



**2024 Annual Performance Report  
Richmond Hill Stormwater Management System**

**Environmental Compliance Approval (022-S701)**

**Date of Issue: March 24, 2025**

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# 1 Introduction

The 2024 Annual Performance Report has been prepared in compliance with Section 5.2, Schedule E: Operating Conditions of the City of Richmond Hill's Environmental Compliance Approval (ECA) for a Municipal Stormwater Management System (022-S701). This document was issued to the City of Richmond Hill on June 20, 2023.

This report covers the period of January 1 to December 31, 2024.

The municipal stormwater management system is a separate system (i.e. not designed to convey sanitary sewage or combined sewage) within the Toronto and Region Conservation Authority (TRCA) watershed of the Humber, Don and Rouge Rivers. Richmond Hill's system is interconnected with the York Region system, and has drainage connections with Markham, Vaughan and Aurora.

The City's stormwater management system includes storm sewers, culverts, catchbasins, maintenance holes, ditches and swales, stormwater management facilities, outlets and third pipe collection systems (foundation and rooftop drainage collectors).

The report is organized with sections that correspond with the subsections of Schedule E, Section 5.2 which are noted within the headings.

## 2 Reporting

### 2.1 Monitoring and Environmental Trends Data (5.2.2 and 5.2.3)

Not applicable at this time. The future system 'monitoring plan' will be developed and implemented in accordance with Ministry of the Environment, Conservation and Parks (MECP) guidelines (yet to be released) and ECA requirements.

### 2.2 Operations, Inspections, Maintenance and Repairs (5.2.4 and 5.2.5)

The City undertakes a variety of operations and maintenance (O&M) programs and activities to maintain services of the stormwater management system as noted in Table 1. Inspections of the stormwater management system are undertaken by staff in the Infrastructure Planning as well as Water, Wastewater and Roads.

**Table 1: Summary of Inspections of Stormwater Management Systems**

<b>Maintenance Program</b>	<b>Program Description</b>	<b>Frequency</b>	<b># Completed in 2024</b>
SWM Pond Inspection	Inspecting SWMFs to ensure that performance of facilities remains in compliance and flooding risks are minimized	Annually	89
Catchbasin Inspection	Inspect catchbasins to ensure they are structurally sound and note if any maintenance is needed	Once every 3 years	1414
Catchbasin Cleaning	Cleaning debris from catchbasins to allow for proper drainage	Once every 3 years (or more frequently as needed)	38
CCTV Sewer Inspections & Cleaning/ Flushing	CCTV inspections and flushing to remove anything that may be causing blockage	Once every 10 years	1
Street Sweeping	Sweeping streets to eliminate hazards to traffic and storm drainage systems	Once every spring and additional throughout the year as needed	11
Inlet/ Outlet Inspection	Inspect inlets/outlets to ensure they are structurally sound and to see if any maintenance is needed	Annually	244
Inlet/ Outlet Cleaning	Cleaning debris from inlets/outlets to minimize risk of flooding	As needed	25
Stormwater Management Facility O&M	SWM maintenance to ensure proper functioning of infrastructure	As needed	5
OGS Inspection	Inspect OGSs to determine if maintenance is required	Annually	141
OGS Cleaning	Cleaning sediment out of OGSs	As needed	21

In addition to the works outlined in Table 1, the City undertakes various other repair, sediment removal or retrofit projects on our stormwater infrastructure based on the deficiencies identified in our operations and monitoring programs. Table 2 notes the large-scale works that were completed within 2024 whereas Table 3 identifies the studies that are currently underway

related to retrofits of existing stormwater management infrastructure to optimize their performance.

**Table 2: Stormwater System Works undertaken in 2024**

<b>Asset Name / ID</b>	<b>Project Description</b>
SWMF 16-11 Rothbury West	Removal of 200 m <sup>3</sup> of accumulated sediment and outlet repairs
SWMF 19-9 Coco	Replacement of outlet pipe from control maintenance hole to pond.
LID 2-22 Drynoch Avenue	Repair of cracked exfiltration pipe
LID 16-5 Leyburn Avenue	Subdrain install in LID16-5c and replacement of all bioswale media with a sandy topsoil mix
LID 2-13 Worthington Avenue and Wellman Drive	Infiltration galleries were reconstructed

**Table 3: Stormwater Feasibility Studies Undertaken**

<b>Asset Name / ID</b>	<b>Project Description</b>
SWMF 2-4	Existing dry pond retrofit to provide better water quality controls. Feasibility Study completed in 2022 but detailed design is on hold awaiting adjacent development.
SWMF 2-11	Revision of phosphorous treatment trench and deal with groundwater issues within pond. Feasibility study completed in 2024.
SWMF 2-14	Outlets to adjacent Snively wetland has outlet issues that were impacting this pond; evaluation looked at system as a whole.
SWMF 2-15	Outlets to adjacent Snively wetland has outlet issues that were impacting this pond; evaluation looked at system as a whole. Issues also with access and design of the outlet structure.
SWMF 8-2	Pond noted as being out of compliance due to sedimentation due to the age of the facility it was reviewed as a retrofit.

### 2.3 Calibration and Maintenance of Monitoring Equipment (5.2.6)

Not applicable at this time. The future system ‘monitoring plan’ will be developed and implemented in accordance with Ministry of the Environment, Conservation and Parks (MECP) guidelines (yet to be released) and ECA requirements.

## 2.4 Inquiry Summary (5.2.7)

The City of Richmond Hill receives inquiries related to stormwater management infrastructure in one of two ways: through an Access Richmond Hill Contact Centre (Access RH) or a dedicated stormwater email address. Staff review, assess and investigate the concern and respond to all inquiries based on established service timelines.

Table 4 notes the inquiries received and resolved within the reporting period. For the category of “Other” the calls could not be categorized based on the information included in the notes from Access RH other than that they were related to the Stormwater Management System.

**Table 4: Summary of Public Inquiries related to Stormwater Management System**

<b>Inquiry Type</b>	<b>Total</b>
Catchbasin Clearing - Winter Operations	27
Stormwater Ponds	16
Ditch, Culvert & Headwall Maintenance	26
Storm Sewer Blockage	4
Catchbasin & Maintenance Hole Maintenance	134
Flooding	57
Other	21
<b>Total</b>	<b>285</b>

## 2.5 System Alterations (5.2.8)

Table 5 shows the summary of all alterations to the stormwater system for 2024. It should be noted that the City of Richmond Hill does not have any areas identified as significant drinking water threats and as such, this information has not been included in Table 5.

As well, in 2024 the City of Richmond Hill applied for an administrative amendment to change several items within our CLI ECA document:

- Changed the length of stormwater ditches and swales accounted for;
- Increased the pre-authorized drainage area from 65 hectares to 150 hectares; and
- Changed the wording with respect to the approval of manufactured treatment devices to include wording related to the publicly available specifications.

**Table 5: Summary of All Alterations**

<b>Alteration Type</b>	<b>Number of Alterations</b>
Pre-Authorized Storm Sewer, Ditch or Culvert	8
Pre-Authorized Stormwater Management Facility	3
Pre-Authorized Third Pipe	1
Previously Approved Works	5
Schedule C Works	0
<b>Total</b>	<b>17</b>

**2.6 Spills (5.2.9)**

Staff receive notice of spills and/or abnormal discharge events from various sources (internal and external) and respond with the necessary mitigations and inspections. In 2024, the City of Richmond Hill experienced 11 reported events and responded accordingly.

**2.7 System Improvement Actions (5.2.10)**

Through our regular inspection programs, sediment surveys, functional assessments, the stormwater computer model and proposed capital work program, the City identifies projects to improve the performance of the Stormwater Management System. Table 7 notes the actions taken to improve the planning, operation, and maintenance of the stormwater system.

**Table 6: Actions Taken**

<b>#</b>	<b>Issue</b>	<b>Actions to be Taken</b>	<b>Target Completion Date</b>
1	GIS Data	Work is ongoing to improve the GIS layers related to the stormwater management system	Ongoing
2	Infrastructure Planning	City-wide computer model to be updated to bring in areas of new development	Ongoing
3	SOP revision / Development	Update old SOPs and create new SOPs	Ongoing
4	Infrastructure Planning	Update rain gauge network	2025

**2.8 Status of Previous System Improvement Actions (5.2.11)**

Not applicable for initial report.