

Wastewater Collection System Annual Performance Report

03/31/2026

Environmental Compliance Approval Number	037-W601
Name of Municipal Sewage Management System	City of Sarnia Wastewater Collection System
Name of System Owner	The City of Sarnia
Period Reported	01/01/2025 – 31/12/2025

Questions about the Report should be directed to:

City of Sarnia Environmental Services Department. environmental.services@sarnia.ca

Brief Description of the System

<p>The City of Sarnia Sanitary Collection and Treatment System consists of works for the collection and transmission of sewage consisting of 338.6 km of separated gravity sewers, 17.6 km of combined sewers, 47 sewage pumping stations, 1 combined sewage overflow (CSO) interceptor facility, and 49 km of forcemains that discharge to either the Sarnia Wastewater Treatment Facility (Sarnia WWTF) or the Bright’s Grove Wastewater Treatment Facility (BG WWTF).</p>
--

Section 1: Required Monitoring Data

Monitoring Data

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.

Section 2: Operating Problems

Operational Problems Experienced

Station	Issue Encountered	Action Taken
PS.24	Station Plug Ups	Wet well cleaned out several times, and public education
PS.18	Forcemain Issue	New forcemain installed resulting in air locked pumps, temporary diesel pump installed, new pumps installed
PS.20	Station Plug Ups	Wet well cleaned out several times, and public education
PS.43	Station Plug Ups	Wet well cleaned out
PS.17	Forcemain break	Repaired and put back into service, forcemain replaced with new

Section 3: Calibration and Maintenance of Monitoring Equipment

Calibration and maintenance work for the system is organized by a maintenance management system (Cartegraph). Preventative maintenance is conducted as per equipment manufacturers' recommendations. Incidental maintenance is managed by regularly scheduled inspections and recording needed repairs within the maintenance management system.

Inspections, Maintenance and Repairs

Wastewater collection system facilities are inspected and maintained as outlined in the wastewater collection system operations and maintenance manual. Equipment maintenance is scheduled as per the manufacturer's instructions and facilities are maintained to best practice standards.

Section 4: Complaints

Summary of Complaints Received and Actions Taken

The Wastewater Collection System received two complaints in the year 2025 reporting.

- 1.- Loud noise from PS 36 reported from the public, upon inspection it was noted that pumps were running for 5 hrs. Issue was resolved and station was returned to normal operation.
- 2.- Fence falling on creek bank behind PS 41, reported from the public. Pictures taken and reported for repair.

Section 5: Summary of Alterations to the System

Summary of all Alterations to the System

Alteration Type	Number of Alterations	Number of Alterations that Pose a Significant Drinking Water Threat
Pre-Authorized Discharge Contaminant to Atmosphere	1	0
Pre-Authorized Combined Sewers/Partially Separated Sewers/Combined Sewage Storage Tanks and Storage Structures	0	0
Pre-Authorized Separate Sewers/ Nominally Separate Sewers/ Forcemains	7	0
Pre-Authorized Components of the municipal Collection System	2	0
Previously Approved Works	0	0
Schedule C Works	0	0

Significant Alterations

Sewer separation completed, repurposing CSO at Wellington and Front (MH8471) to storm sewer. Work completed to PS.17 to increase flow and capacity in major rain events.

Section 6: Collection System Overflow(s) and Spill(s) of sewage

Summary of Spills and Abnormal Discharge Events

Identification and monitoring program for overflows was undertaken in the 2025 reporting period. Monitoring information for the identified and monitored overflows is included below. As overflows are identified as unnecessary, they will be closed off and therefore monitoring locations will change from year to year.

Overflows

Location	Receiver	# of events	Description of Spill / Event	Estimated Duration (hrs)	Estimated Volume (m ³)	Actions Taken
MH1437	Saint Clair River	1	Combined Sewer Overflow	13.5	5425.4	
MH8471	Saint Clair River	0	Combined Sewer Overflow	0	0	Repurposed to Storm
MH2516	Saint Clair River	0	Combined Sewer Overflow	0	0	
MH2816	Saint Clair River	41	Combined Sewer Overflow	319.10	5161.6	
MH8896	Saint Clair River	1	Combined Sewer Overflow	0.67	0.56	
MH2566	Saint Clair River	0	Combined Sewer Overflow	0	0	
MH2613	Saint Clair River	24	Combined Sewer Overflow	859.73	53356.677	
MH2542	Saint Clair River	0	Sanitary Sewer Overflow	0	0	
MH2719	Saint Clair River	5	Combined Sewer Overflow	18.33	11.1	
MH2831	Saint Clair River	5	Combined Sewer Overflow	2.33	121.2	
MH2596	Saint Clair River	26	Combined Sewer Overflow	96.3	262.486	
MH1109	Saint Clair River	10	Combined Sewer Overflow	42.67	26.12	
MH8546	Saint Clair River	0	Combined Sewer Overflow	0	0	
MH2840	Saint Clair River	0	Combined Sewer Overflow	0	0	
MH3661	Saint Clair River	8	Combined Sewer Overflow	16.63	292.57	
MH1125	Saint Clair River	1	Combined Sewer Overflow	0.33	1.45	

Loadings

Loadings based on the surrogate sampling average concentrations of contaminants.

Location	Receiver	Estimated Volume m3	TSS kg	BOD kg	Total Phos. kg	TKN kg	Actions Taken
MH1437	Saint Clair River	5425.4	458.9	22.8	.74	4.3	
MH8471	Saint Clair River	0	0	0	0	0	Repurposed to Storm overflow
MH2516	Saint Clair River	0	0	0	0	0	
MH2816	Saint Clair River	5161.6	436.6	21.7	0.7	4.1	
MH8896	Saint Clair River	0.56	0.05	.002	0.0001	0.0004	
MH2566	Saint Clair River	0	0	0	0	0	
MH2613	Saint Clair River	53356.6	4513.9	224.1	7.26	42.15	
MH2542	Saint Clair River	0	0	0	0	0	
MH2719	Saint Clair River	11.1	.94	0.05	.002	0.01	
MH2831	Saint Clair River	121.2	10.3	0.5	0.02	0.1	
MH2596	Saint Clair River	262.4	22.2	1.1	0.03	0.21	
MH1109	Saint Clair River	26.1	2.21	0.11	0.003	0.02	
MH8546	Saint Clair River	0	0	0	0	0	
MH2840	Saint Clair River	0	0	0	0	0	
MH3661	Saint Clair River	292.5	24.7	1.2	0.04	0.2	
MH1125	Saint Clair River	1.45	0.12	0.01	0	0	
Total	Saint Clair River	64659.1	5470.2	271.5	8.79	51.1	

Section 7: Actions Taken to Improve or Correct Performance

Actions Taken in Reporting Year

#	Issue	Actions to be Taken	Target Completion Date
1	PS #3,14,16 outdated pump/lift stations	Design work underway to upgrade outdated pump/lift stations.	2026

Update on Actions from Previous Reporting Year

#	Issue	Update on Actions Taken	Target Completion Date
1	PS #17 capacity issue	Work completed to upgrade PS #17 to increase station capacity and handle flows in wet weather events.	2025
2	Wellington & Front	Work completed to repurpose CSO at Wellington & Front (MH8471) to storm overflow	2025

Establishment and Maintenance of a PPCP

PPCP development TBD

Procedure F-5-1 and F-5-5

Sewer separation underway in the system. F-5-1 & F-5-5 compliance assessment completed, City of Sarnia meets the requirements of the CLI-ECA as set out in Section 8.2.1

Section 8: Additional Notes / Comments

Additional Notes / Comments

An extension was approved to extend the deadline to install signage at overflow points to Spring 2026 (Schedule E, Condition 3.3.3 of the CLI-ECA)

Section 9: Making Available to the Public

Details on how the report can be accessed.

A copy of this report can be viewed or obtained on the City's website under Environmental Services.

<https://www.sarnia.ca/environmental-services/>