



2023 Annual Stormwater Management Report

Manager of Public Works, David Armstrong
Utilities Compliance Coordinator, Christine Brennan

August 19, 2024

EXECUTIVE SUMMARY

The Corporation of the Town of Gananoque's Public Utilities Division is pleased to provide the 2023 Stormwater Management Annual Report. The 2023 Annual Report has been prepared in accordance with the terms and requirements set out in the Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) 156-S701.

The employees of the Town of Gananoque are committed to and share in the responsibilities for implementing, maintaining, and contributing to the continual improvement of the stormwater system.



David Armstrong
Manager of Public Works



Christine Brennan
Utilities Compliance Coordinator

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APPENDICES

Appendix A: Town of Gananoque Stormwater Map

LIST OF DEFINITIONS

Alteration(s)	<p>includes the following, in respect of the Authorized System, but does not include repairs to the system:</p> <ul style="list-style-type: none">a) An extension of the system,b) A replacement or retirement of part of the system, orc) A modification of, addition to, or enlargement of the system.
Approval	<p>means the Environmental Compliance Approval including any Schedules attached to it.</p>
Design Criteria"	<p>means the design criteria set out in the Ministry's publication "Design Criteria for Sanitary Sewers, Storm Sewers and Force mains for Alterations Authorized under Environmental Compliance Approval".</p>
Director	<p>means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of EPA (Environmental Compliance Approvals).</p>
Ministry	<p>means the Ministry of the Minister and includes all employees or other persons acting on its behalf.</p>
Monitoring Plan	<p>means the monitoring plan prepared and maintained by the Owner under condition 4.1 in Schedule E of the Approval.</p>
Municipal Stormwater Management System	<p>means all Sewage Works, located in the geographical area of a municipality, that collect, transmit, or treat Stormwater and are owned, or may be owned pursuant to an agreement entered into under the Planning Act or Development Charges Act, 1997, by:</p> <ul style="list-style-type: none">a) A municipality, a municipal service board established under the Municipal Act, 2001 or a city board established under the City of Toronto Act, 2006; orb) A corporation established under sections 9, 10, and 11 of the Municipal Act, 2001 in accordance with section 203 of that Act or under sections 7 and 8 of the City of Toronto Act, 2006 in accordance with sections 148 and 154 of that Act.
Operating Authority	<p>means, in respect of the Authorized System, the person, entity, or assignee that is given responsibility by the Owner for the operation, management, maintenance, or Alteration of the Authorized System, or a portion of the Authorized System.</p>
Owner	<p>for the purposes of the Approval means the Corporation of the Town of Gananoque and includes its successors and</p>

assigns.

Source Protection Plan

means a drinking water source protection plan prepared under the CWA.

Storm Sewer

means Sewers that collect and transmit, but not exfiltrate or lose by design, Stormwater resulting from precipitation and snowmelt.

Stormwater

means rainwater runoff, water runoff from roofs, snowmelt, and surface runoff.

Stormwater Management Facility

means a Facility for the treatment, retention, infiltration, or control of Stormwater.

1. Introduction

The following 2023 Stormwater Management Annual Report is submitted in accordance with Section 5 of the Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) 156-S701 for the Town of Gananoque Stormwater Management system. This Stormwater Annual Report covers the reporting period from January 1st, 2023 to December 31st, 2023.

2. System Description

The Municipal Stormwater Management (SWM) system serving the Town of Gananoque's drainage area, is a separate system for stormwater (i.e. designed not to convey sanitary sewage or combined sewage) within the St. Lawrence River and the Gananoque River in the Gananoque River Watershed. The Municipal SWM System consists of storm sewers, culverts, ditches, Stormwater Management Facilities and outlets.

The CLI-ECA covers the entire Municipal SWM System owned and operated by the Town of Gananoque. The CLI-ECA does not cover municipally or privately-owned sewage works on industrial or commercial land.

3. System Performance and Monitoring

The Town of Gananoque conducts a monitoring program designed to ensure adequate conditions of the Stormwater Management System.

3.1 Stormwater Collection System

The stormwater collection system has 29.15km of storm sewers, ditches and swales. The Gananoque Public Works Department cleans and inspects all catch basins and oil and grit separators twice per calendar year. Through the 2023 inspections some deficiencies were found with the catch basin lids and were repaired in the spring of 2024.

Table 1: Stormwater Collection System by Diameter

System Type Pipe Diameter	Pipe Diameter (mm)	Length (km)	System Totals (km)
Storm Sewers	Up to 250	1.44	-
Storm Sewers	> 250 - 500	15.08	-
Storm Sewers	> 500 - 1050	5.64	-
Storm Sewers	> 1050	0.38	-
Storm Sewers	Unknown Size	1.58	-
Total Storm Sewers	-	-	24.08
Ditches / Swales	NA	-	5.07
Total System Length (km)	-	-	29.15

3.2 Stormwater Management Facilities

The performance of the stormwater management facilities is provided through annual inspections to visually identify performance or major functional issues. There was no issue reported on the stormwater management ponds in 2023.

In addition to the stormwater management ponds, the Town of Gananoque also consist of two oil and grit separators. One oil and grit separator located on Nalon Road and the other at Maplecroft Court. The oil and grit separators are inspected and cleaned twice per calendar year. There were no issues reported during the 2023 oil and grit separator inspections.

Table 2: Summary of Stormwater Management Facilities

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)							
LID Facilities - Filtration							
Stormwater Management Ponds - Wet (includes wetlands, hybrids)		1					1
Stormwater Management Ponds - Dry							
Super Pipe / Storage Facility							
Filtration MTD - Filter Unit							
Sedimentation MTD - OGS		2					2
Pumping Stations							0
Other							1
Total Number of Facilities							4

3.3 Monitoring Data Summary

Not applicable at this time. Future system 'monitoring plan' to be developed and implemented in accordance with Ministry of the Environment, Conservation and Parks (MECP) guidelines and the CLI-ECA requirements.

4. Environmental Trends – Previous 5 Years

Not applicable at this time.

5. Maintenance on Major Structures

All works are subject to the annual operational budget approval by Council. A request for proposal was submitted in 2024 to develop a Stormwater Management Master Plan. The Town of Gananoque shall identify, upgrade, and improve its stormwater infrastructure as stormwater management has become a concern due to increasingly intense storms and community development.

6. Spills and Abnormal Discharge Events

No spills or abnormal discharge events occurred during the reporting period.

7. Key Contacts

David Armstrong
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Appendix A

FILE LOCATION: W:\GIS_Projects\Gananoque_GIS\27038 C atm SEWER.mxd



Legend

- 1981 Storm Maintenance Hole Spreadsheet ObjectID
- Storm Maintenance Hole
 - x Inlet / Outlet
 - Catch basin
 - manhole
- Storm Sewer
 - Year Installed
 - 2010
 - No Information
 - Bridge / Culvert
 - 375 Sewer Diameter (mm)
 - pvc Sewer Material

No.	ISSUE / REVISION	DDMMYY
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This drawing is copyright protected and may not be reproduced or used for purposes other than execution of the described work without the express written consent of J.L. Richards & Associates Limited.
VERIFY SHEET SIZE AND SCALE'S BAR TO THE RIGHT IS 25mm IF THIS IS A FULL SIZE DRAWING.



CONSULTANT:

PROFESSIONAL STAMP



PROJECT:

GIS ASSET INVENTORY
GANANOQUE, ONTARIO

DRAWING:

STORM COLLECTION SYSTEM

DESIGN: KTK	DRAWING #:
DRAWN: KTK	4
CHECKED: SS	
J.R.#: 27638	