



Township of Oro-Medonte

Urbanized Stormwater Management System Annual Performance Report 2025

(Prepared in accordance with Ministry of Environment, Conservation and Parks' Consolidated Linear Infrastructure Environmental Compliance Approval #126-S701, Schedule E, Section 5).

Period Covering: January 1, 2025 to December 31, 2025

February 2, 2026

Table of Contents

1 Introduction 1

2 Compliance Reporting Requirement 1

2.1 Availability of the Urban Stormwater Management Annual System Performance Report 2

3 Stormwater Management Facility Descriptions 2

3.1 Transitional Facilities..... 4

4 Maintenance, Operation and Performance Summary 4

4.1 Monitoring Data 5

4.2 Environmental Trends..... 6

4.3 Operational Issues and Corrective Actions 7

4.4 Inspections, Maintenance, and Repairs..... 7

4.5 Monitoring Equipment Calibration Activities..... 10

4.6 Complaints..... 10

4.7 Alterations to the Authorized System..... 10

4.8 Spills and Abnormal Discharge Events..... 10

4.9 Authorized System Performance Improvements..... 11

4.10 Status of Actions from Previous Reporting Year..... 11

5 Financial Planning 11

6 Conclusion 11

List of Tables

- Table 1: Stormwater Management Facility Inventory Table
- Table 2: Transitional Facilities - with Individual ECAs
- Table 3: 2025 Maintenance and Repair Summary Table
- Table 4: Future Maintenance Summary Table

List of Graphs

- Graph 1: 2025 SWM Inspections
- Graph 2: Annual Total Precipitation, 1971 to 2025

Appendix

Appendix A – Urbanized Stormwater Management System Maps

1 Introduction

The Township of Oro-Medonte (Township) has prepared this report to satisfy the reporting requirements of Ministry of Environment, Conservation and Parks (MECP) Consolidated Linear Infrastructure Environmental Compliance Approvals (CLI-ECAs) Schedule E, Section 5, as outlined below and covers the period January 1, 2025 to December 31, 2025.

In 2022, CLI-ECAs were first introduced to modernize the approach to municipal linear infrastructure permissions concerning sanitary sewage conveyance and stormwater management. They include pre-authorization conditions and design criteria similar in scope to municipal drinking water to reduce the burden on municipalities, developers, and the MECP, while imposing a consistent set of conditions intended to improve environmental protection in sewage and stormwater system design, construction, and operations across Ontario.

The Township of Oro-Medonte's first CLI-ECA #126-S701 for the Urbanized Stormwater Management System (Authorized System) was issued on January 11, 2023. Previous to this, all compliance and maintenance requirements for Stormwater Management Facilities (SWMFs) and associated infrastructure were outlined in Environmental Compliance Approvals (ECAs) issued specifically to each facility. Currently, CLI-ECA #126-S701 (Issue 2) was approved November 7, 2025, and is the governing approval.

2 Compliance Reporting Requirement

Schedule E, Section 5.2 of the CLI-ECA requires the Township to prepare performance reports on a calendar year basis and submit them to the Director on or before April 30th of the calendar year following the reported period. The report shall contain, but is not limited to, the following information pertaining to the reporting period:

- Includes 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;
- Includes a summary and interpretation of environmental trends based on all monitoring information and data for the previous five (5) years;
- Includes a summary of any operating problems encountered and corrective actions taken;
- Includes 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;
- Includes a summary of the calibration and maintenance carried out on all monitoring equipment;

- Includes a summary of any complaints related to the Sewage Works received during the reporting period and any steps taken to address the complaints;
- Includes a summary of all Alterations to the Authorized System within the reporting period that are authorized by this Approval including a list of Alterations that pose a Significant Drinking Water Threat;
- Includes a summary of all spills or abnormal discharge events;
- Includes a summary of actions taken, including timelines, to improve or correct performance of any aspect of the Authorized System; and
- Includes a summary of the status of actions for the previous reporting year.

2.1 Availability of the Urban Stormwater Management Annual System Performance Report

In accordance with Schedule E, Section 5.3 of the CLI-ECA, a copy of the Annual Stormwater Management System Performance Report is available to the public, free of charge from the following outlets:

- Township of Oro-Medonte's website (www.oro-medonte.ca); and,
- Public request at the Municipal Office located at 148 Line 7 South, Oro-Medonte.

The public is advised of the report's availability and how to obtain a copy, without charge, on the Township of Oro-Medonte's website through annual public reporting to Council and on the stormwater dedicated landing page by June 1st as per the requirements of the CLI-ECA.

3 Stormwater Management Facility Descriptions

SWMFs are designed to protect downstream infrastructure from flooding by temporarily storing runoff and improving water quality by trapping pollutant-laden sediment in runoff from urban drainage areas. The centralized collection of polluted sediments in these facilities helps to prevent their release into rivers, streams, and lakes, where they can degrade water quality, harm aquatic life, and adversely impact downstream recreational areas.

As of December 31, 2025, there are sixty-seven (67) SWMFs operated by the Township of Oro-Medonte, comprised of dry ponds, wet ponds, low-impact developments (LIDs) and combination facilities.

Dry ponds detain water for a short period of time (less than 48 hours) to allow particles and pollutants picked up along the way to settle and reduce stormwater peak flow rates.

**URBANIZED STORMWATER MANAGEMENT SYSTEM
ANNUAL PERFORMANCE REPORT 2025**



Wet ponds hold a permanent pool of water that stores stormwater runoff while releasing it back into the environment at a controlled rate. These types of facilities provide treatment through extended retention time, which allows for the settling of suspended solids and contaminants.

LIDs are sustainable stormwater practices that mimic natural processes, focusing on source control, infiltration, and evapotranspiration to reduce runoff, improve water quality, and maintain site hydrology, often in a “treatment train” sequence.

Combination facilities incorporate multiple elements and strategies of these three types of facilities in various combinations.

Facilities included in the Township of Oro-Medonte SWMF inventory of the Authorized System are identified below in Table 1.

Table 1: Stormwater Management Facility Inventory Table

SWMF ID	Facility Name	Stormwater Management Facility Type
PND0001	Sherwood Forest (Houben)	Dry Pond
PND0002	Oro Industrial Park (Guthrie)	Wet Pond
PND0003	Hastings Estates Subdivision	Dry Pond
PND0004	Arbourwood Estates	Wet Pond
PND0005	Sprucewood Estates	Combination
PND0006	Audobon Estates	Dry Pond
PND0007	Audubon Estates	Dry Pond
PND0010	Heights of Moonstone (Phase 1)	Dry Pond
PND0011	Heights of Moonstone (Phase 2)	Wet Pond
PND0012	Maplehill Estates	Combination
PND0013	Maplehill Estates	Combination
PND0014	Maplehill Estates	Combination
PND0015	Homire/Isabella Estates	Wet Pond
PND0019	Edgar Estates	Dry Pond
PND0020	Evans Subdivision (Orsi)	Dry Pond
PND0021	Kade Meadows	Dry Pond
PND0022	Medonte Estates	Dry Pond
PND0023	Medonte Estates	Dry Pond
PND0024	Craighurst Estates	Dry Pond
PND0028	Reid's Ridge Estates	Dry Pond
PND0029	Owen Estates	Combination
PND0030	Whispering Creek Estates	Wet Pond
PND0031	Turtle River Subdivision	Wet Pond
PND0032	Kaylee Estates	Combination
PND0037	East Oro Estates	Combination
LID0001	Shanty Bay	LID (Bioretention Cell)

SWMF ID	Facility Name	Stormwater Management Facility Type
LID0002	Shanty Bay	LID (Infiltration Trench)
LID0003 - LID0031	Braestone	LID (Infiltration Trench)
PND0046	Craighurst Crossing	Wet Pond
LID0049- LID0058	Craighurst Crossing	LID (Infiltration Trench)

3.1 Transitional Facilities

Across the Township, there are transitional facilities operated by developers that will eventually be assumed by the Township once development conditions have been fulfilled. Since these developments and facilities predate the issuance of the CLI-ECA, their original ECAs remain in force. At the time of assumption, these transitional developer-operated facilities will be included in the "Authorized System".

These facilities are listed in the Transitional section of the CLI-ECA and are identified in Table 2 below.

Table 2: Transitional Facilities - with Individual ECAs

SWMF ID	Facility Name	Stormwater Management Facility Type
PND0033	Diamond Valley Estates	Wet Pond
PND0034	Diamond Valley Estates	Hybrid Pond
PND0035	Diamond Valley Estates	Combination Pond
PND0036	Meadow Acres	Hybrid Pond
PND0038	Forest Heights Estates	Wet Pond
PND0039	Forest Heights Estates	Wet Pond
PND0040	Braestone	Plunge Pool
PND0042	Braestone	Plunge Pool
PND0045	Eagles Rest	Wet Pond

4 Maintenance, Operation and Performance Summary

Operation and maintenance programs ensure that the infrastructure within the Authorized System is functioning correctly and effectively by continuing to meet the water quality and quantity design objectives while maintaining and protecting water resources.

The main objectives of stormwater management are:

- Protect life and property from flooding and erosion.
- Maintain water quality for ecological integrity, recreational opportunities, etc.

- Protect and maintain groundwater flow regime(s).
- Protect aquatic and fishery communities and habitats.
- Maintain and protect significant natural features.
- Protect and provide diverse recreational opportunities that coincide with the environment.

Environmental Services is available to respond twenty-four (24) hours a day, seven (7) days a week, three hundred and sixty-five (365) days a year for service calls or emergencies related to the Stormwater Management Facilities that comprise the Authorized System. Further, all Environmental Services Technicians are licenced under Ontario Regulation 129/04 (Regulation Licensing of Sewage Works Operators).

A draft Quality Management System (QMS) for the Authorized System has also been created and is in the revision and review stages. This QMS has been designed based on quality management system principles found in the Municipal Drinking Water Licensing Program and the Drinking Water Quality Management Standard.

An Operation & Maintenance Manual for all facilities listed in Table 1 was created in 2024 and is reviewed and updated annually. O&M Manuals are required as part of all new development and are retained under separate cover.

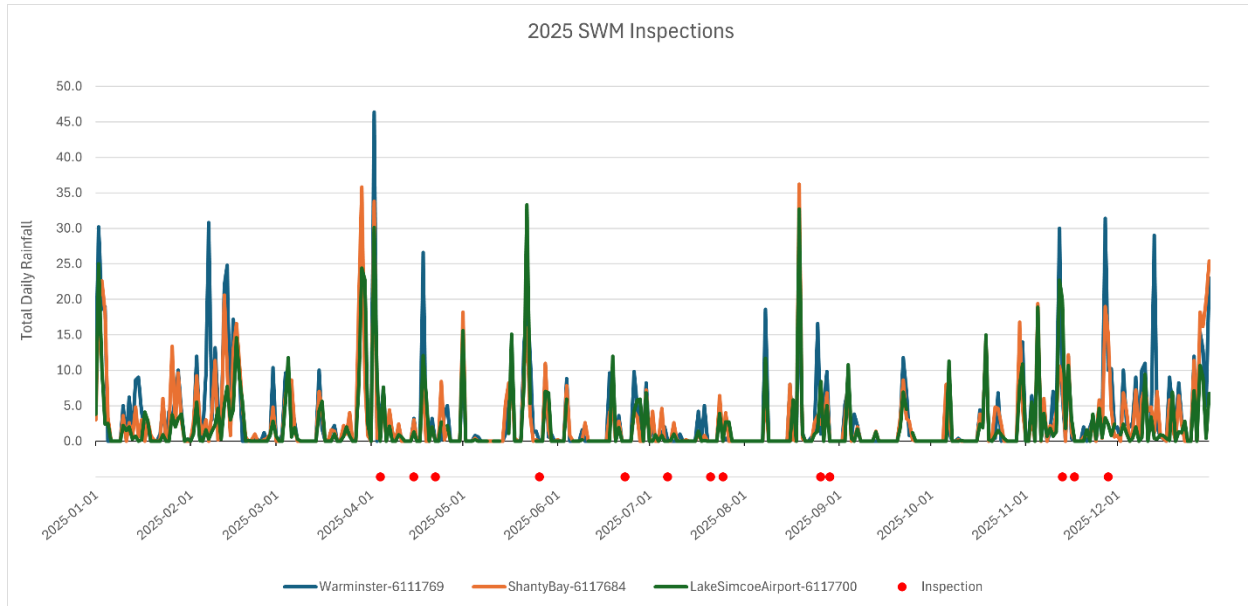
4.1 Monitoring Data

Monitoring the effectiveness of the infrastructure in the Authorized System encourages the protection and restoration of surface water and groundwater resources. Proactive monitoring allows time for issues to be found and rectified at the source and helps develop strategies to improve existing conditions and protect downstream water uses.

Environmental Services completes regular bi-annual visual inspections of the urbanized stormwater management infrastructure that is part of the Authorized System in the spring & fall, as well as additional inspections after significant weather events. These inspections include management facilities, inlet(s), forebay(s), weirs, aft bay(s), outlet(s), overflow(s) and outfall(s), pipes, manholes, catch basins and culverts.

In addition to the inspection program, staff utilize data collected from 3 weather stations maintained by Environment and Climate Change Canada located within the Township boundary. These stations are identified as Shanty Bay ID# 6117684, Barrie-Oro ID# 6117700 (Lake Simcoe Airport) and Coldwater Warminster ID# 6111769. Staff use these stations to determine if an additional inspection of area facilities is warranted. A summary of the inspections completed in 2025 in relation to recorded rainfall by corresponding station is illustrated on the graph below.

Graph 1: 2025 2025 SWM Inspections



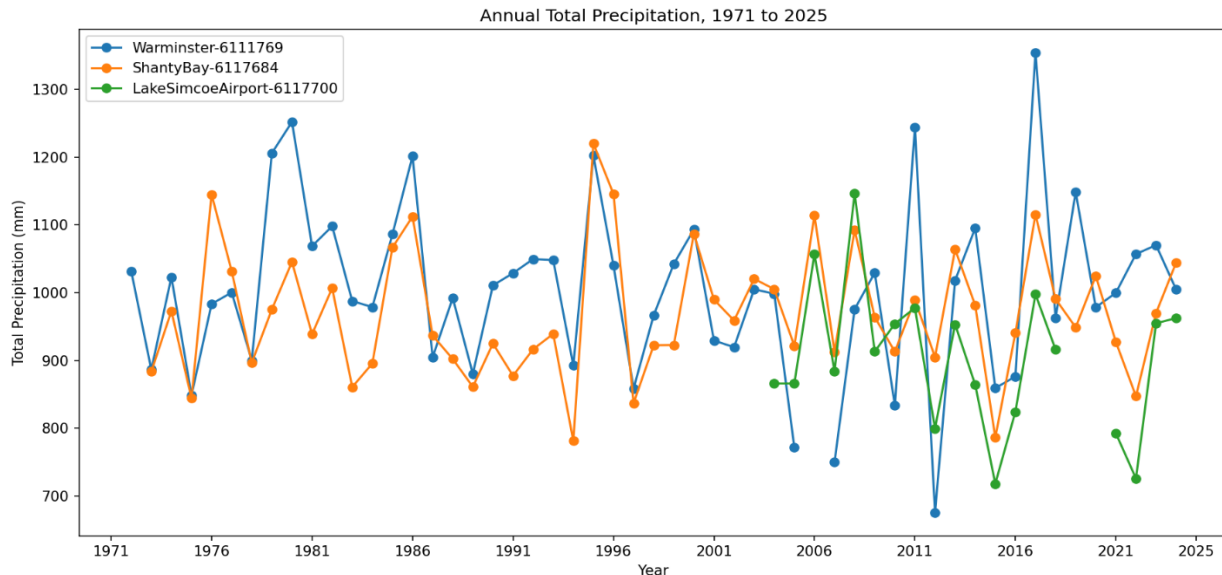
Schedule E, Section 4.0 of the CLI-ECA, requires the Township develop and implement a fulsome receiver monitoring plan for the Authorized System by October 28, 2024 or within twenty-four (24) months of the date of the publication of the Ministry’s monitoring guidance, whichever is later. As of December 31, 2025, the Ministry guidance document has yet to be published, and staff continue to work with industry colleagues to prepare for its release and to advance preliminary components of the monitoring framework.

4.2 Environmental Trends

As the urban stormwater program continues to grow and respond to climate pressures, regulatory changes, and evolving public expectations, the division’s operations now extend well beyond traditional conveyance and treatment. These shifts reflect broader environmental trends across the sector, where municipalities are increasingly adopting resilient, ecological, and data-driven approaches to stormwater asset management.

Across the industry, stormwater professionals are moving toward nature-based low-impact solutions to address the increasing frequency and intensity of extreme weather events. As illustrated in the following graph, data from Environment and Climate Change Canada weather stations in Oro-Medonte show an upward trend in severe rainfall events, particularly in the northeastern portion of the Township, generally around the Warminster area station. This aligns with global observations of more intense precipitation linked to climate change.

Graph 2: Annual Total Precipitation, 1971 to 2025



Given these environmental pressures, it is essential to ensure that stormwater infrastructure is consistently maintained and functioning properly to reduce the risk of flooding and potential damage.

Digital tools and data-driven management, such as sensors, real-time weather monitoring, and integrated data platforms, enable Township staff to better track flows, water quality, and overall system performance. Data shared among partner agencies such as ministries and conservation authorities further support the prioritization of maintenance, rehabilitation, and long-term capital planning.

Collaboration with industry partners and across Township divisions strengthen the program and reflects another major environmental trend, which is the growing importance of multi-stakeholder approaches to climate resilience. The development of the Township Climate Action Plan in 2025 reinforces the value of coordinated efforts in building a sustainable and resilient stormwater program.

4.3 Operational Issues and Corrective Actions

There were no significant operational issues or corrective actions identified in 2025. Routine operational issues are identified and addressed through the maintenance and repair completed and summarized under Section 4.4.

4.4 Inspections, Maintenance, and Repairs

All inspections, maintenance and repairs carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Authorized System are performed by Environmental Services staff or a qualified contractor who exercises due diligence in ensuring works within the Authorized System are properly operated and maintained as

**URBANIZED STORMWATER MANAGEMENT SYSTEM
ANNUAL PERFORMANCE REPORT 2025**



per the Operation & Maintenance Manual to achieve compliance with the requirements of the CLI-ECA and industry-standard erosion and sediment control measures.

As noted previously, inspections are carried out by Environmental Services staff on a bi-annual basis in the spring and fall and after significant weather events. For more comprehensive inspections and to aid in condition assessment, maintenance and repair project prioritization, a qualified engineering consultant is retained on an as-needed basis.

Results of the 2025 inspections reported that overall, the SWMFs were in ‘Good’ or ‘Very Good’ condition based on the inspection evaluation criteria established by Environmental Services in conjunction with Tatham Engineering.

A bathymetric survey of facility PND0031 (Turtle River Subdivision) was completed on 2025/04/22. The results of the visual inspections and the bathymetric survey are used in the formulation of future work plans.

Maintenance and repairs conducted on the Authorized System during this reporting period are outlined below in Table 3.

Table 3: 2025 Maintenance and Repair Summary Table

Date	Facility	Maintenance Details
2025/04/02	PND0004 Arbourwood Estates	Cleared debris from outlet grate
2025/05/28	PND0004 Arbourwood Estates	Cleared debris from outlet grate
2025/05/28	PND0019 Edgar Estates	Cleared debris from outlet
2025/08/28	PND0020 Evans Subdivision	Remove vegetation, regrade and reinstate erosion control surfaces, reseed and install site entrance
2025/09/03	PND0021 Kade Meadows	Remove vegetation and regrade around outlet pipe, create travel path alongside outlet drainage channel
2025/09/09	PND0007 Audubon Estates	Install new gate latch, adjust hinges, apply grass seed in bare areas
2025/09/10	PND0001 Sherwood Forest	Tree trimming and removal around perimeter fencing
2025/09/11	PND0021 Kade Meadows	Flush partially clogged outlet pipe

**URBANIZED STORMWATER MANAGEMENT SYSTEM
ANNUAL PERFORMANCE REPORT 2025**



Date	Facility	Maintenance Details
2025/11/27	LID0001 Shanty Bay LID	Remove geotextile fabric layer and underdrain sock, replace filter media with HL8 stone, sand, topsoil, finish with sod
2025/12/02	PND0023 Medonte Estates	Enlarge ponding area to reduce frequency of overtopping of spillway
2025/12/04	PND0011 Heights of Moonstone PH1	Remove sediment from forebay, improve inlet erosion control surface with more gabion
2025/12/22	PND0019 Edgar Estates	Remove fallen trees and branches from outlet area

Based on ongoing inspections, the following future maintenance needs for those facilities identified in Table 1: Stormwater Management Facility Inventory Table are outlined below in Table 4. Work plans, start dates and priorities will be confirmed pending 2026 budget approval.

Table 4: Future Maintenance Summary Table

Facility	Required Maintenance
PND0003 Hastings Estates	The main cell is overgrown with woody and other vegetation with the low-flow channel not visible/defined. Emergency overflow is also not well-defined. The outflow channel is heavily vegetated and poorly flowing and combined with water flow from Line 2 North creates localized flooding conditions.
PND0004 Arbourwood Estates	Repair erosion around the inlet structure and forebay berm. Restore vegetation at various locations around the facility. Future consideration to be given to alternative outlet structure designs due to frequency of outlet catch basin blockages. Environmental Services increased inspection frequency to 'monthly' to keep clear. The bathymetric survey performed in March 2024 confirmed the facility is 23% full.
PND0010 Heights of Moonstone Phase 1	Inlets require regrading and restoration of erosion control surfaces. Some regrading of basin required to direct flow to the centre channel. Add topsoil and replant to restore ground cover. Invasive phragmites observed in facility.
PND0011 Heights of Moonstone Phase 2	Invasive species (goldfish and others) are visible in the facility.
PND0015 Hormire Subdivision	Invasive phragmites observed in the facility.
PND0028 Reids Ridge Estates	Invasive phragmites observed in the facility.
PND0030 Whispering Creek	Invasive phragmites observed in the facility.

Facility	Required Maintenance
PND0031 Turtle River	Previous inspections noted the facility appeared shallow and often had significant algae growth. A bathymetric survey was completed April 22, 2005, and confirmed that the facility is shallow relative to the design, but capacity is larger than designed. Consider deepening the facility as per design to address algae growth.

4.5 Monitoring Equipment Calibration Activities

There is no monitoring equipment located in the Authorized System during the reporting period.

4.6 Complaints

Several complaints were received in 2025 related to tree damage resulting from the March ice storm as well as a complaint related to dead trees adjacent a stormwater management facility but after investigation did not yeild a work order.

4.7 Alterations to the Authorized System

The following alterations to the Authorized System were processed for the reporting period as follows:

- The addition of PND0002 Oro Industrial Park and associated collection & conveyance infrastructure to the Authorized System was approved by the MECP on November 7, 2025, with the release of CLI-ECA Issue 2.
- PND0037 East Oro Estates and associated collection & conveyance infrastructure was assumed by the Township on October 8, 2025, and also included in CLI-ECA Issue 2.

4.8 Spills and Abnormal Discharge Events

Any spills or discharge events that occur are recorded and addressed in accordance with Part X of the Environmental Protection Act, Ontario Regulation 675 (as amended) and reported with notification (by telephone, and in writing) to the MECP Spills Action Centre, the Medical Officer of Health, and the MECP District Manager, as applicable.

No spills/abnormal discharges occurred during this reporting period.

4.9 Authorized System Performance Improvements

Performance improvements for the Authorized System have been summarized in Section 4.4 (Inspections, Maintenance, and Repairs) of this report. In 2025, the focus of performance improvement was restoring SWMFs to the intended design as well as enhancing physical access to the facilities. This work ensures the longevity and continued performance of SWMFs. Under Section 4.4, Table 4 outlines future maintenance needs. As noted previously, work plans, start dates and priorities will be confirmed during 2026 budget approval.

4.10 Status of Actions from Previous Reporting Year

As a result of the maintenance work performed on facilities in 2024, visual indicators such as ponding, localized erosion and barriers to access have been resolved. Further, as the condition of these facilities have improved, vegetation management has been implemented to prolong their condition.

5 Financial Planning

The operation and maintenance of the Authorized System is supported through capital and operating budget allocations approved by the Township's Council and funded by the municipal tax base (property taxes).

6 Conclusion

The Township of Oro-Medonte believes that this report satisfies the reporting requirements of Schedule E, Section 5.2 of CLI-ECA #126-S701.

Any questions regarding this report should be directed to Environmental Services.

**Appendix A – Urbanized Stormwater Management
System Infrastructure Maps**