The Township of Ear Falls

Wastewater Treatment Plant 2025 Annual Report

Period Covering: January 1 to December 31, 2025

Contents

1 Introduction

1.1 Annual Reporting Requirements

The annual Wastewater Treatment Plant report summarizes the facility's performance over the previous calendar year (2025) and provides a historical performance record. The Ear Falls Wastewater Treatment Plant (WWTP) is owned and operated by the Corporation of the Township of Ear Falls (the Township). The intent of this report is to provide a record of compliance for the conditions outlined within the facility's Environmental Compliance Approval No. 1492-A2ZHLC (the ECA), which was issued on October 16, 2015.

This Annual Report has been prepared in accordance with Condition 10(5) of the ECA and contains the following information at a minimum:

- a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 7 of the ECA, including an overview of the success and adequacy of the Works (refer to sections 2.3, 6.1 and 7);
- a description of any operating problems encountered, and corrective actions taken (refer to section 6);
- a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works (refer to section 5.1);
- a summary of any effluent quality assurance or control measures undertaken in the reporting period (refer to section 2.2);
- a summary of the calibration and maintenance carried out on all flow monitoring equipment (refer to section 5.2);
- a description of efforts made and results achieved in meeting the effluent objectives of Condition 6 of the ECA (refer to sections 2.3, 3 and 6.1);
- a tabulation of the volume of sludge generated in the reporting period, an outline of anticipated volumes to be generated in the next reporting period, and a summary of the locations to where the sludge was disposed (refer to section 4);
- a summary of any complaints received during the reporting period and any steps taken to address the complaints (refer to section 6.2);
- a summary of all bypass, spill or abnormal discharge events (refer to section 6.4);
- a copy of all *Notice of Modifications* submitted to the Water Supervisor as a result of Schedule A, subsection 1, with a status report on the implementation of each modification (refer to section 5.3);
- a report summarizing all modifications completed as a result of Schedule A, subsection 3 (refer to section 5.4); and,
- any other information the Water Supervisor requires from time to time.

1.2 System Description

The Ear Falls Wastewater Treatment Plant (WWTP) is owned and operated by the Township of Ear Falls. Prior to June 2023, different accredited operating authorities were contracted to operate the system. The WWTP was originally constructed in 1967 as a contact stabilization package facility but was upgraded to include extended aeration in the 1970s.

The purpose of a wastewater treatment facility is to remove or reduce contaminants to an acceptable level that would not adversely affect the body of water receiving the effluent wastewater or introduce pathogens that would impact downstream users. The Ear falls WWTP utilizes an extended aeration treatment process that relies upon a combination of physical, biological, and chemical processes to treat incoming wastewater.

The facility has a hydraulic rated capacity of 2,860 m^3/day (average daily flow), and raw sewage enters the facility from a gravity-fed collection system. Raw sewage first enters the grit removal building, moves through a bar screen and then to a pumping station. The pumping station lifts sewage into a set of aeration tanks where biological processes begin removing contaminants. From the aeration tanks, sewage flows into a large clarifier, where the velocity is reduced, and heavy particles (sludge) settle out. Sludge from the clarifier is returned to assist biological processing in the aeration tank, or it is removed to the digester, where it is dewatered and thickened before being hauled off-site. Effluent from the clarifier is dosed with sodium hypochlorite to provide disinfection as it moves through a baffled contact chamber. The effluent is then dechlorinated before leaving the facility to achieve the federal effluent water quality standard for total residual chlorine (TRC) and is discharged to the English River. Average TRC concentrations leaving the facility must be under 0.02mg/L, calculated over a calendar quarter. The averaging period is determined from the Wastewater Systems Effluent Regulations, Section 6 (2)(b)(ii).

The Ear Falls Wastewater Treatment Plant consists of the following components:

- the Blower and Grit Removal Building, housing a 3 m^2 detritor (including bypass), a siphon-type comminutor, two (2) positive displacement blowers, one (1) 50 hp turbo blower installed in 2015, and a bypass with a manually cleaned bar screen;
- the Raw Sewage Lift Pumping Station, consisting of two (2) identical submersible pumps (one duty and one standby), each rated at approximately 50 L/s at a TDH of 10 m, and a 105 m long by 450 mm diameter plant bypass sewer line;

- two (2) aeration tanks, with a total volume of 85,000 cubic feet and equipped with a fine bubble air diffusion system (2015) with an air allowance of 700 cfm per tank, including two (2) 6-inch diameter discharge headers and one bypass channel between the tanks;
- a circular final clarifier measuring 56 ft in diameter and equipped with a syphon feed clarifier mechanism, scum baffle and removable mechanical scum skimmer;
- a chlorine contact chamber offering a detention time of 30.5 minutes at the average design flow;
- chlorination facilities consisting of a sodium hypochlorite disinfection system comprising one (1) 200 L capacity day tank and two (2) 4.7 L/h capacity chemical metering pumps;
- temporary dechlorination facilities consisting of a sodium sulphite (92%) tablet feeder installed in October 2020, at the outlet of the chlorine contact chamber, immediately upstream from the v-notch weir discharge;
- an aerated digester with a sludge holding tank;
- a control building housing the chlorination facilities and an office with a SCADA system for process monitoring; and,
- A portable generator and manual transfer switch provide a backup source of power during periods of interruption to the normal power supply.

2 Water Quality

2.1 Monitoring Programs

Sampling is conducted as per the conditions within the ECA (Condition 9- Monitoring and Recording), the Ministry's F-10-1 procedure, and the federal Wastewater Systems Effluent Regulations (WSER). Effluent samples are collected on a weekly basis, and influent (raw sewage) samples are collected monthly, by licensed operators and sent to an accredited laboratory for analysis. The results of those analyses are summarized below in addition to in-house testing and monitoring.

2.2 Quality Assurance & Control

Licensed operators conduct in-house testing to monitor and assess the operational performance of the various stages of the treatment process. Table 1 summarizes those parameters for the reporting period. This table is intended to meet condition 10(5)(d) of the ECA by providing a summary of effluent quality assurance measures undertaken.

Control measures that operators may implement based on test results include adjusting the rate of return activated sludge, removing a portion of solids from the treatment process (sending return activated sludge to the digester), modification of disinfection chemical dosage, and other plant maintenance and cleaning.

Table 1: Summary of operational control and quality assurance testing - 2025[1]					
Parameter	Units	No. of Tests Conducted	Min. Result	Max. Result	Annual Average
Effluent Monitoring					
Dissolved Oxygen (DO)	mg/L	236	6.80	13.14	10.54
pH[2]	---	245	6.94	8.01	7.37
Temperature[2]	^{o}C	245	1.0	18.6	10.4
Total Residual Chlorine – Upstream[3]	mg/L	244	0.00	2.11	0.59
Total Residual Chlorine - Downstream[2,3]	mg/L	243	0.00	0.07	0.02
Total Alkalinity	mg/L	97	45	235	115
Total Suspended Solids (TSS)	mg/L	99	1.4	21	6.4
Process Monitoring					
Aeration Tank – 30 Minute Settling	%	227	2	67	33
Aeration Tank – DO	mg/L	228	7.30	13.92	11.49
Aeration Tank – pH	---	228	6.64	10.30	7.26
Aeration Tank – Temperature	^{o}C	228	2.0	18.4	11.1
Aeration Tank – TSS	mg/L	101	1,717	3,869	2,576
Clarifier – Sludge Depth	feet	228	0	3.40	1.7
Return Activated Sludge – TSS	mg/L	100	2,200	17,552	5,455

1. All samples collected for operational control and quality assurance testing are grab samples.
2. Regulatory sampling and testing for effluent pH, temperature, and total residual chlorine are achieved through the in-house testing program. Condition 9(3) of the ECA requires that on-site testing be performed for effluent pH and temperature at least three (3) times a week, Monday to Friday. Condition 9(2) of the ECA requires that effluent total residual chlorine be tested at least once per week.
3. Effluent total residual chlorine is tested upstream from the point of dechlorination. Effluent total residual chlorine is also tested downstream from the point of dechlorination.

2.3 Monitoring Results & Comparison with Performance Criteria

The Ear Falls WWTP must be operated and maintained in a way that ensures the effluent compliance limits outlined in condition (7) of the ECA are not exceeded. This report must provide a summary and interpretation of monitoring data in comparison to effluent limits as per Condition 10(5)(a) of the ECA. The ECA limits for carbonaceous biochemical oxygen demand (CBOD) and total suspended solids (TSS) are expressed as maximum monthly averages. The limit for *E.coli* is a maximum monthly geometric mean density.

In accordance with Condition 10(5)(f) of the ECA, this report must also provide a description of efforts made and results achieved in meeting the effluent objectives of Condition 6 of the ECA. Similar to limits, best efforts must be applied to design, construct, operate, and maintain the sewage works to ensure that the design objectives are achieved. Objectives are set at more stringent values than compliance limits, and they are expressed as a maximum monthly average concentration for the parameters carbonaceous biochemical oxygen demand and total suspended solids, and as a single sample result range for the parameter pH. Best efforts must also be used to ensure that the effluent from the facility is essentially free of floating and settleable solids and does not contain oil or any other substances in amounts sufficient to create a visible film, sheen or foam or discolouration on the receiving waters. Design objectives related to flow rates are discussed in Section 3.

Table 2 summarizes effluent monitoring results for regulated parameters and compares them to the relevant compliance limits and design objectives. All effluent compliance limits and objectives were achieved throughout the reporting period.

Table 2: Effluent monitoring results summary and comparison with compliance limits and objectives[1]

Month	CBOD5	TSS	*E. coli*	pH		TAN[2]	Total P[2]	TRC		
	MAC (mg/L)	MAC (mg/L)	MGMD (MPN/ 100mL)	Min. Result	Max. Result	MAC (mg/L)	MAC (mg/L)	Min. Result	Max. Result	Quarterly Avg (mg/L)
Objective	15	15	n/a	6.0	9.5	n/a	n/a	n/a		
Limit	25	25	200	n/a	n/a	n/a	n/a	0.02 mg/L (Quarterly Avg)		
Jan	1.9	9.1	2	7.04	7.53	0.093	0.285	0.00	0.03	
Feb	1.3	4.2	1	7.07	7.41	0.128	0.120	0.00	0.03	0.01
Mar	4.6	5.2	1	6.94	7.35	0.545	0.189	0.00	0.03	
Apr	2.0	2.0	3	7.00	7.68	0.148	0.211	0.00	0.04	
May	1.5	13.3	1	7.31	7.82	0.313	0.170	0.00	0.03	0.02
Jun	0.9	2.8	1	7.13	7.48	0.100	0.189	0.00	0.05	
Jul	1.1	3.0	1	7.25	7.69	0.096	0.172	0.00	0.04	
Aug	2.2	5.1	13	7.28	8.01	2.213	0.325	0.00	0.07	0.02
Sep	0.9	4.6	1	7.29	7.82	0.613	0.176	0.01	0.05	
Oct	1.3	3.0	5	7.30	7.67	0.118	0.270	0.01	0.03	
Nov	0.6	1.8	2	7.21	7.57	0.225	0.209	0.00	0.03	0.02
Dec	1.3	1.7	2	6.97	7.52	0.056	0.131	0.00	0.03	

1. CBOD5 = five-day total carbonaceous biochemical oxygen demand; TSS = total suspended solids; Total P = total phosphorus; TAN = total ammonia nitrogen; TRC = total residual chlorine; MAC = monthly average concentration; MGMD = monthly geometric mean density.
2. The Ear Falls WWTP ECA has no effluent compliance limits with respect to TAN and total P, however, other approvals typically have limits between 5 - 10 mg/L for total ammonia nitrogen and between 0.5 - 1 mg/L for total phosphorus.

Influent (raw sewage) samples are collected monthly and tested for various parameters in accordance with Condition 9 of the ECA. Influent monitoring results are provided in Table 3.

Table 3: Influent sampling results

Sample Date	BOD5 (mg/L)	TSS (mg/L)	Total P (mg/L)	TKN (mg/L)
Jan 8, 2025	71.0	78.0	2.24	16.3
Feb 4, 2025	46.0	76.0	1.29	22.8
Mar 4, 2025	66.0	43.0	1.50	21.0
Apr 1, 2025	36.0	44.0	0.90	18.9
May 6, 2025	44.0	86.0	1.04	11.1
Jun 3, 3035	6.0	108.0	1.41	19.5
Jul 2, 2025	42.0	42.0	0.95	16.1
Aug 6, 2025	45.0	36.0	1.57	20.0
Sept 9, 2025	45.0	65.0	2.06	20.1
Oct 7, 2025	6.0	13.7	0.77	7.8
Nov 4, 2025	16.0	26.7	0.99	14.5
Dec 2, 2025	17.0	47.0	1.45	18.6

In accordance with the Ministry F-10-1 procedure, an annual sludge sample is collected and analyzed for total solids, total phosphorus, and metals. Annual sludge sample results are provided in Table 4

Table 4: Annual Sludge Sample Results – collected August 6, 2025

Ammonia (as N), mg/L	3.22	Molybdenum, total ug/L	71
Arsenic, total ug/L	193	Nickel, total ug/L	456
Cadmium, total ug/L	18	Nitrate (as N), mg/L	<0.05
Chromium, total ug/L	431	Nitrite (as N), mg/L	<0.05
Cobalt, total ug/L	107	Phosphorus, total mg/L	500
Copper, total ug/L	6880	Potassium, total mg/L	60.6
Lead, total ug/L	351	Selenium, total ug/L	73
Mercury, total ug/L	15	Zinc, total mg/L	0.111

3 Flow Monitoring

Condition 6(2)(b) of the ECA states that the Owner shall use best efforts to operate the facility within its rated capacity. The rated capacity of the Ear Falls WWTP refers to the average daily flow for which the sewage works are approved to handle, where average daily flow is defined as the cumulative total sewage flow to the facility during a calendar year divided by the number of days during which sewage was flowing to the sewage works in that year. Specifically, the Owner shall ensure that the average daily flow does not exceed 2,860 m^3/day over the course of a calendar year. There is no regulated peak flow rate for the facility.

Table 5 summarizes flow monitoring and solids management results for 2025. Throughout the reporting period, the facility operated within its rated capacity, and approximately 294,001 m^3. On an average day in 2025, 805 m^3 was discharged to the natural environment, which represents 28% of the rated capacity.

Table 5: Effluent flow monitoring results and solids management summary - 2025

Month	Effluent Flow Monitoring Results				Sludge Volume Generated and Removed (m^3)
	Total Volume (m^3)	Average Daily Flow (m^3/day)	Capacity Assessment (%)	Maximum Daily Flow (m^3/day)	
Jan	18,822	607	21%	811	45.0
Feb	16,269	581	20%	720	36.0
Mar	17,536	566	20%	718	—
Apr	38,671	1,289	45%	2,907	68.0
May	27,279	880	31%	1,267	68.0
Jun	23,153	772	27%	1,129	68.0
Jul	29,154	940	33%	1,606	—
Aug	31,090	1,003	35%	1,917	75.0
Sep	19,344	645	23%	1,033	—
Oct	31,170	1,005	35%	1,534	60.6
Nov	20,821	694	24%	902	—
Dec	20,691	667	23%	884	45.0
Total	294,001	---	---	---	465.6
Average	24,500	805	28%	---	58.2

Table 6 summarizes recent historical flow monitoring results for the Ear Falls Wastewater Treatment Plant. Average daily flows over the past several reporting periods have been stable, with the facility operating between 27% and 34% of its rated capacity. The system is expected to operate within its rated capacity over the next reporting period. A common design objective of wastewater treatment facilities requires that average daily flows should not exceed 80% of the rated capacity. Average daily flows more than this objective generally require an assessment of the issues and recommendations for corrective actions.

Table 6: Recent historical effluent flow monitoring results

Year	Total Volume (m^3)	Average Daily Flow (m^3/day)	Capacity Assessment (%)	Maximum Daily Flow (m^3/day)
2016	301,258	823	29%	5,000
2017	296,144	811	28%	1,944
2018	322,297	883	31%	2,240
2019	326,763	895	31%	3,004
2020	285,205	779	27%	3,202
2021	309,081	847	30%	2,252
2022	354,884	972	34%	4,269
2023	304,865	834	29%	2,428
2024	325,365	889	31%	2,718
2025	294,001	805	28%	2,907

4 Solids Management

This report must provide the volume of sludge produced by the facility during the reporting period as per Condition 10(5)(g) of the ECA. This report must also anticipate volumes to be generated over the next reporting period, with a summary of sludge disposal locations.

The volume of solids in the treatment process is controlled by directing a portion of activated sludge (i.e., waste activated sludge) to the sludge holding tank (aerobic digester). Sludge directed to the digester is concentrated by allowing the sludge to settle and removing the supernatant. As the sludge stabilizes and accumulates over time, it must be periodically removed from the digester by a vacuum truck and disposed of at the Ear Falls Landfill Sludge Site (approval no. A7429301). During the reporting period, sludge was hauled exclusively to the Ear Falls Landfill Sludge Site as processed organic waste by Laroque Enterprises under the waste management system approval no. A920145. Sludge management methods and disposal areas to be utilized over the next reporting period are not expected to change.

A tabulation of the amount of sludge generated in the reporting period is provided in Table 5, and recent historical sludge volumes are provided in Table 7. The amount of sludge removed in 2024 was high due to major process tank draining and cleaning. The volume of sludge removed in 2025 is significantly lower than in previous years. This reduction may be attributed to the recent cleaning of the process tanks, which has improved operational efficiency and reduced sludge accumulation. The volume of sludge generated and removed from the facility in 2026 is anticipated to be between 500 m^3 and 1,500 m^3.

Table 7: Recent historical sludge volumes

Year	Total Sludge Volume Generated and Removed (m^3)
2016	702
2017	1,231
2018	1,194
2019	634
2020	1,168
2021	785
2022	827
2023	685
2024	1,022
2025	466

5 Maintenance and Modifications

5.1 Planned Maintenance, Repairs & Minor Modifications

In accordance with Condition 10(5)(c) of the ECA, this report must include a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism, or thing that forms part of the sewage works. The Township's maintenance program at the Ear Falls Wastewater Treatment Plant and wastewater collection system ensures that the sewage works and related equipment are properly operated and maintained. Licensed Operators perform routine inspection and maintenance on all equipment, including pumps, air supply equipment, chemical feed systems, monitoring equipment, alarm systems, safety equipment, and other treatment components. Major repairs and modifications associated with significant infrastructure or process failures are described in section 6.3.

Table 8: Summary of maintenance activities, repairs, and minor modifications - 2025

Date	Task
May 25-29	Simmons Logic Solutions cleared trees from the fence line and the effluent discharge pipe.
Jun 3	Conducted lift Station cleaning and inspections with Larocque Ent.
Jun 9	Installed and commissioned a new effluent flow meter with Viking Electric and Synergy Controls.
Aug 10	Automation Now conducted upgrades to the automation system to allow operators to be called out for a high lift station level.
Sept 5	Rogal Renovations replaced the screw pump covers and built stairs in the bank between the lift station and the aeration tank.
Sept 9	Industrial Tools and Technicians Inc. repaired the railings around the aeration tanks.
Aug to Sept	Simmons Logic Solutions demolished the broken concrete decks by the office building, and Rogal Renovations rebuilt them out of wood.
Aug to Sept	Clara Industrial was on-site resurfacing the metal in the clarifier.
Oct 2	Lake of the Woods Electric load tested and serviced the emergency generator.
Oct 8	D. McGrath Plumbing Inc. replaced the sink in the boiler room of the office building.
Nov 19	Clow Darling installed a shower for staff in the main building and replaced the domestic sewage tank and pump.
Jun - Dec	Kresin Engineering was retained to create a design and cost estimate for the installation of a 30 HP turbo blower, an automatic transfer switch for the emergency generator and the safety concerns of the digester building.

5.2 Flow Monitoring Equipment Calibration and Maintenance

This report must summarize the calibration and maintenance conducted on all effluent monitoring equipment as per 10(5)(e) of the ECA. Condition 9(7) of the ECA requires the Owner to install and maintain continuous flow measuring devices to measure the flow rate of effluent from the facility with an accuracy to within plus or minus 15 percent of the actual flow rate for the entire design range of the flow measuring device. The effluent flow meter at the Ear Falls WWTP is inspected daily by operators, and calibration is verified annually by a third party. If the flow meter fails the calibration verification, the device must be calibrated or replaced.

Calibration verification for the two effluent flow measuring devices was conducted on September 3, 2025, by a representative from Synergy Controls Corporation. The devices passed calibration verification.

5.3 Summary of Schedule A, Section 1 Modifications

In accordance with Condition 10(6)(j) of the ECA, this report must include copies of all *Notice of Modifications* submitted to the Water Supervisor as a result of Schedule A, Section 1, with a status report on the implementation of each modification. Such modifications must adhere to the criteria for limited operational flexibility and may affect sewage pumping stations, sewage treatment processes, the sewage treatment plant outfall, sanitary sewers, or may otherwise be related to pilot systems.

No Schedule A, Section 1 modifications were completed during the reporting period.

5.4 Summary of Schedule A, Section 3 Modifications

In accordance with Condition 10(6)(k) of the ECA, this report must summarize all modifications completed as a result of Schedule A, Section 3. Such modifications refer to normal or emergency operational modifications, such as repairs, reconstructions, or other improvements that are part of maintenance activities, including cleaning or renovations to existing approved sewage works equipment, provided that the modification is made with equivalent equipment. Such modifications are not required to follow the notification protocols under the Limited Operational Flexibility condition, provided that the number of pieces and description of the equipment as described in the ECA do not change.

No Schedule A, Section 3 modifications were completed during the reporting period.

6 Operating Problems

In accordance with Condition 10(5)(b) of the ECA, this report must provide a description of any operating problems encountered and corrective actions taken during the reporting period. For the purposes of this report, operating problems may be indicated by 1) effluent limit and objective exceedances, 2) complaints, 3) significant equipment, infrastructure, and process failures, and 4) by-passes, overflows, spills, and abnormal discharge events.

6.1 Effluent Limit and Objective Exceedances

There were no effluent compliance or design exceedances during the reporting period.

6.2 Complaints

Complaints that were received during the reporting period are summarized with any corrective actions taken in response by operators as per Condition 10(5)(h) of the ECA.

No complaints related to the operation and maintenance of the Ear Falls Wastewater Treatment Plant were received during the reporting period.

6.3 Equipment, Infrastructure, and Process Failures

Operating problems associated with significant equipment, infrastructure, and process failures occurring during the reporting period are summarized in Table 9. These events did not result in a plant bypass, overflow, spill, or abnormal discharge event, as these events are referred to in section 6.4

Table 9: Summary of significant equipment, infrastructure, and process failures that did not result in a bypass, overflow, spill, or abnormal discharge event - 2025

Event Date	Event Description
March 25, 2025	The stem of the sludge-wasting valve broke. A new one was built to size, and the broken one was replaced.
August 26, 2025	Simmons Logic Solutions was on-site to dig up and repair an air line that was leaking.
August 27, 2025	The generator failed due to a high temperature alarm. Lake of the Woods Electric was on-site several times to do repairs. This issue was resolved in January 2026.

6.4 Bypasses, Overflows, Spills, and Abnormal Discharge Events

In accordance with Condition 10(5)(i) of the ECA, this report must provide a summary of all bypasses, plant overflows, spills, or abnormal discharge events.

6.4.1 Bypasses

A bypass refers to the diversion of sewage around one or more processes within the treatment facility. Diverted sewage flows are returned to the treatment facility upstream of the final effluent sampling location and are discharged to the environment through the regular plant outfall. Bypasses are prohibited except in certain situations and may be planned (i.e., for maintenance or research purposes) or unplanned (i.e., emergency situations or high flow conditions).

There were no bypasses during the reporting period for the Ear Falls WWTP.

6.4.2 Overflows

An overflow means a discharge to the environment from the wastewater collection system or sewage treatment facility at a location other than the plant outfall or into the plant outfall downstream of the final effluent sampling location. Overflows are prohibited except in certain situations, and special reporting, sampling, and recording requirements apply in the event of an overflow. Due to the configuration of the Ear Falls Wastewater Treatment Plant, any raw sewage flows directed to the bypass sewer line at the Raw Sewage Pumping Station are classified as an overflow event rather than a bypass.

A summary of the one (1) overflow event that occurred during the reporting period is detailed below. Overflows totalled approximately 10.3 m^3 and represent an insignificant volume in comparison to the annual volume of effluent discharged. All overflow events are reported to the Ministry's Spills Action Centre, the Northwestern Health Unit, and downstream users.

Overflow: August 1, 2025, MOESAC Reference 1-P9M2O7

An unplanned power outage occurred, and the Wastewater Treatment Plant Lift Station overflowed before power was transferred to the backup generator. The overflow lasted 22 minutes and overflowed 10.3m^3 of preliminary treated wastewater to the regular outflow of the facility. Power and lift station function was restored before operators were able to collect samples.

6.4.3 Spills

Spills are releases of pollutants into the natural environment from or out of a structure, vehicle, or other container that is abnormal in quality or quantity. Concerning the Ear Falls sewage works, spills include the releases of all pollutants other than raw sewage or partially treated sewage, which are classified as Class I spills and are exempt from Part X of the Environmental Protection Act as per O. Reg. 675/98. Specifically, spills of raw sewage or partially treated sewage are discharges (bypasses and overflows) that are authorized by and are conducted in accordance with an environmental compliance approval.

There were no spills during the reporting period.

6.4.4 Abnormal Discharge Events

Abnormal discharge events include any other abnormal events not otherwise classified as a bypass, overflow, or spill.

There were no abnormal discharge events during the reporting period.

7 Conclusion

In accordance with Condition 10(5)(a) of the ECA, this report must include an overview of the success and adequacy of the Works. Water quality and flow monitoring results suggest a successful and adequate sewage treatment program. The Ear Falls Wastewater Treatment Plant maintained all effluent compliance limits and design objectives throughout the reporting period. The favourable performance of the facility in 2025 was consistent with recent historical performance (summarized in Table 11). Additionally, annual average daily flows from the sewage works were below the average daily rated capacity.

Table 11: Performance history – total number of effluent exceedances

Year	No. of Limit Exceedances				No. of Objective Exceedances		
	CBOD	TSS	EC	TRC	CBOD	TSS	pH
2017	0	0	1	-	0	1	0
2018	0	0	0	-	0	0	0
2019	0	0	0	-	0	0	0
2020	0	0	1	-	0	0	0
2021	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0