



**2023
ANNUAL PERFORMANCE REPORT
INNISFIL STORMWATER MANAGEMENT SYSTEM**

TOWN OF INNISFIL

**Environmental Compliance Approval
#307-S701**

July 1, 2023 to December 31, 2023

April 2024

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Introduction

The Town of Innisfil Stormwater Management System is owned and operated by the Town of Innisfil in accordance with Environmental Compliance Approval #307-S701, Issue Number 1, issued May 24, 2023. The Municipal Stormwater Management System serving the Town of Innisfil’s drainage area, is a separate system for stormwater (i.e. designed not to convey sanitary sewage, combined sewage) within the Lake Simcoe and the Nottawasaga River watersheds.

In 2023, the Municipal Stormwater Management System consisted of 434 kilometres of a collection system consisting of storm sewers, culverts, ditches, and 51 Stormwater Management Facilities including Stormwater Management Ponds (Wet, Wetland, and Dry), Low Impact Development (LIDs) and Oil Grit Separator (OGS) units. The Town of Innisfil’s drainage area also includes approximately 350 kilometres of ditches specifically for the purpose of drainage that are not covered by and not subject to the requirements set out in the Environmental Compliance Approval.

The Environmental Compliance Approval covers the entire Municipal Stormwater Management System owned and operated (assumed) by the Town of Innisfil. This Environmental Compliance Approval does not cover municipally, or privately owned sewage works on industrial, commercial, or institutional land.

This Annual Performance Report has been prepared to comply with Condition 5.2 Schedule E, of Environmental Compliance Approval #307-S701 and will be made available to members of the public who are served by this system and is published on the Town’s website by June 1st of the year.

No Ministry of Environment, Conservation and Parks (MECP) inspections occurred during the reporting period.

Stormwater Management System Categorization

The table below provides a summary of the Stormwater Collection System within the Authorized System for the reporting period.

Table 1: Stormwater Collection System

Stormwater Collection System by Diameter			
System Type	Pipe Diameter (mm)	Length (km)	System Totals (km)
Storm Sewer	Up to 250	19.70	
Storm Sewer	>250 – 500	33.24	
Storm Sewer	>500 – 1050	26.07	
Storm Sewer	>1050	4.61	
Total Storm Sewer			83.62

Stormwater Collection System by Diameter			
System Type	Pipe Diameter (mm)	Length (km)	System Totals (km)
Ditches/Swales			350.04
Total System Length			433.66

Note: The Town of Innisfil does not own/operate Third Pipe Collection Systems or sewage works on Private Land that are part of the Municipal Stormwater Treatment Train.

The table below provides a summary of the Stormwater Management Facilities by Type within the Authorized System for the reporting period.

Table 2: Summary of Stormwater Management Facilities by Type

Summary of Stormwater Management Facilities by Type							
Facility Type	Basic Treatment for Suspended Solids*	Normal Treatment for Suspended Solids *	Enhanced Treatment for Suspended Solids *	Other Treatment Level for Suspended Solids**	Total Quality Control	Total Quantity Control	Total Number of Facilities
LID Facilities - Retention (infiltration, evapotranspiration, harvest)	--	--	4	--	4	--	4
LID Facilities - Filtration	--	--	--	--	0	--	0
Stormwater Management Ponds – Wet (includes wetlands, hybrids)	2	5	26	--	33	29	33
Stormwater Management Ponds - Dry	8			1	9	9	9
Super Pipe / Storage Facility	--	--	--	--	N/A	--	N/A
Filtration MTD - Filter Unit	--	--	--	--	N/A		N/A
Sedimentation MTD - OGS	2	--	3	--	5		5

Summary of Stormwater Management Facilities by Type							
Facility Type	Basic Treatment for Suspended Solids*	Normal Treatment for Suspended Solids *	Enhanced Treatment for Suspended Solids *	Other Treatment Level for Suspended Solids**	Total Quality Control	Total Quantity Control	Total Number of Facilities
Pumping Stations							N/A
Other	--	--	--	--	--	--	--
Total Number of Facilities	12	5	33	1	51	38	51

* Basic, normal, and enhanced treatment correspond to 60%, 70% and 80% suspended solids removal on an annual average long-term basis, respectively.

** Treatment levels below 60% suspended solids removal on an annual average long-term basis.

2023 Annual Performance Report – Stormwater Management System

In accordance with the Environmental Compliance Approval #307-S701, Schedule E Section 5.2, the Town of Innisfil, as the Owner of the Municipal Stormwater Management System, shall prepare and submit a performance report to the Ministry of the Environment, Conservation and Parks (MECP) on an annual basis.

Schedule E Section 5.2 of the Environmental Compliance Approval requires the Annual Performance Report to contain the following elements:

- a) A summary of all monitoring data along with an interpretation of the data and an overview of the condition and operational performance of the Authorized System and any Adverse Effects on the Natural Environment.
- b) A summary and interpretation of environmental trends based on all monitoring information and data for the previous five (5) years.
- c) A summary of any operating problems encountered and corrective actions taken.
- d) A summary of all inspections, maintenance, and repairs carried out on any major structure, equipment, apparatus, mechanism, or thing forming part of the Authorized System.
- e) A summary of the calibration and maintenance carried out on all monitoring equipment.
- f) A summary of any complaints related to the Sewage Works received during the reporting period and any steps taken to address the complaints.
- g) A summary of all Alterations to the Authorized System within the reporting period that are authorized by the Approval including a list of Alterations that pose a Significant Drinking Water Threat.

- h) A Summary of all spills or abnormal discharge events.
- i) A summary of actions taken, including timelines, to improve or correct performance of any aspect of the Authorized System.
- j) A summary of the status of actions for the previous reporting year.

The following report was generated from the records maintained by the Town of Innisfil Stormwater Management System for the reporting period of **July 1, 2023**, to **December 31, 2023**.

(a) Interpretation of Monitoring Data

No monitoring has been completed during this reporting period. A monitoring program will be finalized once the Ministry of the Environment, Conservation and Parks publishes the final version of the Monitoring Guidance Document.

(b) Interpretation of Environmental Trends

Once monitoring of the Stormwater Management System is implemented, environmental trends will be interpreted. Nothing to report during this reporting period.

(c) Operating Problems and Corrective Actions

The table below provides a summary of the operating problem that required immediate corrective action to allow the system to function as designed. Most of the work completed on stormwater management appurtenances during this reporting period are covered in Section (d) under repairs and maintenance.

Table 3: Operating Problems and Corrective Actions

Dates	Operating Problem	Corrective Action
11/02/2023 to 12/07/2023	Beaver dams in the channel downstream from PND-00103 creating high water levels resulting in high water levels within the SWMF and reducing capacity within the facility.	Trapper removed the beaver(s) and the dams were removed.

(d) Inspection, Maintenance and Repairs

The Town of Innisfil completed its annual inspections of all assumed stormwater management facilities including 42 stormwater management ponds, 4 LID features, and 5 OGS units.

The table below is a summary of all maintenance and repairs carried out on any major structure, equipment, apparatus, mechanism, or thing forming part of the Authorized System.

All maintenance was performed on behalf of the Owner, by trained or qualified contracted services provided who exercise due diligence in ensuring the Works and the related equipment are properly operated and maintained to achieve compliance with the Approval.

Table 4: Maintenance and Repairs

Date	Work Description	Work Type
08/24/2023	Herbicide application in PND-00074 (dry pond) to remove invasive Phragmites that have completely filled the dry cell.	Vegetation Management
08/24/2023	Herbicide application in LID-00001 (Bioretention Cell) to remove invasive Phragmites that were growing overtop of cell.	Vegetation Management
08/29/2023	Replacement of Cross Culvert CLV-18277 (3 rd Line) due to structure integrity of culvert.	Culvert Replacement
09/20/2023	Brushing/mulching of all dead Phragmites and unwanted trees within PND-00074 (dry pond) SWM block.	Vegetation Management
09/21/2023	Brushing/mulching of all dead Phragmites within LID-00001 (Bioretention Cell).	Vegetation Management
09/26/2023	Annual catchbasin cleanout program – Remove sediment on sumps of every catchbasin.	Catchbasin Cleanout
10/17/2023	Tree removal within PND-00011	Vegetation Management
10/20/2023	Removal of collected sediment and oils from OGS-00001, OGS-0003 & OGS-0005	OGS Cleanout
11/24/2023	Fix erosion/sinkhole around catchbasin within LID-00004	LID Maintenance
July 2023 to December 2023	The ditching program maintained approximately 5,000m of ditching in 2023.	Ditching Program
July 2023 to December 2023	Retrofit of PND-00042 from dry pond to wet pond (Retrofit still in process)	SWMF Retrofit

(e) Monitoring Equipment Calibration and Maintenance

No monitoring equipment was used during this reporting period. Therefore, at this time there is nothing to report.

(f) Complaints

There were 3 Stormwater Management complaints related to the Town-owned facilities during this reporting period. These complaints are summarized in the table below. The Town also received 7 stormwater management complaints related to unassumed (development-owned) facilities during this reporting period.

Table 5: Complaints

Dates	Description of Complete(s)	Resolution
07/25/2023 to 08/02/2023	Debris and vegetation have collected on the fence stopping water flow from the roadside ditches from entering the pond (PND-00075).	Operations staff removed the debris off the fence.
08/28/2023 to 08/31/2023	Town garbage can has been thrown into the pond with all of the garbage still in the can PND-00092.	Operations staff removed the garbage and the garbage can from the pond.
09/21/2023 to 09/26/2023	The inquirer asked if there would be a barrier installed between her property and the pond during construction.	Capital Project Manager responded to the resident and fencing was installed as per the project requirements.

During heavy rain events or spring thaws, there are typically calls that come into the Town from residents who have issues with stormwater flooding and high water levels in their yards, on roads, or in ditches. These issues are typically addressed with Operations staff completing the removal of snow/ice/vegetation blockages, unblocking catchbasins grates, and flushing/steaming culverts. These issues are not included in the table above.

(g) Alterations to the Authorized System

The table below summarizes the projects that saw alterations to the stormwater management system during this reporting period. In addition, there were no new developments that connected to the system during this reporting period. This is expected to be much different in the 2024 Performance Report as the Town expects to see more developments and capital projects connecting and/or altering the stormwater management system.

Table 6: Alterations

Alteration to the Authorized System – Project Name	Date	Project Details	Does this Project Pose a Significant Drinking Water Threat?
1015 Innisfil Beach Road (Form SW1)	11/09/2023	Extension of storm sewers within Edgar Street and St. Paul Road right-of-ways to service site plan development at 1015 Innisfil Beach Road.	No

(h) Spills and Abnormal Discharges Events

There were no reported spills and/or abnormal discharges noticed by Town staff or reported through Spills Action Centre (SAC) that the Town was made aware of during this reporting period.

(i) System Performance Improvements and Correction

The table below summarizes the operating projects that were incorporated during the reporting period that had an overall positive impact on the system performance.

Table 7: System Performance – Operating Projects

System Performance Improvement	Program Description	Date	Actions
Stormwater Management Pond Inspection	Annual visual inspection of every Wet, Dry and Wetland facility	Fall 2023	Results of inspections trigger maintenance requirements on facilities to be completed in-house or contracted out
OGS Inspection and Cleanout	Annual Inspection which triggers cleanouts as per the manufacturer's specifications	2023	Inspections trigger cleanout requirements
LID Inspection	Annual visual inspection of every LID feature during a large rain event with a follow-up visit 24 hrs later to see how the system performed	Fall 2023	Results of inspections trigger maintenance requirements on facilities to be completed in-house or contracted out

System Performance Improvement	Program Description	Date	Actions
Catchbasin Cleanout	Annual cleanout of every Catchbasin within the Town’s system	Fall 2023	Completed
Litta Trap Maintenance	The removal of dirt and debris Semi-Annually	N/A (Installed Fall of 2023)	N/A
Ditch Cleanout	Currently completed on a complaint or reactive basis (budget pending)	Summer/Fall 2023	Completed

The table below summarizes the capital projects that were incorporated during the reporting period that had an overall positive impact on the system performance.

Table 8: System Performance – Capital Projects

System Performance Improvement	Program Description	Date	Actions
Capital Retrofit and Cleanout Program	Completion of one pond retrofit and pond cleanout (budget pending). This program is driven by the Towns Stormwater Management Master Plan	2023	1 Design (PND-00093) 1 Construction (PND-00042) No pond cleanout was completed in 2023.
Stormwater Management Master Plan and Flooding Strategy (SWM-MP & FS)	The SWM-MP & FS is a strategic document that provides direction for the management of stormwater runoff and related infrastructure. The SWM-MP & FS identifies a preferred strategy to protect and enhance natural features, ecological function and biophysical integrity, and appropriately manage risks through the identification of preferred approaches and the establishment of environmental targets. The SWM-MP are completed every 5 years.	2023	Over the next 18 years the SWM-MP establishes stormwater management policies and guidelines, addresses stormwater infrastructure needs, identifies and prioritizes recommended works, and informs the overall asset management plan. The FS identifies and prioritizes areas of concern for flooding and creates a plan for cost-effective, environmentally sustainable, and innovative solutions.

The table below summarizes the capital and operating projects that have been completed outside of the reporting period that play a critical role and have an overall positive impact on the system's performance.

Table 9: System Performance – Historic Capital and Operating Projects

System Performance Improvement	Program Description	Date	Actions
Storm Sewer Flushing and CCTV Inspection and Assessment	Every five (5) years, routine CCTV inspections of the entire stormwater sewer system will provide the Operations, Finance, and Engineering Departments with detailed information on which pipes require immediate replacement versus those that can be planned for in the future.	2020 to 2022	Feeds into the Town's Stormwater Sewer Replacement Program
Bathymetric Surveys	Every five (5) years, a full topographic and/or bathymetric survey should be completed on every assumed Stormwater Management Facility (Dry Pond, Wet Pond, Wetland) located within the Town which will determine the sediment accumulation and accumulation rate within each facility.	2020 to 2022	Feeds into the Town's Stormwater Pond Cleanout and Retrofit Program

(j) Status of Actions for Previous Reporting Year

This section is to include a summary of the status of actions for the previous reporting year. Since this is the inaugural year for the new Stormwater Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) and the required Annual Performance Report, there are no preexisting actions.