



2024 Sanitary Annual Performance Report

March 2025

Town of Aurora



Executive Summary

The Town of Aurora (Town) Wastewater Collection System – Class 2 consists of works for the collection and transmission of sewage, consisting of gravity sewers, sewage pumping stations and forcemains that discharge into York Region Sanitary System. The Wastewater Collection System does not include any Combined Sewage Structures or Collection System Overflow Points.

The sewage collection system operates under the authority of Environmental Compliance Approval (ECA) number 115-W601.

Public Complaints

There were no public complaints related to the Town sewage collection system in 2024.

Spills

There were no spills in the Town's wastewater collection system or sewage overflows at any of the identified sanitary sewer overflow points including pumping stations as identified in Table B5 within ECA #115- W601.

2024 Capital Improvements, Maintenance, Studies and Condition Assessments

One (1) sanitary upgrade project was completed in 2024 to replace the sanitary sewer on Poplar Crescent.

A Consultant working for the Town completed a review and analyzed the sanitary sewer CCTV inspections collected by the Town over the past 4 years. The analysis is being used to identify structural sewer defects and inflow and infiltration (I&I) issues. From the analysis completed in 2024 the consultant provided recommendations to aid the Town in planning for future repair and replacement works. The analysis of new condition assessment data taken by the Town each year will be reviewed on an annual basis.

The Town's wastewater hydraulic model was updated in 2024 for the existing sanitary sewer system and is being used to assist with the Town's preparation of a Water and Wastewater Master Plan which began in 2024 and is in progress.

As part of the Town's ongoing infrastructure assessment efforts, a Condition Assessment of Sanitary Pumping Stations (SPS) was conducted in 2024. The findings are being used to support the Town in prioritizing rehabilitation and maintenance activities of wastewater collection systems.

2025 Capital Rehabilitation, Maintenance and Studies

- The Town will continue to analyze new CCTV inspection results.
- Sanitary sewer rehabilitation work will be completed on McLeod Drive, Lacey Court, and Marksbury court.
- An Arc Flash Study for all sanitary sewage pumping stations will be undertaken in 2025.
- The Water and Wastewater Master Plan (W&WWMP) will be completed in 2025.

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1 Sewage Collection System Overview

The Town of Aurora (Town) Wastewater Collection System – Class 2 consists of infrastructure for the collection and transmission of sewage, consisting of sewers, and seven (7) sewage pumping stations (SPS), and their associated forcemains. Sewage is conveyed through this system to a York Region trunk sewer where it is collected and managed by York Region.

A summary of the sewage collection system is shown in Figure 1.

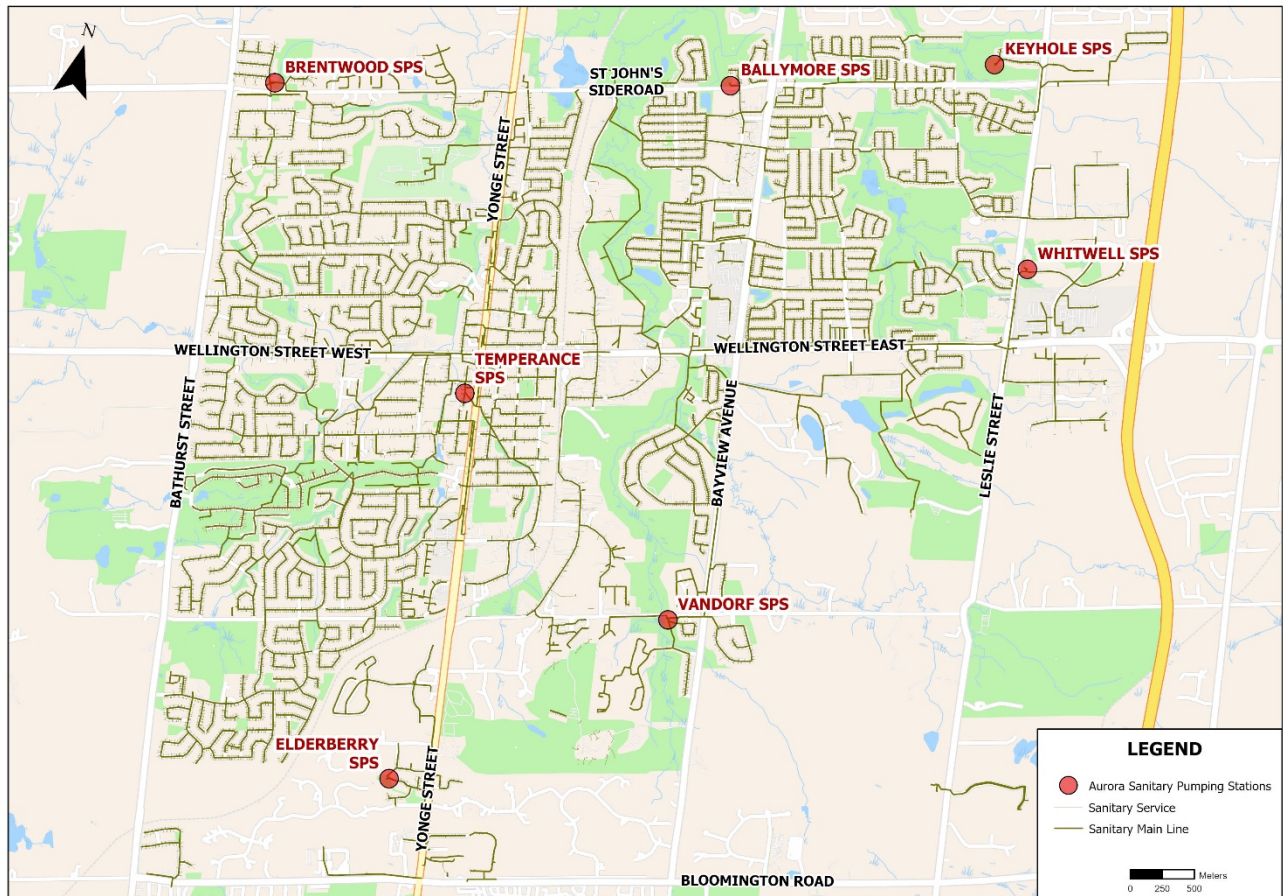


Figure 1. Overview of Wastewater Collection System

The sewage collection system operates under the authority of Environmental Compliance Approval (ECA) number 115-W601.

There are no SCADA services or workstations at any of the Town’s facilities. As such, the seven (7) SPSs are controlled and monitored locally either via local programmable logic controllers (PLCs) or pump control panels that use an autodialer to output SPS faults.

A summary of all the SPSs operated by the Town is shown in Table 1.1.

Table 1.1 Sewage Pumping Station Summary

Station Name	Location	Structures
Ballymore SPS	560 St. John's Sideroad	Consists of a 2.4 diameter wet well and a control building.
Brentwood SPS	3 Woodland Hills Boulevard	Consists of a 2.4 m diameter wet well and a control building.
Elderberry SPS	12 Equestrian Drive	Consists of a 2.4 m diameter wet well and a control building.
Temperance SPS	79 Temperance Street	Consists of a 2.4 m diameter wet well and an aboveground control panel.
Vandorf SPS	385 Vandorf Sideroad	Consists of a 2.4 m diameter wet well and a control building.
Whitwell SPS	24 Desjardins Way	Consists of two 1.2 m diameter collection manholes, two 2.4 m diameter wet wells (with only one in use), and a control building.
Keyhole SPS	25 Forest Grove Court	Consists of a 3.6 m diameter wet well, 2m x 3.4m valve chamber and a control building

There are sanitary sewer overflow pipes at six (6) SPSs, the Keyhole SPS does not have an overflow. A summary of the overflow infrastructure is shown in Table 1.2.

Table 1.2 Identified Sanitary Sewer Overflow Points including Pumping Stations

Asset ID	Station Name	Pipe Diameter	Pipe Slope	Sewage Pumping Station – Collection System Overflow Description
SAN-PS-5060-01	Ballymore SPS	200 mm	1.0 %	200 mm Emergency overflow to outfall in slope northwest of pumping station site. Elevation 249.
SAN-PS-4465-01	Brentwood SPS	200 mm	1.4 %	200mm diameter emergency overflow pipe - Elevation: 296.72 - A maximum of 4 hours of storage is provided in the sanitary sewer pipes, sanitary manholes and pumping station wet well at average flow rates to allow for adequate response time in the case of an emergency.
SAN-PS-3680-1	Elderberry SPS	300 mm	1.0 %	300 mm diameter emergency overflow sewer, discharging into a valley adjacent to pumping station and an emergency by-pass system. Elevation 296.51
SAN-PS-3000-01	Temperance SPS	75 mm	Inverted Siphon	wet well has as approx. 10m by 75 mm diameter Emergency overflow pipe connecting to a downstream receiving manhole at an invert elevation of 255.10m
SAN-PS-2190-01	Vandorf SPS	250 mm	1.0 %	250 mm diameter emergency overflow sewer, discharging into an open space block adjacent to pumping station.
SAN-PS-1675-01	Whitwell SPS	300 mm	8.5 %	300 mm diameter emergency overflow sewer from collection manhole MH PS1 discharging to stormwater management pond;

2 Operations and Monitoring

2.1 Sanitary Sewers

The Town's wastewater collection system is comprised of gravity sewers, which eventually flow into the York Region sanitary sewer system as seen in Figure 1.

2.1.1 Monitoring

The Town's Condition Assessment strategy sees up to 10% of the gravity sewer inventory being assessed annually.

This is an opportunity to renew, rehabilitate and extend the life of the Town's sewer infrastructure while contributing to inflow and infiltration (I&I) reduction.

The information collected during the Condition Assessment is reviewed and analyzed by a consultant. The Town will be using the assessment condition rating and prioritization report prepared by the consultant to support future infrastructure repairs and replacement projects.

The monitoring areas for the 10-year plan are shown in Figure 2, with Year 6 corresponding to the year 2024.

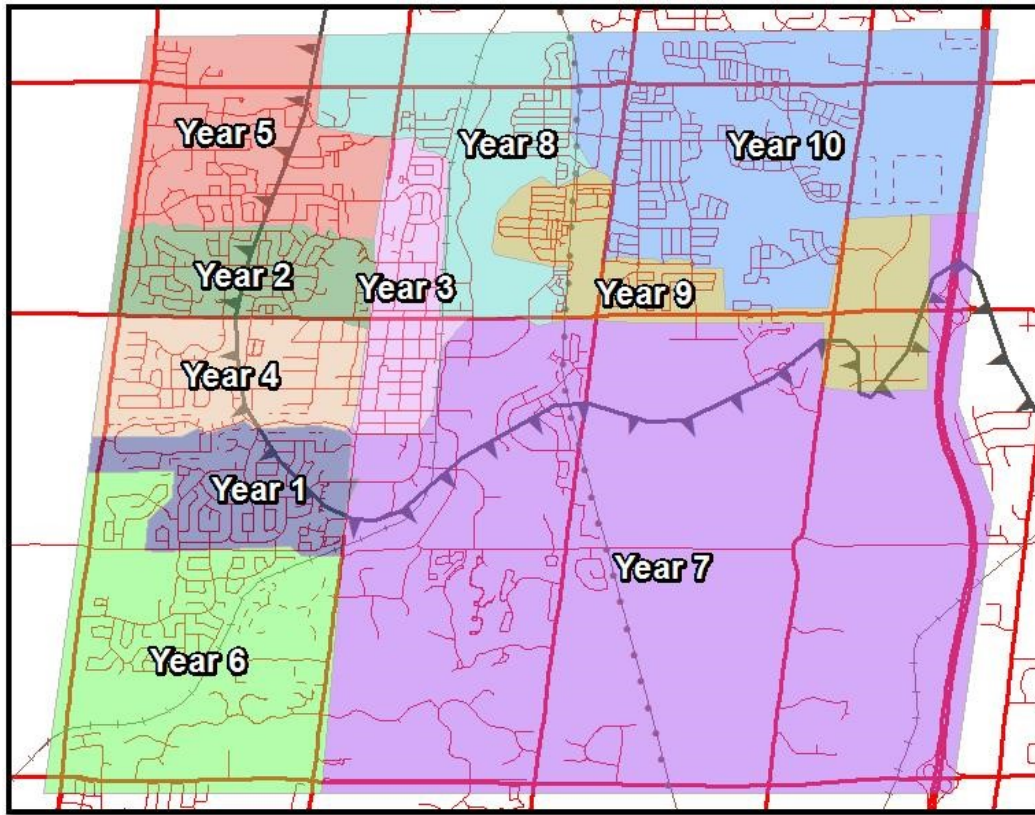


Figure 2. Condition Assessment Strategy for Sanitary Sewers

2.1.2 Public complaints

There were no public complaints related to the sanitary sewers in 2024.

2.1.3 Spills

Table 2.1 below provides a summary of all spill incident reports in 2024, which in 2024 there were none.

Table 2.1 Spill Information Incident(s) in 2024

SAC Incident number	Date	Location	Reasoning	Action(s) taken
n/a	n/a	n/a	n/a	n/a

2.1.4 Alterations, Extensions, and Replacements in 2024

Three upgrades and two studies were completed in 2024. A summary of the upgrades and studies and their locations are shown in Table 2.2 and Figure 3 respectively.

Table 2.2 Upgrade Projects Completed in 2024

Label no.	Location (Latitude & Longitude)	Description
1	Poplar Crescent, from Henderson Drive (east intersection) to Henderson Drive (west intersection) 43°58'55.27" N 79°28'5.92" W	23m of existing 150mm diameter sanitary sewer; 484m of existing 200mm diameter sanitary sewer; and 26m of existing 250mm diameter sanitary sewer; were replaced along with the sanitary services connected to them due to end of service life.
2	Keyhole SPS at 25 Forest Grove Court 44°1'45.73" N 79°25'39.50" W	Sanitary pumping station (SPS) with 3.6 m diameter wet well, 2m x 3.4m valve chamber and a control building was assumed by the Town.
3	Vandorf SPS 385 Vandorf Sideroad 43°59'7.91" N 79°26'34.37" W	The Automatic Transfer Switch was replaced.

Label no.	Location (Latitude & Longitude)	Description
n/a	Town wide Water & Wastewater model update	The Town's water and wastewater hydraulic models were updated in 2024 for the existing sanitary sewer system and are being used to assist with the Town's preparation of a Water and Wastewater Master Plan which began in 2024 and is in progress.
n/a	Refer to Figure 2 Year 6	Condition Assessment of gravity sewers in 2024.
n/a	Town wide Condition Assessment SPS	Condition Assessment of Sanitary Pumping Stations (SPS) in 2024.

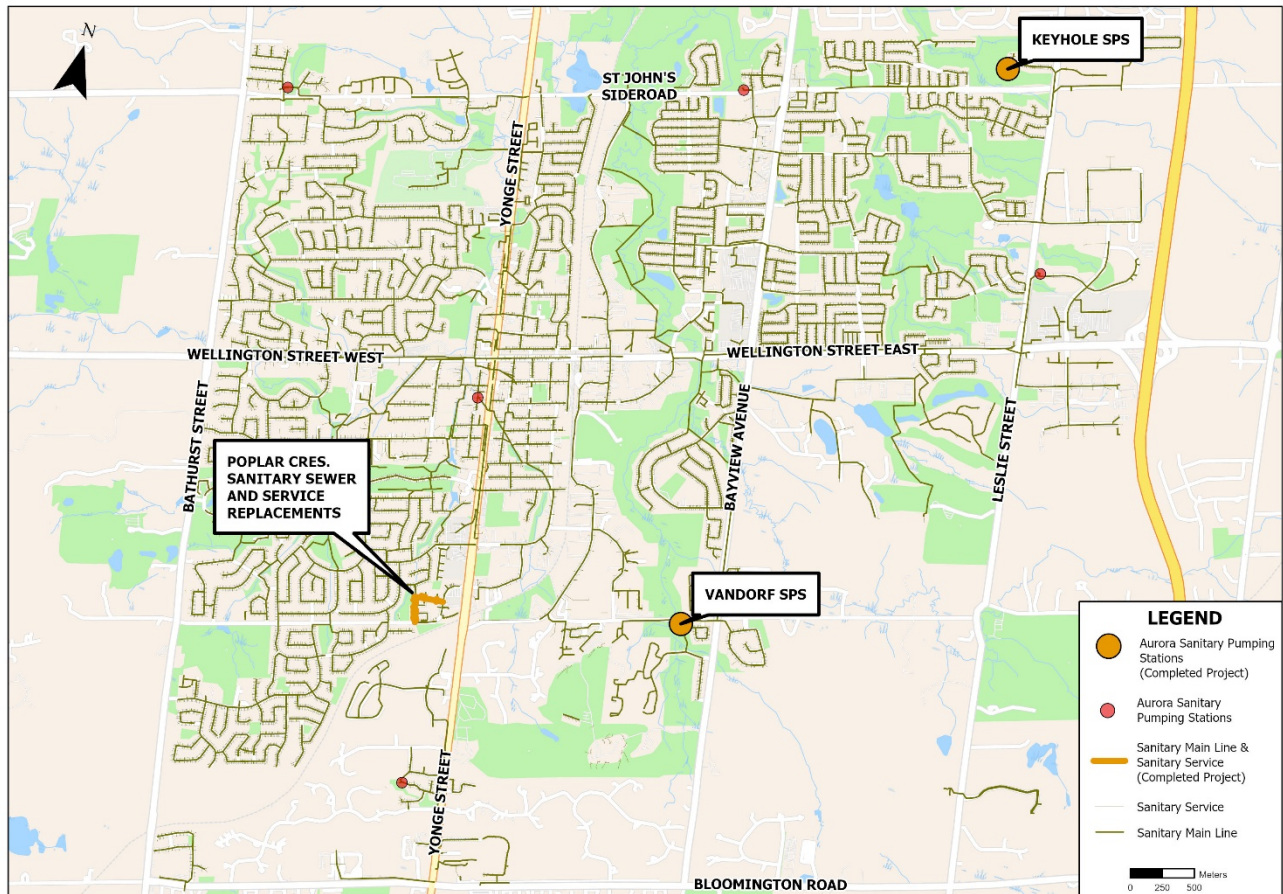


Figure 3. Upgrade works completed in 2024

2.1.5 Alterations, Extensions, and Replacements Planned for 2025

There is one (1) upgrade and three studies (3) planned for 2025. A summary of the upgrades and studies planned can be seen in Table 2.3.

Table 2.3 Future Upgrade Projects Planned for 2025

Date	Location	Description of Upgrade Planned
2025	McLeod Drive; Lacey Court; Marksbury Court General Location: 43°59'48.48" N 79°29'13.74" W	McLeod Drive – Sanitary service tee and lateral repair. Lacey Court – 1 Sanitary Service tee repair. Marksbury Court – 5m of existing 200mm diameter sanitary sewer repair including replacement of a sanitary service tee and 1m of sanitary lateral repair.
2025	All sewage pumping stations Town wide as per Table 1.1 in this report	Arc Flash Study for all sanitary sewage pumping stations.
2025	Town wide	Preparation of a Water and Wastewater Master Plan.
2025	Refer to Figure 2 Year 6	Condition Assessment 2025.

2.1.6 Sewage Overflows

There were no recorded sewage overflows at any of the identified sewer inventory.

2.1.7 Operation and Maintenance Activities Summary

Preventative maintenance actions were performed either on a weekly, monthly, or semi-annually basis at all SPS, depending on the maintenance schedule requirements.

Some of the maintenance activities include: pump check, wet well inspection, alarm system inspection, generator inspection, general inspection of building, testing the alarm system and verify check valves operation.

Corrective maintenance actions were performed by Town staff and contracted service providers along with the preventative maintenance actions.

A condition assessment of all SPSs was performed in 2024. The Town is incorporating the rehabilitation recommendations into the Town’s 10-year capital plan.

Some of the corrective maintenance actions performed at SPSs in 2024 are:

- General housekeeping of site
- Wet well visual inspection
- Wet well cleaning with a vac truck
- Thawed frozen lock
- Repair door to control building
- Maintenance including updating names on autodialer
- New Bell line was run at Ballymore SPS in December
- Housekeeping of control building
- Pump repaired on Forest Grove pumping station

The alarms that occurred at the SPS during the same time frame are related to:

- Power failure – back-up power was working until regular power restored
- Pump fault – debris: Debris was removed
- Pump fault – other: pump settings adjusted and pumps working fine
- Pump failure – other: Pump settings adjusted and pumps working fine
- Building alarm – alarm set off entering building, was false alarm
- Battery failure – Batteries changed
- High level – no issues: Pumps inspected and working fine
- Low level – Pumps inspected, reset, and working fine.