2025 Annual Performance Report

Stormwater Management System

Town of Aurora

Reporting Period: Jan 1, 2025 to Dec. 31, 2025

Table of Contents

1 Stormwater Management (SWM) System Overview

The purpose of this Annual Performance Report is to summarize the operational performance, inspection and monitoring activities, capital works, maintenance activities, and system-related events for the Town of Aurora's stormwater management system during the 2025 reporting year. The report fulfills annual compliance requirements under Environmental Compliance Approval (CLI-ECA No. 115-S701).

The Town operates a municipal stormwater management system consisting of storm sewers, stormwater management facilities, and associated infrastructure. In 2025, the Town continued to undertake inspections, monitoring, maintenance, and capital improvements to support system performance and long-term asset management objectives.

1.1 Environmental Compliance Approval

The Town of Aurora's stormwater management system operates under a Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA #115-S701) issued by the Ministry of Environment, Conservation and Parks (MECP). The CLI-ECA authorizes the operation of the municipal stormwater management system and establishes requirements related to inspection, monitoring, reporting, and system performance.

In accordance with the CLI-ECA, the Town prepares and submits an Annual Performance Report to the MECP to document system operation and performance during the reporting period. This report has been prepared in accordance with the requirements outlined in Section 5.0 of the CLI-ECA and is intended to demonstrate conformance with the conditions of approval.

The CLI-ECA requires the Annual Performance Report to include the following summaries of:

- Monitoring and inspection activities, including an assessment of system condition and operational performance;
- Environmental trends based on available monitoring data;
- Operational issues encountered and actions taken to address them;
- Maintenance, repair, and calibration activities related to stormwater infrastructure and monitoring equipment;
- Public complaints received and any associated follow-up actions;
- Alterations or modifications to the stormwater management system;

- Any spill or abnormal discharge events;
- Actions undertaken to improve system performance, including the status of actions from previous reporting periods.

2 Stormwater Management System Description

The Town's stormwater management system is designed to collect, convey, control, and treat stormwater runoff generated within the municipality. The system consists of a network of storm sewers, maintenance holes, catch basins, stormwater management facilities, outlets, and associated infrastructure that function together to manage runoff from roadways, municipal facilities, and developed lands.

Stormwater is conveyed through the storm sewer network to stormwater management facilities or, where appropriate, directly to receiving watercourses. Stormwater management facilities within the system include wet ponds, dry ponds, and low impact development (LID) features. These facilities provide stormwater quantity control, erosion control, and water quality treatment in accordance with applicable design criteria.

The stormwater management system is operated and maintained by the Town in accordance with municipal standards and the requirements of the Environmental Compliance Approval. Ongoing inspections, monitoring, maintenance, and capital improvements are undertaken to support continued system performance and address infrastructure conditions and capacity requirements.

2.1 Stormwater Management System Inventory Summary

Stormwater Management System Inventory is summarized in Table 1 below.

Table 1 - Summary of Stormwater Management System

Description	Quantity
Storm Sewers	358.7 km
Drain Collectors	13.5 km
Ditches and Swales	33.2 km
Stormwater Management Low Impact Development Facilities	9
Stormwater Management Facility Wet Ponds	48
Stormwater Management Facility Dry Ponds	22
Underground stormwater storage facility	47
Oil Grit Separators	41

3 Stormwater Management System Inspections and Monitoring Conducted in 2025

3.1 Storm Sewer Inspections & Monitoring

The Town's storm sewer condition assessment program is based on a target of assessing up to 10% of the gravity sewer inventory annually, with the goal of establishing a complete baseline inventory by the end of 2026. Inspection coverage has been progressed through a risk-based approach focused on priority areas of the system.

In 2025, storm sewer inspection activities were advanced to increase overall system coverage and to address outstanding inspections. Condition ratings and risk-based analysis continue to be used to inform storm sewer rehabilitation and replacement planning, with consideration given to asset condition, criticality, and potential impacts to system performance.

3.2 Stormwater Management Facility Inspections & Results

SWM facilities are subject to both routine maintenance inspections and periodic condition assessments. These programs serve distinct but complementary functions in supporting the operation and long-term performance of the Town's stormwater management system.

Annual maintenance inspections of SWM facilities are undertaken by the Lake Simcoe Region Conservation Authority (LSRCA) in accordance with the Town of Aurora Stormwater Management Operations and Maintenance Manual. These inspections include wet ponds, dry ponds, and low impact development (LID) facilities and focus on identifying maintenance-related issues such as sediment accumulation, vegetation management, debris, and general facility functionality. Findings from these inspections are used to inform the Town's preventative maintenance program.

In addition to annual inspections, condition assessments of SWM facilities are undertaken on an approximate five-year cycle. These assessments evaluate the structural condition and overall performance of facility components, including inlet and outlet structures, conveyance elements, and pond function. The results of condition assessments are used to support rehabilitation planning and capital works prioritization.

Operational performance of SWM facility wet ponds is also evaluated through hydraulic monitoring and manual water level measurements. Hydraulic assessments are used to evaluate key functions such as inlet and outlet performance, evidence of clogging or leakage, design drawdown time, and normal water level conditions. Water level monitoring is conducted using pressure sensors (level loggers), with data correlated to design elevations using staff gauges. The Town maintains a rotating program of level loggers across SWM facilities, with all Town-owned wet ponds having undergone hydraulic assessment at least once as of 2025.

SWM facility pond assessments include inspection of structural components, as well as observations related to vegetation, wildlife, nuisance conditions such as odor or algae, and overall facility performance based on water elevation. Sediment accumulation surveys were completed in 2020/2021 to quantify available storage volume and inform maintenance and rehabilitation prioritization. In 2025, three recently rehabilitated SWM facilities were surveyed to establish baseline sediment conditions.

Inspections and monitoring activities undertaken by the Town are currently focused on storm sewer and SWM facility performance. Monitoring of system performance at a watershed scale is currently under review and will be further defined in consultation with MECP.

3.2.1 Wet Ponds and Dry Ponds

Seventy (70) SWM facility ponds were inspected in 2025. Table 2 below summarizes the key maintenance issues identified.

Table 2 - Wet & Dry Pond Maintenance Summary

Category	Description	Number of Facilities
Signage	Mislabeled facility name.	2
Hydraulic	Outlet structures that are not draining efficiently and may require cleaning.	5
Structural	Outlet pond structures, pipes, or concrete headwalls that require structural maintenance and repair.	6
Nuisance Issues	Extensive or possible blue-green algae, annual monitoring is required to assess persistence and species.	3

3.2.2 Low Impact Development (LID) Facilities

Eleven (11) SWM facility LID sites were inspected in 2025. Some notables during the inspection are provided in table 3 below.

Table 3 - Low Impact Development Facilities Inspection Summary

Category	Description	Number of Facilities
Sediment accumulation	Sediment build up at inlets that may impact the function of the facility.	7
Bioretention bio-media	Replacement of the bio media to the required depth to improve function.	2
Permeable pavement joint material	Vacuum sweeping and replacement of joint material to the required depth.	3

3.2.3 Oil Grit Separators (OGS)

The Town inspects all OGS units annually. When the lower chamber is at or above the 50% threshold the OGS units are identified as requiring clean out. At that time a contractor is retained to clean out the OGS units. The OGS units are cleaned with a vacuum excavator.

3.3 Monitoring Equipment Calibration and Verification

Monitoring equipment used to support stormwater management facility inspections and hydraulic monitoring is subject to routine calibration and verification to ensure data accuracy and reliability.

Manual water level infrastructure installed within stormwater management facility wet ponds was resurveyed in 2025 to confirm elevation. Water level loggers used for hydraulic monitoring are downloaded on a regular basis, and manual water level measurements are collected concurrently to verify and calibrate recorded data.

4 Operational Activities Conducted in 2025

4.1 Storm Sewer System Operation

No major storm sewer surcharging events, surface flooding, or significant roadway drainage issues were reported in 2025. No storm sewer pipe failures were identified during the reporting period.

Linear storm sewer condition assessments were completed in 2025 to support ongoing asset management and rehabilitation planning.

4.2 Operational Maintenance and Repairs Completed in 2025

Operational maintenance and repairs completed by Town Staff in 2025 are summarized in Table 4 below.

Table 4 – Operational Maintenance and Repairs Completed in 2025

Maintenance or Repair Activity	Description or Amount of Activity
Oil Grit Separator (OGS) Clean Out	7
Catch Basins Cleaned Out	1,350
Maintenance Hole, Catch basin, and Storm Sewer Lateral Repairs	27 maintenance holes, 68 catch basins, and 20 laterals repaired
Vegetation Clearing / Phragmites Removal	10 SWM facility ponds
SWM Facility Pond General Maintenance and Repairs (SWM facility pond structures, pipes, and erosion maintenance and repairs)	18 SWM facility ponds
Sediment Accumulation Survey	12 SWM facility ponds

5 Public Complaints

There were no public complaints related to stormwater management systems in 2025.

6 Summary of Spills

There were no known spills into the Town's stormwater management system in 2025.

7 Environmental Impacts & Trends

The Ministry of the Environment, Conservation and Parks (MECP) is currently developing guidance on the monitoring efforts required under the ECA to assess the environmental impact of the authorized municipal stormwater management system on receiving waters. Once finalized (expected fall 2026) the Town will develop and implement an appropriate monitoring program, the results of which will be included in future annual reports.

8 Capital Works and Studies

8.1 Capital Works and Studies Completed in 2025

Capital works, Studies and the status of each project are listed in Table 5 below.

Table 5 – Capital Works and Studies Completed in 2025

Project & Location	Description	Project Status
Rehabilitation of McLeod Drive; Lacey Court; Marksbury Court; Gilbank Drive Latitude-Longitude: 43.99680 -79.48715	Storm sewer and catch basin rehabilitation.	**McLeod Drive**: • 15 single catch basins and 9 double catch basins were replaced. • Two tee repairs for lateral connections were completed, including repairs to the associated lateral connections. **Lacey Court:** • A 2 m spot repair of the existing 375 mm diameter storm sewer was completed. **Gilbank Drive:** • One double catch basin was replaced, along with two spot repairs, one on the 300 mm diameter storm sewer and one on the 375 mm diameter storm sewer. **Marksbury Court:** • Lining was completed for 106 m of 300 diameter storm sewer, 43 m of 525 mm diameter storm sewer, and 20 m of 375 mm diameter storm sewer.

Project & Location	Description	Project Status
Centre Street (Yonge Street to Spruce Street) Latitude-Longitude: 44.000598-79.466469	Storm sewer and catch basin rehabilitation.	Two double catch basins were replaced along with approximately 96 m of 300 mm diameter storm sewer and 106 m of 375 mm diameter storm sewer, including the associated storm service connections.
Temperance Street – Cross Culvert Repair Latitude-Longitude: 43.99483-79.46472	Existing open bottom three-sided concrete box culvert rehabilitated.	The projects culvert rehabilitation works were completed in 2025.
Henderson Drive Wildlife Eco-passage Tunnel and Culvert Construction Latitude-Longitude: 43.976518-79.485149	Existing twin CSP culvert replaced with pre-cast concrete open bottom box culvert to form a wildlife eco-passage	The culvert replacement project was completed in 2025.
Rehabilitation of Sisman Avenue; Hollidge Boulevard; John West Way Latitude-Longitude: 44.004803-79.451368	Road rehabilitation, with rehabilitation of existing bridge and culvert structure on John West Way.	Road Rehabilitation has been completed, with bridge and culvert rehabilitation to be completed in 2026.

Project & Location	Description	Project Status
Vandorf Sideroad and Batson Drive Culvert Rehabilitation Latitude-Longitude: 43.994494-79.404930 & 44.009121-79.469126	Rehabilitation of three large, corrugated steel pipe cross culverts.	The design phase was substantially completed in 2025, with construction tendering planned for 2027.
Town wide – Stormwater & Stream Management Master Plan Update	Preparation of Stormwater & Stream Management Master Plan Update.	The Stormwater & Stream Management Master Plan Update progressed through 2025 and remains ongoing.
Town wide – 10% of the Town's gravity sewer inventory being assessed	Sewer pipe condition assessment.	The sewer condition assessment program progressed through 2025 and remains ongoing.

8.2 Planned Capital Works and Studies for 2026

Summary of Capital Works and Studies planned for 2026 are listed in Table 6 below.

Table 6 - Planned Capital Works and Studies for 2026

Project & Location	Description
John West Way Bridge Latitude-Longitude: 44.004803-79.451368	Rehabilitation of the bridge structure and paved deck surface.
Aurora Stormwater Management Facility Wetland Monkman SWMP (Formally SC2) 385 Vandorf Sideroad Latitude-Longitude: 43.984568-79.441743	Stormwater management facility wetland sediment removal and outlet structure rehabilitation.
Aurora Stormwater Management Facility Wet Pond Watts Meadow SWMP (Formally WC5) Latitude-Longitude: 43.979502-79.483356	Stormwater management facility wet pond sediment removal and outlet structure rehabilitation.
Aurora Stormwater Management Facility Wet Pond Twelve Oaks SWMP (Formally NC2) Located west of Twelve Oaks Drive Latitude-Longitude: 44.017671-79.467972	Stormwater management facility wet pond sediment removal, inlet and outlet structure rehabilitation, erosion and spillway repairs, and invasive vegetation control.

Project & Location	Description
Aurora Stormwater Management Facility Wet Pond Ballymore SWMP (Formally NC12) Located west of Ballymore Drive Latitude-Longitude: 44.024778-79.451315	Stormwater management facility wet pond sediment removal, outlet structure reconstruction, spillway and stilling basin rehabilitation, erosion repairs, and invasive vegetation control.
Murdock Avenue and Spruce Street Latitude-Longitude: 43.997224-79.489686 & 44.002953-79.466009	Rehabilitation of storm laterals on Murdock Avenue and storm mainlines on Spruce Street.
Aurora Stormwater Management Facility Wet Pond (Formally C1) Just east of 305 Wellington Street East Latitude-Longitude: 44003351-79.449002	Stormwater management facility wet pond sediment removal (forebay and main cell), outlet structure maintenance and invasive vegetation control.
Aurora Stormwater Management Facility Wet Pond October Lane SWMP (Formally C4) Just north of 14778 Bayview Avenue (Transformer Station) Latitude-Longitude: 43.996916-79.442548	Stormwater management facility wet pond sediment removal, outlet structure upgrade, and invasive vegetation control.

Project & Location	Description
Town wide – Stormwater & Stream Management Master Plan Update	Preparation of Stormwater & Stream Management Master Plan Update.
Town wide – All Town storm sewer inventory being surveyed	Baseline CCTV data collection for all unsurveyed Town storm sewers and Maintenance Holes.