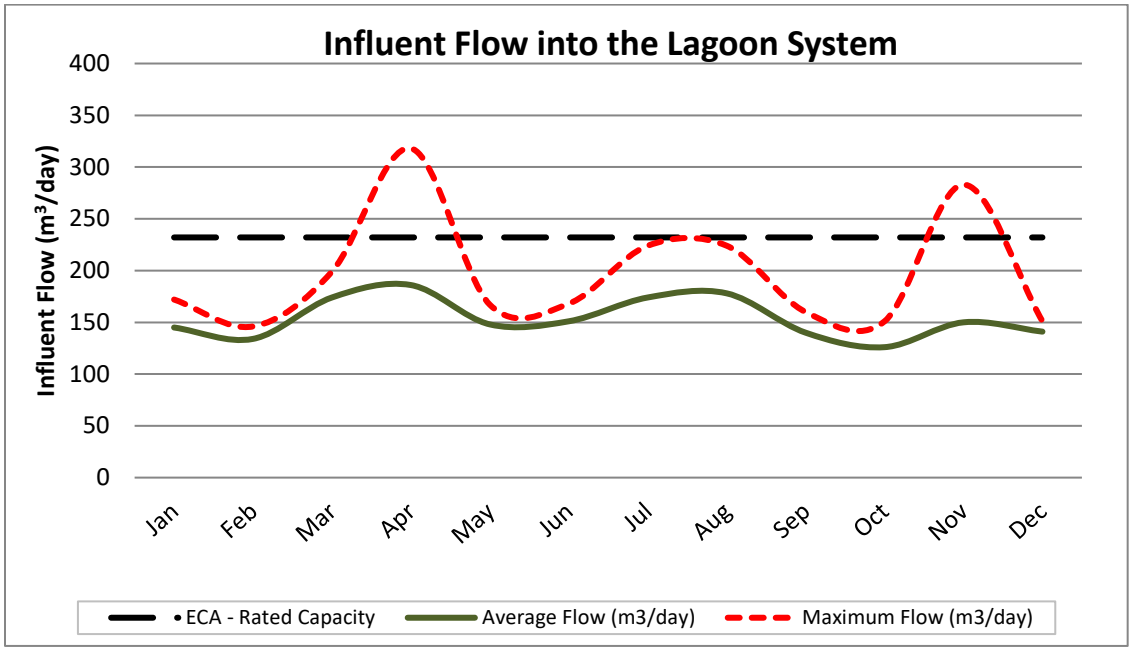


Figure 1 – 2024 Influent Flow into the Temagami South Lagoon

3.1.2 Annual Influent Flows

Table 6: Comparison of the Annual Influent Flow to the Rated Capacity

Rated Design Capacity (m^3/day)	232	Maximum Flow Capacity (m^3/day)	N/A
2024 Average Flow (m^3/day)	154	2024 Maximum Flow (m^3/day)	318
Percent of Capacity (%)	66%	Percent of Capacity (%)	N/A
Total volume of sewage influent in 2024		56,357 m^3	

3.1.3 Historical Influent Flows

Table 7: Comparison of Historical Influent Flows (2014 to 2024)

Year	Total Influent Flow (m^3/d)	Maximum Influent Flow (m^3/d)	Average Day Flow (m^3/d)	Average Day % of Rated Capacity (232 m^3/d)
2024	56,357	318	154	66%
2023	51,456	281	141	61%
2022	56,287	284	154	66%
2021	51,688	1561	142	61%
2020	46,223	1321	126	54%
2019	41,496	199	114	49%
2018	50,862	272	139	60%
2017	49,777	965	141	61%
2016	42,061	1908	115	47%
2015	45,695	283	125	54%
2014	51,295	324	141	61%

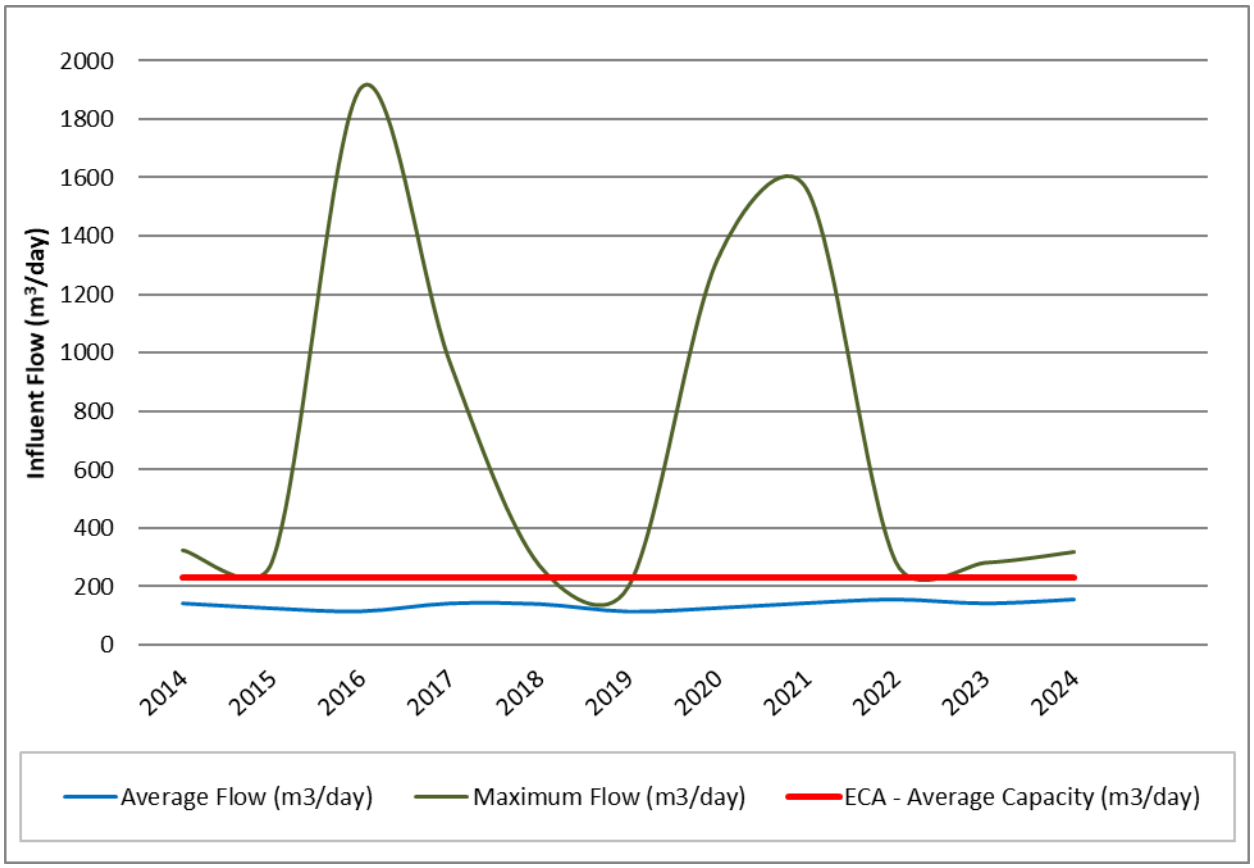


Figure 2 – Historical Influent Flow Trends (2014 to 2024)

3.2 Influent (Raw Sewage) Quality

Influent samples are required to be collected on a quarterly basis. This section summaries the annual average and annual maximum concentrations of analytical parameters tested in 2024. A monthly summary of the influent data is available in Appendix A.

Table 8: Influent Concentrations

Parameter	Annual Average	Annual Maximum
BOD_5 (mg/L)	153	230
TSS (mg/L)	115	143
TP (mg/L)	3.71	4.73
TKN (mg/L)	33	47

3.2.1 Historical Trends of Influent Characteristics

The characteristics of the raw wastewater influence the design and efficacy of the wastewater treatment process. Influent data and trends for the last 11 years data is provided in Appendix B.

The trends show that the average BOD_5 concentration varied from 111 to 252 mg/L over the past 11 years with a maximum level of 410 mg/L in 2016.

The average TSS concentration ranged from 128 to 219 with a maximum concentration of 350 mg/L in 2018.

The average TP concentration ranged from 3.5 to 6.2 with a maximum concentration of 10 mg/L in 2020.

The average TKN concentration ranged from 25 to 52 with a maximum concentration of 129 mg/L in 2020.

3.3 Lagoon Cell Contents

The lagoon cell contents is sampled prior to each seasonal discharge and is tested for total phosphorus, total suspended solids, hydrogen sulphide and *E.coli*. Results indicate that the effluent quality is acceptable and would have minimal environmental impact when discharged to the receiving water body.

Table 9: Lagoon Cell Contents

Parameter	Spring Discharge	Fall Discharge
TP (mg/L)	0.15	0.08
TSS (mg/L)	9	4
H2S (mg/L)	< 0.02	< 0.02
E.coli (cfu/100mL)	5	0

cfu = colony forming units

< = less than the method detection limit

3.4 Effluent Flow

The Temagami South Lagoon discharges seasonally into Snake Island Lake. The discharge period occurs from May 1 to June 15 and from October 15 to November 30, at a rate that is not to exceed 33.3 L/s or 2877.12 m^3/day.

In 2024, the Spring discharge occurred from May 6th to May 13th and from May 23rd to May 30th for a total of 16 days. The Fall discharge occurred from October 15th to October 24th and from November 13th to November 25th for a total of 23 days. During these times, the system operated according to its allowable flow rate.

Table 10: Effluent Flows

Discharge Period	Estimated Volume (m3)	Avg. Flow (m^3/day)	Compliance	Max. Flow (L/sec.)	Compliance
Spring (May 6 to May 30)	39,846	2490	2877 m^3/day	33.3	33.3 L/sec.
Fall (Oct. 15 to Nov. 25)	60,689	2639	2877 m^3/day	33.3	33.3 L/sec.

3.5 Effluent Quality

Samples of the final effluent are collected from the lagoon outlet five times during each seasonal discharge period; one at the beginning of the discharge, one at 25%, one at 50%, one at 75% drawdown and finally one at the end of the discharge. A summary of the Spring and Fall effluent parameter results are shown in Tables 11 to 14.

The system complied with the allowable effluent limits during the discharge periods.

Table 11: Spring Discharge – Effluent Concentrations

Parameter	Seasonal Average	Compliance Limit	Compliance Period	Exceedance
BOD_5 (mg/L)	6	25	seasonal average	No
TSS (mg/L)	22	25	seasonal average	No
TP (mg/L)	0.191	1.0	seasonal average	No
TAN (mg/L)	13.9	N/A	N/A	N/A
pH	7.54	N/A	N/A	N/A

Table 12: Spring Discharge – Effluent Loadings

Parameter	Seasonal Average	Compliance Limit	Compliance Period	Exceedance
BOD_5 (mg/L)	17.3	71.9	seasonal average	No
TSS (mg/L)	63.3	71.9	seasonal average	No
TP (mg/L)	0.548	2.9	seasonal average	No

Table 13: Fall Discharge – Effluent Concentrations

Parameter	Seasonal Average	Compliance Limit	Compliance Period	Exceedance
BOD_5 (mg/L)	2.4	25	seasonal average	No
TSS (mg/L)	10	25	seasonal average	No
TP (mg/L)	0.150	1.0	seasonal average	No
TAN (mg/L)	9.13	N/A	N/A	N/A
pH	6.87	N/A	N/A	N/A

Table 14: Fall Discharge – Effluent Loadings

Parameter	Seasonal Average	Compliance Limit	Compliance Period	Exceedance
BOD_5 (mg/L)	6.8	71.9	seasonal average	No
TSS (mg/L)	28.9	71.9	seasonal average	No
TP (mg/L)	0.432	2.9	seasonal average	No

Refer to Appendix A for a Monthly Process Data Report which summarizes the effluent monitoring and analysis conducted at the facility during the reporting period.

3.6 Sewage Treatment Program Success and Adequacy

The Performance Summary shows the efficiency of the lagoon performance through pollutant removal rates from raw sewage through to the final effluent. Table *15* demonstrates that the lagoon treatment process was very successful in reducing the levels of BOD_5, Total Suspended Solids (TSS) and Total Phosphorus (TP) from the influent, producing high quality effluent.

Table 15: Annual Performance Summary

Parameter	Influent *(annual average)*	Effluent *(annual average)*	% Removal
BOD_5 (mg/L)	153	< 4.2	97%
TSS (mg/L)	115	16	86%
TP (mg/L)	3.7	0.17	95%
TKN/TAN (mg/L)	33 (TKN)	12 (TAN)	64%

4 Effluent Quality Assurance and Control Measures Undertaken

The following activities are included in regular operator and supervisory activities to assure high level performance of the sewage treatment operations including high effluent quality and accurate flow monitoring:

- Operational staff have current and appropriate level of certification for the operation of the facility and continue to learn and achieve knowledge of the process and equipment. Experienced staff has a high level of regulatory competence. New staff receives on-going training to achieve operational knowledge and regulatory competence.
- The pumping station and lagoon site are inspected by a certified OCWA operator regularly during the work week.
- In-house tests; pH and temperature, are conducted by licensed operators for monitoring purposes using standard methods for Water and Wastewater.
- Samples are collected as required and analyzed by Testmark Laboratories. Analysis of the samples is conducted in accordance with the Standard Council of Canada (SCC), in cooperation with the Canadian Association for Laboratory Accreditation Inc. (CALA). Quality control procedures are method specific and include laboratory duplicate samples, spiked blanks and spiked duplicates.
- A sampling system which includes an excel sample calendar, which is updated at the beginning of each year and a chain of custody binder are used to ensure all samples are collected as per the requirements identified in the system's ECA.
- Operations and Compliance staff review facility round sheets and laboratory reports to monitor the routine operation of the treatment system and ensure compliance with the ECA.
- All process and laboratory data is logged in a process data management system.
- Routine maintenance is scheduled and tracked to completion using OCWA's Workplace Maintenance System (WMS). Instrumentation equipment is tested and maintained as per manufacturer's recommendations.
- Certified operators monitor chemical usage and make adjustments as required.
- Ferric Sulphate is added to the lagoon to reduce total phosphorus levels and increase the settling of solids.
- Any bypass or upset events that occur in the system are tested, monitored and reported to the local Health Unit and Spills Action Center (SAC) and local Health Unit.
- All flow, influent and effluent quality data is reviewed by the Overall Responsible Operator and Compliance staff to identify any changes in concentrations and/or emerging

trends. All non-compliances are reported to Ministry's Spills Action Center (SAC) and the local MECP inspector.

5 Efforts Made to Meet Effluent Objectives

The Effluent Design Objectives are those levels of performance which can be achieved by treatment processes treating normal strength municipal sewage under optimum conditions. A sewage treatment facility should be able to produce annual average effluent quality approximately equal to the Effluent Design Objectives, but should not exceed the Effluent Compliance Limits. The objectives are used to promote continuous improvement in the operations of the works and to trigger corrective action before environmental impairment occurs.

OCWA uses a number of best efforts to achieve the Effluent Objectives.

- Certified operational staff have a high level of process knowledge and regulatory proficiency.
- The mechanical elements in the facility are regularly inspected, well maintained and kept in good repair. OCWA uses a computerized maintenance management program which generates works orders to ensure maintenance of equipment is proactively performed.
- Raw wastewater and effluent samples are collected as required and analyzed by Testmark Laboratories, an accredited laboratory. OCWA reviews these results on a regular basis to confirm compliance with ECA objective and limits.
- In-house sampling and testing for selected operational parameters provides real-time results which are used to enhance process and operational performance.
- Operations, maintenance and emergency procedures are available to ensure facilities are operated in compliance with applicable legal instruments. Facility staff has access to a network of operational compliance and support experts at the region and corporate levels.
- A five year rolling recommended capital and major maintenance report is used to assist the Owner and OCWA with planning infrastructure needs for the short and long terms. A letter summarizing capital work recommendations a provided to the Owner each year for their approval.
- The Owner budgets for regular sludge removal to ensure good effluent quality.

During this reporting period, the facility met all objectives for seasonal effluent concentrations and loadings with the exception of the TSS during the Spring discharge. Results are provided in the tables below.

Although efforts were made to achieve the effluent objectives, a high TSS result of 37 mg/L at the beginning of the discharge on May 6th caused the failure. Ferric dosing was adjusted and the TSS levels stayed below the objective for the remainder of the discharge.

Table 16: Spring Discharge - Effluent Concentration Objectives

Parameter	Seasonal Average	Objective	Exceedance
BOD_5 (mg/L)	6.0	15	No
TSS (mg/L)	**22**	20	**YES**
TP (mg/L)	0.19	1.0	No

Table 17: Spring Discharge - Effluent Loading Objectives

Parameter	Seasonal Average	Objective	Exceedance
BOD_5 (kg/d)	17.3	43.1	No
TSS (kg/d)	**63.3**	57.5	**YES**
TP (kg/d)	0.55	2.9	N0

Table 18: Fall Discharge - Effluent Concentration Objectives

Parameter	Seasonal Average	Objective	Exceedance
BOD_5 (mg/L)	2.4	15	No
TSS (mg/L)	10	20	No
TP (mg/L)	0.15	1.0	No

Table 19: Fall Discharge - Effluent Loading Objectives

Parameter	Seasonal Average	Objective	Exceedance
BOD_5 (kg/d)	6.8	43.1	No
TSS (kg/d)	28.9	57.5	No
TP (kg/d)	0.43	2.9	No

6 Operating Problems & Corrective Actions

Operating problems encountered during 2024 are summarized below.

1. TSS objective exceedance – the effluent exceeded the TSS concentration and loading objectives during the Spring discharge. Ferric levels were adjusted to help reduce levels. Dredging was performed from November 5th to the 8th to remove sludge from South Cell (Cell No. 1) which will further help lower effluent TSS levels and improve effluent quality.

2. Spill – a spill in the sewage collection system caused by a cracked coupler on a sewer main occurred on August 28th. Refer to Section 10 (10.1) for further details.

7 Maintenance Procedures Performed on the Works

Routine maintenance schedules are entered in OCWA's computerized Workplace Management System (WMS). This is a comprehensive maintenance program that is based on a pro-active and preventive approach. This program includes but is not limited to running weekly, monthly, and annually checks as required or as recommended by manufacturer's instructions. All routine and preventative maintenance was conducted in 2024. A summary of maintenance performed, which includes preventative work, capital projects and emergency repairs is available in Appendix F.

Major maintenance and improvements that took place during 2024 include:

- Dredging was performed from November 5th to the 7th by Bishop Water Inc. to remove approximately 1385 m^3 of sludge from the South Cell. Refer to Appendix C for a Summary Report prepared by Bishop Water Inc.

- Replaced alarm dialer at the Temagami Shores sewage pumping station

8 Calibration & Maintenance of all Monitoring Equipment

Influent and effluent monitoring equipment is calibrated based on requirements of the system's ECA or manufactures recommendations. Flow meters are calibrated annually to ensure a required accuracy of +/- 15%. pH meters are calibrated to ensure an acceptable tolerance and accuracy as specified by the manufacturer.

Routine maintenance was conducted as scheduled by qualified Instrumentation Technicians during the reporting period. Refer to Table 20 for a summary of calibrations conducted in 2024.

Table 20: Calibrations

Instrument	Calibration Date	% Accuracy	Requirement
Influent Flow Meter	May 2, 2024	99.3%	+/- 15%
Portable pH Analyzer	Feb. 23, May 14, Aug, 20, Nov. 29, 2024	Within tolerance	

9 Complaints

No complaints were received during the reporting period.

10 Abnormal Discharge Events

10.1 Overflow, Bypass and Spill Events

One (1) spill event occurred in the Temagami South sewage collection system on August 28th. The event took place at 18 Wildflower Avenue. Sewage bubbled out of a crack in the road when the Temagami Shores sewage pumping station was running. The pumping station normally runs twice per day. The spill was caused by a crack in a sewer main. The spilled material was sampled and tested for BOD_5, TSS, TP, TKN and *E.coli*.

The event was reported to the Ministry of the Environment's Spills Action Center (SAC) as per the system's approval and to the local Health Unit.

Refer to Appendix D for a detailed report and sample results.

Table 21: Summary of Abnormal Discharge Events in 2024

Date	Duration	Type	Cause	Adverse Impacts	Estimated Volume (m^3)
August 28	15 hours	Spill	Broken sewer main	None	27

10.2 Efforts Made to Reduce System Overflows and Bypasses

There are no designed bypass or overflow points in the collection system.

The Temagami South Lagoon consistently operates below its annual rated capacity of 232 m^3/day and overflows and bypasses are very rare.

A review of historical data over the last 11 years (2014 to 2024) indicates that six (6) abnormal discharge events (spills) occurred due to sewer main breaks or broken grinder pump pipes. No bypasses or overflows occurred in the system during this period.

In an effort to reduce and/or eliminate overflow, bypass and spill events and to conform with Procedure F-5-1, the following are in place.

- An alarm system is in place at the sewage pumping station to alert operators of any issues; power failures, high level and equipment failures.
- Regular routine maintenance is performed to help reduce overflows, bypasses and spills events. For example monthly maintenance of equipment, buildings, and grounds and

routine calibration of monitoring equipment as outlined in the Maintenance Summary found in Appendix D.

- Repairs to the collection system, including grinder pumps are done promptly as issues occur.
- Ferric sulphate is added to stabilize the pH and reduce TSS levels in an effort to meet effluent objectives.
- The lagoon seems to be adequate for the volume of wastewater being received and overflowing or bypassing has not been a concern.

10.3 Summary of Alterations to the System to Reduce Overflows

There have been no projects done in 2024 to reduce overflows, bypasses or spills.

10.4 Public Notification

The system has a Public Notification Procedure to notify the public and downstream users that may be adversely affected in the event of an overflow, bypass or spill at the lagoon. No designed overflow points are located in the sewage collection system, therefore no public signage is required.

11 Complaints

No complaints were received during the reporting period.

12 Proposed Alterations to the Works

- A datalogger to record and trend raw flows entering the lagoon,
- New level transmitter for Temagami Shores sewage pumping station as the current unit gives erratic readings due to temperature fluctuations.

APPENDIX A
Monthly Process Data Report

														2024			
Influent - Raw Sewage	**Jan 2024**	**Feb 2024**	**Mar 2024**	**Apr 2024**	**May 2024**	**Jun 2024**	**Jul 2024**	**Aug 2024**	**Sep 2024**	**Oct 2024**	**Nov 2024**	**Dec 2024**	**Total**	**Avg**	**Max**	**Min**
Biochemical Oxygen Demand: BOD5 - mg/L																
Lab Count	1.00			1.00			1.00			1.00			4.00			
Lab Month.Max	140.00			120.00			120.00			230.00					230.00	
Lab Month.Mean	140.00			120.00			120.00			230.00				152.50		
Lab Month.Min	140.00			120.00			120.00			230.00						120.00
Total Kjeldahl Nitrogen: TKN - mg/L																
Lab Count	1.00			1.00			1.00			1.00			4.00			
Lab Month.Max	32.70			22.20			30.30			47.20					47.20	
Lab Month.Mean	32.70			22.20			30.30			47.20				33.10		
Lab Month.Min	32.70			22.20			30.30			47.20						22.20
Total Phosphorus: TP - mg/L																
Lab Count	1.00			1.00			1.00			1.00			4.00			
Lab Month.Max	4.55			2.11			3.46			4.73					4.73	
Lab Month.Mean	4.55			2.11			3.46			4.73				3.71		
Lab Month.Min	4.55			2.11			3.46			4.73						2.11
Total Suspended Solids: TSS - mg/L																
Lab Count	1.00			1.00			1.00			1.00			4.00			
Lab Month.Max	143.00			86.00			108.00			124.00					143.00	
Lab Month.Mean	143.00			86.00			108.00			124.00				115.25		
Lab Month.Min	143.00			86.00			108.00			124.00						86.00

Cell Contents	**Jan 2024**	**Feb 2024**	**Mar 2024**	**Apr 2024**	**May 2024**	**Jun 2024**	**Jul 2024**	**Aug 2024**	**Sep 2024**	**Oct 2024**	**Nov 2024**	**Dec 2024**	**Total**	**Avg**	**Max**	**Min**
E. Coli: EC - cfu/100mL																
Lab Count				1.00						1.00			2.00			
Lab Month.Max				5.00						0.00					5.00	
Lab Month.Mean				5.00						0.00				2.50		
Lab Month.Min				5.00						0.00						0.00
Hydrogen Sulphide: H2S - mg/L																
Lab Count				1.00						1.00			2.00			
Lab Month.Max			<	0.02						< 0.02				<	0.02	
Lab Month.Mean			<	0.02						< 0.02				<	0.02	
Lab Month.Min			<	0.02						< 0.02						< 0.02

NE_Temagami S. Lagoon_ Annual Reg.
From 01/01/2024 to 12/31/2024

Facility Name: TEMAGAMI SOUTH WASTEWATER TREATMENT LAGOON

Facility Org Number: 5997
Facility Owner: Municipality: Temagami
Service Population: 560

Works: 110002327
Facility Classification: Class 1 Wastewater Treatment
Total Design Capacity: 232 m3/day

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Total Phosphorus: TP - mg/L																
Lab Count				1.00						1.00			2.00			
Lab Month.Max				0.15						0.08					0.15	
Lab Month.Mean				0.15						0.08				0.11		
Lab Month.Min				0.15						0.08						0.08
Total Suspended Solids: TSS - mg/L																
Lab Count				1.00						1.00			2.00			
Lab Month.Max				9.00						4.00					9.00	
Lab Month.Mean				9.00						4.00				6.50		
Lab Month.Min				9.00						4.00						4.00

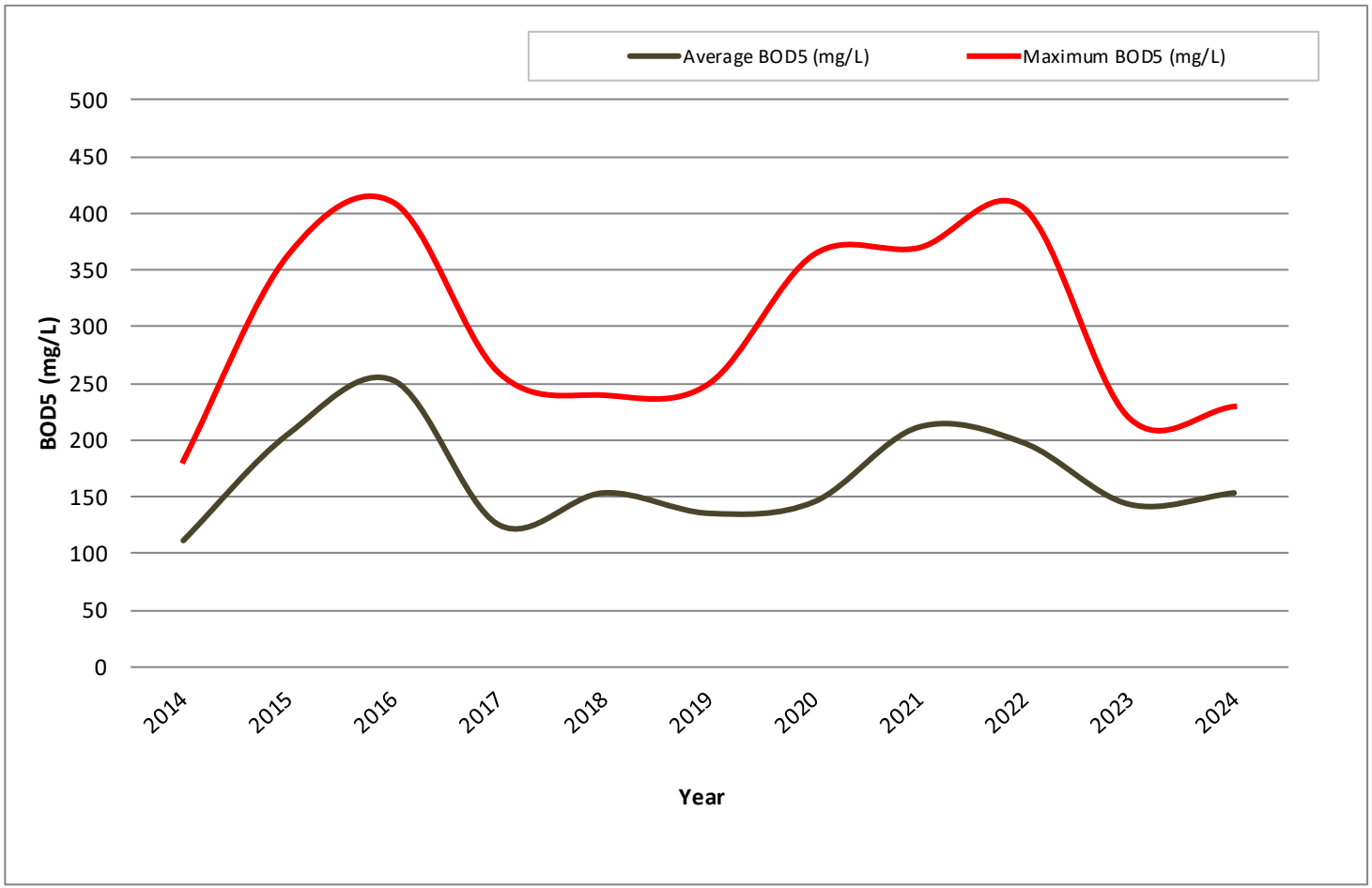
													2024			
Final Effluent	**Jan 2024**	**Feb 2024**	**Mar 2024**	**Apr 2024**	**May 2024**	**Jun 2024**	**Jul 2024**	**Aug 2024**	**Sep 2024**	**Oct 2024**	**Nov 2024**	**Dec 2024**	**Total**	**Avg**	**Max**	**Min**
BOD5 (Max 25 mg/L) - mg/L																
Lab Count					5.00					3.00	2.00		10.00			
Lab Month.Max					8.20					5.50	0.90				8.20	
Lab Month.Mean					6.00					3.60	< 0.70			< 4.22		
Lab Month.Min					2.50					1.60	< 0.50					< 0.50
Total Ammonia Nitrogen: NH3 + NH4+ as N - mg/L																
Lab Count					5.00					3.00	2.00		10.00			
Lab Month.Max					16.80					11.00	8.10				16.80	
Lab Month.Mean					13.86					10.30	7.37			11.50		
Lab Month.Min					10.50					9.94	6.64					6.64
pH Field: Lab Upload - ---																
Count					5.00					3.00	2.00		10.00			
IH Month.Max					8.90					7.06	6.67				8.90	
IH Month.Mean					7.54					7.03	6.63			7.20		
IH Month.Min					7.08					6.99	6.58					6.58
Temperature Field: Lab Upload - °C																
Count					5.00					3.00	2.00		10.00			
IH Month.Max					17.10					10.20	10.40				17.10	
IH Month.Mean					13.68					7.93	7.40			10.70		
IH Month.Min					9.90					3.50	4.40					3.50

TP (Max 1.0 mg/L) - mg/L																															
	Lab Count									5.00								3.00		2.00				10.00							
	Lab Month.Max									0.294								0.374		0.041								0.374			
	Lab Month.Mean									0.191								0.234		0.025						0.170					
	Lab Month.Min									0.135								0.130		0.009										0.009	
TSS (Max 25 mg/L) - mg/L																															
	Lab Count									5.00								3.00		2.00				10.00							
	Lab Month.Max									37.00								29.00		5.30								37.00			
	Lab Month.Mean									22.00								14.67		3.15						16.03					
	Lab Month.Min									14.00								1.50		1.00										1.00	

APPENDIX B
Historical Trends of Influent Characteristics

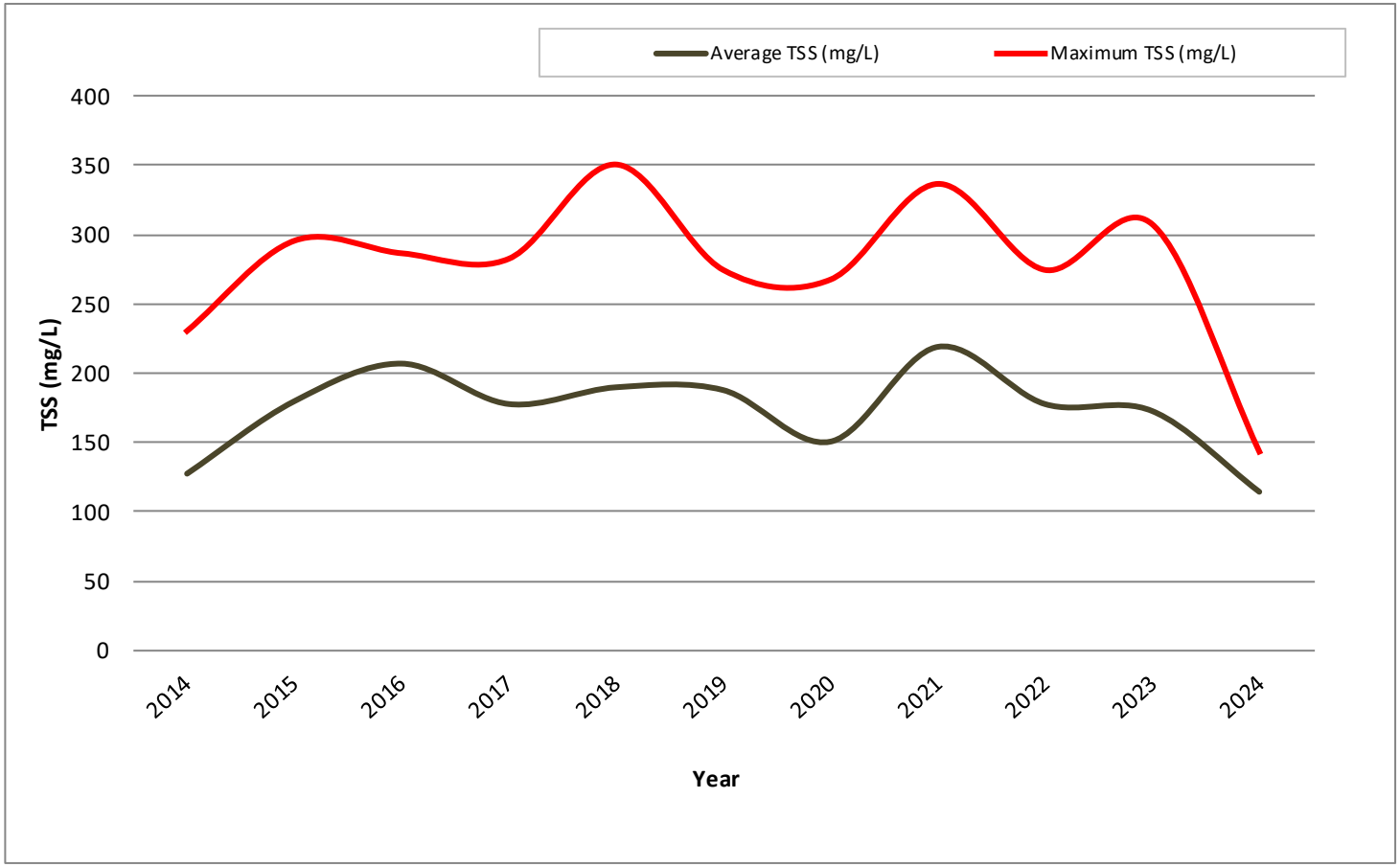
BOD5 – Five Day Biochemical Oxygen Demand

	2014	***2015***	***2016***	***2017***	***2018***	***2019***	***2020***	***2021***	***2022***	***2023***	***2024***
Average BOD5 (mg/L)	111	205	252	125	153	135	145	211	197	143	153
Maximum BOD5 (mg/L)	182	364	410	260	240	250	364	370	405	220	230



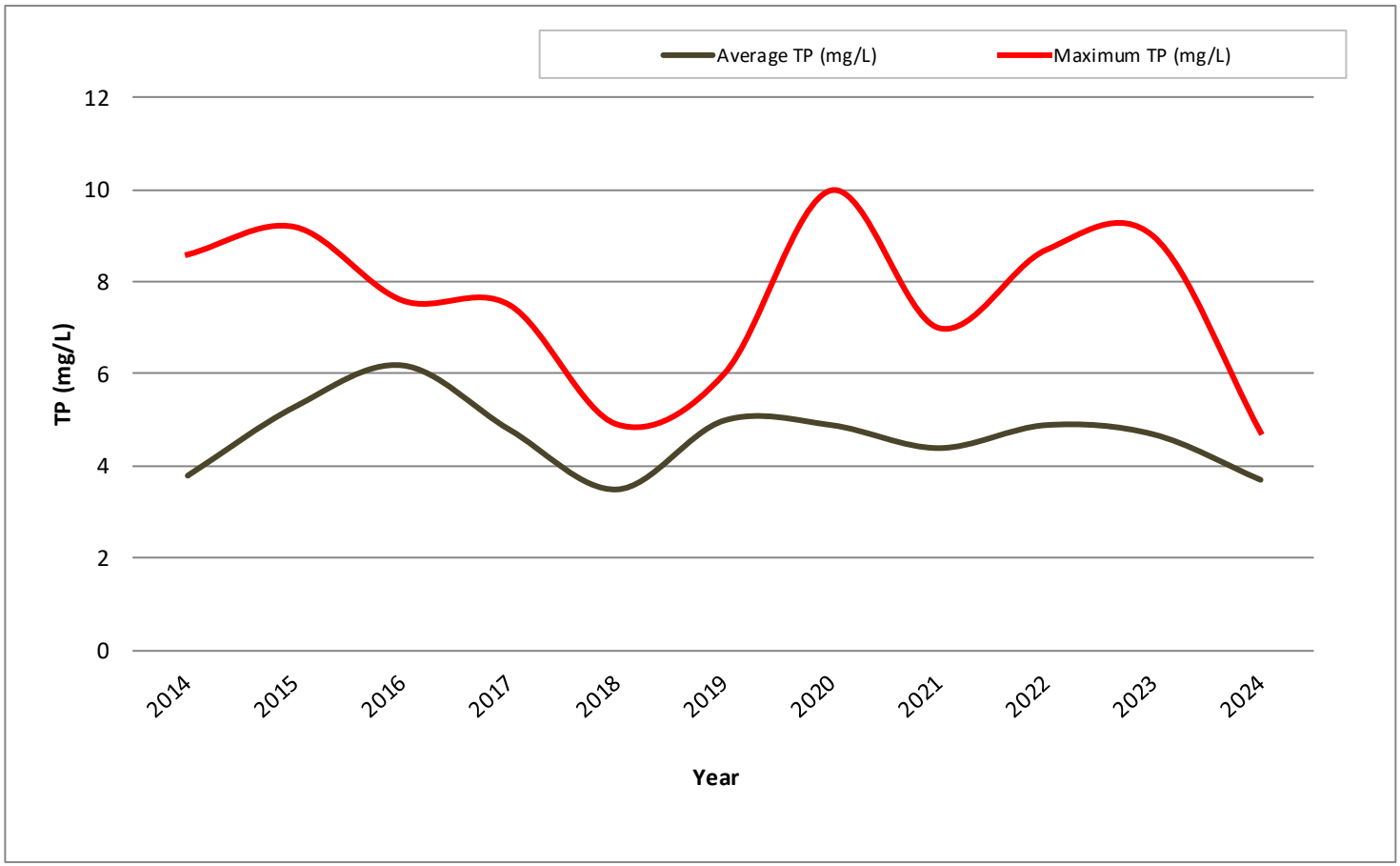
TSS – Total Suspended Solids

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Average TSS (mg/L)	128	180	207	178	190	188	151	219	178	173	115
Maximum TSS (mg/L)	230	295	286	282	350	274	267	336	274	307	143



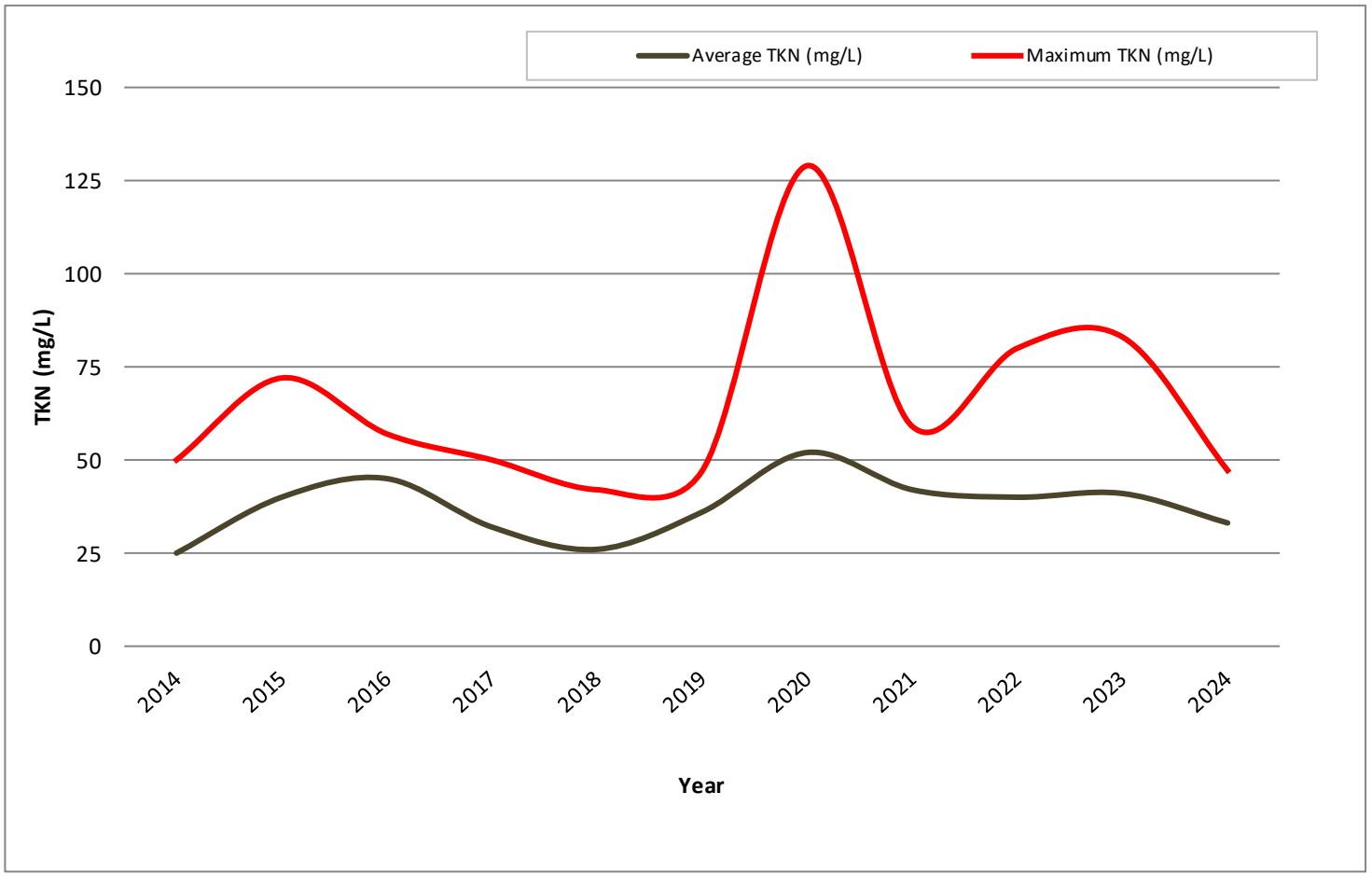
TP - Total Phosphorus

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Average TP (mg/L)	3.8	5.3	6.2	4.8	3.5	5.0	4.9	4.4	4.9	4.7	3.7
Maximum TP (mg/L)	8.6	9.2	7.6	7.5	4.9	6.0	10.0	7.0	8.7	9.0	4.7



TKN – Total Kjeldahl Nitrogen

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Average TKN (mg/L)	25	40	45	32	26	36	52	42	40	41	33
Maximum TKN (mg/L)	50	72	57	50	42	47	129	59	80	83	47



APPENDIX C
Sludge Removal Summary Report (Bishop Water Inc.)

BISHOPWATER
16 Edward Street South, Unit 203, Arnprior, ON K7S 3W4
Phone: 343-361-0463
www.bishopwater.ca info@bishopwater.ca
Fax: 1(844) 272-6102
INTELLIGENT SOLUTIONS FOR WATER

FINAL REPORT

Temagami South Lagoon Cleanout, Temagami, ON

ECA 1426-8ADGZH
Section 23.2 (a) "Final Report"

2024-11-18

Attention:

Greg Ault
District Manager Timmins/North Bay Office
Ministry of the Environment, Conservation and Parks
Drinking Water and Environmental Compliance Division
Timmins/North Bay Office
Tel: 705-492-4673
Fax: 705-235-1520
Email: greg.ault@ontario.ca

Prepared by:

Bishop Water Inc.
Unit 203 - 16 Edward St. S
Arnprior, Ontario, Canada
K7S 3W4

Table of Contents

Summary of Attachments:

1. Appendix A - MECP Notification;

1.0 Introduction

The following final report has been provided in accordance with Condition 23.2 (a) " Final Report" of ECA 1426-8ADGZH for sludge removal and sludge dewatering work with Geotube® units at the Temagami South Lagoon site (the Site) in Temagami, Ontario at the completion of the operation.

Sludge removal and sludge dewatering was carried out at in only the South Lagoon Cell located at 22 Jack Guppy Way, Temagami, ON (47.062246, -79.778717) in Temagami, ON.

2.0 Project Timeline

Operation for lagoon desludging commenced on November 5th, 2024 and was completed on November 7th, 2024.

Please refer to Table 1 (located below) for a timeline breakdown.

Table 1. Project Timeline.

Pre-Operation District Office Notification and Pre-Operation Municipal Notification (Section 19.1 and 19.2 ECA 1426-8ADGZH)	October 10th, 2024
Mobilization to Site	November 4th, 2024
Start of desludging operation	November 5th, 2024
End of desludging operation	November 7th, 2024
Demobilization from Site	November 8th, 2024

3.0 Project Overview

On November 4th, 2024 our technicians arrived on Site. Mobilization and setup of the site was completed on November 4th, 2024. Within that time frame our polymer treatment system seacan, dredge and associated equipment was set up.

One (1) 30' (9.15 m) circumference x 100' (30.48 m) length Geotube unit was brought to the Site. Refer to Table 2 for a summary of the Geotube unit sizing.

Table 2. Breakdown of Geotube® unit sizing.

Geotube® Unit #	Geotube® Dimensions (Circumference x Length, m)
1	9.15 x 30.48

Between November 5th and November 7th, Bishop Water conducted sludge removal in 11 lanes within the South Lagoon Cell.

Demobilization was completed between November 7th - 8th, 2024.

4.0 Production Summary

Table 3 (located below) summarizes the volume of dredged sludge pumped/week over the course of the desludging period (3 days total).

Table 3. *Volume of Dredged Sludge Pumped/Week.*

Week	Volume Pumped (m^3)
Week 1 (November 5 - November 7, 2024)	1,285.03
TOTAL PERIOD	**1,285.03**

Bishop Water used 53.42 L of Solve 137.

Effluent dispersing from the Geotube units was directed back to the lagoon system. As such, the volume of effluent was not tracked and no analysis of effluent was performed.

Dewatered biosolids are to remain onsite until the %solids are suitable for disposal. Municipality of Temagami (Site Owner) is responsible for the final disposal. Temagami will inform MECP of the final destination for disposal. Analysis of the dewatered solids has not been performed.

No emergency situations or spills occurred during the operation of the sludge removal and dewatering equipment.

There were no complaints during the operation of the sludge removal and dewatering equipment.

5.0 Photographs

Below are key photographs collected during the work.

Figure 1. *View the lagoon cell.*

Figure 2. *View of the Geotube unit onsite.*

Figure 3. *Sample of the lagoon sludge after treatment with Solve 137.*

Figure 5. *Dredge deployed into the lagoon cell.*

6.0 Conclusion

Bishop Water was able to remove 18.54 BDMT of solids. A total of 1,285.03 m^3 of material was removed from the lagoon over the course of three production days.

Regards,

Caelan Clarke
Project Coordinator
Bishop Water Inc.

APPENDIX D
Maintenance Summary

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3709048	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	1/1/24 12:00 AM	1/12/24 11:04 AM	1/12/24 11:04 AM	TPM Inspection/Maintenance (1m) 5997 - Recorded pump hours at Shores SPS Recorded total raw flow at lagoon Checked pump oil level at lagoon TPM Inspection/Maintenance (1m) 5997 - Trained Andrew on TPM at South Lagoon: Checked pump: currently not in service Checked oil level. ok Monitored lagoon depth. approx. 12 ft due to snowfall
3709048	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	1/1/24 12:00 AM	1/12/24 11:04 AM	1/12/24 11:04 AM	TPM Inspection/Maintenance (1m) 5997 - Recorded pump hours at Shores SPS Recorded total raw flow at lagoon Checked pump oil level at lagoon TPM Inspection/Maintenance (1m) 5997 - Trained Andrew on TPM at South Lagoon: Checked pump: currently not in service Checked oil level. ok Monitored lagoon depth. approx. 12 ft due to snowfall

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3709048	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	1/1/24 12:00 AM	1/12/24 11:04 AM	1/12/24 11:04 AM	TPM Inspection/Maintenance (1m) 5997 - Recorded pump hours at Shores SPS Recorded total raw flow at lagoon Checked pump oil level at lagoon TPM Inspection/Maintenance (1m) 5997 - Trained Andrew on TPM at South Lagoon: Checked pump: currently not in service Checked oil level. ok Monitored lagoon depth. approx. 12 ft due to snowfall
3709048	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	1/1/24 12:00 AM	1/12/24 11:04 AM	1/12/24 11:04 AM	TPM Inspection/Maintenance (1m) 5997 - Recorded pump hours at Shores SPS Recorded total raw flow at lagoon Checked pump oil level at lagoon TPM Inspection/Maintenance (1m) 5997 - Trained Andrew on TPM at South Lagoon: Checked pump: currently not in service Checked oil level. ok Monitored lagoon depth. approx. 12 ft due to snowfall

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3709048	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	1/1/24 12:00 AM	1/12/24 11:04 AM	1/12/24 11:04 AM	TPM Inspection/Maintenance (1m) 5997 - Recorded pump hours at Shores SPS Recorded total raw flow at lagoon Checked pump oil level at lagoon TPM Inspection/Maintenance (1m) 5997 - Trained Andrew on TPM at South Lagoon: Checked pump: currently not in service Checked oil level. ok Monitored lagoon depth. approx. 12 ft due to snowfall
3709048	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	1/1/24 12:00 AM	1/12/24 11:04 AM	1/12/24 11:04 AM	TPM Inspection/Maintenance (1m) 5997 - Recorded pump hours at Shores SPS Recorded total raw flow at lagoon Checked pump oil level at lagoon TPM Inspection/Maintenance (1m) 5997 - Trained Andrew on TPM at South Lagoon: Checked pump: currently not in service Checked oil level. ok Monitored lagoon depth. approx. 12 ft due to snowfall

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3709048	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	1/1/24 12:00 AM	1/12/24 11:04 AM	1/12/24 11:04 AM	TPM Inspection/Maintenance (1m) 5997 - Recorded pump hours at Shores SPS Recorded total raw flow at lagoon Checked pump oil level at lagoon TPM Inspection/Maintenance (1m) 5997 - Trained Andrew on TPM at South Lagoon: Checked pump: currently not in service Checked oil level. ok Monitored lagoon depth. approx. 12 ft due to snowfall
3709048	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	1/1/24 12:00 AM	1/12/24 11:04 AM	1/12/24 11:04 AM	TPM Inspection/Maintenance (1m) 5997 - Recorded pump hours at Shores SPS Recorded total raw flow at lagoon Checked pump oil level at lagoon TPM Inspection/Maintenance (1m) 5997 - Trained Andrew on TPM at South Lagoon: Checked pump: currently not in service Checked oil level. ok Monitored lagoon depth. approx. 12 ft due to snowfall

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3709048	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	1/1/24 12:00 AM	1/12/24 11:04 AM	1/12/24 11:04 AM	TPM Inspection/Maintenance (1m) 5997 - Recorded pump hours at Shores SPS Recorded total raw flow at lagoon Checked pump oil level at lagoon TPM Inspection/Maintenance (1m) 5997 - Trained Andrew on TPM at South Lagoon: Checked pump: currently not in service Checked oil level. ok Monitored lagoon depth. approx. 12 ft due to snowfall
3709048	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	1/1/24 12:00 AM	1/12/24 11:04 AM	1/12/24 11:04 AM	TPM Inspection/Maintenance (1m) 5997 - Recorded pump hours at Shores SPS Recorded total raw flow at lagoon Checked pump oil level at lagoon TPM Inspection/Maintenance (1m) 5997 - Trained Andrew on TPM at South Lagoon: Checked pump: currently not in service Checked oil level. ok Monitored lagoon depth. approx. 12 ft due to snowfall
3709635	0000293289	SITE	5997, Temagami South Lagoon	PM	Compliance	1	YEARS	Facility Emergency Plan Review (1y) 5997	CLOSE	1/1/24 12:00 AM	5/27/24 07:21 AM	5/27/24 07:21 AM	Facility Emergency Plan Review (1y) 5997 - FEP and O&M were reviewed and updated as required on March 6, 2024
3709636	0000293289	SITE	5997, Temagami South Lagoon	PM	Health and Safety	1	YEARS	WHMIS/SDS/NSF Review and Update (1y) 5997	CLOSE	1/1/24 12:00 AM	3/7/24 10:45 AM	3/7/24 10:45 AM	SDS Review & Update -Check for SDS updates. Copy/ organize for operator to take to site.

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3709840	0000293289	SITE	5997, Temagami South Lagoon	OPER	Inspection	1	YEARS	Daily O&M Activities Wastewater Treatment (1y) 5997	COMP	1/1/24 12:00 AM	1/13/25 12:54 PM	1/13/25 12:54 PM	- Remove defective dialer at Temagami Shores pumping station and replace with a new Sensaphone dialer. Test all alarms at pumping station and call out.
3710134	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 5997	CLOSE	1/1/24 12:00 AM	2/8/24 07:43 AM	2/8/24 07:43 AM	Building and Grounds Maintenance (1m) 5997 - Completed throughout the month: Checked facility exterior and interior of facility. ok Swept floor. Monitor lagoon height
3766613	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	2/1/24 12:00 AM	3/3/24 11:34 PM	3/3/24 11:34 PM	TPM Inspection/Maintenance (1m) 5997 - Pump not in service
3766613	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	2/1/24 12:00 AM	3/3/24 11:34 PM	3/3/24 11:34 PM	TPM Inspection/Maintenance (1m) 5997 - Pump not in service
3766613	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	2/1/24 12:00 AM	3/3/24 11:34 PM	3/3/24 11:34 PM	TPM Inspection/Maintenance (1m) 5997 - Pump not in service
3766613	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	2/1/24 12:00 AM	3/3/24 11:34 PM	3/3/24 11:34 PM	TPM Inspection/Maintenance (1m) 5997 - Pump not in service
3766613	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	2/1/24 12:00 AM	3/3/24 11:34 PM	3/3/24 11:34 PM	TPM Inspection/Maintenance (1m) 5997 - Pump not in service
3766613	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	2/1/24 12:00 AM	3/3/24 11:34 PM	3/3/24 11:34 PM	TPM Inspection/Maintenance (1m) 5997 - Pump not in service
3766613	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	2/1/24 12:00 AM	3/3/24 11:34 PM	3/3/24 11:34 PM	TPM Inspection/Maintenance (1m) 5997 - Pump not in service
3766613	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	2/1/24 12:00 AM	3/3/24 11:34 PM	3/3/24 11:34 PM	TPM Inspection/Maintenance (1m) 5997 - Pump not in service

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3766613	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	2/1/24 12:00 AM	3/3/24 11:34 PM	3/3/24 11:34 PM	TPM Inspection/Maintenance (1m) 5997 - Pump not in service
3766613	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	2/1/24 12:00 AM	3/3/24 11:34 PM	3/3/24 11:34 PM	TPM Inspection/Maintenance (1m) 5997 - Pump not in service
3767083	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 5997	CLOSE	2/1/24 12:00 AM	2/21/24 03:52 PM	2/21/24 03:52 PM	Building and Grounds Maintenance (1m) 5997 - Completed building and ground maintenance: Removed snow from entrances when necessary Monitored snow on roof. ok Removed old hornets nets from the vents Check eavestrough. ok Checked facility exterior and interior. ok
3769123	0000115977	ANALYZER PH PORTABLE	5997, Temagami South Lagoon, Facility	PM	Inspection	3	MONTHS	Analyzer pH Lab/Portable Calibration (3m) 5997	CLOSE	2/1/24 12:00 AM	2/26/24 05:15 AM	2/26/24 05:15 AM	- Cleaned probe and calibrated using new 4.01 and 7.01 Hach pillow pouches and distilled water as per manufacturers instruction.
3808295	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	3/1/24 12:00 AM	3/28/24 02:59 PM	3/28/24 02:59 PM	tpm work order - no unusual sounds, all ventilation fans work. fans work
3808295	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	3/1/24 12:00 AM	3/28/24 02:59 PM	3/28/24 02:59 PM	tpm work order - no unusual sounds, all ventilation fans work. fans work
3808295	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	3/1/24 12:00 AM	3/28/24 02:59 PM	3/28/24 02:59 PM	tpm work order - no unusual sounds, all ventilation fans work. fans work
3808295	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	3/1/24 12:00 AM	3/28/24 02:59 PM	3/28/24 02:59 PM	tpm work order - no unusual sounds, all ventilation fans work. fans work

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3808295	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	3/1/24 12:00 AM	3/28/24 02:59 PM	3/28/24 02:59 PM	tpm work order - no unusual sounds, all ventilation fans work. fans work
3808295	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	3/1/24 12:00 AM	3/28/24 02:59 PM	3/28/24 02:59 PM	tpm work order - no unusual sounds, all ventilation fans work. fans work
3808295	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	3/1/24 12:00 AM	3/28/24 02:59 PM	3/28/24 02:59 PM	tpm work order - no unusual sounds, all ventilation fans work. fans work
3808295	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	3/1/24 12:00 AM	3/28/24 02:59 PM	3/28/24 02:59 PM	tpm work order - no unusual sounds, all ventilation fans work. fans work
3808295	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	3/1/24 12:00 AM	3/28/24 02:59 PM	3/28/24 02:59 PM	tpm work order - no unusual sounds, all ventilation fans work. fans work
3808295	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	3/1/24 12:00 AM	3/28/24 02:59 PM	3/28/24 02:59 PM	tpm work order - no unusual sounds, all ventilation fans work. fans work
3808857	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 5997	CLOSE	3/1/24 12:00 AM	3/28/24 03:09 PM	3/28/24 03:09 PM	buliding and grounds - south lagoon in good shape. nothing alarming to note, swept floors
3852805	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	4/1/24 12:00 AM	4/30/24 01:10 PM	4/30/24 01:10 PM	tpm - No unusual sounds. walked around the building, in good shape no burnt out bulbs
3852805	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	4/1/24 12:00 AM	4/30/24 01:10 PM	4/30/24 01:10 PM	tpm - No unusual sounds. walked around the building, in good shape no burnt out bulbs

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3852805	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	4/1/24 12:00 AM	4/30/24 01:10 PM	4/30/24 01:10 PM	tpm - No unusual sounds. walked around the building, in good shape no burnt out bulbs
3852805	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	4/1/24 12:00 AM	4/30/24 01:10 PM	4/30/24 01:10 PM	tpm - No unusual sounds. walked around the building, in good shape no burnt out bulbs
3852805	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	4/1/24 12:00 AM	4/30/24 01:10 PM	4/30/24 01:10 PM	tpm - No unusual sounds. walked around the building, in good shape no burnt out bulbs
3852805	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	4/1/24 12:00 AM	4/30/24 01:10 PM	4/30/24 01:10 PM	tpm - No unusual sounds. walked around the building, in good shape no burnt out bulbs
3852805	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	4/1/24 12:00 AM	4/30/24 01:10 PM	4/30/24 01:10 PM	tpm - No unusual sounds. walked around the building, in good shape no burnt out bulbs

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3852805	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	4/1/24 12:00 AM	4/30/24 01:10 PM	4/30/24 01:10 PM	tpm - No unusual sounds. walked around the building, in good shape no burnt out bulbs
3852805	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	4/1/24 12:00 AM	4/30/24 01:10 PM	4/30/24 01:10 PM	tpm - No unusual sounds. walked around the building, in good shape no burnt out bulbs
3852805	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	4/1/24 12:00 AM	4/30/24 01:10 PM	4/30/24 01:10 PM	tpm - No unusual sounds. walked around the building, in good shape no burnt out bulbs
3853491	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 5997	CLOSE	4/1/24 12:00 AM	5/14/24 01:16 PM	5/14/24 01:16 PM	clean - done by cassie last month
3899003	0000114254	METER FLOW	5997, Temagami South Lagoon, Process	PM	Calibration	1	YEARS	Meter Flow Calibration (1y) 5997	CLOSE	5/12/24 12:00 AM	5/2/24 01:11 PM	5/2/24 01:11 PM	- Verified calibration by comparing flow reading on portable flowmeter to actual value displayed on meter as per manufactures instructions. Verified O.K. Pipe is 4" PVC. Could not get a reading with transit time so the Doppler function was used.
3905727	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	5/1/24 12:00 AM	5/31/24 08:40 AM	5/31/24 08:40 AM	check - check all good
3905727	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	5/1/24 12:00 AM	5/31/24 08:40 AM	5/31/24 08:40 AM	check - check all good
3905727	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	5/1/24 12:00 AM	5/31/24 08:40 AM	5/31/24 08:40 AM	check - check all good

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3905727	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	5/1/24 12:00 AM	5/31/24 08:40 AM	5/31/24 08:40 AM	check - check all good
3905727	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	5/1/24 12:00 AM	5/31/24 08:40 AM	5/31/24 08:40 AM	check - check all good
3905727	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	5/1/24 12:00 AM	5/31/24 08:40 AM	5/31/24 08:40 AM	check - check all good
3905727	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	5/1/24 12:00 AM	5/31/24 08:40 AM	5/31/24 08:40 AM	check - check all good
3905727	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	5/1/24 12:00 AM	5/31/24 08:40 AM	5/31/24 08:40 AM	check - check all good
3905727	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	5/1/24 12:00 AM	5/31/24 08:40 AM	5/31/24 08:40 AM	check - check all good
3905727	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	5/1/24 12:00 AM	5/31/24 08:40 AM	5/31/24 08:40 AM	check - check all good
3906179	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 5997	CLOSE	5/1/24 12:00 AM	5/31/24 08:43 AM	5/31/24 08:43 AM	clean - sweep and pick up garbage
3908291	0000115977	ANALYZER PH PORTABLE	5997, Temagami South Lagoon, Facility	PM	Inspection	3	MONTHS	Analyzer pH Lab/Portable Calibration (3m) 5997	CLOSE	5/1/24 12:00 AM	5/14/24 12:03 PM	5/14/24 12:03 PM	-leaned probe and calibrated using new 4.01 and 7.01 Hach pouches and distilled water as per manufacturers instruction.
3925827	0000293289	SITE	5997, Temagami South Lagoon	PM	Inspection	1	YEARS	DIALER ALARMS TEMAGAMI SHORES SPS (1Y) 5997	CLOSE	5/1/24 12:00 AM	5/17/24 12:50 PM	5/17/24 12:50 PM	- See attached sheet
3925830	0000293292	METER LEVEL	5997, Temagami South Lagoon, Process	PM	Refurbish/ Replace/Repair	1	YEARS	METER LEVEL WET WELL SPS VERIFICATION (1Y) 5997	CLOSE	5/1/24 12:00 AM	5/15/24 10:45 AM	5/15/24 10:45 AM	-Verified calibration by comparing physical measurement from the transducer face to the water level and comparing to a distance shot from the level transmitter. Transducer face is 2250 mm below top of open hatch. Took measurement from the lake hatch as the liquid level is calmer on that side. This hatch is 10 mm higher than the ladder hatch above the transducer.

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3949788	0000293718	METER LEVEL Ferric Tank	5997, Temagami South Lagoon	PM	Inspection	1	YEARS	Level Ferric Tank Verification 5997 (1y)	CLOSE	5/14/24 12:00 AM	5/14/24 11:44 AM	5/14/24 11:44 AM	-Verified calibration by comparing physical measurement of the ferric in the tank with a measurement using a measuring tape. This level is for indication only and is 99% accurate. Verified the accuracy of the local display which is functioning properly as well.
3951035			5997, Temagami Shores SPS	CAP	Refurbish/ Replace/Repair	0		Replace Failed Alarm Dialer 5997	CLOSE		7/17/24 09:29 AM	7/17/24 09:29 AM	Ordered Parts -
3954142			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	6/1/24 12:00 AM	6/25/24 11:43 AM	6/25/24 11:43 AM	Checked - Checked ferric chemical pump. In good condition. No leaks. Pumps not running but were running properly during the discharge
3954142			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	6/1/24 12:00 AM	6/25/24 11:43 AM	6/25/24 11:43 AM	Checked - Checked ferric chemical pump. In good condition. No leaks. Pumps not running but were running properly during the discharge
3954142			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	6/1/24 12:00 AM	6/25/24 11:43 AM	6/25/24 11:43 AM	Checked - Checked ferric chemical pump. In good condition. No leaks. Pumps not running but were running properly during the discharge
3954142			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	6/1/24 12:00 AM	6/25/24 11:43 AM	6/25/24 11:43 AM	Checked - Checked ferric chemical pump. In good condition. No leaks. Pumps not running but were running properly during the discharge
3954142			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	6/1/24 12:00 AM	6/25/24 11:43 AM	6/25/24 11:43 AM	Checked - Checked ferric chemical pump. In good condition. No leaks. Pumps not running but were running properly during the discharge

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3954142			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	6/1/24 12:00 AM	6/25/24 11:43 AM	6/25/24 11:43 AM	Checked - Checked ferric chemical pump. In good condition. No leaks. Pumps not running but were running properly during the discharge
3954142			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	6/1/24 12:00 AM	6/25/24 11:43 AM	6/25/24 11:43 AM	Checked - Checked ferric chemical pump. In good condition. No leaks. Pumps not running but were running properly during the discharge
3954142			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	6/1/24 12:00 AM	6/25/24 11:43 AM	6/25/24 11:43 AM	Checked - Checked ferric chemical pump. In good condition. No leaks. Pumps not running but were running properly during the discharge
3954142			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	6/1/24 12:00 AM	6/25/24 11:43 AM	6/25/24 11:43 AM	Checked - Checked ferric chemical pump. In good condition. No leaks. Pumps not running but were running properly during the discharge
3954142			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	6/1/24 12:00 AM	6/25/24 11:43 AM	6/25/24 11:43 AM	Checked - Checked ferric chemical pump. In good condition. No leaks. Pumps not running but were running properly during the discharge
3954629			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 5997	CLOSE	6/1/24 12:00 AM	6/25/24 11:42 AM	6/25/24 11:42 AM	Checked and cleaned -Checked garbage and floors. Garbage removed when full. Floor had been cleaned

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3999680			5997, Temagami South Lagoon, Process, Piping and Valves	CALL	Refurbish/ Replace/Repair	0		call to fix grinder pump 5997 temagami south	CLOSE		6/14/24 10:20 PM	6/15/24 02:15 AM	call to fix grinder pump - at 22:20 got a call to fix grinder pump at the old age home call Mark as backup town worker on site to help to bring tank and pump to empty pit found hole in outlet pipe, try to seal with clamp but pipe collapsed put electrical tape stop leaking good until tomorrow for plumber to fix
4000026			5997, Temagami South Lagoon, Process, Piping and Valves	CALL	Refurbish/ Replace/Repair	0		Troubleshoot/Repair Grinder Pump Tem S	CLOSE		6/17/24 07:34 AM	7/2/24 10:59 AM	
4000202			5997, Temagami Shores SPS	CALL	Refurbish/ Replace/Repair	0		Power Outage at Temagami Shores SPS 5997	CLOSE		6/18/24 07:31 AM	6/18/24 07:33 AM	Power Outage - Power Outage at Temagami Shores SPS at 0311. Alarm called again at 0316 and power was fully restored.
4003536			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	7/1/24 12:00 AM	7/29/24 08:29 AM	7/29/24 08:29 AM	TPM Inspection/Maintenance (1m) 5997 - Pump and chemical pump not in service
4003536			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	7/1/24 12:00 AM	7/29/24 08:29 AM	7/29/24 08:29 AM	TPM Inspection/Maintenance (1m) 5997 - Pump and chemical pump not in service
4003536			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	7/1/24 12:00 AM	7/29/24 08:29 AM	7/29/24 08:29 AM	TPM Inspection/Maintenance (1m) 5997 - Pump and chemical pump not in service
4003536			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	7/1/24 12:00 AM	7/29/24 08:29 AM	7/29/24 08:29 AM	TPM Inspection/Maintenance (1m) 5997 - Pump and chemical pump not in service
4003536			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	7/1/24 12:00 AM	7/29/24 08:29 AM	7/29/24 08:29 AM	TPM Inspection/Maintenance (1m) 5997 - Pump and chemical pump not in service

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4003536			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	7/1/24 12:00 AM	7/29/24 08:29 AM	7/29/24 08:29 AM	TPM Inspection/Maintenance (1m) 5997 - Pump and chemical pump not in service
4003536			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	7/1/24 12:00 AM	7/29/24 08:29 AM	7/29/24 08:29 AM	TPM Inspection/Maintenance (1m) 5997 - Pump and chemical pump not in service
4003536			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	7/1/24 12:00 AM	7/29/24 08:29 AM	7/29/24 08:29 AM	TPM Inspection/Maintenance (1m) 5997 - Pump and chemical pump not in service
4003536			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	7/1/24 12:00 AM	7/29/24 08:29 AM	7/29/24 08:29 AM	TPM Inspection/Maintenance (1m) 5997 - Pump and chemical pump not in service
4003536			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	7/1/24 12:00 AM	7/29/24 08:29 AM	7/29/24 08:29 AM	TPM Inspection/Maintenance (1m) 5997 - Pump and chemical pump not in service
4004240			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 5997	CLOSE	7/1/24 12:00 AM	7/29/24 06:33 AM	7/29/24 06:33 AM	Building and Grounds Maintenance (1m) 5997 - Notified Barry that the grass needed to be cut. Checked facility exterior and interior. Ok

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4050255			5997, Temagami Shores SPS	CALL	Refurbish/ Replace/Repair	0		Called for grinder pump alarm behind grocery store in Temagami South (pump replaced)	CLOSE		7/19/24 07:43 PM	7/19/24 08:42 PM	- Called in for grinder pump alarm behind the grocery store in Temagami South. Northern Comm called three times within 20 minutes. Upon arrival it was discovered that the pit was flooded and had to be pumped out. This required a loader to transport the tote from the shop to the pump pit. A generator was used to power up the sump pump and sewage was pumped into the tote. Once the pit was clear of sewage, the pump was removed and replaced. We discovered that the shutoff valve to isolate the pump was broken and will be replaced by a plumber and also there was a crack in the elbow connected to the pipe which was temporarily taped up until the plumber could replace it the following morning. The job site was cleaned up and all the equipment, including the defective pump, was brought back to the shop. Observations: Removing this type of pump from a depth of 8-10ft requires three workers to perform the task safely and a loader operator must also be present to transport the tote. There should be a plan to have the tote and equipment required to pump out the chamber before we arrive on site, since we must travel from out of town to assist with replacing these pumps. Even at a depth of 5ft, and the current setup of pulling the pump out with a rope, should require 3 workers to safely perform the task and avoid injuries.

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
													Called for grinder pump alarm behind grocery store in Temagami South (pump replaced) - Received a call from Marc to assist with a grinder pump that was in alarm located behind the grocery store. Drove to the location and inspected. The wetwet was flooded. Drove to the town garage and Marc contacted Barry and a town employee came to assist. We used a sump to pump the sewage out into the tote. Marc proceeded to isolate but it was broken but managed with vice scrip and proceeded to disconnect the pump. We removed the broken grinder pump and he installed the new one. Turned the grinder pump on but there was a leak at the elbow. Electrical tape was use as a temporary fix until a plumber could arrive the following day.
4053281	5997, Temagami South Lagoon			PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	8/1/24 12:00 AM	8/22/24 09:30 AM	8/22/24 09:30 AM	Inspected - Inspected pump during transfer. Ok. Inspected ferric lines and pump. Ok All lighting is working as it should.
4053281	5997, Temagami South Lagoon			PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	8/1/24 12:00 AM	8/22/24 09:30 AM	8/22/24 09:30 AM	Inspected - Inspected pump during transfer. Ok. Inspected ferric lines and pump. Ok All lighting is working as it should.

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4053281			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	8/1/24 12:00 AM	8/22/24 09:30 AM	8/22/24 09:30 AM	Inspected - Inspected pump during transfer. Ok. Inspected ferric lines and pump. Ok All lighting is working as it should.
4053281			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	8/1/24 12:00 AM	8/22/24 09:30 AM	8/22/24 09:30 AM	Inspected - Inspected pump during transfer. Ok. Inspected ferric lines and pump. Ok All lighting is working as it should.
4053281			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	8/1/24 12:00 AM	8/22/24 09:30 AM	8/22/24 09:30 AM	Inspected - Inspected pump during transfer. Ok. Inspected ferric lines and pump. Ok All lighting is working as it should.
4053281			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	8/1/24 12:00 AM	8/22/24 09:30 AM	8/22/24 09:30 AM	Inspected - Inspected pump during transfer. Ok. Inspected ferric lines and pump. Ok All lighting is working as it should.
4053281			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	8/1/24 12:00 AM	8/22/24 09:30 AM	8/22/24 09:30 AM	Inspected - Inspected pump during transfer. Ok. Inspected ferric lines and pump. Ok All lighting is working as it should.
4053281			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	8/1/24 12:00 AM	8/22/24 09:30 AM	8/22/24 09:30 AM	Inspected - Inspected pump during transfer. Ok. Inspected ferric lines and pump. Ok All lighting is working as it should.
4053281			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	8/1/24 12:00 AM	8/22/24 09:30 AM	8/22/24 09:30 AM	Inspected - Inspected pump during transfer. Ok. Inspected ferric lines and pump. Ok All lighting is working as it should.
4053281			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	8/1/24 12:00 AM	8/22/24 09:30 AM	8/22/24 09:30 AM	Inspected - Inspected pump during transfer. Ok. Inspected ferric lines and pump. Ok All lighting is working as it should.

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4053714			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 5997	CLOSE	8/1/24 12:00 AM	8/22/24 12:42 PM	8/22/24 12:42 PM	Cleaned -Put all the garbage in a bag and removed it from the facility.
4055803	0000115977	ANALYZER PH PORTABLE	5997, Temagami South Lagoon, Facility	PM	Inspection	3	MONTHS	Analyzer pH Lab/Portable Calibration (3m) 5997	CLOSE	8/1/24 12:00 AM	8/21/24 01:31 PM	8/21/24 01:31 PM	-Cleaned probe and calibrated using new 4.01 and 7.01 Hach pouches and distilled water as per manufacturers instruction.

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4096434			5997, Temagami South Lagoon, Process, Piping and Valves	CAP	Refurbish/ Replace/Repair	0		Temagami South Wild Flower Sewer Break 5997	COMP		10/29/24 01:01 PM	10/29/24 01:01 PM	Temagami South Wild Flower Sewer Break 5997 - On site as OIC for forcemain break. Exposed sewer main using vac truck and removed all sewage with Vac. Relieved the pressure on the line with the bleeders in chambers and removed sewage filling chambers with vac truck. Broken pipe was cut out and replaced with a new 3" pipe - 18 " long and two victaulic told seal in place. All sewage in trench during maintenance was removed with a sump and pumped into a double walled tote. All sewage was transported to the Lagoon. Closed bleeder slowly and initiated shores SPS on SCADA remotely to check for leaks and put back into auto after. Environmental Incident Report - Terminated Environmental Incident Report SAC Event No. 1-ABUL4L Prepare document for Ilona
4097615			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	9/1/24 12:00 AM	10/1/24 07:56 AM	10/1/24 07:56 AM	TPM Inspection/Maintenance (1m) 5997 - While transferring, I checked the recirculating pump for unusual noise, vibration and heat. None

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4097615			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	9/1/24 12:00 AM	10/1/24 07:56 AM	10/1/24 07:56 AM	TPM Inspection/Maintenance (1m) 5997 - While transferring, I checked the recirculating pump for unusual noise, vibration and heat. None
4097615			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	9/1/24 12:00 AM	10/1/24 07:56 AM	10/1/24 07:56 AM	TPM Inspection/Maintenance (1m) 5997 - While transferring, I checked the recirculating pump for unusual noise, vibration and heat. None
4097615			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	9/1/24 12:00 AM	10/1/24 07:56 AM	10/1/24 07:56 AM	TPM Inspection/Maintenance (1m) 5997 - While transferring, I checked the recirculating pump for unusual noise, vibration and heat. None
4097615			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	9/1/24 12:00 AM	10/1/24 07:56 AM	10/1/24 07:56 AM	TPM Inspection/Maintenance (1m) 5997 - While transferring, I checked the recirculating pump for unusual noise, vibration and heat. None
4097615			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	9/1/24 12:00 AM	10/1/24 07:56 AM	10/1/24 07:56 AM	TPM Inspection/Maintenance (1m) 5997 - While transferring, I checked the recirculating pump for unusual noise, vibration and heat. None
4097615			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	9/1/24 12:00 AM	10/1/24 07:56 AM	10/1/24 07:56 AM	TPM Inspection/Maintenance (1m) 5997 - While transferring, I checked the recirculating pump for unusual noise, vibration and heat. None
4097615			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	9/1/24 12:00 AM	10/1/24 07:56 AM	10/1/24 07:56 AM	TPM Inspection/Maintenance (1m) 5997 - While transferring, I checked the recirculating pump for unusual noise, vibration and heat. None
4097615			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	9/1/24 12:00 AM	10/1/24 07:56 AM	10/1/24 07:56 AM	TPM Inspection/Maintenance (1m) 5997 - While transferring, I checked the recirculating pump for unusual noise, vibration and heat. None

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4097615			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	CLOSE	9/1/24 12:00 AM	10/1/24 07:56 AM	10/1/24 07:56 AM	TPM Inspection/Maintenance (1m) 5997 - While transferring, I checked the recirculating pump for unusual noise, vibration and heat. None
4098065			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 5997	CLOSE	9/1/24 12:00 AM	9/23/24 05:12 AM	9/23/24 05:12 AM	Building and Grounds Maintenance (1m) 5997 - Completed housekeeping: swept floor and removed garbage
4142212			5997, Temagami Shores SPS	CALL	Predictive Maintenance	0		Call In - Loss of Power at Shores SPS, 5997	CLOSE		9/7/24 11:24 AM	9/7/24 11:40 AM	Call In - Loss of Power at Shores SPS, 5997 - Called in for loss of power for over an hour. Logged in remotely and everything was fine. Monitored pump station for a bit. Ok
4147764			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	10/1/24 12:00 AM	10/25/24 02:56 PM	10/25/24 02:56 PM	Checked - Checked valves 11, 12, 13, 14, 16, 18. All operating as they should. Heater in ferric room quite noisy. Pump working properly. No abnormal noises, leaks or vibrations detected.
4147764			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	10/1/24 12:00 AM	10/25/24 02:56 PM	10/25/24 02:56 PM	Checked - Checked valves 11, 12, 13, 14, 16, 18. All operating as they should. Heater in ferric room quite noisy. Pump working properly. No abnormal noises, leaks or vibrations detected.

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4147764			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	10/1/24 12:00 AM	10/25/24 02:56 PM	10/25/24 02:56 PM	Checked - Checked valves 11, 12, 13, 14, 16, 18. All operating as they should. Heater in ferric room quite noisy. Pump working properly. No abnormal noises, leaks or vibrations detected.
4147764			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	10/1/24 12:00 AM	10/25/24 02:56 PM	10/25/24 02:56 PM	Checked - Checked valves 11, 12, 13, 14, 16, 18. All operating as they should. Heater in ferric room quite noisy. Pump working properly. No abnormal noises, leaks or vibrations detected.
4147764			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	10/1/24 12:00 AM	10/25/24 02:56 PM	10/25/24 02:56 PM	Checked - Checked valves 11, 12, 13, 14, 16, 18. All operating as they should. Heater in ferric room quite noisy. Pump working properly. No abnormal noises, leaks or vibrations detected.
4147764			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	10/1/24 12:00 AM	10/25/24 02:56 PM	10/25/24 02:56 PM	Checked - Checked valves 11, 12, 13, 14, 16, 18. All operating as they should. Heater in ferric room quite noisy. Pump working properly. No abnormal noises, leaks or vibrations detected.
4147764			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	10/1/24 12:00 AM	10/25/24 02:56 PM	10/25/24 02:56 PM	Checked - Checked valves 11, 12, 13, 14, 16, 18. All operating as they should. Heater in ferric room quite noisy. Pump working properly. No abnormal noises, leaks or vibrations detected.

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4147764			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	10/1/24 12:00 AM	10/25/24 02:56 PM	10/25/24 02:56 PM	Checked - Checked valves 11, 12, 13, 14, 16, 18. All operating as they should. Heater in ferric room quite noisy. Pump working properly. No abnormal noises, leaks or vibrations detected.
4147764			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	10/1/24 12:00 AM	10/25/24 02:56 PM	10/25/24 02:56 PM	Checked - Checked valves 11, 12, 13, 14, 16, 18. All operating as they should. Heater in ferric room quite noisy. Pump working properly. No abnormal noises, leaks or vibrations detected.
4147764			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	10/1/24 12:00 AM	10/25/24 02:56 PM	10/25/24 02:56 PM	Checked - Checked valves 11, 12, 13, 14, 16, 18. All operating as they should. Heater in ferric room quite noisy. Pump working properly. No abnormal noises, leaks or vibrations detected.
4148547			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 5997	COMP	10/1/24 12:00 AM	10/25/24 02:57 PM	10/25/24 02:57 PM	Cleaned -Checked facility. Garbage ok. Swept facility quickly
4192424			5997, Temagami Shores SPS	EMER	Refurbish/ Replace/Repair	0		Called for Temagami Shores SPS loss power for more than 1 hour	CLOSE		10/5/24 10:03 AM	10/5/24 10:35 AM	- Call In for power failure over 1hr. Logged in remotely to verify pump operation and power was restored. Ran the two pumps in Auto and level dropped accordingly. Monitored the situation for half hour and everything was back to normal.
4198380			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	11/1/24 12:00 AM	12/2/24 05:58 AM	12/2/24 05:58 AM	TPM Inspection/Maintenance (1m) 5997 - Checked pump during discharge. No unusual noises or vibrations

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4198380			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	11/1/24 12:00 AM	12/2/24 05:58 AM	12/2/24 05:58 AM	TPM Inspection/Maintenance (1m) 5997 - Checked pump during discharge. No unusual noises or vibrations
4198380			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	11/1/24 12:00 AM	12/2/24 05:58 AM	12/2/24 05:58 AM	TPM Inspection/Maintenance (1m) 5997 - Checked pump during discharge. No unusual noises or vibrations
4198380			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	11/1/24 12:00 AM	12/2/24 05:58 AM	12/2/24 05:58 AM	TPM Inspection/Maintenance (1m) 5997 - Checked pump during discharge. No unusual noises or vibrations
4198380			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	11/1/24 12:00 AM	12/2/24 05:58 AM	12/2/24 05:58 AM	TPM Inspection/Maintenance (1m) 5997 - Checked pump during discharge. No unusual noises or vibrations
4198380			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	11/1/24 12:00 AM	12/2/24 05:58 AM	12/2/24 05:58 AM	TPM Inspection/Maintenance (1m) 5997 - Checked pump during discharge. No unusual noises or vibrations
4198380			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	11/1/24 12:00 AM	12/2/24 05:58 AM	12/2/24 05:58 AM	TPM Inspection/Maintenance (1m) 5997 - Checked pump during discharge. No unusual noises or vibrations

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4198380			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	11/1/24 12:00 AM	12/2/24 05:58 AM	12/2/24 05:58 AM	TPM Inspection/Maintenance (1m) 5997 - Checked pump during discharge. No unusual noises or vibrations
4198380			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	11/1/24 12:00 AM	12/2/24 05:58 AM	12/2/24 05:58 AM	TPM Inspection/Maintenance (1m) 5997 - Checked pump during discharge. No unusual noises or vibrations
4198380			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	11/1/24 12:00 AM	12/2/24 05:58 AM	12/2/24 05:58 AM	TPM Inspection/Maintenance (1m) 5997 - Checked pump during discharge. No unusual noises or vibrations
4198856			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 5997	COMP	11/1/24 12:00 AM	12/2/24 05:28 AM	12/2/24 05:28 AM	Building and Grounds Maintenance (1m) 5997 - Cleaned facility and removed garbage. Lighting in both room. ok Heat. ok
4200919	0000115977	ANALYZER PH PORTABLE	5997, Temagami South Lagoon, Facility	PM	Inspection	3	MONTHS	Analyzer pH Lab/Portable Calibration (3m) 5997	COMP	11/1/24 12:00 AM	11/29/24 03:11 PM	11/29/24 03:11 PM	-Calibrated as per manufactures instructions. Please refer to shared drive for cal slip
4240454			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	12/1/24 12:00 AM	12/11/24 04:29 PM	12/11/24 04:29 PM	TPM Inspection/Maintenance (1m) 5997 - TPM Inspections; Doorways clear of obstacles Exit signs on doors No unusual noises Exhaust Fans Working Lighting system may need maintenance

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4240454			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	12/1/24 12:00 AM	12/11/24 04:29 PM	12/11/24 04:29 PM	TPM Inspection/Maintenance (1m) 5997 - TPM Inspections; Doorways clear of obstacles Exit signs on doors No unusual noises Exhaust Fans Working Lighting system may need maintenance
4240454			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	12/1/24 12:00 AM	12/11/24 04:29 PM	12/11/24 04:29 PM	TPM Inspection/Maintenance (1m) 5997 - TPM Inspections; Doorways clear of obstacles Exit signs on doors No unusual noises Exhaust Fans Working Lighting system may need maintenance
4240454			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	12/1/24 12:00 AM	12/11/24 04:29 PM	12/11/24 04:29 PM	TPM Inspection/Maintenance (1m) 5997 - TPM Inspections; Doorways clear of obstacles Exit signs on doors No unusual noises Exhaust Fans Working Lighting system may need maintenance
4240454			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	12/1/24 12:00 AM	12/11/24 04:29 PM	12/11/24 04:29 PM	TPM Inspection/Maintenance (1m) 5997 - TPM Inspections; Doorways clear of obstacles Exit signs on doors No unusual noises Exhaust Fans Working Lighting system may need maintenance

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4240454			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	12/1/24 12:00 AM	12/11/24 04:29 PM	12/11/24 04:29 PM	TPM Inspection/Maintenance (1m) 5997 - TPM Inspections; Doorways clear of obstacles Exit signs on doors No unusual noises Exhaust Fans Working Lighting system may need maintenance
4240454			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	12/1/24 12:00 AM	12/11/24 04:29 PM	12/11/24 04:29 PM	TPM Inspection/Maintenance (1m) 5997 - TPM Inspections; Doorways clear of obstacles Exit signs on doors No unusual noises Exhaust Fans Working Lighting system may need maintenance
4240454			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	12/1/24 12:00 AM	12/11/24 04:29 PM	12/11/24 04:29 PM	TPM Inspection/Maintenance (1m) 5997 - TPM Inspections; Doorways clear of obstacles Exit signs on doors No unusual noises Exhaust Fans Working Lighting system may need maintenance
4240454			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	12/1/24 12:00 AM	12/11/24 04:29 PM	12/11/24 04:29 PM	TPM Inspection/Maintenance (1m) 5997 - TPM Inspections; Doorways clear of obstacles Exit signs on doors No unusual noises Exhaust Fans Working Lighting system may need maintenance

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Workorder Summary Report

Report Start Date:	Jan 1, 2024 12:00 AM
Report End Date:	Dec 31, 2024 11:59 PM
Location:	5997*
Work Order Type:	CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:	

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
4240454			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5997	COMP	12/1/24 12:00 AM	12/11/24 04:29 PM	12/11/24 04:29 PM	TPM Inspection/Maintenance (1m) 5997 - TPM Inspections; Doorways clear of obstacles Exit signs on doors No unusual noises Exhaust Fans Working Lighting system may need maintenance
4240878			5997, Temagami South Lagoon	PM	Inspection	1	MONTHS	Building and Grounds Maintenance (1m) 5997	COMP	12/1/24 12:00 AM	12/11/24 04:31 PM	12/11/24 04:31 PM	Building and Grounds Maintenance (1m) 5997 - Building and Ground Maintenance; Clean floors, cleaned garbage bags, Cleared snow

APPENDIX E
Spill Report

SPILL REPORT

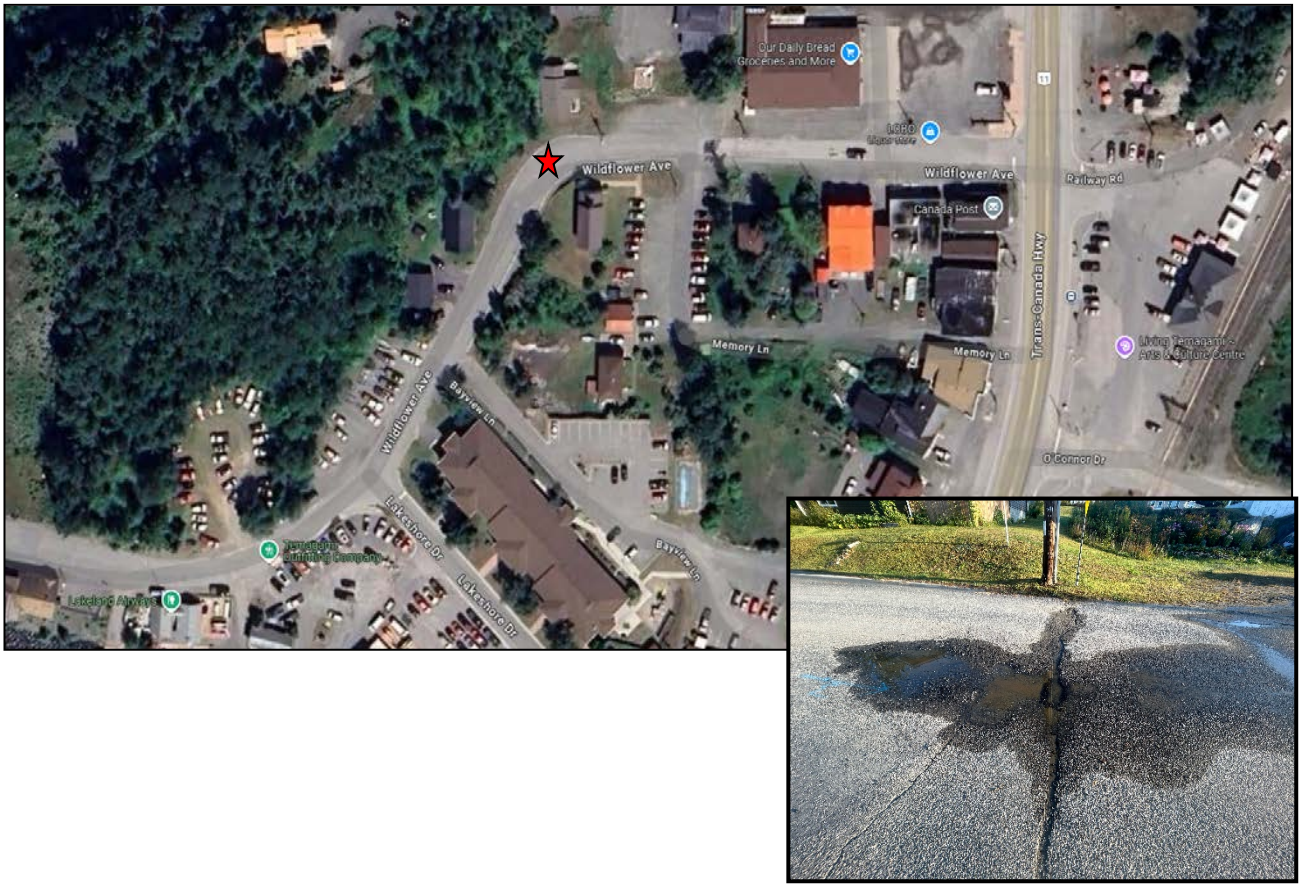
September 6, 2024

Re: SAC Event No. # 1-ABUL47

System:	Temagami South Sewage Collection System
Location:	18 Wildflower Avenue
Legal Instrument:	CLI ECA No. 201-W601
Type of Event:	Spill
Date of Event:	August 28, 2024
Time of Event:	August 28th at 9:00 AM to August 29th at 12:00 PM

Details/Cause of the Event:

OCWA responded to a call to investigate a sewer break at 18 Wildflower Avenue (approximate location shown on the map by red star). Sewage bubbled out of a crack in the road when the Temagami Shores sewage pumping station was running. The pumping station normally runs twice per day.



A vertical crack on the coupler likely caused by ground shifting.

Cracked Coupler

<u>Corrective Actions</u>:

The Temagami Public Works Superintendent was notified of the spill and attempted to hire a contractor to repair the break, but no one was available until Tuesday the following week. The Municipality and OCWA organized a crew to repair the break the morning of August 29th.

The spilled material was sampled on August 28th and brought to an accredited laboratory (Testmark Laboratories) to test for the following parameters; BOD, TSS, TP, TKN and *E.coli* (laboratory results attached).

<u>Reporting</u>:

The event was verbally reported to the local Health Unit and the Ministry's Spills Action Center (SAC) on August 28th. Refer to the attached Environmental Incident Report.

<u>Clean-up and Recovery Measures</u>:

A vacuum truck (Ray's and Sons) arrived the morning of August 29th and exposed the 3" sewer main. The systems pressure was bled at two chamber locations and Ray and Sons removed sewage filling the chambers. Sewage that accumulated in the trench during maintenance was removed with a sump and pumped into a double walled tote. All spilled material was brought to the Temagami South Lagoon for disposal.

Preventative Measures:

The section of broken pipe was removed and replaced with a new 3” ABS pipe, approximately 18 “ long and two victaulics to seal in place.

The Temagami Shores sewage pumping station was initiated remotely via SCADA to check for leaks. No leaks were observed and the station was placed back into normal operations.

TESTMARK Laboratories Ltd.
Committed to Quality and Service

CERTIFICATE OF ANALYSIS

Client:	Ilona Bruneau	Work Order Number:	547356
Company:	OCWA - Temiskaming Shores - Temagami South Lagoon	PO #:	18164
Address:	1 Browning St. Box 513 Haileybury, ON, P0J 1K0	Regulation: Project #:	Temagami South Lagoon ECA# 3-1567-98-006 110002327/ Org. # 5997
Phone/Fax:	(705) 567-3955 / (705) 643-2311	DWS #:	110002327
Email:	ibruneau@ocwa.com	Sampled By:	Chris Barkhouse
Date Order Received:	8/29/2024	Analysis Started:	8/29/2024
Arrival Temperature:	5.8 C	Analysis Completed:	9/5/2024

WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
18 Wildflower Ave	2048508	Wastewater	Grab	SAMPLE CONTAINED RESULT EXCEEDENCES.	8/28/2024	12:00 PM
18 Wildflower Ave	2048509	Wastewater	Grab		8/28/2024	12:05 PM

METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
BOD (A3)	Kirkland Lake	Determination of Biochemical Oxygen Demand (BOD) 5-Day	Modified from SM-5210 B
E.coli by MF on mFC-BCIG (A10)	Kirkland Lake	Determination of E. coli in water by Membrane Filtration on mFC-BCIG media	Modified from MOE E3371
TKN Water Dig. (A58)	Kirkland Lake	Determination of Total Kjeldahl Nitrogen in Waters with Block Digestion.	Modified from SM-4500 NORG-D
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Kirkland Lake	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540

REPORT COMMENTS

Bacti Lot(s): N/A

CERTIFICATE OF ANALYSIS

OCWA - Temiskaming Shores - Temagami South Lagoon

Work Order Number: 547356

This report has been approved by:

Adam Tam, M.Sc.
Director of Operations

WORK ORDER RESULTS

Sample Description	18 Wildflower Ave			
Sample Date/Time	8/28/2024 12:00 PM			
Lab ID	2048508			
General Chemistry	Result	MDL	Units	Criteria: Temagami South Lagoon ECA# 3-1567-98-006
Total Kjeldahl Nitrogen	55.0	0.8*	mg/L	~
Total Phosphorus (as P)	6.89	0.04*	mg/L	1
Oxygen Demand	Result	MDL	Units	Criteria: Temagami South Lagoon ECA# 3-1567-98-006
BOD (5 day)	385	30	mg/L	25
Solids	Result	MDL	Units	Criteria: Temagami South Lagoon ECA# 3-1567-98-006
Total Suspended Solids	1610	20	mg/L	25

Sample Description	18 Wildflower Ave			
Sample Date/Time	8/28/2024 12:05 PM			
Lab ID	2048509			
Microbiology	Result	MDL	Units	Criteria: Temagami South Lagoon ECA# 3-1567-98-006
Escherichia coli	8260	5	CFU/100mL	~

CERTIFICATE OF ANALYSIS

OCWA - Temiskaming Shores - Temagami South Lagoon

Work Order Number: 547356

LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

MDL: Method detection limit or minimum reporting limit.

~: In a criteria column indicates the criteria is not applicable for the parameter row.

Organic Soil Analysis: Data reported for organic analysis in soils samples are corrected for moisture content.

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.

Reproduction of Report: Report shall not be reproduced, except in full, without the approval of Testmark Laboratories Ltd.

ICPMS Dustfall Insoluble: The ICPMS Dustfall Insoluble Portion method analyzes only the particulate matter from the Dustfall Sampler which is retained on the analysis filter during the Dustfall method.

Regulation Comparisons: Disclaimer: Please note that regulation criteria are provided for comparative purposes, however the onus on ensuring the validity of this comparison rests with the client.

*Dilution: In the MDL column an asterisk (*) indicates a sample dilution was performed.

1470 Government Rd, Kirkland Lake, ON, P2N 3J1
Phone: (705) 642-3361 Fax: (705) 642-3222 info@testmark.ca

Temagami South Lagoon - Spill Loading Calculations

CLI ECA No. 218-W601

Schedule E, Condition 3.4.2 (b) - The Owner shall use the discharged volume and the concentrations to calculate the loading to the Natural Environment for each parameter.

Date of Sample	**TP (mg/L)**	**TSS (mg/L)**	**BOD5**	**TKN (mg/L)**	***E.coli***
August 28, 2024	6.89	1610	385	55	8260
Volume (m^3)	27				
Loading Calc. (kg/d)	**0.186**	**43.5**	**10.4**	**1.5**	

Environmental Incident Report

Temiskaming Shores Cluster – Collection System

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

TS-EIR-02C Revision 1: February 8, 2024

System: Temagami South Sewage Collection	Org#: 5997	Ministry Works #: 110002327
Location: 18 Wildflower Ave		Receiver: Ground

Start of Event:	Date: August 28/24	Time 0900
☐ Emergency Overflow	Details/Cause of Event:	
☐ Planned Overflow	BROKEN FORCEMAIN	
☒ Spill		
Level of Treatment	☐ Secondary or Partial Treatment ☐ Other: ☒ Raw (or No Treatment)	
Chlorination ☐ Yes ☐ No	Sample Collected as per ECA ☒ Yes ☐ No	
Corrective & Preventative Actions: Sampling		
Complaints or Adverse Impacts: None		

Verbal Notifications

MOH called	Date: AUG-28	Time: 1335	Contact: RYAN PETERS.
SAC called	Date: AUG 28	Time: 1348	Contact: GRACE SUTCLIFF.
Additional call	Date:	Time:	Contact:

SAC Event #: 1-ABUL47 Operator Reporting Event: C BARKHOUSE.

At the beginning of the event email or fax: SAC, MOH, Environment Canada and PCT

Termination:	Date: 08-29-2024	Time: 12:00	Duration: 15 hrs
Volume (m^3)	Metered Yes ☐	Further Actions Required: NO	
27 m^3	Estimated Yes ☑		

Verbal Notifications

MOH called	Date: 08-29-24	Time: 1447	Contact: James Sebesta
SAC called	Date: 08-29-24	Time: 1450	Contact: AKiko Dale
Additional call	Date:	Time:	Contact:

Operator Reporting Termination: Cassandra Legros

At the end of the event email or fax complete report to: SAC, MOH, Environment Canada & PCT

Spills Action Center (SAC)	Tel: 800 268-6060	Eml: MOE.SAC.moe@ontario.ca	Fax: 800 268-6061
Ministry of Health (MOH)	Tel: 705 647-4305 (NL)	Eml: (obtain from Health Inspector)	Fax: 705 647-5779 (NL)
	Tel: 705 567-9355 (KL)		Fax: 705 567-5476 (KL)
	Tel: 705 544-2221 (EN)		Fax: 705 544-8698 (EN)
Environment Canada (EC)	800 668-6767 (Customer Service)	Eml: Ec.FA-LP-On.ec@canada.ca	Fax: 819 420-7380
		Eml: EEDONTOnCall@ec.gc.ca	Fax: 819 420-7382

* Emailing the report: ensure to copy the PCT. Faxing the report: keep confirmation reports and send to PCT with final report.