THE MUNICIPALITY OF
LAMBTON SHORES

Public Works
9577 Port Franks Road
Thedford, ON N0M 2N0
T: 519-243-1400 / 1-866-943-1400
www.lambtonshores.ca

THE MUNICIPALITY OF LAMBTON SHORES

2023 Annual Performance Report
Lambton Shores Municipal Stormwater System
ECA Number: 049-S701

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Mr. Aziz Ahmed
Director, Park II.1, Environmental Protection Act
1094 London Road,
Sarnia, Ontario.
N7S 1P1

April 25, 2024

Subject: Lambton Shores Municipal Stormwater System – 2023 Annual Performance Report

Dear Mr. Ahmed,

On behalf of the Corporation of the Municipality of Lambton Shores, in Lambton County, I am pleased to provide you with our 2023 Annual Performance Report for the Lambton Shores Municipal Stormwater System in compliance ECA Number: 049-S701. The Report covers the period from January 1, 2023, to December 31, 2023. Please feel free to contact the undersigned if you have any questions regarding this report.

Regards,

Sam Shannon
Infrastructure Manager
Municipality of Lambton Shores
519-243-1400 ext. 8215

Cc: Nick Verhoeven, Director of Public Works, Municipality of Lambton Shores
Dan Wood, Transportation Manager, Municipality of Lambton Shores
Ryan Griffin, Drainage Superintendent, Municipality of Lambton Shores
Rebecca Moser, Engineering Technician, Municipality of Lambton Shores
Jodie Poland, Public Works Assistant, Municipality of Lambton Shores

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The Municipality of Lambton Shores
Municipal Stormwater System
2023 Annual Performance Report

The Municipality of Lambton Shores (Municipality) Stormwater Management (SWM) system serves the Municipality of Lambton Shores' drainage area and is a separate system for stormwater (ie. designed not to convey sanitary sewage, combined sewage) within the Lake Huron and the St. Clair Region and Ausable Bayfield watersheds. The Municipal SWM system consists of storm sewers, culverts, ditches, Stormwater Management Facilities, and outlets.

In 2022, Certificate of Approval (CoA) 049-S701 was issued for the system. The CoA can be found in Appendix A. As per Certificate of Approval 049-S701, the Authorized System comprises of the following:

Municipality of Lambton Shores Municipal Stormwater Management System	February 2022
Municipality of Lambton Shores Municipal Stormwater Management System – Forest	February 2022
Municipality of Lambton Shores Municipal Stormwater Management System – Arkona	February 2022
Municipality of Lambton Shores Municipal Stormwater Management System – Thedford	February 2022
Municipality of Lambton Shores Municipal Stormwater Management System – Grand Bend	February 2022
Municipality of Lambton Shores Municipal Stormwater Management System – Deer Run Subdivision	February 2022

These systems include approximately 44km of registered stormwater collection systems, and six (6) total registered stormwater management facilities.

Certificate of Approval 049-S701 requires an Annual Performance Report that contains the following requirements, as per Section 5.0 of Schedule E:

5.2.1 Is submitted to the Director on or before April 30th of each year and covers the period from January 1st to December 31st of the preceding calendar year.

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a) For clarity, the first report shall cover the period of January 1st, 2023 to December 31st, 2023 and be submitted to the Director on or before April 30th, 2024.

5.2.2 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.

5.2.3 Includes a summary and interpretation of environmental trends based on all monitoring information and data for the previous (5) years.

5.2.4 Includes a summary of any operating problems encountered and corrective actions taken.

5.2.5 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.

5.2.6 Includes a summary of the calibration and maintenance carried out on all monitoring equipment.

5.2.7 Includes a summary of any complaints related to the Sewage Works received during the reporting period and any steps taken to address the complaints.

5.2.8 Includes a summary of 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.

5.2.9 Includes a summary of all spills or abnormal discharge events.

5.2.10 Includes a summary of all actions taken, including timelines, to improve or correct performance of any aspect of the Authorized System.

5.2.11 Includes a summary of the status of actions for the previous reporting year.

This Annual Performance Report covers the period of January 1, 2023 to December 31, 2024, with the above requirements further detailed individually herein.

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1.0 Summary of Monitoring Data

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.

The Municipality documents and inspects catchbasin and drywell structures, and stormwater management facilities a minimum of once (1 occurrence) per calendar year. This includes all Municipality owned and operated infrastructure that is generally contained within Municipality right-of-way / Municipality property. The Municipality does not have any infrastructure in-place that actively monitors and records data.

Based on the yearly inspections, the Authorized System was functioning as intended noting that the Municipality experienced significant rainfall events on multiple occasions in 2023 that the Authorized System was never designed to handle and therefore operated at/above capacity on multiple occasions. It can be perceived that the Authorized System did not have any direct adverse effects on the natural environment.

2.0 Summary of Environmental Trends

Includes a summary and interpretation of environmental trends based on all monitoring information and data for the previous (5) years.

As noted previously, the Municipality does not have any infrastructure in-place that actively monitors stormwater data or environmental trends.

3.0 Summary of Operating Problems, Inspections, Maintenance, Repairs and Complaints

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 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 spills or abnormal discharge events.

Date: February 2, 2024
Location/Asset ID: Pearl Street, Thedford, ON
Description of Problem: Sink holes
Corrective Action: Locates were called in and digging happened to fix a drainage basin that was plugged and fix sink holes

Date: October 30, 2023
Location/Asset ID: Ipperwash Road – 400m North of Juicy Fruit Stand
Description of Problem: Sink hole
Corrective Action: Locates were called in and digging happened to fix a sinkhole along the edge of the road shoulder

Date: August 2023
Location/Asset ID: Birch Street/Beach Street – Lake Valley Grove
Description of Problem: Plugged culvert and water issues
Corrective Action: Locates were called in, and a new 200mm CSP installed, including swale work to tie into the existing swale/ditch

Date: May 2023
Location/Asset ID: Sitter Road
Description of Problem: Ditching required
Corrective Action: Locates were called in and ditching was completed from 9433 Sitter Road to 9383 Sitter Road

Date: May 2023
Location/Asset ID: Port Franks Road
Description of Problem: Clogged ditches
Corrective Action: Locates were called in and ditching was completed to clean ditches at 9575 and 9577 Port Franks Road

Date: April 2023
Location/Asset ID: Jericho Road
Description of Problem: Culvert Repair
Corrective Action: Locates were called in and digging happened to replace a culvert located at 8848 Jericho Road

Date: June 2023
Location/Asset ID: Cedarpoint Line/Northville Road
Description of Problem: Clogged ditches
Corrective Action: Locates were called in and ditching was completed from Gordon Road to Northville Road for Cedarpoint Line

Date: May 2023
Location/Asset ID: Cedarpoint Line/Jericho Road
Description of Problem: Clogged ditches
Corrective Action: Locates were called in and ditching was completed from Jericho Road to Northville Road on Cedarpoint Line

Date: July 2023
Location/Asset ID: Victoria Avenue – Ipperwash
Description of Problem: Clogged ditches
Corrective Action: Locates were called in and ditching was completed on Victoria Avenue in Ipperwash

Date: August 2023
Location/Asset ID: Gordon Road
Description of Problem: Tile Repair
Corrective Action: Locates were called in and digging was completed to repair a drain tile that was broken

Date: August 2023
Location/Asset ID: Cedarpoint Line @ Cedarview Drive
Description of Problem: Clogged ditches
Corrective Action: Locates were called in and ditching was completed on Cedarpoint Line @ Cedarview Drive in the east ditch

Date: September 2023
Location/Asset ID: Army Camp Road
Description of Problem: Clogged ditches
Corrective Action: Locates were called in and ditching was completed for the west ditch on Army Camp Road from 8283 to Proof Line

Date: October 2023
Location/Asset ID: Army Camp Road
Description of Problem: Culvert failure
Corrective Action: Locates were called in and digging was completed to replace culvert on Army Camp Road before Sun Retreats Campground

Date: September 2023
Location/Asset ID: Ravenswood Line – John Russel Culvert
Description of Problem: Culvert Repair
Corrective Action: Locates were called in and digging was completed to repair a culvert just west of Arkona Road on Ravenswood Line

Date: September 2023
Location/Asset ID: Proof Line
Description of Problem: Clogged ditches
Corrective Action: Locates were called in and ditching was completed on Proof Line west of Oak Avenue

Date: November 2023
Location/Asset ID: Army Camp Road
Description of Complaint: Severe flooding of campground has taken place all summer. Requested inspection of Dufus Creek Drain
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: November 2023
Location/Asset ID: All Properties Along West Ipperwash

Description of Complaint: Complaint received that a resident that all properties along West Ipperwash should receive a new drain system
Corrective Action: A design assignment through Spriet Associates was completed for installation of a drain system for two (2) properties along West Ipperwash

Date: September 2023
Location/Asset ID: Queen Street West
Description of Complaint: Call received stating the catchbasin across from 46 Queen Street West was blocked and constantly full of water
Corrective Action: The Municipality completed an inspection of the catchbasin. The vac truck was taken to the site and utilized to remove a blockage of roots. Catchbasin was operating as intended after cleaning

Date: August 2023
Location/Asset ID: Victoria Avenue
Description of Complaint: Constant standing water and full ditches along Victoria Avenue that results in standing water on private property
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and completed the following actions:

- Ditches were cleaned out and re-ditched.
- Nearby pump was lowered and adjusted for longer run-times.

Date: August 2023
Location/Asset ID: West Parkway Drive
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken. The flooding issues are contained within private property

Date: August 2023
Location/Asset ID: West Parkway Drive
Description of Complaint: Complaint received about private property flooding due to severe rainfall events
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: August 2023
Location/Asset ID: Army Camp Road
Description of Complaint: Complaint received about water coming down Army Campy Road from farmers field run off excess
Corrective Action: This flooding was due to severe rain events that no infrastructure

was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: August 2023
Location/Asset ID: William Street
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: August 2023
Location/Asset ID: West Parkway Drive
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken. The flooding issues are contained within private property

Date: August 2023
Location/Asset ID: Gillespie Street
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: August 2023
Location/Asset ID: Superior Street
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: August 2023
Location/Asset ID: West Parkway
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined

that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: August 2023
Location/Asset ID: Sunset Avenue
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: August 2023
Location/Asset ID: Tobias Lane
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: August 2023
Location/Asset ID: West Parkway
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: August 2023
Location/Asset ID: West Parkway Drive
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: August 2023
Location/Asset ID: Mackenzie Drive
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken.

Date: August 2023
Location/Asset ID: 6270 Spruce Street
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: August 2023
Location/Asset ID: Maylard Avenue
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: July 2023
Location/Asset ID: Spruce Street
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: July 2023
Location/Asset ID: William Street
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken.

Date: July 2023
Location/Asset ID: William Street
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: July 2023
Location/Asset ID: Tobias Lane

Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: July 2023
Location/Asset ID: West Ipperwash Road
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: July 2023
Location/Asset ID: Wakefield Street
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: July 2023
Location/Asset ID: West Ipperwash Road
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: July 2023
Location/Asset ID: Army Camp Road
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken. Municipal Drain flushing was completed on July 24 and July 25, and rip rap placed

Date: July 2023
Location/Asset ID: West Parkway Drive
Description of Complaint: Complaint received about standing water in front of

private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: July 2023
Location/Asset ID: Victoria Street
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and installed a drywell in July of 2023

Date: July 2023
Location/Asset ID: Army Camp Road
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken. Municipal Drain flushing was completed on July 24 and July 25, and rip rap placed

Date: July 2023
Location/Asset ID: Beach Street
Description of Complaint: Complaint received about damaged/faulty storm drain
Corrective Action: Municipality completed an inspection. The outlet was cleared, rip rap was placed, and ditching was done at the outlet. Catchbasins were also flushed in 2023

Date: July 2023
Location/Asset ID: Clemens Line
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: The Municipality is continuously monitoring the area

Date: July 2023
Location/Asset ID: Bradley Avenue
Description of Complaint: Complaint received about neighbour pumping water onto the street flooding downstream properties
Corrective Action: N/A

Date: July 2023
Location/Asset ID: Cole Crescent
Description of Complaint: Complaint received about excessive water not draining through a County culvert

Corrective Action: Municipality installed barricades and the road was closed to allow for proper drainage

Date: July 2023
Location/Asset ID: Church Street
Description of Complaint: Complaint received about water from fields draining onto street and flooding homes in the area
Corrective Action: Municipality met with residents on a few occasions. An Engineer has been appointed to the area, and maintenance planned to clean out brush/vegetation

Date: May 2023
Location/Asset ID: Bridge on Pinetree Drive
Description of Complaint: Complaint received about culvert under bridge being completed blocked and channel not flowing
Corrective Action: A contractor was hired and the culvert was cleaned out / blockage cleared

Date: April 2023
Location/Asset ID: Elmwood Avenue
Description of Complaint: Complaint received about catchbasin being full of sand and not working
Corrective Action: Staff cleaned out the catchbasin as part of the annual catchbasin cleaning program

Date: April 2023
Location/Asset ID: Townsend Line
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken.

Date: April 2023
Location/Asset ID: Wellington and Union
Description of Complaint: Complaint received about catchbasin being full
Corrective Action: Staff cleaned out the catchbasin as part of the annual catchbasin cleaning program

Date: February 2023
Location/Asset ID: Gill Road
Description of Complaint: Complaint received about surface sheet flow from adjacent farm fields
Corrective Action: Municipality is working with the adjacent property owner to develop a long-term stormwater rectification strategy for the area

Date: January 2023
Location/Asset ID: Lakeside Circle
Description of Complaint: Complaint received about standing water
Corrective Action: Municipality investigated and installed a drywell in March of 2023

Date: July 2023
Location/Asset ID: Nipigon Street
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: July 2023
Location/Asset ID: Army Camp Road
Description of Complaint: Complaint received about standing water in front of private property yard, in addition to storm system not working properly
Corrective Action: This flooding was due to severe rain events that no infrastructure was designed to handle. The Municipality completed a site inspection and determined that the system was operating as it should have been, therefore, there was no corrective actions to be taken

Date: July 2023
Location/Asset ID: Spruce Street
Description of Complaint: Complaint received about standing water in front of private property yard
Corrective Action: Municipality flushed the storm system in July of 2023

Date: July 2023
Location/Asset ID: Albert Street
Description of Complaint: Complaint received about standing water in front of private property yard at low point in road
Corrective Action: Municipality conveyed information about currently ongoing Stormwater Management Masterplan that will investigate potential solutions

There were no reported spills or abnormal discharge events in the System in 2023.

The Municipality also completed the yearly catchbasin cleaning program and details can be found in Appendix B.

A summary of the Stormwater Management Pond inspections completed in the 2023 calendar year is as follows:

Site Location	Inspection Date	Inspection Results	Maintenance & Cleaning Date	Quantity of Any Materials Removed
Rice Subdivision	April 10, 2023	No Issues	N/A	N/A
Wellington Subdivision	November 15, 2023	No Issues	N/A	N/A
East Glen Subdivision	November 15, 2023	No Issues	N/A	N/A
Rice Subdivision	November 13, 2023	No Issues	N/A	N/A
Gill Road Subdivision	November 13, 2023	No Issues	N/A	N/A

Stormwater Management Pond inspection results are included in Appendix C.

4.0 Summary of Calibration

Includes a summary of the calibration and maintenance carried out on all monitoring equipment.

As noted previously, the Municipality has no monitoring equipment that requires maintenance or calibration.

5.0 Summary of Alterations to the Authorized System

Includes a summary of 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 actions taken, including timelines, to improve or correct performance of any aspect of the Authorized System.

No alterations were made to the Authorized System that pose a Significant Drinking Water Threat. Authorized Alterations to the System completed in 2023 as follows:

- Reconstruction of a storm sewer outlet at the north end of Fairview Drive in Arkona, that provided better drainage capacity for the area.
- Replacement of storm sewers on Ontario Street North in Grand Bend from Main Street East to the North Limits.
- Replacement of a deteriorated culvert on Klondyke Road at the Goosemarsh Drain.
- Development assumptions in 2023 that included storm infrastructure includes:
    - Portion of Defore Drive.
    - Leneve Street, and portions of Hennessy Street and Phibbs Street.
    - Portion of Merrywood Drive.
    - Portions of Brooklawn Drive, Deerfield Road, and Tattersall Lane.

The system generally performed as designed, and other than being unable to account for major rainfall events, no proposed corrections are being presented at this time.

5.0 Summary of Status of Actions

Includes a summary of the status of actions for the previous reporting year.

As this is the first Annual Performance Report required as part of the ECA, there are no actions to report from the previous reporting year.

Appendix A

Environmental Compliance Approval 049-S701

Ontario

ENVIRONMENTAL COMPLIANCE APPROVAL
For a Municipal Stormwater Management System

ECA Number: 049-S701
Issue Number: 1

Pursuant to the *Environmental Protection Act*, R.S.O 1990, c. E. 19 (EPA*),* and the regulations made thereunder and subject to the limitations thereof, this environmental compliance approval is issued under section 20.3 of Part II.1 of the EPA to:

Lambton Shores, The Corporation of the Municipality of

7883 Amtelecom Pky
Forest, ON N0N 1J0

For the following Sewage Works:

Lambton Shores Municipal Stormwater System

This Environmental Compliance Approval (ECA) includes the following:

Schedule	Description
Schedule A	System Information
Schedule B	Municipal Stormwater Management System Description
Schedule C	List of Notices of Amendment to this ECA: Additional Approved Works
Schedule D	General
Schedule E	Operating Conditions
Schedule F	Residue Management
Appendix A	Stormwater Management Criteria

Except where specified otherwise, all prior ECAs, or portions thereof, issued by the Director for Sewage Works described in section 1 of Schedule B are revoked and replaced by this Approval.

DATED at TORONTO this 7th day of November, 2022

Signature

Aziz Ahmed, P.Eng.
Director, Part II.1, *Environmental Protection Act*

Schedule A: System Information

System Owner	**Lambton Shores, The Corporation of the Municipality of**
ECA Number	**049-S701**
System Name	**Lambton Shores Municipal Stormwater System**
ECA Issue Date	**November 7th, 2022**

1.0 ECA Information and Mandatory Review Date

ECA Issue Date	November 7th, 2022
Application for ECA Review Due Date	October 15, 2028

1.1 Pursuant to section 20.12 of the EPA, the Owner shall submit an application for review of the Approval no later than the Application for ECA Review Date indicated above.

2.0 Related Documents

2.1 Other Documents

Document Title	Version
Design Criteria for Sanitary Sewers, Storm Sewers, and Forcemains for future Alterations Authorized under ECA	v.1.1 (July. 28, 2022)

3.0 Stormwater master Plan and Asset Management Plan

Document Title	Version
The Asset Management Plan for the Municipality of Lambton Shores	v.1 (November, 2019)

4.0 Operating Authority

System	Operating Authority
Consolidated Linear Infrastructure Municipal Stormwater Management System: Lambton Shores	Corporation of the Municipality of Lambton Shores

Schedule B: Municipal Stormwater Management System Description

System Owner	**Lambton Shores, The Corporation of the Municipality of**
ECA Number	**049-S701**
System Name	**Lambton Shores Municipal Stormwater System**
ECA Issue Date	**November 7th, 2022**

1.0 System Description

1.1 The following is a summary description of the Sewage Works comprising the Municipal Stormwater Management System:

Overview

The Municipal Stormwater Management (SWM) System serving the Municipality of Lambton Shores' drainage area, is a separate system for stormwater (i.e. designed not to convey sanitary sewage, combined sewage) within the Lake Huron and the St. Clair Region and Ausable Bayfield watersheds. The Municipal SWM System consists of storm sewers, culverts, ditches, Stormwater Management Facilities and outlets.

This ECA covers the entire Municipal SWM System owned and operated by the Municipality of Lambton Shores. This ECA does not cover municipally or privately owned sewage works on industrial or commercial land

Sewage Collection System

1.2 The Authorized System comprises:

1.2.1 The Sewage Works described and depicted in each document or file identified in column 1 of Table B1.

Table B1: Infrastructure Map

Column 1 Document or File Name	Column 2 Date
Municipality of Lambton Shores Municipal Stormwater Management System	February 2022
Municipality of Lambton Shores Municipal Stormwater Management System - Forest	February 2022
Municipality of Lambton Shores Municipal Stormwater Management System – Arkona	February 2022
Municipality of Lambton Shores Municipal Stormwater Management System – Thedford	February 2022

Municipality of Lambton Shores Municipal Stormwater Management System – Deer Run Subdivision	February 2022
Municipality of Lambton Shores Municipal Stormwater Management System – Grand Bend	February 2022

1.2.2 Storm Sewers, Stormwater Management Facilities, stormwater pumping stations and Sewage Works associated with a Third Pipe Collection System that have been added, modified, replaced, or extended through authorization provided in a Schedule C Notice respecting this Approval, where Completion occurs on or after the date identified in column 2 of Table B1 for each document or file identified in column 1.

1.2.3 Storm Sewers, Stormwater Management Facilities and Sewage Works associated with a Third Pipe Collection System that have been added, modified, replaced, or extended through authorization provided by Schedule D of this Approval, where Completion occurs on or after the date identified in column 2 of Table B1 for each document or file identified in column 1.

1.2.4 Any Sewage Works described in conditions 1.3 through 1.8 below.

Stormwater Collection System

1.3 Categorization of the Authorized System at the date of issue of this Approval is as follows:

Table B2. Stormwater Collection System by Diameter

System Type	Pipe Diameter (mm)	Length (km)	System Totals (km)
Storm Sewers	Up to 250	5.9	--
Storm Sewers	> 250 - 500	22.2	--
Storm Sewers	> 500 - 1050	9.9	--
Storm Sewers	> 1050	1.7	--
Total Storm Sewers	--	--	39.7
Ditches / Swales	--	--	4
Total System Length (km)	--	--	43.7

Table B3. Summary of Stormwater Management Facilities by Type and Pumping Stations

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,	N/A	N/A	1	N/A	1	N/A	1

evapotranspiration, harvest)							
LID Facilities - Filtration	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Stormwater Management Ponds – Wet (includes wetlands, hybrids)	N/A	N/A	4	N/A	4	N/A	4
Stormwater Management Ponds - Dry	N/A			N/A	N/A	N/A	N/A
Super Pipe / Storage Facility	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Filtration MTD - Filter Unit	N/A	N/A	N/A	N/A	N/A		N/A
Sedimentation MTD - OGS	N/A	1	N/A	N/A	1		1
Pumping Stations							N/A
Other	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Number of Facilities	N/A	N/A	N/A	N/A	N/A	6	6

* 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.

Table B4. Third Pipe Collection System				
Description	Pipe Diameter (mm)	Length (km)	Quantity	System Totals
Third Pipe Sewer	Up to 250	--	N/A	--
Third Pipe Sewer	> 250 - 500	--	N/A	--
Third Pipe Sewer	> 500	--	N/A	--
Total	--	--	--	Km
Other Infrastructure Components (e.g., storage tank)	N/A	N/A	--	--

Table B5. Sewage Works on Private Land that are part of the Municipal Stormwater Treatment Train*		
Description	Location	ECA # (if applicable)
N/A		

* Identifies privately owned Sewage Works that are not part of the Authorized System, but are part of a Stormwater Treatment Train

Stormwater Management Facilities

1.4 The following are Stormwater Management Facilities in the Authorized System:

7550 – SWM Wet Pond (Woodside Estates Subdivision)

Location	Location 43.08583, -81.99506
Watershed/Subwatershed	St. Clair Region Watershed / Plympton Shoreline Tributaries Subwatershed
Receiver of discharge	Discharges through Todd Drain to Hickory Creek
Outlet location	43.08557, -81.99523
Catchment Area	17.2 hectares
Level of Treatment for suspended solids	Level 1 Enhanced treatment for 80% long-term suspended solid removal.
Treatment for other Contaminants, as required	N/A
Level of Volume control	The detention wet pond with a design permanent pool volume of 1,851 m3 and minimum liquid retention volume of 3,927 m3 for the treatment and disposal stormwater runoff.
Design Storm	Quantity: 100 yr storm; Quality: 2-yr storm
Reference ECA(s)	ENVIRONMENTAL COMPLIANCE APPROVAL NUMBER 5278-9D2J4E, Issue Date: November 12, 2013
Reference Sewage Works as part of treatment train	N/A
Brief Description	One (1) 200 mm diameter HBI-8810 Hickenbottom Standpipe, discharging to Todd Drain, via 300 mm diameter storm sewer; one (1) 8 m wide overflow spillway to discharging onto the Todd Drain.
Receive Emergency Sanitary Overflows	No
Notes	N/A

4278 – SWM Wet Pond (East Glen Estates Subdivision)

Location	43.08048, -81.82884
Watershed/Subwatershed	Ausable Bayfield Region Watershed / Lower Ausable Subwatershed
Receiver of discharge	Discharges through Hobbs-McKenzie Drain to Ausable River
Outlet location	43.08061, -81.82937
Catchment Area	10.5 hectares
Level of Treatment for suspended solids	Level 1 Enhanced treatment for 80% long-term suspended solid removal.
Treatment for other Contaminants, as required	N/A
Level of Volume control	The detention wet pond with a total extended detention volume of 620 m3 and a permanent pool volume of 620 m3 to provide post development peak flow controlled to pre development peak flow conditions
Design Storm	Quantity: 100 yr storm; Quality: 2-yr storm
Reference ECA(s)	ENVIRONMENTAL COMPLIANCE APPROVAL NUMBER 5466-4ERQRM, Issue Date: December 22, 1999

Reference Sewage Works as part of treatment train	N/A
Brief Description	Stormwater management pond for quantity and quality control outletting to the Hobbs Mckenzie Municipal drain
Receive Emergency Sanitary Overflows	No
Notes	N/A

7297 – SWM Wet Pond (Erin place Subdivision)

Location	43.30538, -81.75617
Watershed/Subwatershed	Ausable Bayfield Region Watershed / Lower Parkhill Subwatershed
Receiver of discharge	Discharges through Desjardine Drain to Ausable River and Lake Huron
Outlet location	43.30599, -81.75488
Catchment Area	4.7 hectares
Level of Treatment for suspended solids	Level 1 Enhanced treatment for 80% long-term suspended solid removal.
Treatment for other Contaminants, as required	N/A
Level of Volume control	The detention wet pond has a permanent pool volume of 735 m3, an active storage volume of 1,600 m3 complete with inlet structure, sediment forebay and outlet structures.
Design Storm	Quantity: 100 yr storm; Quality: 2-yr storm
Reference ECA(s)	ENVIRONMENTAL COMPLIANCE APPROVAL NUMBER 3025-76YRNC, Issue Date: September 19, 2007
Reference Sewage Works as part of treatment train	N/A
Brief Description	200 mm intake to control the extended detention level, a single catchbasin equipped with an inlet control device (IPEX Type B or equivalent) to control the active storage level, a second single cathbasin to be set at top of grate elevation; all tree outlet structures allowing a maximum discharge rate of 0.282 m3/s and discharging to a double catchbasin manhole equipped with an emergency spillway and an overflow spillway discharging via 825 mm diameter stormsewer.
Receive Emergency Sanitary Overflows	No
Notes	N/A

7321 – SWM Wet Pond (Rice Subdivision)

Location	43.31205, -81.74860
Watershed/Subwatershed	Ausable Bayfield Region Watershed / Lower Parkhill

	Subwatershed
Receiver of discharge	Discharges through Simmons/Pergel Drain to Ausable River and Lake Huron
Outlet location	43.31219, -81.75050
Catchment Area	21.67 hectares
Level of Treatment for suspended solids	Level 1 Enhanced treatment for 80% long-term suspended solid removal.
Treatment for other Contaminants, as required	N/A
Level of Volume control	A hybrid wet pond/wetland with approximate permanent pool volume of 2,532 m3, total active storage volume of approximately 12,367 m3 and a total storage volume of approximately 14,899 m3.
Design Storm	Quantity: 100 yr storm; Quality: 2-yr storm
Reference ECA(s)	ENVIRONMENTAL COMPLIANCE APPROVAL NUMBER 6121-8K5HF9, Issue Date: September 23, 2011
Reference Sewage Works as part of treatment train	N/A
Brief Description	One (1) 900mm diameter inlet to the forebay and a 4.0m wide overflow spillway into the forebay; a sediment forebay and forebay berm; 3.0 m wide stone dust access road ; one (1) ditch inlet quality control structure consisting of a 140 mm diameter orifice, discharging via 300 mm diameter storm pipe to a quantity control structure; one (1) ditch inlet quantity control structure consisting of a 320 mm diameter orifice, discharging to Simmons/Pergel Drain, via 525 mm diameter storm sewer; one (1) 10 m wide overflow spillway to discharging onto the Simmons/Pergel Drain.
Receive Emergency Sanitary Overflows	No
Notes	N/A

Asset TBD – GOD to Simmons Drain Outlet

Location	43.31234, -81.75065
Watershed/Subwatershed	Ausable Bayfield Region Watershed / Lower Parkhill Subwatershed
Receiver of discharge	Discharges through Simmons/Pergel Drain to Ausable River and Lake Huron
Outlet location	43.31225, -81.75057
Catchment Area	2.01 hectares
Level of Treatment for suspended solids	Level 2 Normal treatment for 73% long-term suspended solid removal.
Treatment for other Contaminants, as required	N/A
Level of Volume control	Sediment storage capacity of 3,000 litres, an oil storage capacity of 915 litres, a total holding capacity of 4,070 litres,

	and a maximum treatment flow rate of 18 litres per second
Design Storm	N/A
Reference ECA(s)	ENVIRONMENTAL COMPLIANCE APPROVAL NUMBER 8210-AWZPKJ, Issue Date: March 29, 2018 Reference Works as part of treatment train
Reference Sewage Works as part of treatment train	N/A
Brief Description	one (1) oil/grit separator, model Stormceptor STC 750 receives runoff generated from Creekside Place and discharges to Simmons/Pergel Drain.
Receive Emergency Sanitary Overflows	No
Notes	N/A

Stormwater Pumping Stations

1.5 The following are identified Stormwater pumping stations in the Authorized System:

[Stormwater Pumping Station Name]

Asset ID and Name	N/A
Site Location	
Watershed/Subwatershed	
Latitude and Longitude	
Coordinates (optional)	
Description	
Pumping Station Capacity	
Equipment	
Emergency Storage	
Equipment: Associated controls and Appurtenances	
Overflow	
Standby Power	
Notes	

Third Pipe Collection System

1.6 The following are identified third pipe systems in the Authorized System.

[*Asset ID* (e.g., Third Pipe 10]

Asset ID and Name	

Location	N/A
Watershed/Subwatershed	
Receiver of discharge	
Outlet location	
Catchment Area	
Treatment, if applicable	
Reference ECA(s), if applicable	
Brief Description	
Notes	

Other Works:

1.7 The following works are part of Authorized System:

Table B6: Other Works			
Column 1 Asset ID / Name	Column 2 Site Location (Latitude & Longitude)	Column 3 Component	Column 4 Description
N/A			

Developer-Operated Facilities:

1.8 The following facilities are part of the Authorized System, have been constructed, and are being operated by the developer under the authority of an agreement entered into with the Owner of the system.

Table B7: Developer-Operated Facilities			
Asset ID	Type of Facility	Location	Developer Name
N/A			

1.9 The Owner shall notify the Director, using the Director Notification Form, within thirty (30) days where the operation of any Facility identified in Table B7 has been:

1.9.1 Incorporated into the overall Stormwater Management System and assumed by an Operating Authority identified in Schedule B of this Approval.

1.9.2 Has been transferred from the developer identified in Table B7 to another party.

Transitional – Facilities with Individual ECAs

1.10 The following Facilities are connected to the Authorized System, but ownership has not been assumed by the Owner. These Sewage Works are not part of the Authorized System and will continue to have separate ECAs until the Facilities are assumed by the Owner.

Table B8: Facilities with Individual ECAs				
Asset ID	Type of Facility	Location	ECA Number	Developer Name
N/A				

1.11 The Owner shall notify the Director, using the Director Notification Form, within thirty (30) days where the ownership of any Facility identified in Table B8 has been assumed by the Owner.

1.12 The Director Notification required in condition 1.11 shall include:

1.12.1 A request from the developer to revoke the ECA identified in Table B8; or

1.12.2 A copy of an agreement or other documentation that demonstrates that the municipality has assumed ownership of the Facility and that the ECA identified in Table B8 should be revoked.

Schedule C: List of Notices of Amendment to this ECA: Additional Approved Sewage Works

System Owner	**Lambton Shores, The Corporation of the Municipality of**
ECA Number	**049-S701**
System Name	**Lambton Shores Municipal Stormwater System**
ECA Issue Date	**November 7th, 2022**

1.0 General

1.1 Table C1 provides a list of all notices of amendment to this Approval that have been issued pursuant to clause 20.3(1) of the EPA that impose terms and conditions in respect of the Authorized System after consideration of an application by the Director (Schedule C Notices).

Table C1: Schedule C Notices

Column 1 Issue #	Column 2 Issue Date	Column 3 Description	Column 4 Status	Column 5 DN#
N/A	N/A	N/A	N/A	N/A

Schedule D: General

System Owner	**Lambton Shores, The Corporation of the Municipality of**
ECA Number	**049-S701**
System Name	**Lambton Shores Municipal Stormwater System**
ECA Issue Date	**November 7th, 2022**

1.0 Definitions

1.1 For the purpose of this Approval, the following definitions apply:

"Adverse Effect(s)" has the same meaning as defined in section 1 of the EPA.

"Alteration(s)" includes the following, in respect of the Authorized System, but does not include repairs to the system:

a) An extension of the system,

b) A replacement or retirement of part of the system, or

c) A modification of, addition to, or enlargement of the system.

"Appendix A" means Appendix A of this Approval.

"Approval" means this Environmental Compliance Approval including any Schedules attached to it.

"Appurtenance(s)" has the same meaning as defined in O. Reg. 525/98 (Approval Exemptions) made under the OWRA.

"Authorized System" means the Sewage Works comprising the Municipal Stormwater Management System authorized under this Approval".

"Class Environmental Assessment Project" means an Undertaking that does not require any further approval under the EAA if the proponent complies with the process set out in the Municipal Engineers Association Class Environmental Assessment document, (Municipal Class Environmental Assessment approved by the Lieutenant Governor in Council on October 4, 2000 under Order in Council 1923/2000), as amended from time to time.

"Combined Sewer(s)" means pipes that collect and transmit both sanitary Sewage and other Sewage from residential, commercial, institutional, and

industrial buildings and facilities and Stormwater through a single-pipe system, but does not include Nominally Separate Sewers.

“Completion” means substantial performance as described in s.2 (1) of the *Construction Act*, R.S.O. 1990, c. C.30.

“Compound of Concern” means a Contaminant that is discharged from the Facility in an amount that is not negligible.

“Contaminant” has the same meaning as defined in section 1 of the EPA.

“CSO” means a combined sewer overflow which is a discharge to the environment at designated location(s) from a Combined Sewer or Partially Separated Sewer that usually occurs as a result of precipitation when the capacity of the Sewer is exceeded. An intervening time of twelve hours or greater separating a CSO from the last prior CSO at the same location is considered to separate one overflow Event from another.

"CWA" means the *Clean Water Act*, R.S.O. 2006, c.22.

“Design Criteria” means the design criteria set out in the Ministry’s publication “Design Criteria for Sanitary Sewers, Storm Sewers and Forcemains for Alterations Authorized under Environmental Compliance Approval”, (as amended from time to time).

“Design Guidelines for Sewage Works” means the Ministry document titled “Design Guidelines for Sewage Works”, 2008 (as amended from time to time).

"Director" 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).

“Director Notification Form” means the most recent version of the Ministry form titled Director Notification – Alterations to a Municipal Stormwater Management System, as obtained directly from the Ministry or from the Ministry’s website.

"District Manager" means the district manager or a designated representative of the Local Ministry Office.

"EAA" means the *Environmental Assessment Act*, R.S.O. 1990, c. E.18.

"EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19.

“ESC” means erosion and sediment control.

“Facility” means the entire operation located on the property where the Sewage Works or equipment is located.

“Form SW1” means the most recent version of the Ministry form titled Record of Future Alteration Authorized for Storm Sewers/Ditches/Culverts as obtained directly from the Ministry or from the Ministry’s website.

“Form SW2” means the most recent version of the Ministry form titled Record of Future Alteration Authorized for Stormwater Management Facilities as obtained directly from the Ministry or from the Ministry’s website.

“Form SW3” means the most recent version of the Ministry form titled Record of Future Alteration Authorized for Third Pipe Collection Systems as obtained directly from the Ministry or from the Ministry’s website.

"Licensed Engineering Practitioner” means a person who holds a licence, limited licence, or temporary licence under the *Ontario Professional Engineers Act* R.S.O. 1990, c. P.28.

"LID" means “low impact development” a Stormwater management strategy that seeks to mitigate the impacts of increased runoff and Stormwater pollution by managing runoff as close to its source as possible. LID comprises a set of site design strategies that minimize runoff and distributed, small scale structural practices that mimic natural or predevelopment hydrology through the processes of infiltration, evapotranspiration, harvesting, filtration, and detention of Stormwater.

“Local Ministry Office” means the local office of the Ministry responsible for the geographic area where the Authorized System is located.

"Minister" means the Minister of the Ministry or such other member of the Executive Council as may be assigned the administration of the EPA and OWRA under the *Executive Council Act*, R.S.O. 1990, c. E.25.

"Ministry" means the Ministry of the Minister and includes all employees or other persons acting on its behalf.

“Monitoring Plan” means the monitoring plan prepared and maintained by the Owner under condition 4.1 in Schedule E of this Approval.

“MTD” means manufactured treatment device.

“Municipal Drain” has the same meaning as drainage works as defined in section 1 of the *Drainage Act* R.S.O. 1990, c. D.17.

“Municipal Drainage Engineer’s Report” means a report signed by a drainage engineer employed or contracted by a municipality and approved in writing by municipal council or equivalent.

“Municipal Sewage Collection System” means all Sewage Works, located in the geographical area of a municipality, that collect and transmit sanitary Sewage and are owned, or may be owned pursuant to an agreement with a municipality entered into under the *Planning Act* or *Development Charges Act*, 1997, by:

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; or

b) 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.

“**Municipal Stormwater Management System”** 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:

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; or

b) 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.

“Natural Environment” has the same meaning as defined in section 1 of the EPA.

"Nominally Separate Sewer(s)" mean Separate Sewers that also have connections from roof leaders and foundation drains, and are not considered to be Combined Sewers.

“OGS” means Oil and Grit Separators;

“Operating Authority” 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.

"Owner" for the purposes of this Approval means the Corporation of the Municipality of Lambton Shores, and includes its successors and assigns.

"OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40.

"O&M Manual" means the operation and maintenance manual prepared and maintained by the Owner under condition 3.2 in Schedule E of this Approval.

"Partially Separated Sewer(s)" means Combined Sewers that have been retrofitted to transmit sanitary Sewage but in which roof leaders or foundation drains still contribute Stormwater inflow to the Partially Separated Sewer.

"Pre-development" means the more stringent of a site's:

a) Existing condition prior to proposed development or construction activities; or

b) Condition as defined by the local municipality.

"Prescribed Person" means a person prescribed in O. Reg. 208/19 (Environmental Compliance Approval in Respect of Sewage Works) for the purpose of ss. 20.6 (1) of the EPA, and where the alteration, extension, enlargement, or replacement is carried out under an agreement with the Owner.

"**Privately Owned Stormwater Works"** means Stormwater Sewage Works on private land that are privately owned and, while not part of the Authorized System, are considered part of a Stormwater Treatment Train.

"Qualified Person (QP)" means persons who have obtained the relevant education and training and have demonstrated experience and expertise in the areas relating to the work required to be carried out by this Approval.

"Schedule C Notice(s)" means a notice(s) of amendment to this Approval issued pursuant to clause 20.3(1) of the EPA that imposes terms and conditions in respect of the Authorized System after consideration of an application by the Director.

"Separate Sewer(s)" means pipes that collect and transmit sanitary Sewage and other Sewage from residential, commercial, institutional, and industrial buildings.

"Sewage" has the same meaning as defined in section 1 of the OWRA.

"Sewage Works" has the same meaning as defined in section 1 of the OWRA.

“Sewer” has the same meaning as defined in section 1 of O. Reg. 525/98 under the OWRA.

"Significant Drinking Water Threat" has the same meaning as defined in section 2 of the CWA.

“Significant Snowmelt Event(s)” means the melting of snow at a rate which adversely affects the performance and function of the Authorized System and/or the Sewage Treatment Plant(s) identified in Schedule A of this Approval.

“Significant Storm Event(s)” means a minimum of 25 mm of rain in any 24 hours period.

“Source Protection Authority” has the same meaning as defined in section 2 of the CWA.

"Source Protection Plan" means a drinking water source protection plan prepared under the CWA.

“SSO” means a sanitary sewer overflow which is a discharge of Sewage from a Separate Sewer or Nominally Separate Sewer to the environment from designated location(s) in the Authorized System.

“Standard Operating Policy for Sewage Works” means the standard operating policy developed by the Ministry to assist in the implementation of Source Protection Plan policies related to Sewage Works and providing minimum design and operational standards and considerations to mitigate risks to sources of drinking water, as amended from time to time.

“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(ies)” means a Facility for the treatment, retention, infiltration, or control of Stormwater.

“Stormwater Management Planning and Design Manual” means the Ministry document titled “Stormwater Management Planning and Design Manual”, 2003 (as amended from time to time).

“Stormwater Treatment Train” means a series of Stormwater Management Facilities designed to meet Stormwater management objectives (e.g., Appendix A) for a given area, and can consist of a combination of MTDs, LIDs and end-of-pipe controls.

“TRCA” means the Toronto Region Conservation Authority.

“Third Pipe Collection System” means Sewage Works designed to collect and transmit foundation drainage and/or groundwater to a receiving surface water or dry well;

"Undertaking" has the same meaning as in the EAA.

“Vulnerable Area(s)” has the same meaning as in the CWA.

2.0 General Conditions

2.1 The works comprising the Authorized System shall be constructed, installed, used, operated, maintained, replaced, or retired in accordance with the conditions of this Approval, which includes the following Schedules:

Schedule A – System Information

Schedule B – Municipal Stormwater Management System Description

Schedule C – List of Notices of Amendment to this ECA

Schedule D – General

Schedule E – Operating Conditions

Schedule F – Residue Management

Appendix A – Stormwater Management Criteria

2.2 The issuance of this Approval does not negate the requirements of other regulatory bodies, which includes but is not limited to, the Ministry of Northern Development, Mines, Natural Resources and Forestry and the local Conservation Authority.

2.3 Where there is a conflict between a provision of any document referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence. Where there is a conflict between the information in a Schedule C Notice and another section of this Approval, the document bearing the most recent date shall prevail.

2.4 The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Authorized System is provided with a print or electronic copy of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

2.5 The conditions of this Approval are severable. If any condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

3.0 Alterations to the Municipal Stormwater Management System

3.1 For greater certainty, the Alterations authorized under this Approval are limited to Sewage Works comprising the Authorized System which does not include municipally or Privately Owned Stormwater Works:

3.1.1 On industrial, commercial, or institutional land;

3.1.2 Serving a single parcel of land, unless the stormwater management facility is located on a municipally owned park or community center;

3.1.3 That are operated as waste disposal sites defined under the EPA or snow dump / melt facilities; or,

3.1.4 That propose to collect, store, treat, or discharge stormwater containing substances or pollutants (other than Total Suspended Solids, or oil and grease) detrimental to the environment or human health.

3.2 Any Schedule C Notice shall provide authority to alter the Authorized System in accordance with the conditions of this Approval.

3.3 All Schedule C Notices issued by the Director for the Municipal Stormwater Management System shall form part of this Approval.

3.4 The Owner and a Prescribed Person shall ensure that the documentation required through conditions in this Approval and the documentation required in the Design Criteria are prepared for any Alteration of the Authorized System.

3.5 The Owner shall notify the Director within thirty (30) calendar days of placing into service or Completion of any Alteration of the Authorized System which had been authorized:

3.5.1 Under Schedule D to this Approval where the Alteration results in a change to Sewage Works specifically described in Schedule B of this Approval;

3.5.2 Through a Schedule C Notice respecting Sewage Works other than Storm Sewers; or

3.5.3 Through another approval that was issued under the EPA prior to the issue date of this Approval.

3.6 The notification requirements set out in condition 3.5 do not apply to any Alteration in respect of the Authorized System which:

3.6.1 Is exempt under section 53(6) of the OWRA or by O. Reg. 525/98;

3.6.2 Constitutes maintenance or repair of the Authorized System; or

3.6.3 Is a Storm Sewer, ditch, or culvert authorized by condition 4.1 of Schedule D of this Approval.

3.7 The Owner shall notify the Director within ninety (90) calendar days of:

3.7.1 The discovery of existing Sewage Works not described or depicted in Schedule B, or

3.7.2 Additional or revised information becoming available for any Sewage Works described in Schedule B of this Approval.

3.8 The notifications required in condition 3.5 and 3.7 shall be submitted to the Director using the Director Notification Form.

3.9 The Owner shall ensure that any chemicals, coagulants, or polymers used in the stormwater management system have obtained written approval from the Director prior to use, unless required for spill control or spill clean-up.

3.10 The Owner shall ensure that an ESC plan is prepared, and temporary ESC measures are installed in advance of and maintained during any construction activity on the Authorized System, subject to the following conditions:

3.10.1 Inspections of ESC measures are to be conducted at a frequency specified per the ESC plan, for dry weather periods (active and inactive construction phases), after Significant Storm Events and Significant Snowmelt Events, and after any extreme weather events.

3.10.2 Any deficiencies shall be addressed, and any required maintenance actions(s) shall be undertaken as soon as practicable once they have been identified.

3.10.3 Inspections and maintenance of the temporary ESC measures shall continue until they are no longer required.

3.11 The Owner shall ensure that records of inspections required by this Approval during any construction activity, including those required under condition 3.10:

3.11.1 Include the name of the inspector, date of inspection, visual observations, and the remedial measures, if any, undertaken to maintain the temporary ESC measures.

3.11.2 Be retained with records relating to the Alteration that the construction relates to, such as the form required in conditions 4.4.1, 5.5.1, and 6.2.1 of Schedule D, or the Schedule C Notice.

3.11.3 Be retrievable and made available to the Ministry upon request.

3.12 The document(s) or file(s) referenced in Table B1 of Schedule B of this Approval shall:

3.12.1 Be retained by the Owner;

3.12.2 Include at a minimum:

a) Identification of Storm Sewers, which shall include the following information:

i Location relative to street names or easements; and

ii Sewer diameters.

b) Identification of existing municipally owned Stormwater Sewage Works, including but not limited to ditches, swales, culverts, outlets, Stormwater Management Facilities, sedimentation MTD (for example oil grit separators), filtration MTD, LID, end of pipe controls, Third Pipe Collection Systems, and pumping stations, including any applicable Asset IDs.

c) Identification of the main tributaries and receiving water bodies to that the Sewage Works discharge to.

d) Delineation of municipal, watershed, and subwatershed boundaries, as available.

e) Identification of the storm sewersheds for each outlet.

f) Identification of any source protection Vulnerable Areas.

g) Identification of any Sewage Works that receive SSOs or CSOs.

3.12.3 Be updated to include:

a) Alterations authorized under Schedule D of this Approval or through a Schedule C Notice within twelve (12) months of the Alteration being placed into service.

b) Updates to information contained in the document(s) or files(s) not associated with an Alteration within twelve (12) months of becoming aware of the updated information.

3.13 An Alteration is not authorized under Schedule D of this ECA for projects that impact Indigenous treaty rights or asserted rights where:

3.13.1 The project is on Crown land or would alter access to Crown land;

3.13.2 The project is in an open or forested area where hunting, trapping or plant gathering occur;

3.13.3 The project involves the clearing of forested land unless the clearing has been authorized by relevant municipal, provincial, or federal authorities, where applicable;

3.13.4 The project alters access to a water body;

3.13.5 The proponent is aware of any concerns from Indigenous communities about the proposed project and these concerns have not been resolved; or,

3.13.6 Conditions respecting Indigenous consultation in relation to the project were placed in another permit or approval and have not been met.

3.14 No less than 60 days prior to construction associated with an Alteration the Director may notify the Owner in writing that a project is not authorized through Schedule D of this ECA where:

3.14.1 Concerns regarding treaty rights or asserted rights have been raised by one or more Indigenous communities that may be impacted by the Alteration; or

3.14.2 The Director believes that it is in the public interest due to site specific, system specific, or project specific considerations.

3.15 Where an Alteration is not authorized under condition 3.13 or 3.14 above:

3.15.1 An application respecting the Alteration shall be submitted to the Ministry; and,

3.15.2 The Alteration shall not proceed unless:

a) Approval for the Alteration is granted by the Ministry (i.e., a Schedule C Notice); or,

b) The Director provides written notice that the Alteration may proceed in accordance with conditions in Schedule D of this ECA.

4.0 Authorizations of Future Alterations to Storm Sewers, Ditches, or Culverts - Additions, Modifications, Replacements and Extensions

4.1 The Owner or a Prescribed Person may alter the Authorized System by adding, modifying, replacing, or extending a Storm Sewer, ditch, or culvert within the Authorized System subject to the following conditions and conditions 4.2 and 4.3 below:

4.1.1 The design of the addition, modification, replacement, or extension:

a) Has been prepared by a Licensed Engineering Practitioner;

b) Has been designed only to collect and transmit Stormwater;

c) Has not been designed to collect or treat any sanitary Sewage;

d) Has not been designed to collect, store, treat, control, or manage groundwater, unless for the purpose of foundation drains, road subdrains, or LIDs;

e) Satisfies the Design Criteria or any municipal criteria that have been established that exceed the minimum requirements set out in the Design Criteria;

f) Satisfies the standards set out in Ontario Provincial Standard Specifications (OPSS) and Ontario Provincial Standard Drawings (OPSD), as applicable to ditches and culverts;

g) Is consistent with or otherwise addresses the design objectives contained within the Design Guidelines for Sewage Works;

h) Is planned, designed, and built to be consistent with the Stormwater Management Planning and Design Guidance Manual. If there is a conflict with Appendix A of this Approval, then Appendix A shall prevail; and

i) Includes design considerations to protect sources of drinking water, including those set out in the Standard Operating Policy for Sewage Works, and any applicable local Source Protection Plan policies.

4.1.2 The addition, modification, replacement, or extension shall be designed so that it will:

a) Not adversely affect the ability to maintain a gravity flow in the Authorized System without overflowing or increase surcharging any maintenance holes as per design; and

b) Provide smooth flow transition to existing gravity Storm Sewers;

4.1.3 The Alteration shall not result in:

a) Adverse Effects; or

b) A deterioration of the approved effluent quality or quantity of downstream Stormwater Management Facilities which results in not being able to achieve the overall Stormwater performance criteria per Appendix A.

4.1.4 The Storm Sewer, ditch or culvert addition, modification, replacement, or extension is wholly located within the municipal boundary over which the Owner has jurisdiction or there is a written agreement in place with the adjacent property owner respecting the Alteration and resulting Sewage Works.

4.1.5 The Owner consents in writing to the addition, modification, replacement, or extension.

4.1.6 A Licensed Engineering Practitioner has verified in writing that the addition, modification, replacement, or extension meets the requirements of conditions 4.1.1 a) to h), 4.3.9, and 4.3.10.

4.1.7 The Owner has verified in writing that the addition, modification, replacement, or extension has complied with inspection and testing requirements in the Design Criteria.

4.1.8 The Owner has verified in writing that the addition, modification, replacement, or extension meets the requirements of conditions 4.1.1 i), 4.1.2 to 4.1.6, 4.3.7, and 7.2.

4.2 The addition of Storm Sewers or ditches can be constructed but not operated until the Stormwater Management Facilities required to service the new Storm Sewers or ditches are in operation.

4.3 The Owner or a Prescribed Person is not authorized to undertake an Alteration described above in condition 4.1 where the Alteration relates to the addition, modification, replacement, or extension of a Storm Sewer that:

4.3.1 Passes under or through a body of surface water, unless trenchless construction methods are used or the local Conservation Authority has authorized an alternative construction method.

4.3.2 Has a nominal diameter greater than 2,400 mm, or equivalent sizing.

4.3.3 Is a Combined Sewer.

4.3.4 Is a concrete channel.

4.3.5 Is designed to, at any time, transmit, store, or control sanitary Sewage.

4.3.6 Converts rural road cross section ditches to curb, gutter, and Storm Sewers if the Stormwater volume and/or peak flow is increased and no water quality treatment is planned or demonstrated to be achieved, in accordance with this Approval and Appendix A, to offset the increase in Stormwater.

4.3.7 Results in new discharges or increased discharges to a Municipal Drain without written approval by the Owner and a signed Municipal Drainage Engineer's Report in accordance with the *Drainage Act* R.S.O. 1990, c. D.17.

4.3.8 Establishes a new outlet with direct discharge into the Natural Environment without monitoring in accordance with this Approval and without achieving the requirements set in Appendix A.

4.3.9 Increases Stormwater flow of an existing Storm Sewer or ditch without achieving water quality criteria set in Appendix A in accordance with this Approval unless the existing downstream Municipal Stormwater Management System has sufficient residual transmission and treatment capacity to accommodate the additional Stormwater.

4.3.10 Increases local hydraulic capacity of an existing Storm Sewer or ditch to accommodate new Stormwater flows unless the existing downstream Municipal Stormwater Management System has sufficient residual hydraulic capacity to accommodate the additional Stormwater.

4.3.11 Connects to another Municipal Stormwater Management System, unless:

a) Prior to construction, the Owner of the Authorized System obtains written consent from the Owner or Owner's delegate of the Municipal Stormwater System being connected to; and

b) The Owner of the Authorized System retains a copy of the written consent from the Owner or Owner's delegate of the Municipal Stormwater Management System being connected

to as part of the record that is recorded and retained under condition 4.4.

4.3.12 Is part of an Undertaking in respect of which:

a) A request under s.16(6) of the EAA has been made, namely a request that the Minister make an order under s.16;

b) The Minister has made an order under s.16; or

c) The Director under that EAA has given notice under s.16.1 (2) that the Minister is considering making an order under s.16.

4.4 The consents and verifications required in conditions 4.1 and 4.3, if applicable, shall be:

4.4.1 Recorded on SW1, prior to the Storm Sewer, ditch, or culvert addition, modification, replacement, or extension being placed into service; and

4.4.2 Retained for a period of at least ten (10) years by the Owner.

4.5 For greater certainty, the verification requirements set out in condition 4.4 do not apply to any Alteration in respect of the Authorized System which:

4.5.1 Is exempt under section 53(6) of the OWRA or by O. Reg. 525/98; or

4.5.2 Constitutes maintenance or repair of the Authorized System.

5.0 Authorizations of Future Alterations to Stormwater Management Facilities - Additions, Modifications, Replacement, and Extensions

5.1 Subject to conditions 5.2 and 5.3, the Owner or a Prescribed Person may alter the Stormwater Management Facilities in the Authorized System by adding, modifying, replacing, or extending the following components:

5.1.1 Rooftop storage

5.1.2 Parking lot storage

5.1.3 Superpipe storage

5.1.4 Reduced lot grading

5.1.5 Roof leader to ponding area

5.1.6 Roof leader to soakaway pit

5.1.7 Infiltration trench

5.1.8 Engineered grassed swales / bioswale

5.1.9 Pervious pipes

5.1.10 Pervious catchbasins

5.1.11 Vegetated filter strips

5.1.12 Natural buffer strips

5.1.13 Green roofs/Rooftop gardens

5.1.14 Wet pond

5.1.15 Engineered wetland

5.1.16 Dry pond

5.1.17 Hybrid Facility

5.1.18 Infiltration basin

5.1.19 Filtration MTD

5.1.20 Sedimentation MTD - OGS

5.1.21 LID that relies on one or more of the following mechanisms to achieve treatment and control:

a) Evapotranspiration;

b) Infiltration into the ground; or

c) Filtration.

5.1.22 Any other Stormwater Management Facilities where the Director has provided authorization in writing to proceed with the Alteration.

5.2 Any Alteration to the Authorized System authorized under condition 5.1 is subject to the following conditions:

5.2.1 The design of the Alteration shall:

a) Be prepared by a Licensed Engineering Practitioner;

b) Be designed only to collect, receive, treat, or control only Stormwater and has not been designed to collect, receive, treat, or control sanitary Sewage;

c) Is planned, designed, and built to be consistent with the Stormwater Management Planning and Design Guidance Manual. If there is a conflict with Appendix A of this Approval, then Appendix A shall prevail;

d) Satisfy the Design Criteria or any municipal criteria that have been established that exceed the minimum requirements set out in the Design Criteria;

e) Be part of a Stormwater Treatment Train approach that satisfies the requirements outlined in Appendix A, or transmits Stormwater to a Stormwater Management Facility that satisfies the requirements outlined in Appendix A;

f) Includes an outlet or an emergency overflow for the Sewage Works, with the verification of the location, route, and capacity of the receiving major system to accommodate overflows; and

g) Include design considerations to protect sources of drinking water, including those set out in the Standard Operating Policy for Sewage Works and any applicable local Source Protection Plan policies.

5.2.2 The Alteration shall not result in:

a) Adverse Effects; or

b) A deterioration on the approved effluent quality or quantity of downstream Stormwater Management Facilities which results in not being able to achieve the overall Stormwater performance criteria per Appendix A.

5.2.3 The Alteration may incorporate co-benefits, but in doing so shall not diminish functionality or efficiency of any Stormwater Management Facility(ies) that may be impacted by the Alteration.

5.2.4 Any new sedimentation MTD that is part of the Alteration shall meet the following requirements:

a) Tested in accordance with the TRCA protocol Procedure for Laboratory Testing of OGSs and testing data verified in accordance with the ISO 14034 Environmental Technology Verification (ETV) protocol. The suspended solids removal claimed for the sedimentation MTD in achieving the water

quality criteria in Appendix A, and the sizing methodology used to determine the appropriate sedimentation MTD dimensions for the particular site, shall be based on the verified removal efficiency for all particle size fractions comprising the particle size distribution specified within the testing protocol or a particle size distribution approved by the Director.

b) Using the verified sediment removal efficiencies for the respective surface loading rates specified in the testing protocol, the sedimentation MTD sizing methodology shall use linear interpolation to calculate sediment removal efficiencies for surface loading rates that lie between the specified surface loading rates. For surface loading rates less than the lowest specified and tested surface loading rate, the sediment removal efficiency shall be assumed to be identical to the verified removal efficiency for the lowest specified and tested surface loading rate. Where available, 15 min rainfall stations shall be used for sizing the sedimentation MTD.

c) When two or more sedimentation MTD are installed in series, no additional sediment removal credit shall be applied beyond the sediment removal credit of the largest device in the series.

d) The sediment removal rate at the specified surface loading rates determined for the tested full scale, commercially available MTD may be applied to similar MTDs of smaller or larger size by proper scaling. Scaling the performance results of the tested MTD to other model sizes without completing additional testing is acceptable provided that:

   i The claimed sediment removal efficiencies for the similar MTD are the same or lower than the tested MTD at identical surface loading rates; and

   ii The similar MTD is scaled geometrically proportional to the tested unit in all inside dimensions of length and width and a minimum of 85% proportional in depth.

e) The units must be installed in an off-line configuration if the unit had an effluent concentration greater than 25 mg/L at any of the surface loading rates conducted during the sediment scour and resuspension test as part of the ISO 14034 verification.

f) The sedimentation MTD should be sized for the highest suspended solids percent removal physically and

economically practicable, and used as a pre-treatment device in a treatment train designed to achieve the water quality criteria in Appendix A.

5.2.5 Any new filtration MTD that is part of the Alteration shall meet the following requirements:

a) Field tested and verified in accordance with a minimum of one of the following protocols:

i Washington State Technology Assessment Protocol - Ecology (TAPE) General Use Level Designation (GULD); and

1. Has ISO 14034 ETV verification to satisfy ETV Canada requirements;

2. The field monitoring data set used to obtain GULD certification should include a minimum of three (3) events that exceed 75th percentile rainfall event with at least one hour with an intensity of 6 mm/h or greater.

ii Another testing and verification method, where the Director has communicated acceptability in writing.

b) Where available, 15 min rainfall stations shall be used for sizing the filtration MTD using the rainfall intensity corresponding to 90% of annual runoff volume;

c) The SS removal rate determined for the tested full scale, commercially available filtration MTD, or single full-scale commercially available cartridge or filtration module, may be applied to other model sizes of that filtration MTD provided that appropriate scaling principles are applied. Scaling the tested filtration MTD or single full-scale commercially available cartridge or filtration module, to determine other model sizes and performance without completing additional testing is acceptable provided that:

i Depth of media, composition of media, and gradation of media remain constant.

ii The ratio of the maximum treatment flow rate to effective filtration treatment area (filter surface area) is the same or less than the tested filtration MTD;

iii The ratio of effective sedimentation treatment area to effective filtration treatment area is the same or greater than the tested filtration MTD; and

iv The ratio of wet volume to effective filtration treatment area is the same or greater than the tested filtration MTD.

5.2.6 When it is necessary to use Privately Owned Stormwater Works in the Stormwater Treatment Train to achieve Appendix A criteria as part of or as a result of an Alteration, the following conditions apply:

a) The Owner shall, through legal instruments or binding agreements, obtain the right to access, operate, and maintain the Privately Owned Sewage Works;

b) The Owner shall ensure that the right to access, operate and maintain the Privately Owned Sewage Works described in condition 5.2.6 a) above is maintained at all times that the works are in service and used to achieve Appendix A criteria.

c) The Owner shall ensure on-going operation and maintenance of the Privately Owned Stormwater Works;

d) The Owner ensures on-going operation and maintenance of the Privately Owned Stormwater Works; and

e) The Owner shall ensure that the Privately Owned Stormwater Works have obtained separate approval(s) under the EPA, as required.

5.2.7 The Alteration is wholly located within the municipal boundary over which the Owner has jurisdiction or there is a written agreement in place with the adjacent municipality respecting the Alteration and resulting Sewage Works.

5.2.8 The Owner consents in writing to the Alteration authorized under condition 5.1.

5.2.9 A Licensed Engineering Practitioner has verified in writing that the Alteration authorized under condition 5.1 meets the design requirements of conditions 5.2.1 a) to f), 5.2.4 and 5.2.5.

5.2.10 The Owner has verified in writing that the Alteration authorized under condition 5.1 meets the requirements of conditions 5.2.1 g), 5.2.2, 5.2.6 to 5.2.9, 5.3, 5.4, and 7.2.

5.3 The authorization in condition 5.1 does not apply:

5.3.1 To the establishment of a regional Stormwater management end-of-pipe flood control Facility;

5.3.2 Where the Alteration will result in new or increased discharges to a Municipal Drain without written approval by the Owner and a signed Municipal Drainage Engineer's Report in accordance with the *Drainage Act* R.S.O. 1990, c. D.17;

5.3.3 To the establishment of a new outlet with direct discharge into the Natural Environment without treatment and monitoring in accordance with this Approval;

5.3.4 Where the Alteration will service a drainage area greater than 65 ha;

5.3.5 Where the Alteration will result in conversion of an existing Stormwater Management Facility into another type of Stormwater Management Facility;

5.4 Any Alteration to LID or end-of-pipe Stormwater Management Facilities shall be inspected before operation of the Alteration to confirm construction as per specifications (including depth, as applicable).

5.5 The consents and verifications required in conditions 5.2.8 to 5.2.10 if applicable, shall be:

5.5.1 Recorded on Form SW2, prior to undertaking the Alteration; and

5.5.2 Retained for a period of at least ten (10) years by the Owner.

5.6 For greater certainty, the verification requirements set out in condition 5.5 do not apply to any Alteration in respect of the Authorized System which:

5.6.1 Is exempt under section 53(6) of the OWRA or by O. Reg. 525/98; or

5.6.2 Constitutes maintenance or repair of the Authorized System.

6.0 Authorizations of Future Alterations for Third Pipe Collection System Additions, Modifications, Replacements and Extensions

6.1 The Owner or a Prescribed Person may alter the Authorized System by adding, modifying, replacing, or extending, and operating works comprising a municipal Third Pipe Collection System to collect foundation drainage and groundwater where:

6.1.1 The design of the Alteration:

a) Has been prepared by a Licensed Engineering Practitioner;

b) Is limited to collection, transmission, reuse and/or treatment of only foundation drainage and groundwater, and is not designed to collect or treat sanitary Sewage;

c) Satisfies the Design Criteria or any municipal criteria that have been established that exceed the minimum requirements set out in the Design Criteria; and

d) Is scoped so that the resulting Sewage Works are intended to:

i Primarily function for the non-potable reuse, as deemed acceptable by the Owner and the local health unit, of foundation drainage and/or groundwater, and no discharge to a Storm Sewer or Separate Sewer if there is excess volume that cannot be reused; and/or

ii Provide wetland recharge, in which case, collection of rooftop runoff will also be acceptable.

6.1.2 The Alteration is not located on a contaminated site, or where natural occurring conditions result in contaminated discharge, or where the site receives contaminated groundwater or foundation drainage from another site, unless the discharge being received has been remediated or treated prior to acceptance by the Third Pipe Collection System.

6.1.3 The Owner has undertaken a site assessment for water quantity, water quality, and hydrogeological site conditions regarding the Alteration.

6.1.4 The Alteration will not result in Adverse Effects.

6.1.5 The Alteration is wholly located within the municipal boundary over which the Owner has jurisdiction or there is a written agreement in place with the adjacent property owner respecting the Alteration and resulting Sewage Works.

6.1.6 The Owner consents in writing to the Alteration.

6.1.7 A Licensed Engineering Practitioner has verified in writing that the Alteration meets the requirements of condition 6.1.1.

6.1.8 The Owner has verified in writing that the Alteration meets the requirements of conditions 6.1.2 to 6.1.7.

6.2 The consents, verifications and documentation required in conditions 6.1.7 and 6.1.8 shall be:

6.2.1 Recorded on Form SW3 prior to undertaking the Alteration; and

6.2.2 Retained for a period of at least ten (10) years by the Owner.

6.3 For greater certainty, the verification requirements set out in condition 6.2 do not apply to any Alteration in respect of the Authorized System which:

6.3.1 Is exempt under section 53(6) of the OWRA or by O. Reg. 525/98; or

6.3.2 Constitutes maintenance or repair of the Authorized System, including changes to software for an existing SCADA system resulting from Alterations authorized in condition 6.1.

6.4 The Owner shall update, within twelve (12) months of the Alteration of the Sewage Works being placed into service, any drawings maintained for the Municipal Stormwater Management System to reflect the Alterations of the Sewage Works, where applicable.

7.0 Outlets

7.1 Any outlet established or altered as part of an Alteration authorized through conditions 4, 5, or 6 of Schedule D in this Approval shall have regard to the 2012 TRCA Stormwater Management Criteria document, Appendix E, for outlets.

7.2 Any outlet established as part of an Alteration authorized through conditions 4, 5, or 6 of Schedule D in this Approval shall not:

7.2.1 Increase discharge or create a new point source discharge to privately owned land unless there is express written consent of the owner(s) of such private land(s).

7.2.2 Result in Adverse Effects.

8.0 Previously Approved Sewage Works

8.1 If approval for an Alteration to the Authorized System was issued under the EPA and is revoked by this Approval, the Owner may make the Alteration in accordance with:

8.1.1 The terms of this Approval; or

8.1.2 The terms and conditions of the revoked approval as of the date this approval was issued, provided that the Alteration is commenced

within five (5) years of the date that the revoked approval was issued.

9.0 Transition

9.1 An Alteration of the Authorized System is exempt from the requirements in clause (e) of condition 4.1.1, clause (d) of condition 5.2.1, and clause (c) of condition 6.1.1 where:

9.1.1 Effort to undertake the Alteration, such as tendering or commencement of construction of the Sewage Works associated with the Alteration, begins on or before June 24, 2023.

9.1.2 The design of the Alteration conforms to the Stormwater Management Planning and Design Manual, and where applicable, Design Guidelines for Sewage Works;

9.1.3 The design of the Alteration was completed on or before the issue date of this Approval or a Class Environmental Assessment was completed for the Alteration and changes to the design result in significant cost increase or significant project delays; and

9.1.4 The Alteration would be otherwise authorized under this Approval.

Schedule E: Operating Conditions

System Owner	**Lambton Shores, The Corporation of the Municipality of**
ECA Number	**049-S701**
System Name	**Lambton Shores Municipal Stormwater System**
ECA Issue Date	**November 7th, 2022**

1.0 General Operations

1.1 The Owner shall ensure that, at all times, the Sewage Works comprising the Authorized System and the related equipment and Appurtenances used to achieve compliance with this Approval are properly operated and maintained.

1.2 Prescribed Persons and Operating Authorities shall ensure that, at all times, the Sewage Works under their care and control and the related equipment and Appurtenances used to achieve compliance with this Approval are properly operated and maintained.

1.3 In conditions 1.1 and 1.2 “properly operated and maintained” includes effective performance, adequate funding, adequate operator staffing and training, including training in applicable procedures and other requirements of this Approval and the EPA, OWRA, CWA, and regulations, adequate laboratory services, process controls and alarms and the use of process chemicals and other substances used in the Authorized System.

1.4 The Owner ensure that Sewage Works are operated with the objective that the effluent from the Sewage Works is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen, foam, or discoloration on the receiving waters, and shall evaluate the need for maintenance if the objective is not being met.

1.5 The Owner shall ensure that any Storm Sewers or ditches authorized under Schedule D of this approval are not placed into operation until the associated Stormwater Management Facilities to provide treatment are constructed and operated.

2.0 Duties of Owners and Operating Authorities

2.1 The Owner, Prescribed Persons, and any Operating Authority shall ensure the following:

2.1.1 At all times that the Sewage Works within the Authorized System are in service, the Sewage Works are:

a) Operated in accordance with the requirements under the EPA and OWRA, and

b) Maintained in a state of good repair.

2.1.2 The Authorized System is operated by persons that are familiar with the requirements of this Approval.

2.1.3 All sampling, testing, monitoring, and reporting requirements under the EPA and this Approval that relate to the Authorized System are complied with.

2.1.4 All necessary steps are taken to ensure that operations of the Sewage Works and any associated physical structures do not constitute a safety or health hazard to the general public.

2.1.5 Where a Stormwater Management Facility ceases to function as a Stormwater Management Facility, whether by intent, accident, or otherwise (e.g., a CSO or an SSO), a workplan shall be developed that includes local community notification, plans for rehabilitating the Stormwater Management Facility to proper function in a reasonable time, identification of actions that will be taken to prevent reoccurrences, and timelines for implementing the workplan.

2.1.6 That operations and maintenance activities are undertaken at the frequency and in conformance with the procedures set out in the O&M Manual.

a) A Prescribed Person or Operating Authority shall only undertake operations and maintenance activities where they have been delegated the authority to undertake such activities by the Owner or the Owner has expressly approved the activity(ies).

2.2 For clarity, the requirements outlined in the above conditions 2.1 for Prescribed Persons and any Operating Authority only apply to Sewage Works within the Authorized System where they are responsible for the operation.

2.3 The Owner, Prescribed Persons, and Operating Authority shall take all reasonable steps to minimize and ameliorate any Adverse Effect on the Natural Environment or impairment of the quality of water of any waters resulting from the operation of the Authorized System, including such accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.

3.0 Operations and Maintenance

3.1 Inspection

3.1.1 The Owner shall ensure that all Sewage Works within the Authorized System are inspected at the frequency and in accordance with procedures set out in their O&M Manual.

3.1.2 The owner shall ensure that:

a) Any Stormwater Management Facilities, pumping stations, and any outlets that discharge to a receiver, are inspected at least once before December 31, 2026, if these have not been inspected since January 1, 2018 and thereafter as required by the O&M Manual; and

b) Any Stormwater Management Facilities, pumping stations, and any outlets that discharge to a receiver, established, or replaced within the Authorized System after the date of issuance of this Approval, are inspected within one year of being placed into service and thereafter as required by the O&M Manual.

3.1.3 The Owner shall clean and maintain Sewage Works within the Authorized System to ensure the Sewage Works perform as designed.

3.1.4 The Owner shall inspect the Stormwater Management Facilities in the Authorized System after significant flooding events as defined in, and in accordance with procedures documented in, the O&M Manual.

3.1.5 The Owner shall maintain records of the results of the inspections required in condition 3.1.1, 3.1.2 and 3.1.4 and any cleaning and maintenance operations undertaken, and shall make available the records for inspection by the Ministry upon request. The records shall include the following:

a) Asset ID and name of the Sewage Works;

b) Date and results of each inspection, maintenance, or cleaning;

c) Name of person who conducted the inspection, maintenance, or the name of the inspecting official, where applicable, and

d) As applicable to the type of works, observations resulting from the inspection including, at a minimum:

i Hydraulic operation of the works (e.g., length of occurrence since the last rainfall event, evidence or occurrence of overflows).

ii Condition of vegetation in and around the works.

iii Occurrence of obstructions at the inlet and outlet of the works.

iv Evidence of spills and/or oil/grease contamination.

v Presence of trash build-up, and

vi Measurements of other parameters as required in the Monitoring Plan.

3.2 Operations & Maintenance (O&M) Manual

3.2.1 The Owner shall prepare and implement an operations and maintenance manual for Sewage Works within the Authorized System on or before June 24, 2023, that includes or references, but is not necessarily limited to, the following information:

a) Procedures for the routine operation of the Sewage Works;

b) Inspection programs, including the frequency of inspection, and the methods or tests employed to detect when maintenance is necessary, including:

i Presence of algae and/or invasive species impairing the Works (e.g., phragmites, goldfish);

ii Measurements of sediment depth, manual water levels (staff gauge) and/or visual observations, as appropriate to the Stormwater Management Facilities.

c) Maintenance and repair programs, including:

i The frequency of maintenance and repair for the Sewage Works;

ii Stormwater pond sediment cleanout, dewatering, and management;

iii Excavation, modification, replacement of LID soil/media/aggregate/geotextile, such as bioretention cells, green roof, permeable pavement; and

iv The frequency of maintenance for any other Stormwater Management Facilities identified in Schedule B that collect sediment.

d) Operational and maintenance requirements to protect sources of drinking water, such as those included in the Standard Operating Policy for Sewage Works, and any applicable local Source Protection Plan policies;

e) Procedures for routine physical inspection and calibration of monitoring equipment or components in accordance with the Monitoring Plan;

f) Emergency Response, Spill Reporting and Contingency Plans and Procedures for dealing with equipment breakdowns, potential Spills, and any other abnormal situations, including notification to the Spills Action Center, the Medical Officer of Health, and the District Manager, as applicable;

g) Procedures for receiving, responding, and recording public complaints, including recording any follow-up actions taken; and

h) As-built drawings or record drawings of the Sewage Works for stormwater works constructed after 2010 and where available, for stormwater works constructed before 2010.

3.2.2 The Owner shall review and update the O&M Manual and ensure that access to a copy is readily available for each Stormwater Management Facility for the operational life of the works.

3.2.3 The Owner shall provide a copy of the O&M Manual to Ministry staff, upon request.

3.2.4 The Owner shall revise the O&M Manual to include procedures necessary for the operation and maintenance of any Sewage Works within the Authorized System that are established, altered, extended, replaced, or enlarged after the date of issuance of this approval prior to placing into service those Sewage Works.

3.2.5 For greater certainty, the O&M Manual may be a single document or a collection of documents that, when considered together, apply to all parts of the Authorized System.

3.3 On or before June 24, 2025, the Owner shall establish signage to notify the public at any Stormwater Management Facility identified in Schedule B that is a wet pond, dry pond, hybrid Facility, or engineered wetland. The signage shall include the following minimum information:

3.3.1 Identification that the site contains a Stormwater Management Facility;

3.3.2 Identification of potential hazards and limitations of water use, as applicable;

3.3.3 Identification of the purpose of the Facility;

3.3.4 ECA approval number and/or asset ID; and

3.3.5 Owner's contact information.

3.4 Prior to any maintenance of Sewage Works comprising the Authorized System, the Owner shall ensure that all applicable permits or authorizations have been obtained from Federal or Provincial agencies having legislative mandates relating to species at risk or water resources.

4.0 Monitoring Plan

4.1 On or before June 24, 2024 or within twenty-four (24) months of the date of the publication of the Ministry's monitoring guidance, whichever is later, the Owner shall develop and implement a monitoring plan for the Authorized System. The monitoring plan shall be:

4.1.1 Signed and approved by management with the authority delegated by the Owner to do so;

4.1.2 Peer-reviewed by a third-party Qualified Person (QP), external to the development of the Monitoring Plan, to verify the adequacy of the Monitoring Plan in complying with conditions 4.4 and 4.5 of Schedule E. The results of the peer review shall include:

a) Written confirmation from the QP that they have the experience and qualifications to carry out the work; and

b) Written confirmation from the QP of the adequacy of the Monitoring Plan.

4.2 The Owner, or a QP designated by the Owner, may jointly develop the Monitoring Plan in partnership with Owner(s) of other Municipal Stormwater Management Systems as long as the Municipal Stormwater Management Systems are within the same watershed.

4.3 The Owner shall ensure the Monitoring Plan is implemented and any resulting monitoring data is recorded in an electronic database.

4.4 The Monitoring Plan shall include:

4.4.1 Procedures to verify that the operational performance of the Authorized System is as designed/planned;

4.4.2 Procedures to assess the environmental impact of the Municipal Stormwater Management System; and

4.4.3 Procedures for any corrective action that may be required to address any performance deficiencies or environmental impacts identified from above conditions 4.4.1 or 4.4.2.

4.5 The Monitoring Plan shall also include, but not be limited to:

4.5.1 Identification of the Sewage Works to be monitored, including outlets and any works that provide quality and/or quantity control;

4.5.2 Identification of the key receivers to be monitored within the Owner's municipal boundaries and the monitoring locations;

4.5.3 Consideration of relevant municipal land use and environmental planning documents (e.g., Stormwater Management Master Plan, Class Environmental Assessment Project, asset management plan, subwatershed studies, and planned development);

4.5.4 Characterization of water quality and quantity conditions and identification of water users to be protected, based on conditions 4.5.2 and 4.5.3;

4.5.5 Identification of water quality and quantity goals, as it relates to Stormwater management, using the information collected in condition 4.5.4;

4.5.6 Identification of locations of rainfall gauges to be used;

4.5.7 Identification of inspections, measurements, sampling, analysis and/or other monitoring activities that were used as the basis for or will inform future updates to the procedures identified in condition 4.4.

4.5.8 Details respecting a monitoring program for the works and the receivers, that includes, at a minimum:

a) Hydrological, chemical, physical, and biological parameters, as appropriate, in alignment with the goals;

b) Ensures water level of the Stormwater Measurement Facilities, excluding MTDs, are measured at regular intervals with a water level gauge;

c) Monitoring methodology, including the frequency and protocols for sampling, analysis, and recording, with consideration of dry and wet weather events and timing of sampling during wet weather events.

d) Ensures that the time of all samples or measurements are recorded.

4.5.9 An implementation plan for the monitoring program that identifies timelines and, if the monitoring occurs on a rotational basis, provides a description of the rotational schedule and associated works.

4.5.10 Includes a summary of all monitoring data along with an interpretation of the data and any conclusion drawn from the data evaluation about the need for future modifications to the Authorized System or system operations, and

4.5.11 Consideration of adaptive management practices (e.g., evidence-based decision making).

4.6 The Owner shall ensure that the Monitoring Plan is updated where necessary within twelve (12) months of any Alteration to the Authorized System, or more frequently as required by the Monitoring Plan.

4.7 The Owner shall, on request and without charge, provide a copy of the Monitoring Plan and any resulting monitoring data to members of the public.

5.0 Reporting

5.1 The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.

5.2 The Owner shall prepare an annual performance report for the Authorized System that:

5.2.1 Is submitted to the Director on or before April 30th of each year and covers the period from January 1st to December 31st of the preceding calendar year.

a) For clarity, the first report shall cover the period of January 1, 2023 to December 31st, 2023 and be submitted to the Director on or before April 30th, 2024.

5.2.2 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;

5.2.3 Includes a summary and interpretation of environmental trends based on all monitoring information and data for the previous five (5) years;

5.2.4 Includes a summary of any operating problems encountered and corrective actions taken;

5.2.5 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;

5.2.6 Includes a summary of the calibration and maintenance carried out on all monitoring equipment;

5.2.7 Includes a summary of any complaints related to the Sewage Works received during the reporting period and any steps taken to address the complaints;

5.2.8 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;

5.2.9 Includes a summary of all spills or abnormal discharge events;

5.2.10 Includes a summary of actions taken, including timelines, to improve or correct performance of any aspect of the Authorized System; and

5.2.11 Includes a summary of the status of actions for the previous reporting year.

5.3 The report described in condition 5.2 shall be:

5.3.1 Made available, on request and without charge, to members of the public who are served by the Authorized System; and

5.3.2 Made available, by June 1st of the same reporting year, to members of the public without charge by publishing the report on the Internet, if the Owner maintains a website on the Internet.

6.0 Record Keeping

6.1 The Owner shall retain for a minimum of ten (10) years from the date of their creation:

6.1.1 All records, reports and information required by this Approval and related to or resulting Alterations to the Authorized System, and

6.1.2 All records, report and information related to the operation, maintenance and monitoring activities required by this Approval.

6.2 The Owner shall update, within twelve (12) months of any Alteration to the Authorized System being placed into service, any drawings maintained for the Municipal Stormwater Management System to reflect the Alteration of the Sewage Works, where applicable.

7.0 Review of this Approval

7.1 No later than the date specified in Condition 1 of Schedule A of this Approval, the Owner shall submit to the Director an application to have the Approval reviewed. The application shall, at minimum:

7.1.1 Include an updated description of the Sewage Works within the Authorized System, including any Alterations to the Sewage Works that were made since the Approval was last issued; and

7.1.2 Be submitted in the manner specified by Director and include any other information requested by the Director.

8.0 Source Water Protection

8.1 The Owner shall ensure that any Alteration in the Authorized System is designed, constructed, and operated in such a way as to be protective of sources of drinking water in Vulnerable Areas as identified in the Source Protection Plan, if available.

8.2 The Owner shall prepare a “Significant Drinking Water Threat Assessment Report for Proposed Alterations” for the Authorized System on or before June 24, 2023 that includes, but is not necessarily limited to:

8.2.1 An outline of the circumstances under which proposed Alterations could pose a Significant Drinking Water Threat based on the Director’s Technical Rules established under the CWA.

8.2.2 An outline of how the Owner assesses the proposed Alterations to identify drinking water threats under the CWA.

8.2.3 For any proposed Alteration a list of components, equipment, or Sewage Works that are being altered and have been identified as a Significant Drinking Water Threat.

8.2.4 A summary of design considerations and other measures that have been put into place to mitigate risks resulting from construction or operation of the components, equipment, or Sewage Works identified in condition 8.2.3, such as those included in the Standard Operating Policy for Sewage Works.

8.3 The Owner shall make any necessary updates to the report required in condition 8.2 at least once every twelve (12) months.

8.4 Any components, equipment, or Sewage Works added to the report required in condition 8.2 shall be include in the report for the operational life of the Sewage Works.

8.5 Upon request, the Owner shall make a copy of the report required in condition 8.2 available to the Ministry or Source Protection Authority staff.

9.0 Storm Sewer Catchment Asset Inventory

9.1 The Owner shall prepare and submit to the Director an inventory of the storm sewersheds and classify in accordance with Tables E1 and E2, on or before June 24, 2025. Minimum classification of the level of Stormwater management is as follows:

9.1.1 Level A – Stormwater receives treatment for water quality and quantity prior to discharge to the environment;

9.1.2 Level B – Stormwater receives treatment for water quality but no water quantity prior to discharge to the environment; and

9.1.3 Level C – Stormwater receives no treatment for water quality prior to discharge to the environment.

Table E1. Storm Sewershed and Associated Treatment

Outlet Asset ID	Sewershed Catchment Area (ha)	Tributary or Receiver	Subwatershed/ Watershed	Stormwater Management Level (A, B or C)	Treatment provided by other municipality (if applicable)

Table E2. Summary of Storm Sewersheds

Stormwater Management Level	Total Number of Outlets to Environment	Total Sewershed Catchment Area (ha)
Level A		
Level B		
Level C		

9.2 Within 12 (twelve) months of the date that the inventory required in condition 9.1 is submitted to the Director, the document(s) or file(s) referenced in Table B1 of Schedule B of this Approval shall be updated to identify the storm sewersheds for each outlet and their level of Stormwater management.

Schedule F: Residue Management

System Owner	**Lambton Shores, The Corporation of the Municipality of**
ECA Number	**049-S701**
System Name	**Lambton Shores Municipal Stormwater System**
ECA Issue Date	**November 7th, 2022**

1.0 Residue Management System

1.1 Not Applicable.

Appendix A – Stormwater Management Criteria

1.0 Applicability of Criteria

1.1 The criteria listed under Table A1 of this Appendix applies to all drainage areas greater than 0.1 ha, with the construction erosion and sediment control criteria applying also to sites <0.1 ha;

1.2 Despite condition 1.1 of Appendix A, if some or all of the criteria listed under Table A1 of this Appendix have been assessed for and addressed in other adjacent developed lands to the project site through a subwatershed plan or equivalent study, then those criteria may not be applicable to the project site.

Table A1. Performance Criteria

Water Balance [1]	**FOR DEVELOPMENT SCENARIOS** [2] **Assessment Studies:** i) Control [3] as per the criteria identified in the water balance assessment completed in one or more of the following studies [15], if undertaken: a watershed/subwatershed plan; Source Protection Plan (Assessment Report component); Master Stormwater Management Plan, Master Environmental Servicing Plan; Class EA, or similar approach that transparently considers social, environmental and financial impacts; or local site study including natural heritage, Ecologically significant Groundwater Recharge Areas (EGRA), inflow and infiltration strategies. The assessment should include sufficient detail to be used at a local site level and consistent with the various level of studies; OR **IF Assessment Studies in i) NOT completed:** ii) Control [3] the recharge [4] to meet Pre-development [5] conditions on property; **OR** iii) Control [3] the runoff from the 90th percentile storm event. **Lake Simcoe Watershed Municipalities:** iv) Control [3] as per the evaluation of anticipated changes in water balance between Pre-development and post-development assessed through a Stormwater management plan in support of an application for Major Development [6]. The assessment should include sufficient detail to be used at a local site level. If it is demonstrated, using the approved water balance estimation methods [7], that the site's post to Pre-development water balance cannot be met, and Maximum Extent Possible [8] has been attained, the proponent may use Lake Simcoe and Region Conservation Authority's (LSRCA) Recharge Compensation Program [9]. **FOR RETROFIT SCENARIOS** [10] **Assessment Studies:** i) Control as per criteria identified in the water balance assessment completed in one or more of the following studies: a watershed/subwatershed plan, Source Protection Plan (Assessment Report component), Master Stormwater Management Plan, Master Environmental Servicing Plan,

	Class EA, or local site study including natural heritage, EGRA, inflow and infiltration strategies, if undertaken. The assessment should include sufficient detail to be used at a local site level and consistent with the various level of studies; **OR** ii) If constraints [11] identified in i), then control [3] as per Maximum Extent Possible [8] based on environmental site feasibility studies or address local needs[14]. **IF Assessment Studies in i) NOT completed:** iii) Control [3] the recharge [4] to meet Pre-development [5] conditions on property; **OR** iv) Control [3] the runoff from the 90th percentile storm event.
Water Quality [1]	**FOR DEVELOPMENT SCENARIOS** [2] All of the following criteria must be met for development scenarios: **General:** i) Characterize the water quality to be protected and Stormwater Contaminants (e.g., suspended solids, nutrients, bacteria, water temperature) for potential impact on the Natural Environment, and control as necessary, **OR** ii) As per the watershed/subwatershed plan, similar area-wide Stormwater study, or Stormwater management plan to minimize, or where possible, prevent increases in Contaminant loads and impacts to receiving waters. **Suspended Solids:** i) Control [3] 90th percentile storm event and if conventional methods are necessary, then enhanced, normal, or basic levels of protection (80%, 70%, or 60% respectively) for suspended solids removal (based on the receiver). **Phosphorus:** i) Minimize existing phosphorus loadings to Lake Erie and its tributaries, as compared to 2018 or conditions prior to the proposed development, **OR** ii) Minimize phosphorus loadings to Lake Simcoe and its tributaries. Proponents with development sites located in the Lake Simcoe watershed shall evaluate anticipated changes in phosphorus loadings between Pre-development and post-development through a Stormwater management plan in support of an application for Major Development [6]. The assessment should include sufficient detail to be used at a local site level. If, using the approved phosphorus budget tool [12], it is demonstrated that the site's post to Pre-development phosphorus budget cannot be met, and Maximum Extent Possible [8] has been attained, the proponent may use LSRCA's Phosphorus Offsetting Policy [9]. **FOR RETROFIT SCENARIOS** [10] i) Improve the level of water quality control currently provided on site; **AND** ii) As per the 'Development' criteria for Suspended Solids, **OR** iii) **If 'Development' criteria for Suspended Solids cannot be met**, Works are designed as a multi-year retrofit project, in accordance with a rehabilitation study or similar area-wide Stormwater study, such that the completed treatment train will achieve the 'Development' criteria for Suspended Solids or local needs[14], within ten (10) years; **OR**

	iv) If constraints [11] identified in ii) and iii), then control [3] as per Maximum Extent Possible [8] based on environmental site feasibility studies.
Erosion Control (Watershed) [1]	**FOR DEVELOPMENT SCENARIOS** [8] i) As per erosion assessment completed in watershed/subwatershed plan, Master Stormwater Management Plan, Master Environmental Servicing Plan, Drainage Plan, Class EA, local site study, geomorphologic study, or erosion analysis; **OR** ii) As per the Detailed Design Approach or Simplified Design Approach methods described in the Stormwater Management Planning and Design Manual: a. The Detailed Design Approach may be selected by the proponent for any development regardless of size and location within the watershed provided technical specialists are available for the completion of the technical assessments; or considered more appropriate than the simplified approach given the size and location of the development within the watershed and the sensitivity of the receiving waters in terms of morphology and habitat function. b. The Simplified Design Approach may be adopted for watersheds whose development area is generally less than twenty hectares AND either one of the following two conditions apply: 1) The catchment area of the receiving channel at the point-of-entry of Stormwater drainage from the development is equal to or greater than twenty-five square kilometres; or 2) Meets the following conditions: • The channel bankfull depth is less than three quarters of a metre; • The channel is a headwater stream; • The receiving channel is not designated as an Environmentally Sensitive Area (ESA) or Area of Natural or Scientific Interest (ANSI) and does not provide habitat for a sensitive aquatic species; • The channel is stable to transitional; and • The channel is slightly entrenched; **OR** iii) In the absence of a guiding study, detain at minimum, the runoff volume generated from a 25 mm storm event over 24 to 48 hours. **FOR RETROFIT SCENARIOS** [10] i) If approaches i-iii) under 'Development Scenarios' are not feasible as per identified constraints [11], then improve the level of erosion control [3] currently provided on site to Maximum Extent Possible [8] based on environmental site feasibility studies or address local needs[14].
Water Quantity (Minor and Major System) [1]	**i)** As per municipal standards, Master Stormwater Management Plan, Class EA, Individual EA and/or ECA, as appropriate for the type of project [13]
Flood Control (Watershed Hydrology) [1]	**FOR DEVELOPMENT SCENARIOS** [2] i) Manage peak flow control as per watershed/subwatershed plans, municipal criteria being a minimum 100 year return storm (except for site-specific considerations and proximity to receiving water bodies), municipal guidelines and standards, Individual/Class EA, ECA, Master Plan, as appropriate for the type of project [13].

	FOR RETROFIT SCENARIOS [10] i) If approaches i) under 'Development Scenarios' are not feasible as per identified constraints [11], then improve the level of flood control [3] currently provided on site to Maximum Extent Possible [8] based on environmental site feasibility studies.
Construction Erosion and Sediment Control	i) Manage construction erosion and sediment control through development and implementation of an erosion and sediment control (ESC) plan. The ESC plan shall: a. Have regard to Canadian Standards Association (CSA) W202 Erosion and Sediment Control Inspection and Monitoring Standard (as amended); OR b. Have regard to Erosion and Sediment Control Guideline for Urban Construction 2019 by TRCA (as amended). ii) Be prepared by a QP for sites with drainage areas greater than 5 ha or if specified by the Owner for a drainage lower than 5 ha. iii) Installation and maintenance of the ESC measures specified in the ESC plan shall have regard to CSA W208:20 Erosion and Sediment Control Installation and Maintenance (as amended). iv) For sites with drainage areas greater than 5 ha, a QP shall inspect the construction ESC measures, as specified in the ESC plan.
Footnote	1. Where the opportunity exists on your project site or the same subwatershed, reallocation of development elements may be optimal for management as described in footnote [3]. 2. Development includes new development, redevelopment, infill development, or conversion of a rural cross-section into an urban cross-section. 3. Stormwater volumes generated from the geographically specific 90th percentile rainfall event on an annual average basis from all surfaces on the entire site are targeted for control. Control is in the following hierarchical order, with each step exhausted before proceeding to the next: 1) retention (infiltration, reuse, or evapotranspiration), 2) LID filtration, and 3) conventional Stormwater management. Step 3, conventional Stormwater management, should proceed only once Maximum Extent Possible [8] has been attained for Steps 1 and 2 for retention and filtration. 4. Recharge is the infiltration and movement of surface water into the soil, past the vegetation root zone, to the zone of saturation, or water table. 5. Pre-development is defined as the more stringent of the two following scenarios: 1) a site's existing condition, or 2) as defined by the local municipality. 6. Major Development has the same meaning as in the Lake Simcoe Protection Plan, 2009. 7. Currently, the approved tool by LSRCA for calculating the water balance is the Thornthwaite-Mather Method. Other tools agreed upon by relevant approval agencies (e.g., LSRCA, municipality, or Ministry) may also be acceptable, subject to written acceptance by the Director. 8. Maximum Extent Possible means maximum achievable Stormwater volume control through retention and LID filtration engineered/landscaped/technical Stormwater practices, given the site constraints [11]. 9. Information pertaining to LSRCA's Recharge Compensation Program and Phosphorus Offsetting Policy is available on LSRCA's website (lsrca.on.ca), or in "Water Balance Recharge Policy for the Lake Simcoe Protection Plan", dated July 2021, and prepared by Lake Simcoe Region Conservation Authority and "Phosphorus Offsetting Policy", dated July 2021, and prepared by Lake Simcoe Region Conservation Authority.

	10. Retrofit means: 1) a modification to the management of the existing infrastructure, 2) changes to major and minor systems, or 3) adding Stormwater infrastructure, in an existing area on municipal right-of-way, municipal block, or easement. It does not include conversion of a rural cross-section into an urban cross-section. 11. Site constraints must be documented. A list of site constraints can be found in Table A2. 12. Tools for calculating phosphorus budgets may include the Ministry's Phosphorus Tool, the Low Impact Development Treatment Train Tool developed in partnership by TRCA, LSRCA, and Credit Valley Conservation (CVC), or other tools agreed upon by the LSRCA and other relevant approval agencies including the municipality. 13. Possible to look at combined grey infrastructure and LID system capacity jointly. 14. Local needs include requirements for water quality, erosion, and/or water balance retrofits identified by the owner through ongoing operation and maintenance of the stormwater system, including inspection of local receiving systems and the characterization of issues requiring remediation through retrofit controls. 15. All studies shall conform with Ministry policies. If any conclusions in the studies negate policy, then the project will require a direct submission to the Ministry for review through an application pertaining to a Schedule C Notice.

Table A2. Stormwater Management Practices Site Constraints

Site Constraints	
a)	Shallow bedrock [1], areas of blasted bedrock [2], and Karst;
b)	High groundwater [1] or areas where increased infiltration will result in elevated groundwater levels which can be shown through an appropriate area specific study to impact critical utilities or property (e.g., susceptible to flooding);
c)	Swelling clays [3] or unstable sub-soils;
d)	Contaminated soils (e.g., brownfields);
e)	High Risk Site Activities including spill prone areas;
f)	Prohibitions and or restrictions per the approved Source Protection Plans and where impacts to private drinking water wells and /or Vulnerable Domestic Well Supply Areas cannot be appropriately mitigated;
g)	Flood risk prone areas or structures and/ or areas of high inflow and infiltration (I/I) where wastewater systems (storm and sanitary) have been shown through technical studies to be sensitive to groundwater conditions that contribute to extraneous flow rates that cause property flooding / Sewer back-ups;
h)	For existing municipal rights-of-way infrastructure (e.g., roads, sidewalks, utility corridor, Sewers, LID, and trails) where reconstruction is proposed and where surface and subsurface areas are not available based on a site-specific assessment completed by a QP;
i)	For developments within partially separated wastewater systems where reconstruction is proposed and where, based on a site-specific assessment completed by a QP, can be shown to: i Increase private property flood risk liabilities that cannot be mitigated through design; ii Impact pumping and treatment cost that cannot be mitigated through design; or

iii Increase risks of structural collapse of Sewer and ground systems due to infiltration and the loss of pipe and/or pavement support that cannot be mitigated through design.
j) Surface water dominated or dependent features including but not limited to marshes and/or riparian forest wetlands which derive all or a majority of their water from surface water, including streams, runoff, and overbank flooding. Surface water dominated or dependent features which are identified through approved site specific hydrologic or hydrogeologic studies, and/or Environmental Impact Statements (EIS) may be considered for a reduced volume control target. Pre-consultation with the MECP and local agencies is encouraged;
k) Existing urban areas where risk to water distribution systems has been identified through assessments to meet applicable drinking water requirements, including Procedures F-6 and F-6-1, and substantiated by a QP through an appropriate area specific study and where the risk cannot be reasonably mitigated per the relevant design guidelines;
l) Existing urban areas where risk to life, human health, property, or infrastructure has been is identified and substantiated by a QP through an appropriate area specific study and where the risk cannot be reasonably mitigated per the relevant design guidelines;
m) Water reuse feasibility study has been completed to determine non-potable reuse of Stormwater for onsite or shared use;
n) Economic considerations set by infrastructure feasibility and prioritization studies undertaken at either the local/site or municipal/system level [4].
Footnote: 1. May limit infiltration capabilities if bedrock and groundwater is within 1m of the proposed Facility invert per Table 3.4.1 of the LID Stormwater Planning and Design Guide (2010, V1.0 or most recent by TRCA/CVC). Detailed assessment or studies are required to demonstrate infiltration effects and results may permit relaxation of the minimum 1m offset. 2. Where blasting is more localized, this constraint may not be an issue elsewhere on the property. While infiltration-based practices may be limited in blasted rock areas, other forms of LID, such as filtration, evapotranspiration, etc., are still viable options that should be pursued. 3. Swelling clays are clay soils that is prone to large volume changes (swelling and shrinking) that are directly related to changes in water content. 4. Infrastructure feasibility and prioritization studies should comprehensively assess Stormwater site opportunities and constraints to improve cost effectiveness, environmental performance, and overall benefit to the receivers and the community. The studies include assessing and prioritizing municipal infrastructure for upgrades in a prudent and economically feasible manner.

Appendix B

Catchbasin Inspection Forms

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

Catch basin inspection and cleaning procedures include the following:

- ✓ Work upstream to downstream.
- ✓ Clean sediment and trash, leaves off grate.
- ✓ Visually inspect the outside of the grate.
- ✓ Visually inspect the inside of the catch basin to determine cleaning needs.
- ✓ Inspect catch basin for structural integrity.
- ✓ Determine the most appropriate equipment and method for cleaning each catch basin.
    a. Manually use a shovel to remove accumulated sediments, or
    b. Use a bucket loader to remove accumulated sediments, or
    c. Use a high pressure washer to clean any remaining material out of catch basin while capturing the slurry with a vacuum.
    d. If necessary, after the catch basin is clean, use the rudder of the vacuum truck to clean downstream pipe and pull back sediment that might have entered downstream pipe.
- ✓ If contamination is suspected, chemical analysis will be required to determine if the materials comply with the Environmental Quality hazardous waste rules. Chemical analysis required will depend on suspected contaminants. Note the identification number of the catch basin on the sample label, and note sample collection on the Catch Basin Inspection Form.
- ✓ Properly dispose of collected sediments. See following section forguidance.
- ✓ If fluids collected during catch basin cleaning are not being handled and disposed of by a third party, dispose of these fluids to a sanitary sewer system, with permission of the system operator.
- ✓ If illicit discharges are observed or suspected, notify the Transportation Manager.
- ✓ At the end of each day, document location and number of catch basins cleaned, amount of waste collected, and disposal method for all screenings.
- ✓ Report additional maintenance or repair needs to the appropriate Department.

Disposal of Screenings

Catch basin cleanings from storm water-only drainage systems may be disposed at any landfill that is permitted. Lambton Shoes does not routinely require storm water-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.

Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** GREEN ACRES

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☐ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☑	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☐ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☑ Cascade: ☐ Other: _ Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	50 GREEN ACRES

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:**	Color:	**Circle those present:**
		Odor:	Foam / Oil Sheen Sanitary Waste / Bacterial Sheen Orange Staining / Floatables Excessive sediment / Pet Waste Other: _ / Optical Enhancers
Weather Conditions :	Dry > 24 hours ☐	Wet ☐	
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			

Comments:

INSTALL NEW DRY WELL

20"

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

Catch basin inspection and cleaning procedures include the following:

- ✓ Work upstream to downstream.
- ✓ Clean sediment and trash, leaves off grate.
- ✓ Visually inspect the outside of the grate.
- ✓ Visually inspect the inside of the catch basin to determine cleaning needs.
- ✓ Inspect catch basin for structural integrity.
- ✓ Determine the most appropriate equipment and method for cleaning each catch basin.
    a. Manually use a shovel to remove accumulated sediments, or
    b. Use a bucket loader to remove accumulated sediments, or
    c. Use a high pressure washer to clean any remaining material out of catch basin while capturing the slurry with a vacuum.
    d. If necessary, after the catch basin is clean, use the rudder of the vacuum truck to clean downstream pipe and pull back sediment that might have entered downstream pipe.
- ✓ If contamination is suspected, chemical analysis will be required to determine if the materials comply with the Environmental Quality hazardous waste rules. Chemical analysis required will depend on suspected contaminants. Note the identification number of the catch basin on the sample label, and note sample collection on the Catch Basin Inspection Form.
- ✓ Properly dispose of collected sediments. See following section for guidance.
- ✓ If fluids collected during catch basin cleaning are not being handled and disposed of by a third party, dispose of these fluids to a sanitary sewer system, with permission of the system operator.
- ✓ If illicit discharges are observed or suspected, notify the Transportation Manager.
- ✓ At the end of each day, document location and number of catch basins cleaned, amount of waste collected, and disposal method for all screenings.
- ✓ Report additional maintenance or repair needs to the appropriate Department.

Disposal of Screenings

Catch basin cleanings from storm water-only drainage systems may be disposed at any landfill that is permitted. Lambton Shoes does not routinely require storm water-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.

Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** ELMWOOD

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☐ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☑	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☑ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☑ Cascade: ☐ Other: _ Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	21 ELMWOOD

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:**	Color:	**Circle those present:**
		Odor:	Foam / Oil Sheen Sanitary Waste / Bacterial Sheen Orange Staining / Floatables Excessive sediment / Pet Waste Other: / Optical Enhancers
Weather Conditions :	Dry > 24 hours ☐	Wet ☐	
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			

Comments:

2 DRY WELLS CLEANED

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

Catch basin inspection and cleaning procedures include the following:

- ✓ Work upstream to downstream.
- ✓ Clean sediment and trash, leaves off grate.
- ✓ Visually inspect the outside of the grate.
- ✓ Visually inspect the inside of the catch basin to determine cleaning needs.
- ✓ Inspect catch basin for structural integrity.
- ✓ Determine the most appropriate equipment and method for cleaning each catch basin.
    a. Manually use a shovel to remove accumulated sediments, or
    b. Use a bucket loader to remove accumulated sediments, or
    c. Use a high pressure washer to clean any remaining material out of catch basin while capturing the slurry with a vacuum.
    d. If necessary, after the catch basin is clean, use the rudder of the vacuum truck to clean downstream pipe and pull back sediment that might have entered downstream pipe.
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- ✓ Properly dispose of collected sediments. See following section for guidance.
- ✓ If fluids collected during catch basin cleaning are not being handled and disposed of by a third party, dispose of these fluids to a sanitary sewer system, with permission of the system operator.
- ✓ If illicit discharges are observed or suspected, notify the Transportation Manager.
- ✓ At the end of each day, document location and number of catch basins cleaned, amount of waste collected, and disposal method for all screenings.
- ✓ Report additional maintenance or repair needs to the appropriate Department.

Disposal of Screenings

Catch basin cleanings from storm water-only drainage systems may be disposed at any landfill that is permitted. Lambton Shoes does not routinely require storm water-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.

reenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ Location: VICTORIA ST P.F.

Operator: _____ Date: 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☐ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☐ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☑ Cascade: ☐ Other: _ Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	10045 VICTORIA ST

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:**	Color:	**Circle those present:**
		Odor:	Foam / Oil Sheen Sanitary Waste / Bacterial Sheen Orange Staining / Floatables Excessive sediment / Pet Waste Other: _ / Optical Enhancers
Weather Conditions :	Dry > 24 hours ☐	Wet ☐	
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			

Comments:

INSTALLATION OF 2 20" dry wells

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

Catch basin inspection and cleaning procedures include the following:

- ✓ Work upstream to downstream.
- ✓ Clean sediment and trash, leaves off grate.
- ✓ Visually inspect the outside of the grate.
- ✓ Visually inspect the inside of the catch basin to determine cleaning needs.
- ✓ Inspect catch basin for structural integrity.
- ✓ Determine the most appropriate equipment and method for cleaning each catch basin.
    a. Manually use a shovel to remove accumulated sediments, or
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    c. Use a high pressure washer to clean any remaining material out of catch basin while capturing the slurry with a vacuum.
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- ✓ Properly dispose of collected sediments. See following section for guidance.
- ✓ If fluids collected during catch basin cleaning are not being handled and disposed of by a third party, dispose of these fluids to a sanitary sewer system, with permission of the system operator.
- ✓ If illicit discharges are observed or suspected, notify the Transportation Manager.
- ✓ At the end of each day, document location and number of catch basins cleaned, amount of waste collected, and disposal method for all screenings.
- ✓ Report additional maintenance or repair needs to the appropriate Department.

Disposal of Screenings

Catch basin cleanings from storm water-only drainage systems may be disposed at any landfill that is permitted. Lambton Shoes does not routinely require storm water-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.

Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** PORT FRANKS ESTATE

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☑ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☐ Other: METAL GRATE Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	10036 PORT FRANKS ESTATE

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:**	Color:	
		Odor:	
Weather Conditions :		Dry > 24 hours ☐	Wet ☐
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			
Comments:			

Circle those present:

Foam	Oil Sheen
Sanitary Waste	Bacterial Sheen
Orange Staining	Floatables
Excessive sediment	Pet Waste
Other: _	Optical Enhancers

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

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- ✓ Work upstream to downstream.
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- ✓ If illicit discharges are observed or suspected, notify the Transportation Manager.
- ✓ At the end of each day, document location and number of catch basins cleaned, amount of waste collected, and disposal method for all screenings.
- ✓ Report additional maintenance or repair needs to the appropriate Department.

Disposal of Screenings

Catch basin cleanings from storm water-only drainage systems may be disposed at any landfill that is permitted. Lambton Shoes does not routinely require storm water-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.

Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** CLAYTON ST

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☐ **Other** _		
Catch Basin Material:	Concrete ☑ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _ -

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☐ Other: METAL GRATE Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	7716 CLAYTON

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:**	Color:	
		Odor:	
Weather Conditions :		Dry > 24 hours ☐	Wet ☐
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			
Comments:			

Circle those present:

Foam	Oil Sheen
Sanitary Waste	Bacterial Sheen
Orange Staining	Floatables
Excessive sediment	Pet Waste
Other: _	Optical Enhancers

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

Catch basin inspection and cleaning procedures include the following:

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- ✓ At the end of each day, document location and number of catch basins cleaned, amount of waste collected, and disposal method for all screenings.
- ✓ Report additional maintenance or repair needs to the appropriate Department.

Disposal of Screenings

Catch basin cleanings from storm water-only drainage systems may be disposed at any landfill that is permitted. Lambton Shoes does not routinely require storm water-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.

Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** NIPEGON ST

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☑ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= - Outlet Dia. (in): D= -

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: - -

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☐ Other: METAL GRATE Properly Aligned: Yes ☐ No ☐	0-6 (in): - 6-12(in): - 12-18 (in): - 18-24 (in): - 24 + (in): -	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow**
☐ **Standing Water**
(check one or both)

Observations:

Color:	
Odor:	

Weather Conditions : Dry > 24 hours ☐ Wet ☐

Sample of Screenings Collected for Analysis? Yes ☐ No ☐

Comments:
CLEAN 3 CATCH BASINS

Circle those present:

Foam	Oil Sheen
Sanitary Waste	Bacterial Sheen
Orange Staining	Floatables
Excessive sediment	Pet Waste
Other:	Optical Enhancers

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

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Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** ANN CRESCENT PF

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☐ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☑	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☑ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☐ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _ _

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☑ Cascade: ☐ Other: _ Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	9973 ANN CRESCENT

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:**	Color:	**Circle those present:**
		Odor:	Foam / Oil Sheen Sanitary Waste / Bacterial Sheen Orange Staining / Floatables Excessive sediment / Pet Waste Other: / Optical Enhancers
Weather Conditions :		Dry > 24 hours ☐	Wet ☐
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			

Comments:

INSTALLATION OF 20" dry well

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

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Disposal of Screenings

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Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** LAKESIDE CIRCLE

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☐ **Other** _		
Catch Basin Material:	Concrete ☐ Corrugated metal ☑ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☑ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☐ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☐ Other: _ Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	1 LAKESIDE CIRCLE

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in):	Yes ☐	No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:**		**Circle those present:**
	Color:		Foam / Oil Sheen
	Odor:		Sanitary Waste / Bacterial Sheen
Weather Conditions :	Dry > 24 hours ☐	Wet ☐	Orange Staining / Floatables
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			Excessive sediment / Pet Waste
Comments: INSTALL NEW DRY WELL			Other: _ / Optical Enhancers

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

Catch basin inspection and cleaning procedures include the following:

- ✓ Work upstream to downstream.
- ✓ Clean sediment and trash, leaves off grate.
- ✓ Visually inspect the outside of the grate.
- ✓ Visually inspect the inside of the catch basin to determine cleaning needs.
- ✓ Inspect catch basin for structural integrity.
- ✓ Determine the most appropriate equipment and method for cleaning each catch basin.
    a. Manually use a shovel to remove accumulated sediments, or
    b. Use a bucket loader to remove accumulated sediments, or
    c. Use a high pressure washer to clean any remaining material out of catch basin while capturing the slurry with a vacuum.
    d. If necessary, after the catch basin is clean, use the rudder of the vacuum truck to clean downstream pipe and pull back sediment that might have entered downstream pipe.
- ✓ If contamination is suspected, chemical analysis will be required to determine if the materials comply with the Environmental Quality hazardous waste rules. Chemical analysis required will depend on suspected contaminants. Note the identification number of the catch basin on the sample label, and note sample collection on the Catch Basin Inspection Form.
- ✓ Properly dispose of collected sediments. See following section for guidance.
- ✓ If fluids collected during catch basin cleaning are not being handled and disposed of by a third party, dispose of these fluids to a sanitary sewer system, with permission of the system operator.
- ✓ If illicit discharges are observed or suspected, notify the Transportation Manager.
- ✓ At the end of each day, document location and number of catch basins cleaned, amount of waste collected, and disposal method for all screenings.
- ✓ Report additional maintenance or repair needs to the appropriate Department.

Disposal of Screenings

Catch basin cleanings from storm water-only drainage systems may be disposed at any landfill that is permitted. Lambton Shoes does not routinely require storm water-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.

Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** GIBBS LANE

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.	DF301	**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☑ **Ground Inset** ☐ **Sign** ☐ **None** ☐ **Other** _		
Catch Basin Material:	Concrete ☐ Corrugated metal ☑ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☑ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _ _

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☑ Other: _ Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow**
☐ **Standing Water**
(check one or both)

Observations:

Color:

Odor:

Weather Conditions : Dry > 24 hours ☐ Wet ☐

Sample of Screenings Collected for Analysis? Yes ☐ No ☐

Comments:

Circle those present:

Foam	Oil Sheen
Sanitary Waste	Bacterial Sheen
Orange Staining	Floatables
Excessive sediment	Pet Waste
Other: _	Optical Enhancers

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

Catch basin inspection and cleaning procedures include the following:

- ✓ Work upstream to downstream.
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Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** LAKESIDE CIRCLE

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☑ **Ground Inset** ☐ **Sign** ☐ **None** ☐ **Other** HOPPER		
Catch Basin Material:	Concrete ☑ Corrugated metal ☑ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☑ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _ -

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☑ Other:_ Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	16 LAKESIDE CIRCLE

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:**	Color:	**Circle those present:**
		Odor:	Foam / Oil Sheen Sanitary Waste / Bacterial Sheen Orange Staining / Floatables Excessive sediment / Pet Waste Other:_ / Optical Enhancers
Weather Conditions :	Dry > 24 hours ☐	Wet ☐	
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			

Comments:

THE MUNICIPALITY OF
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Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

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Disposal of Screenings

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Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** LAKESIDE CIRCLE

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☐ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☑	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _ _

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☑ Other: _ Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	16 LAKESIDE CIRCLE

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in):		Yes ☐	No ☐
☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:** Color: Odor:	**Circle those present:**	
Weather Conditions :	Dry > 24 hours ☐ Wet ☐	Foam Sanitary Waste Orange Staining Excessive sediment Other: _	Oil Sheen Bacterial Sheen Floatables Pet Waste Optical Enhancers
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			

Comments:

24" dry well

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

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- ✓ At the end of each day, document location and number of catch basins cleaned, amount of waste collected, and disposal method for all screenings.
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Disposal of Screenings

Catch basin cleanings from storm water-only drainage systems may be disposed at any landfill that is permitted. Lambton Shoes does not routinely require storm water-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.

Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** LAKESIDE CIRCLE

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☐ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☑	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _ -

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☑ Other: _ Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	CORNER GIBBS LANE LAKESIDE CIRCLE

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in):	Yes ☐	No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:**		**Circle those present:**
	Color:		Foam / Oil Sheen
	Odor:		Sanitary Waste / Bacterial Sheen
Weather Conditions :	Dry > 24 hours ☐	Wet ☐	Orange Staining / Floatables
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			Excessive sediment / Pet Waste
Comments: 24" dry well			Other: _ / Optical Enhancers

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

Catch basin inspection and cleaning procedures include the following:

- ✓ Work upstream to downstream.
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Disposal of Screenings

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Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** LAKESIDE CIRCLE

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.	400-02	**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☑ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _ _

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☑ Other: _ Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	40 LAKESIDE CIRCLE

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow**
☐ **Standing Water**
(check one or both)

Observations:

Color:
Odor:

Weather Conditions : Dry > 24 hours ☐ Wet ☐

Sample of Screenings Collected for Analysis? Yes ☐ No ☐

Comments:

Circle those present:

Foam	Oil Sheen
Sanitary Waste	Bacterial Sheen
Orange Staining	Floatables
Excessive sediment	Pet Waste
Other: _	Optical Enhancers

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

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Job No.: _____ **Location:** LAKESIDE CIRCLE

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☑ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _ -

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☑ Other: _ Properly Aligned: Yes ☐ No ☐	0-6 (in): - 6-12(in): - 12-18 (in): - 18-24 (in): - 24 + (in): -	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	41 LAKESIDE CIRCLE

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow**
☐ **Standing Water**
(check one or both)

Observations:

Color:
Odor:

Weather Conditions : Dry > 24 hours ☐ Wet ☐

Sample of Screenings Collected for Analysis? Yes ☐ No ☐

Comments:

Circle those present:

Foam	Oil Sheen
Sanitary Waste	Bacterial Sheen
Orange Staining	Floatables
Excessive sediment	Pet Waste
Other: _	Optical Enhancers

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

Catch basin inspection and cleaning procedures include the following:

- ✓ Work upstream to downstream.
- ✓ Clean sediment and trash, leaves off grate.
- ✓ Visually inspect the outside of the grate.
- ✓ Visually inspect the inside of the catch basin to determine cleaning needs.
- ✓ Inspect catch basin for structural integrity.
- ✓ Determine the most appropriate equipment and method for cleaning each catch basin.
    a. Manually use a shovel to remove accumulated sediments, or
    b. Use a bucket loader to remove accumulated sediments, or
    c. Use a high pressure washer to clean any remaining material out of catch basin while capturing the slurry with a vacuum.
    d. If necessary, after the catch basin is clean, use the rudder of the vacuum truck to clean downstream pipe and pull back sediment that might have entered downstream pipe.
- ✓ If contamination is suspected, chemical analysis will be required to determine if the materials comply with the Environmental Quality hazardous waste rules. Chemical analysis required will depend on suspected contaminants. Note the identification number of the catch basin on the sample label, and note sample collection on the Catch Basin Inspection Form.
- ✓ Properly dispose of collected sediments. See following section for guidance.
- ✓ If fluids collected during catch basin cleaning are not being handled and disposed of by a third party, dispose of these fluids to a sanitary sewer system, with permission of the system operator.
- ✓ If illicit discharges are observed or suspected, notify the Transportation Manager.
- ✓ At the end of each day, document location and number of catch basins cleaned, amount of waste collected, and disposal method for all screenings.
- ✓ Report additional maintenance or repair needs to the appropriate Department.

Disposal of Screenings

Catch basin cleanings from storm water-only drainage systems may be disposed at any landfill that is permitted. Lambton Shoes does not routinely require storm water-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.

Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** QUEEN ST

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.	CONCRETE GRATE	**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☑ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☑ Cascade: ☐ Other: _	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	8 QUEEN ST
Properly Aligned: Yes ☐ No ☐			

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:** Color: Odor:		**Circle those present:** Foam, Oil Sheen, Sanitary Waste, Bacterial Sheen, Orange Staining, Floatables, Excessive sediment, Pet Waste, Other: _, Optical Enhancers
Weather Conditions :	Dry > 24 hours ☐	Wet ☐	
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			
Comments:			

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

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- ✓ Clean sediment and trash, leaves off grate.
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- ✓ Visually inspect the inside of the catch basin to determine cleaning needs.
- ✓ Inspect catch basin for structural integrity.
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Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** QUEEN ST

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☑ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _ _

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☐ Other: STEEL Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	CENTRE & QUEEN ST

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow**
☐ **Standing Water**
(check one or both)

Observations:

Color:
Odor:

Weather Conditions : Dry > 24 hours ☐ Wet ☐

Sample of Screenings Collected for Analysis? Yes ☐ No ☐

Comments:

2 catch basins at corner

Circle those present:

Foam	Oil Sheen
Sanitary Waste	Bacterial Sheen
Orange Staining	Floatables
Excessive sediment	Pet Waste
Other: _	Optical Enhancers

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

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Disposal of Screenings

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Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Job No.: _____ **Location:** QUEEN ST

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☐ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☑	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _ -

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☑ Cascade: ☐ Other: _ Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	22 QUEEN ST

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow**
☐ **Standing Water**
(check one or both)

Observations:

Color:	
Odor:	

Weather Conditions : Dry > 24 hours ☐ Wet ☐

Sample of Screenings Collected for Analysis? Yes ☐ No ☐

Comments:

18" DRY WELL

Circle those present:

Foam	Oil Sheen
Sanitary Waste	Bacterial Sheen
Orange Staining	Floatables
Excessive sediment	Pet Waste
Other: _	Optical Enhancers

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

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Disposal of Screenings

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Job No.: _____ **Location:** HILL ST

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☐ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☑	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☐ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _ _

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☑ Cascade: ☐ Other: _ Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	49 HILL ST

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:**	Color:	**Circle those present:**
		Odor:	
Weather Conditions :	Dry > 24 hours ☐	Wet ☐	
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			

Comments:

INSTALL NEW DRY WELL

20"

Foam	Oil Sheen
Sanitary Waste	Bacterial Sheen
Orange Staining	Floatables
Excessive sediment	Pet Waste
Other: _	Optical Enhancers

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

Cleaning Procedure

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Job No.: _____ **Location:** WALKER

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☑ **Other** _		
Catch Basin Material:	Concrete ☑ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= - Outlet Dia. (in): D= -

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: - -

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☐ Other: METAL Properly Aligned: Yes ☐ No ☐	0-6 (in): - 6-12(in): - 12-18 (in): - 18-24 (in): - 24 + (in): -	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	44 WALKER ST

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in): Yes ☐ No ☐

☐ **Flow**
☐ **Standing Water**
(check one or both)

Observations:

Color:	
Odor:	

Weather Conditions : Dry > 24 hours ☐ Wet ☐

Sample of Screenings Collected for Analysis? Yes ☐ No ☐

Comments:

Circle those present:

Foam	Oil Sheen
Sanitary Waste	Bacterial Sheen
Orange Staining	Floatables
Excessive sediment	Pet Waste
Other:	Optical Enhancers

THE MUNICIPALITY OF
LAMBTON SHORES

Storm Water Catch Basin Inspection & Cleaning Procedure

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Job No.: _____ **Location:** WARWICK

Operator: _____ **Date:** 2023

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:** _	
Catch Basin Label:	**Stencil** ☑ **Ground Inset** ☐ **Sign** ☐ **None** ☐ **Other** _		
Catch Basin Material:	Concrete ☑ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☑ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= _ Outlet Dia. (in): D= _

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☑ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _ _

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☑ Other: _ Properly Aligned: Yes ☐ No ☐	0-6 (in): _ 6-12(in): _ 12-18 (in): _ 18-24 (in): _ 24 + (in): _	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	56 WARWICK

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in):		Yes ☐	No ☐
☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:** Color: Odor:	**Circle those present:** Foam / Oil Sheen Sanitary Waste / Bacterial Sheen Orange Staining / Floatables Excessive sediment / Pet Waste Other: _ / Optical Enhancers	
Weather Conditions :	Dry > 24 hours ☐ Wet ☐		
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			
Comments:			

Appendix C

Stormwater Management Pond Inspection Forms

Lambton Shores – SWM Pond Logbook

Site Location	Inspection Date	Inspection Result	Maintenance & Cleaning Date	Quantity of Any Material Removed
Gill Rd	Apr 4/22	—		—
Rice	Dec 6 2022	No Issues		—
Rice	Apr 10, 2023	—		—
Wellington	Nov 15, 2023	—		—
East Glen	Nov 15, 2023	—		—
Rice	Nov 13, 2023	—		—
Gill	Nov 13, 2023	—		—

Lambton Shores – SWM Pond Inspection Report

Site Location: East Glen Date: Nov 15, 2023 Inspector R Moser

Type of Inspection: ☑Routine ☐ Storm Event (# of days after event ____)

General Observations:

Is water flowing? ☑Yes ☐No Standing Water? ☑ Yes ☐ No Depth: 2.19 m

Evidence of any obstruction or erosion? ☐ Yes ☐ No

Comments:_____

Pond Conditions:

Does the embankments, emergency spillway (if applicable), or side slopes show evidence of erosion or instability? ☐ Yes ☑ No Comments:_____

Is the grass/vegetation unhealthy or stressed? ☐ Yes ☑ No Comments:_____

Is there standing water in the grass swale? ☐ Yes ☑ No Comments:_____

Is there erosion downstream of the swale? ☐ Yes ☑ No Comments:_____

Is there visible accumulation of sediment at the bottom of the pond or around high water level of the pond? ☐ Yes ☑ No Comments:_____

Evidence of burrowing animals or other activity that could cause instability or erosion? ☐ Yes ☑ No
Comments:_____

Any signs of vandalism or other activity that could affect the ponds performance? ☐ Yes ☑ No
Comments:_____

Is there accumulation of trash, debris and/or litter to be removed? ☐ Yes ☑ No
☐Removed today ☐Will Schedule Comments: _____

Visible signs of pollution (sheen, unusual colour or odour)? ☐ Yes ☑ No
Comments:_____

Abnormally high water level? ☐ Yes ☑ No Observations of unusual algae blooms? ☐ Yes ☑ No
Comments: _____

Structural Components:

Are the pipes/inlets clogged or obstructed? ☐ Yes ☑ No

Is there Oil/Grit Separator (OGS) present? ☐ Yes ☑ No Sheen present? ☐ Yes ☑ No

Is there sediment in the separator? ☐ Yes ☐ No Depth: _____m

Are manholes, frames, and covers in appropriate condition? ☑ Yes ☑ No

Do any safety features, such as fences, gates, locks or signs need repairs? ☑ Yes ☐ No

Plan of Action:

Did the inspection identify conditions that require further action? ☐ Yes ☐ No

If yes:

- ☐ Requires additional monitoring
- ☐ Requires routine repairs
- ☐ Requires immediate repairs

Rebecca Moser

Signature

Lambton Shores – SWM Pond Inspection Report

Site Location: Rice Date: Nov 13, 2023 Inspector R. Moser

Type of Inspection: ☑Routine ☐ Storm Event (# of days after event ____)

General Observations:

Is water flowing? ☑Yes ☐No Standing Water? ☑ Yes ☐ No Depth: _____m

Evidence of any obstruction or erosion? ☐ Yes ☑ No

Comments:_____

Pond Conditions:

Does the embankments, emergency spillway (if applicable), or side slopes show evidence of erosion or instability? ☐ Yes ☑ No Comments:_____

Is the grass/vegetation unhealthy or stressed? ☐ Yes ☑ No Comments:_____

Is there standing water in the grass swale? ☐ Yes ☑ No Comments:_____

Is there erosion downstream of the swale? ☐ Yes ☑ No Comments:_____

Is there visible accumulation of sediment at the bottom of the pond or around high water level of the pond? ☐ Yes ☑ No Comments:_____

Evidence of burrowing animals or other activity that could cause instability or erosion? ☐ Yes ☑ No

Comments:_____

Any signs of vandalism or other activity that could affect the ponds performance? ☑ Yes ☐ No

Comments: grate removed @ outlet. Reinstalled Today

Is there accumulation of trash, debris and/or litter to be removed? ☐ Yes ☑ No

☐Removed today ☑Will Schedule Comments: _____

Visible signs of pollution (sheen, unusual colour or odour)? ☐ Yes ☑ No

Comments:_____

Abnormally high water level? ☐ Yes ☑ No Observations of unusual algae blooms? ☐ Yes ☐ No

Comments: _____

Structural Components:

Are the pipes/inlets clogged or obstructed? ☐ Yes ☑ No

Is there Oil/Grit Separator (OGS) present? ☐ Yes ☑ No Sheen present? ☐ Yes ☑ No

Is there sediment in the separator? ☐ Yes ☑ No Depth: _____m

Are manholes, frames, and covers in appropriate condition? ☑ Yes ☐ No

Do any safety features, such as fences, gates, locks or signs need repairs? ☑ Yes ☐ No

grate reinstalled @ outlet

Plan of Action:

Did the inspection identify conditions that require further action? ☐ Yes ☑ No

If yes:

- ☐ Requires additional monitoring
- ☐ Requires routine repairs
- ☐ Requires immediate repairs

Rebecca Moser

Signature

Lambton Shores – SWM Pond Inspection Report

Site Location: Rice Date: Apr 10/23 Inspector R. Moser

Type of Inspection: ☑ Routine ☐ Storm Event (# of days after event ____)

General Observations:

Is water flowing? ☐ Yes ☑ No Standing Water? ☐ Yes ☑ No Depth: 182 m

Evidence of any obstruction or erosion? ☐ Yes ☑ No

Comments:_____

Pond Conditions:

Does the embankments, emergency spillway (if applicable), or side slopes show evidence of erosion or instability? ☐ Yes ☑ No Comments:_____

Is the grass/vegetation unhealthy or stressed? ☐ Yes ☑ No Comments:_____

Is there standing water in the grass swale? ☐ Yes ☑ No Comments:_____

Is there erosion downstream of the swale? ☐ Yes ☑ No Comments:_____

Is there visible accumulation of sediment at the bottom of the pond or around high water level of the pond? ☐ Yes ☑ No Comments:_____

Evidence of burrowing animals or other activity that could cause instability or erosion? ☐ Yes ☑ No Comments:_____

Any signs of vandalism or other activity that could affect the ponds performance? ☐ Yes ☑ No Comments:_____

Is there accumulation of trash, debris and/or litter to be removed? ☐ Yes ☑ No ☐ Removed today ☐ Will Schedule Comments: _____

Visible signs of pollution (sheen, unusual colour or odour)? ☐ Yes ☑ No Comments:_____

Abnormally high water level? ☐ Yes ☑ No Observations of unusual algae blooms? ☐ Yes ☐ No Comments: _____

Structural Components:

Are the pipes/inlets clogged or obstructed? ☐ Yes ☑ No

Is there Oil/Grit Separator (OGS) present? ☐ Yes ☑ No Sheen present? ☐ Yes ☑ No

Is there sediment in the separator? ☐ Yes ☑ No Depth: _____m

Are manholes, frames, and covers in appropriate condition? ☑ Yes ☐ No

Do any safety features, such as fences, gates, locks or signs need repairs? ☑ Yes ☑ No

Plan of Action:

Did the inspection identify conditions that require further action? ☐ Yes ☑ No

If yes:

- ☐ Requires additional monitoring
- ☐ Requires routine repairs
- ☐ Requires immediate repairs

Rebecca Moser

Signature

Lambton Shores – SWM Pond Inspection Report

Site Location: Gill Rd Date: Nov 13, 2023 Inspector R Mosher

Type of Inspection: ☑Routine ☐ Storm Event (# of days after event ____)

General Observations:

Is water flowing? ☑Yes ☐No Standing Water? ☑ Yes ☐ No Depth: _____m

Evidence of any obstruction or erosion? ☐ Yes ☑ No

Comments:_____

Pond Conditions:

Does the embankments, emergency spillway (if applicable), or side slopes show evidence of erosion or instability? ☐ Yes ☑ No Comments:_____

Is the grass/vegetation unhealthy or stressed? ☐ Yes ☑ No Comments:_____

Is there standing water in the grass swale? ☐ Yes ☑ No Comments:_____

Is there erosion downstream of the swale? ☐ Yes ☑ No Comments:_____

Is there visible accumulation of sediment at the bottom of the pond or around high water level of the pond? ☐ Yes ☑ No Comments:_____

Evidence of burrowing animals or other activity that could cause instability or erosion? ☐ Yes ☑ No
Comments:_____

Any signs of vandalism or other activity that could affect the ponds performance? ☐ Yes ☑ No
Comments:_____

Is there accumulation of trash, debris and/or litter to be removed? ☐ Yes ☑ No
☐Removed today ☐Will Schedule Comments: _____

Visible signs of pollution (sheen, unusual colour or odour)? ☐ Yes ☑ No
Comments:_____

Abnormally high water level? ☐ Yes ☑ No Observations of unusual algae blooms? ☐ Yes ☐ No
Comments: _____

Structural Components:

Are the pipes/inlets clogged or obstructed? ☐ Yes ☑ No

Is there Oil/Grit Separator (OGS) present? ☐ Yes ☑ No Sheen present? ☐ Yes ☑ No

Is there sediment in the separator? ☐ Yes ☑ No Depth: _____m

Are manholes, frames, and covers in appropriate condition? ☐ Yes ☑ No

Do any safety features, such as fences, gates, locks or signs need repairs? ☐ Yes ☐ No

Plan of Action:

Did the inspection identify conditions that require further action? ☐ Yes ☑ No

If yes:

- ☐ Requires additional monitoring
- ☐ Requires routine repairs
- ☐ Requires immediate repairs

NOTE: Dock & BENCHM INSTALLED @ ACCESS RD

Rebecca Mosher

Signature

Lambton Shores – SWM Pond Inspection Report

Site Location: Wellington Date: Nov 15/23 Inspector R Moser

Type of Inspection: ☑ Routine ☐ Storm Event (# of days after event ____)

General Observations:

Is water flowing? ☑ Yes ☐ No Standing Water? ☐ Yes ☑ No Depth: 2.14 m

Evidence of any obstruction or erosion? ☐ Yes ☑ No

Comments: _____

Pond Conditions:

Does the embankments, emergency spillway (if applicable), or side slopes show evidence of erosion or instability? ☐ Yes ☑ No Comments: _____

Is the grass/vegetation unhealthy or stressed? ☐ Yes ☑ No Comments: _____

Is there standing water in the grass swale? ☐ Yes ☑ No Comments: _____

Is there erosion downstream of the swale? ☐ Yes ☑ No Comments: _____

Is there visible accumulation of sediment at the bottom of the pond or around high water level of the pond? ☐ Yes ☑ No Comments: _____

Evidence of burrowing animals or other activity that could cause instability or erosion? ☐ Yes ☑ No Comments: _____

Any signs of vandalism or other activity that could affect the ponds performance? ☐ Yes ☑ No Comments: _____

Is there accumulation of trash, debris and/or litter to be removed? ☐ Yes ☑ No

☐ Removed today ☐ Will Schedule Comments: _____

Visible signs of pollution (sheen, unusual colour or odour)? ☐ Yes ☑ No Comments: _____

Abnormally high water level? ☐ Yes ☑ No Observations of unusual algae blooms? ☐ Yes ☑ No Comments: _____

Structural Components:

Are the pipes/inlets clogged or obstructed? ☐ Yes ☑ No

Is there Oil/Grit Separator (OGS) present? ☐ Yes ☑ No Sheen present? ☐ Yes ☑ No

Is there sediment in the separator? ☐ Yes ☑ No Depth: _____ m

Are manholes, frames, and covers in appropriate condition? ☑ Yes ☐ No

Do any safety features, such as fences, gates, locks or signs need repairs? ☐ Yes ☑ No

Plan of Action:

Did the inspection identify conditions that require further action? ☐ Yes ☑ No

If yes:

- ☐ Requires additional monitoring
- ☐ Requires routine repairs
- ☐ Requires immediate repairs

R Moser

Signature