CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF MAY 16, 2023

Item 3, Report No. 20, of the Committee of the Whole, which was adopted without amendment by the Council of the City of Vaughan on May 16, 2023.

3. CONSOLIDATED LINEAR INFRASTRUCTURE PERMISSIONS FOR SEWAGE COLLECTION AND STORMWATER MANAGEMENT PROJECTS

The Committee of the Whole recommends approval of the recommendations contained in the report of the Deputy City Manager, Public Works, dated May 2, 2023.

Recommendations

1. That Council confirm the Director of Environmental Services, or designate, shall act as the Owner Representative of the municipal sewage collection system and municipal stormwater management system; and
2. That By-law 010-2023 be amended to expand the applicability of the existing service charges in Schedule “L-2” and Schedule “L-3” to include the review of municipal sewage collection system alterations and the review of municipal stormwater management system alterations.

Committee of the Whole (1) Report

DATE: Tuesday, May 2, 2023 **WARD(S):** ALL

TITLE: CONSOLIDATED LINEAR INFRASTRUCTURE PERMISSIONS FOR SEWAGE COLLECTION AND STORMWATER MANAGEMENT PROJECTS

FROM:
Zoran Postic, Deputy City Manager, Public Works

ACTION: DECISION

Purpose

This report provides an overview of the recent changes to the *Ontario Water Resources Act*, *1990* relating to sewage collection and stormwater management infrastructure approvals. This report also seeks confirmation that the Director of Environmental Services, or designate, shall act as the Owner Representative of the City of Vaughan's municipal sewage collection system and municipal stormwater management system. Finally, this report seeks approval to expand the applicability of fees within By-law 010-2023 to better align with the above-mentioned changes to the *Ontario Water Resources Act*, *1990*.

Report Highlights

- The Ministry of the Environment, Conservation and Parks (MECP) has adopted a Consolidated Linear Infrastructure (CLI) Permissions Approach to replace the previous Environmental Compliance Approval framework in Ontario.
- Municipalities are now responsible for providing approvals for low-risk publicly owned municipal sewage collection and stormwater management projects on the MECP's behalf through the Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) Program.
- The CLI-ECA Program is mandatory and is intended to create a more efficient approval process, enhance environmental protection, reduce processing timelines, and provide clear, transparent, and consistent requirements across all municipalities in Ontario.

Recommendations

1. That Council confirm the Director of Environmental Services, or designate, shall act as the Owner Representative of the municipal sewage collection system and municipal stormwater management system; and
2. That By-law 010-2023 be amended to expand the applicability of the existing service charges in Schedule “L-2” and Schedule “L-3” to include the review of municipal sewage collection system alterations and the review of municipal stormwater management system alterations.

Background

The *Ontario Water Resources Act, 1990* provides for the conservation, protection, and management of Ontario’s waters and for their efficient and sustainable use to promote Ontario’s long-term environmental, social, and economic well-being.

The *Ontario Water Resources Act, 1990* focuses on the protection of both groundwater and surface water throughout the Province, regulates sewage discharge, and prohibits the discharge of polluting materials in or near water that may impair water quality. Permits to take more than 50,000 liters of water per day from ground or surface water sources are regulated under the *Ontario Water Resources Act, 1990*. Additionally, well construction, operation and abandonment and the approval for both sewage works and water works are captured under *Ontario’s Water Resources Act, 1990*.

In Ontario, Section 53 of the *Ontario Water Resources Act, 1990* previously required municipalities and developers to obtain an Environmental Compliance Approval (ECA) to use, operate, establish, alter, extend, or replace new or existing sewage works.

Historically, the Province had relied on a direct submission approval framework under the *Ontario Water Resources Act, 1990* that was often referred to as a “project-by-project” or “pipe-by-pipe” approach. Through the prior framework, municipalities were required to conduct a thorough engineering review of the proposed infrastructure design and submit an application to the MECP for review and approval for every public stormwater infrastructure and sewage collection project completed. Under this approach, the MECP issued approximately 700 decisions each year for non-complex sewage collection and stormwater management infrastructure, most frequently serving new housing and commercial developments.

The MECP acknowledged that municipalities and developers spend significant time and resources preparing and submitting individual ECAs for non-complex, routine alterations that make up a part of the municipality's sanitary collection and stormwater works. The MECP also recognized that many of these approvals were out of date, and this "pipe-by-pipe", piecemeal approach did not allow for a holistic view of a municipality's wastewater and stormwater systems.

Over the last decade, the Province has tried to streamline approvals by permitting participating regions and municipalities to review and recommend approval of an Environmental Compliance Approval Application for eligible projects through the Transfer of Review Program (TOR).

In October 2017, the MECP enhanced and expanded the TOR program and encouraged increased participation by area municipalities having organizational structures that meet the requirements under the TOR Program. The benefits of the TOR Program included:

- Increased review efficiency of ECAs, allowing the MECP to focus resources on more complex applications;
- Improved timelines of issuing such ECAs to allow better municipal planning and an expedited development process;
- Reduced overlap between municipal and MECP approval processes; and
- Municipalities able to ensure proper design and construction of sewerage works.

Council approved the City's participation in the MECP's TOR Program on March 4, 2019.

Previous Reports/Authority

Ministry of Environment, Conservation and Parks Transfer of Review Program Agreements for Administration and Delegation of Responsibility

Analysis and Options

The Province has now adopted the Consolidated Linear Infrastructure Environmental Compliance Approval Program to replace the previous Environmental Compliance Approvals framework for low-risk projects related to municipal sewage collection and stormwater management.

The purpose of the CLI-ECA Program is to consolidate certain municipal sewage works approvals into: (i) a single CLI-ECA for a municipality's sanitary collection works and, (ii) a single CLI-ECA for a municipality's stormwater management works. All infrastructure identified in the CLI-ECAs will be subject to updated and standardized MECP requirements. As a result, some older infrastructure will be subject to new and additional requirements. Also, certain future alterations to the infrastructure will be pre-authorized based on new (updated) MECP design criteria. The CLI-ECA Program includes three primary components:

- All existing ECAs are now replaced by one consolidated approval for the municipal sewage collection system and one consolidated approval for the municipal stormwater management system;
- The above mentioned CLI-ECAs can be amended to include new sewage collection and/or stormwater management infrastructure that meets or exceeds the MECP's design criteria. Amendments to the CLI-ECA may be approved by the municipality without having to obtain individual MECP permission; and
- The above mentioned CLI-ECAs detail system-wide operations, maintenance and monitoring requirements.

Under the consolidated process, a municipality no longer needs to submit individual "pipe by pipe" applications for future alterations provided they are built in accordance with new design criteria and all other MECP approved conditions. These pre-authorizations allow municipalities to proceed without first having to obtain an individual approval from the MECP. With municipal approval, developers who are constructing sewage collection and stormwater management infrastructure on behalf of municipalities can receive pre-authorization if work is being carried out in accordance with the requirements of the municipality's CLI-ECAs, including meeting MECP design standards.

The Consolidated Linear Infrastructure Environmental Compliance Approval Program was modeled after the existing permissions framework for municipal drinking water systems, which had been introduced to improve service delivery and public transparency.

Consolidation of approvals is not a new concept within the MECP and has been a key component of the Municipal Drinking Water Licensing Program (MDWLP) since 2009. The MDWLP also successfully introduced the concept of pre-authorization of future works which allows system owners to make certain changes without the need to apply to the MECP for each alteration.

This new pre-authorization approach is expected to enhance environmental protection by establishing a more holistic picture of where sewage collection and stormwater management infrastructure is located across the Province.

Expected benefits of the CLI-ECA approach include:

- Creating an efficient and timely approval process for low-risk sewage collection and stormwater management projects;
- Enhancing environmental protection through a holistic approach to managing wastewater and stormwater which could help support effective environmental policy and planning decisions; and
- Standardizing operation, maintenance, and monitoring requirements across the City.

It is also important to recognize that the CLI-ECA Program has put new compliance requirements on the City including the need to:

- Develop an internal process to carry out the requirements of the CLI-ECAs and respond to potential Provincial audit requests to demonstrate compliance;
- Update design standards to include Low Impact Development (LID) measures to achieve the new enhanced level of stormwater control that are being mandated by the MECP;
- Develop operating procedures for routine inspections, maintenance and monitoring of sewage collection and stormwater management infrastructure; and
- Provide annual compliance reporting on the City's sewage collection and stormwater management systems to the Province and the Public.

Financial Impact

Schedules "L-2" and "L-3" of the City's Fees and Charges By-law (By-law 010-2023, as amended) include fees for the review of sanitary sewer addition/alteration and storm sewer addition/alteration, respectively. To align the applicability of the above noted existing fees with the broader scope of the CLI-ECA Program, the following amendments to the City's Fees and Charges By-law (By-law 010-2023, as amended) are required:

Schedule	Item	Service	Fee*	HST*
"L-2" Wastewater Service Charges	J	*Current:* Review of Sanitary Sewer Addition/Alteration	$3,982 per application	Exempt

		Amendment: Review of Municipal Sewage Collection System Alteration		
"L-3" Stormwater Service Charges	G	*Current:* Review of Storm Sewer Addition/Alteration *Amendment:* Review of Municipal Stormwater Management System Alteration	$3,982 per application	Exempt

* No amendment required.

In response to the anticipated new requirements under the CLI-ECA Program, Environmental Services established two capital projects as part of the 2023 budget process to initiate the following mandated transition activities:

Transition Activity	**MECP Mandated Completion Date**
Development of a Source Water Protection Plan in collaboration with York Region and the local area municipalities	December 2023
Development of a design standard for Stormwater Management (SWM) Facility signs with MECP-required content and implementation at all SWM facilities within the City	May 2025
Development of an enhanced Operations and Maintenance Manual for the City's municipal sewage collection system and municipal stormwater management system	November 2025
Development of a Monitoring Plan that aligns with the MECP's anticipated Monitoring Guidance document	November 2025
Development of an enhanced Outlet Inspection Program for over 200 stormwater management facilities and over 1,000 outlets to receivers	October 2026
Creation of a Storm Sewer Catchment Asset Inventory	October 2027

At this time, no further resources are required to initiate the above-mentioned transition activities. Should further resources and/or support be required to fully implement the CLI-ECA Program and/or achieve compliance with the MECP's requirements, those requests will be captured through the City's annual budget and business planning process.

Operational Impact

Development Engineering, Infrastructure Delivery, Infrastructure Planning and Corporate Asset Management, Legal Services, Parks Infrastructure Planning and Development, and Policy Planning and Special Programs were consulted prior to the MECP's issuance of the City's finalized CLI-ECAs for the City's municipal sewage collection system and stormwater management system. An outreach and engagement session was also facilitated by Development Engineering with the development community to provide information on the new consolidated approach and ensure an efficient and timely transition.

Development Engineering will continue their role as the primary contact for the development community. Under the new CLI-ECA Program, Development Engineering will complete an initial review to confirm specific criteria and submit confirmation of the same to Environmental Services. Environmental Services will then conduct an operational review, sign the MECP Record of Future Alteration forms as the Owner Representative, maintain records of alterations, and implement any other compliance processes necessary to support and comply with the CLI-ECA Program.

While the CLI-ECA pre-authorization process will cover most alterations of the sewage collection and stormwater management systems, any alterations that do not meet the pre-authorization conditions of the CLI-ECA Program and MECP design criteria will require a direct ECA application submission to the MECP for review and approval.

Broader Regional Impacts/Considerations

All local area municipalities within York Region are required by the Province to transition to a CLI Permissions Approach for low-risk municipal sanitary collection and stormwater management projects.

Conclusion

An ECA is required under Section 53 of the *Ontario Water Resources Act, 1990* to use, operate, establish, alter, extend or replace new or existing sewage works. The MECP has adopted a CLI Permissions Approach for low-risk projects related to sewage collection and stormwater management, with a goal of getting low-risk public infrastructure projects built sooner by reducing the time it takes between project identification and construction.

Under the consolidated process, a municipality no longer needs to submit individual "pipe by pipe" applications for future alterations provided they are built in accordance with the MECP's design criteria and all other MECP approved conditions. These pre-authorizations will allow municipalities to proceed without first having to obtain an individual approval from the MECP. With municipal approval, developers who are constructing infrastructure on behalf of municipalities can receive pre-authorization if work is being carried out in accordance with the requirements of the municipality's CLI-ECAs.

For more information, please contact: Emilie Alderman, Director, Environmental Services, ext. 6116.

Attachments

1. Environmental Compliance Approval for the City of Vaughan Municipal Sewage Collection System (ECA Number: 011-W601; Issue Number: 1).
2. Environmental Compliance Approval for the City of Vaughan Municipal Stormwater Management System (ECA Number: 011-S701; Issue Number 1).

Prepared by

Emilie Alderman, Director, Environmental Services, ext. 6116.
Rebecca Stewart, Manager, Stormwater and Wastewater Services, ext. 6310.

Approved by

Zoran Postic, Deputy City Manager,
Public Works

Reviewed by

Nick Spensieri, City Manager

Ontario

ENVIRONMENTAL COMPLIANCE APPROVAL
For a Municipal Sewage Collection System

ECA Number: 011-W601
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:

Vaughan, The Corporation of the City of

2141 Major Mackenzie Dr.
Vaughan, ON L6A 1T1

For the following Sewage Works:

The City of Vaughan Municipal Sewage Collection System

This Environmental Compliance Approval (ECA) includes the following:

Schedule	Description
Schedule A	System Information
Schedule B	Municipal Sewage Collection 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

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 25th day of November, 2022

Signature

A. Ahmed

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

Schedule A: System Information

System Owner	**Vaughan, The Corporation of the City of**
ECA Number	**011-W601**
System Name	**The City of Vaughan Municipal Sewage Collection System**
ECA Issue Date	**November 25th, 2022**

1.0 ECA Information and Mandatory Review Date

ECA Issue Date	November 25th, 2022
Application for ECA Review Due Date	November 15, 2027

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 STPs, Satellite Treatment Facilities, and Pumping Stations connected to the Authorized System that are not part of the Authorized System:

System/Facility Name	Wastewater System Number	Location	ECA Number	Issue Date
York Durham Sewage System – Duffin Creek Water Pollution Control Plant	N/A	901 McKay Road City of Pickering, Durham Region	5531-9FJJT5	March 3, 2014
York Peel Sewage System – G.E. Booth Wastewater Treatment Plant	110001284	1300 Lakeshore Rd E City of Mississauga, Peel Region	5461-AWWQUL	May 24, 2018
Kleinburg Collection System – Kleinburg Water Resource Recovery Facility	120000417	10299 Hwy 27 Vaughan, York Region	6767-B38Q93	September 20, 2018

2.2 Other Documents

Document Title	Version
Design Criteria for Sanitary Sewers, Storm Sewers, and Forcemains for Alterations Authorized under Environmental Compliance Approval	v.1.1 (Jul 28, 2022)

3.0 Asset Management Plan

Document Title	Version
City of Vaughan Asset Management Plans (Core Assets)	May 2021

4.0 Pollution Prevention and Control Plan (if applicable)

Document Title	Version
N/A	N/A

5.0 Operating Authority

System	Operating Authority
The Corporation of the City of Vaughan	Municipal Sewage Collection System

Schedule B: Municipal Sewage Collection System Description

System Owner	**Vaughan, The Corporation of the City of**
ECA Number	**011-W601**
System Name	**The City of Vaughan Municipal Sewage Collection System**
ECA Issue Date	**November 25th, 2022**

1.0 System Description

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

Overview

The Municipal Sewage Collection System consists of works for the collection and transmission of sewage, consisting of trunk sewers, sewers, sewage pumping stations and forcemains, with discharge into Duffin Creek Water Pollution Control Plant, GE Booth Wastewater Treatment Plant, and the Kleinburg Water Resource Recovery Facility.

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
Vaughan Sanitary Infrastructure Map_Nov 2022	November 2022

1.2.2 Sewers, forcemains, pumping stations and other Sewage Works 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 Sewers, forcemains, pumping stations and other Sewage Works that have been added, modified, replaced, or extended through authorization provided in 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 1.7 below.

Sewage Pumping Stations

1.3 The following are Sewage pumping stations in the Authorized System:

Block 39

Asset ID and Name	PS3915_0001 : Block 39
Site Location	9691 Pine Valley Drive
Latitude and Longitude	-79.5842725560377
Coordinates (optional)	43.8325314524722
Description	Sewage Pumping Station on southeast corner of Davos Road and Pine Valley Drive, having a peak design capacity of 50 L/s, consisting of the wet well, dry well, at grade building, storage pipes and emergency overflow system.
Pumping Station Capacity	50 L/s
Equipment	[2] pumps (1 duty, 1 standby), 21.1m total head, [1] grinders, [1] screens, [1] wet well of 93.3 m^3 capacity. The station is connected to [1] 250 mm diameter forcemains, discharging to Davos Drive with ultimate discharge to gravity sanitary sewers in manhole located at Davos Drive and Corso Garibaldi Road.
Emergency Storage	Emergency storage pipe volume (276.9 m^3) 1050mm diameter pipe for approximately 320 metres
Equipment: Associated controls and appurtenances	Level Transmitter Discharge Flow Overflow Chamber Flow Discharge Pressure Transmitter Building Ambient Air Temperature RTD Wet well mixer Dry well sump pump
Sewage Pumping Station – Collection System Overflow	Overflow discharge to 1200mm diameter storm sewer on Pine Valley Drive Response time 1.5 hours (buffer volume in m^3 available in storage prior to overflow at peak flow) Emergency storage volume 276.9 (m^3)
Receiving Stations (if applicable)	Not applicable.
Odour Control Units	The station contains [1] on-site odour control units *Can also include odour control equipment
Standby Power	130 kW diesel, and 1,135 L fuel tank size
Notes	Owned and operated by the City Emergency storage does not include wet well, incoming sewer lines and maintenance holes prior to overflow

Camlaren

Asset ID and Name	PS7 : Camlaren
Site Location	115 Camlaren Crescent
Latitude and Longitude	-79.6164497739758
Coordinates (optional)	43.8382235831562
Description	Camlaren SPS is a small sewage pumping station with a concrete wet well (11 m^3), two 3.5 HP submersible sewage pumps, and an above grade control panel located in a residential boulevard.
Pumping Station Capacity	7-8 L/s
Equipment	[2] pumps (1 duty, 1 standby), 11.8m total head (estimated), [0] grinders, [1] screens, [1] wet well of 11 m^3 capacity. The station is connected to [1] 100 mm diameter forcemains, discharging to gravity sewer at Donbay Drive and Camlaren Crescent.
Emergency Storage	Emergency storage tank/pipe volume (0 m^3)
Equipment: Associated controls and appurtenances	Level Transmitter Building Ambient Air Temperature RTD
Sewage Pumping Station-Collection System Overflow	Overflow discharge location forest land and eventually creek south of wetwell. Response time 40 min (buffer volume in m^3 available in storage prior to overflow at peak flow) Emergency storage volume (0 m^3), 11 m^3 for wet well
Receiving Stations (if applicable)	Not applicable
Odour Control Units	The station contains [0] on-site odour control units *Can also include odour control equipment
Standby Power	50 kW diesel, and 900L fuel tank size
Notes	Owned and operated by the City Generator is separated from wet well, heading west at 84 Camlaren Crescent (near 76 Camlaren Crescent). This generator is also supplying backup power to Sevilla SPS. Emergency storage does not include wet well, incoming sewer lines and maintenance holes prior to overflow

Kerrowood

Asset ID and Name	PS8 : Kerrowood
Site Location	161 Forest Heights
Latitude and Longitude	-79.6437614379898
Coordinates (optional)	43.849020165336
Description	Kerrowood SPS comprises a 58 m3 concrete wet well housing two 15 HP submersible sewage pumps, and a small building housing electrical and control equipment and a 55 kW natural gas standby power generator.
Pumping Station Capacity	11 L/s
Equipment	[2] pumps (1 duty, 1 standby), 24m total head (estimated), [0] grinders, [1] screens, [1] wet well of 58 m^3 capacity. The station is connected to [1] 100 mm diameter forcemains, discharging to gravity sewer at Cedar Glen Court and Forest Heights Boulevard.
Emergency Storage	Emergency storage tank/pipe volume (0 m^3)
Equipment: Associated controls and Appurtenances	Level Transmitter Building Ambient Air Temperature RTD
Sewage Pumping Station – Collection System Overflow	Overflow discharge into storm sewer leading to Forest SWM Pond and ultimately to creek (Humber River tributary). Response time 1.5 hours (buffer volume in m^3 available in storage prior to overflow at peak flow) Emergency storage volume (0 m^3), 58m^3 wet well
Receiving Stations (if applicable)	Not applicable
Odour Control Units	The station contains [0] on-site odour control units *Can also include odour control equipment
Standby Power	55 kW natural gas
Notes	Owned and operated by the City Emergency storage does not include wet well, incoming sewer lines and maintenance holes prior to overflow

Maplewood

Asset ID and Name	PS9 : Maplewood
Site Location	360 Laurentian Boulevard
Latitude and Longitude	-79.5046141208465
Coordinates (optional)	43.8882652444017
Description	A sanitary sewage pumping station and appurtenances to service the Ravines of Maplewood Subdivision, having a peak flow design capacity of 28.9 litres per second, approximately 350 metres south of the cul-de-sac end of Laurentian Boulevard in the City of Vaughan, consisting of a precast concrete wet well, a sewage retention pond and associated generator/control enclosure.
Pumping Station Capacity	28.9 litres/second
Equipment	[2] pumps (1 duty, 1 standby), 32m total head, [0] grinders, [1] screens, [1] wet well of 46.7 m^3 capacity. The station is connected to [1] 200 mm diameter forcemains, discharging to a gravity maintenance access at existing sanitary sewer located on Athabasca Drive approximately 65 metres north of Hunterwood Chase.
Emergency Storage	Emergency storage basin with 250 m^3 volume
Equipment: Associated controls and Appurtenances	Level Transmitter Discharge Pressure Transmitter Building Ambient Air Temperature RTD
Sewage Pumping Station – Collection System Overflow	Overflow to ravine south of station. Response time 1.2 hours (buffer volume in m^3 available in storage prior to overflow at peak flow) Emergency storage volume (250 m^3)
Receiving Stations (if applicable)	Not applicable
Odour Control Units	The station contains [0] on-site odour control units *Can also include odour control equipment
Standby Power	100 kW diesel, and fuel tank size 900 litres
Notes	Owned and operated by the City Amended ECA 5724-C9YPK9 ECA is the CoA number (3-1189-97-006) Forcemain to be abandoned in 2022 and realigned to easternly discharge direction. Grinder to be installed 2022-2023. Emergency storage does not include wet well, incoming sewer

	lines and maintenance holes prior to overflow

Molise

Asset ID and Name	PS1283 : Molise
Site Location	420 Stevenson Avenue
Latitude and Longitude	-79.6384198860729
Coordinates (optional)	43.8402937259129
Description	Located within Block 75 of the Molise Kleinburg Estates Inc. - Phase 1, immediately west of Stevenson Avenue at the intersection with Cedarvalley Crescent, in the City of Vaughan, Regional Municipality of York, having a peak design flow capacity of 18 L/s.
Pumping Station Capacity	18 L/s
Equipment	[2] pumps (1 duty, 1 standby), 49.3 total head, [1] grinders, [1] screens, [1] wet well of 145.2 m^3 capacity. The station is connected to [2] 250, 150 mm diameter forcemains, with the 150mm forcemain discharging to along Stevenson Avenue and Nashville Road to a sanitary manhole located on Nashville Road, approx. 40 m southwest of Islington Avenue and a 250 mm diameter sanitary forcemain (by-pass forcemain) located on Block 75 and along Stevenson Avenue and Nashville Road, discharging to Nashville SPS wetwell located at the intersection of Highway 27 and Nashville Road.
Emergency Storage	Emergency storage tank volume (339.9 m^3)
Equipment: Associated controls and Appurtenances	Level Transmitter Discharge Flow Bypass Flow Discharge Pressure Transmitter Building Ambient Air Temperature RTD Odour Control Room Ambient Air Temperature Transmitter Dry Well Ambient Air Temperature Transmitter Wet well mixer
Sewage Pumping Station – Collection System Overflow	Located partially under the generator room, interconnected with the wet well via two (2) - 300 mm diameter pipes with check valves, accessible via an access hatch located outside of the above grade building and a ladder to a maintenance platform, complete with lighting and ventilation. Pipe to 1500mm diameter emergency overflow metering chamber to a ditch located along south side of SPS. Response time 5.2 hours (buffer volume in m^3 available in storage prior to overflow at peak flow) Emergency storage volume (339.9 m^3)

Receiving Stations (if applicable)	Not applicable
Odour Control Units	The station contains [1] on-site odour control units *Can also include odour control equipment
Standby Power	127 kW diesel, and 1,135 litre fuel tank size
Notes	Owned and operated by the City Emergency storage does not include wet well, incoming sewer lines and maintenance holes prior to overflow

Nashville

Asset ID and Name	PS22 : Nashville
Site Location	111 Nashville Road
Latitude and Longitude	-79.6329575098718
Coordinates (optional)	43.8431674504549
Description	Sewage Pumping Station
Pumping Station Capacity	49.0 L/s
Equipment	[2] pumps (1 duty, 1 standby), 55m total head, [0] grinders, [1] screens, [1] wet well of 71.2 m^3 capacity. The station is connected to [1] 150 mm diameter forcemains, discharging to sanitary sewers on Nashville Road, west of Islington Avenue.
Emergency Storage	Emergency storage tank volume (337 m^3)
Equipment: Associated controls and Appurtenances	Level Transmitter Building Ambient Air Temperature Transmitter
Sewage Pumping Station – Collection System Overflow	Overflow discharge location unknown, likely overland flow to the ditch west of the station eventually leading to creek south. Response time 1.9 hours (buffer volume in m^3 available in storage prior to overflow at peak flow) Emergency storage volume (337 m^3)
Receiving Stations (if applicable)	Not applicable
Odour Control Units	The station contains [0] on-site odour control units *Can also include odour control equipment
Standby Power	100 kW diesel and 791 litre fuel tank size
Notes	Assumed – Upgrades of pumping station under assumption currently and expected to be finalized October 2022. 3162-9BEJX9 September 24, 2013 Emergency storage does not include wet well, incoming sewer lines and maintenance holes prior to overflow Undergoing an address change to 133 Nashville Road.

Pine Grove

Asset ID and Name	PS10 : Pine Grove
Site Location	151 Pine Grove Road
Latitude and Longitude	-79.5816123747108
Coordinates (optional)	43.7980867362946
Description	SPS designed to handle design peak design flow of 10.5 L/s
Pumping Station Capacity	10.5 L/s
Equipment	[2] pumps (1 duty, 1 standby), and 8.5m total head, [0] grinders, [1] screens, [1] wet well of 29.5 m^3 capacity. The station is connected to [1] 100 mm diameter forcemains, discharging to gravity maintenance hole on Woodview Road.
Emergency Storage	Emergency storage tank volume (72.6 m^3)
Equipment: Associated controls and Appurtenances	Level transmitter Temperature
Sewage Pumping Station – Collection System Overflow	Overflow discharge east to creek, Humber River tributary. Response time 1.9 hours (buffer volume in m^3 available in storage prior to overflow at peak flow) Emergency storage volume (72.6 m^3)
Receiving Stations (if applicable)	Not applicable
Odour Control Units	The station contains [0] on-site odour control units *Can also include odour control equipment
Standby Power	80 kW diesel and fuel tank size unknown
Notes	ECA is for upgrade to include emergency storage, prior ECAs unknown Emergency storage does not include wet well, incoming sewer lines and maintenance holes prior to overflow

Sevilla

Asset ID and Name	PS27 : Sevilla
Site Location	39 Sevilla Boulevard
Latitude and Longitude	-79.6198238847
Coordinates (optional)	43.8365868601002
Description	Sevilla SPS is a small sewage pumping station with a concrete wet well (13 m^3), two 9 HP submersible sewage pumps, and an above grade control panel located in a residential boulevard. Sevilla SPS was constructed at the same time as Camlaren WWPS and has a similar design, but is downstream of Camlaren SPS and experiences higher flows.
Pumping Station Capacity	26 L/s
Equipment	[2] pumps (1 duty, 1 standby), 13m total head (estimated), [0] grinders, [1] screens, [1] wet well of 13 m^3 capacity. The station is connected to [1] 150 mm diameter forcemains, discharging to gravity sewer west of Islington Avenue and Bindertwine Boulevard.
Emergency Storage	Emergency storage tank/pipe volume (0 m^3)
Equipment: Associated controls and Appurtenances	Level transmitter
Sewage Pumping Station – Collection System Overflow	Overflow discharge east into ditch. Ultimately if ditch is full, there would be overflow onto Sevilla Boulevard further east to discharge to catchbasin. Catchbasin discharge location north forest land and eventually creek. Response time 15 minutes (buffer volume in m^3 available in storage prior to overflow at peak flow) Emergency storage volume (0 m^3), 13 m^3 wet well
Receiving Stations (if applicable)	Not applicable
Odour Control Units	The station contains [0] on-site odour control units *Can also include odour control equipment
Standby Power	50 kW diesel, and 900L fuel tank size
Notes	Owned and operated by the City Generator is separated from wet well, heading north at 84 Camlaren Crescent (near 76 Camlaren Crescent). This generator is also supplying backup power to Camlaren SPS. Emergency storage does not include wet well, incoming sewer lines and maintenance holes prior to overflow

Vaughan Healthcare Centre Precinct (VHCP)

Asset ID and Name	PS961 : Vaughan Healthcare Centre Precinct (VHCP)
Site Location	3120 Major Mackenzie Drive West
Latitude and Longitude	-79.5379756308657
Coordinates (optional)	43.849397189851
Description	Sewage pumping station located within the southeast corner of the Vaughan Healthcare Centre Precinct, north of Major Mackenzie Drive and west of Jane Street, in the City of Vaughan, having a peak design capacity of 45.8 litres per second, consisting of the wet well, valve chamber, storage tanks and standby diesel generator enclosure.
Pumping Station Capacity	45.8 L/s
Equipment	[2] pumps (1 duty, 1 standby), 19.9m total head, [0] grinders, [1] screens, [1] wet well of 150.5 m^3 capacity. The station is connected to [1] 200 mm diameter forcemains, discharging to gravity sewer on Frederick Banting Street.
Emergency Storage	Emergency storage tank volume (263.4 m^3)
Equipment: Associated controls and Appurtenances	Level Transmitter
Sewage Pumping Station – Collection System Overflow	Ditch north west of the station. Response time 1.6 hours (buffer volume in m^3 available in storage prior to overflow at peak flow) Emergency storage volume (263.4 m^3)
Receiving Stations (if applicable)	Not applicable.
Odour Control Units	The station contains [1] on-site odour control units *Can also include odour control equipment
Standby Power	80 kW diesel and 120L fuel tank (24 hour capacity at full load)
Notes	Owned and Operated by the City. It is a temporary SPS that will be decommissioned in Q4-2028 (current in-service date) and connected by gravity to YR's Jane Street Trunk Sewer (connection to be provided as part of YR's Northeast Vaughan Water and Wastewater detailed design project). Prior 6156-A48QCV November 16, 2015 Emergency storage does not include wet well, incoming sewer lines and maintenance holes prior to overflow

Block 55

Asset ID and Name	PS641 : Block 55
Site Location	5400 Teston Road
Latitude and Longitude	-79.6179188835081
Coordinates (optional)	43.8520916971043
Description	Sewage Pumping Station, located within Block 318, north of Teston Road and east of Kleinburg Summit Way, having a peak design capacity of 74.1 litres/second, consisting of wet well-dry well and overflow storage chamber located under control building
Pumping Station Capacity	74.1 L/s
Equipment	[2] pumps (1 duty, 1 standby), 38.8m total head, [1] grinders, [1] screens, [1] wet well of 168.5 m^3 capacity. The station is connected to [1] 300 mm diameter forcemains, discharging to sewer located on Teston Road approximately 400 metres west of Pine Valley Drive.
Emergency Storage	Emergency storage tank/pipe volume (625.0 m^3)
Equipment: Associated controls and Appurtenances	Level Transmitter Discharge Flow Discharge Pressure Transmitter
Sewage Pumping Station – Collection System Overflow	Pipe to 1500mm diameter emergency overflow metering chamber to SWM Pond. Response time 2.3 hours (buffer volume in m^3 available in storage prior to overflow at peak flow) Emergency storage volume (625.0 m^3)
Receiving Stations (if applicable)	Not applicable
Odour Control Units	The station contains [1] on-site odour control units *Can also include odour control equipment
Standby Power	360 kW diesel and 2,400 litre fuel tank size
Notes	Owned and operated by the City Emergency storage does not include wet well, incoming sewer lines and maintenance holes prior to overflow

[Combined Sewage Pumping Stations]

Asset ID and Name	N/A
Site Location	
Latitude and Longitude	
Coordinates (optional)	
Description	
Pumping Station Capacity	
Equipment	
Emergency Storage	
Equipment: Associated controls and Appurtenances	
Sewage Pumping Station – Collection System Overflow	
Receiving Stations (if applicable)	
Odor Control Units	
Standby Power	
Notes	

Real-Time Control

1.4 The following are identified Real-Time Control Systems in the Authorized System:

	Description
Process Equipment/System Elements	[23] pumps, [5] odour control units, [4] inlet sewer grinders, [10] backup generators, [2] wet well mixer
Flow Measurement Locations	(2) at Block 39, 1 discharge and 1 overflow (2) at Molise, 1 discharge and 1 by-pass (1) at Block 55, 1 discharge flow
Level Measurement Locations	One at each sewage pumping station wet well Block 39 Camlaren Kerrowood Maplewood Molise Nashville Pinegrove Sevilla Pine Valley North

	Vaughan Healthcare Centre Precinct (VHCP) Block 55
Other Instrumentation and Controls	[18] temperature sensors, [10] pressure sensors, [3] supply fan, [2] exhaust fan, [8] building smoke alarm, [4] heater

Combined Sewage Structures

1.5 The following are regulators and combined Sewage storage structures in the Authorized System:

Table B2: Identified Combined Sewer Overflow Regulators			
Column 1 Asset ID/Name	Column 2 Site Location (Latitude & Longitude)	Column 3 Regulator Capacity (m^3/s)	Column 4 Overflow Location (Latitude & Longitude)
N/A			

Table B3: Identified Combined Sewage Storage Tanks and Storage Structures			
Column 1 Asset ID/Name	Column 2 Site Location (Latitude & Longitude)	Column 3 Regulator Capacity (m^3/s)	Column 4 Overflow Location (Latitude & Longitude)
N/A			

Collection System Overflow Points

1.6 The following are Collection System Overflow points in the Authorized System:

Table B4: Identified Combined Sewer Overflow Points including Pumping Stations			
Column 1 Asset ID / Name	Column 2 Regulator or Combined Sewer Storage Asset ID	Column 3 Overflow Location (Latitude & Longitude)	Column 4 Point of Entry to Receiver (Latitude and Longitude)
N/A			

Table B5: Identified Sanitary Sewer Overflow Points including Pumping Stations			
Column 1 Asset ID	Column 2 Asset Name	Column 3 Overflow Location (Latitude & Longitude)	Column 4 Point of Entry to Receiver (Latitude and Longitude)
PS3915_0001	Block 39	-79.5842606521996 43.8325857464173	-79.5846918172986 43.8325223798612
PS7	Camlaren	-79.6158862935268 43.8379875004191	-79.6158862935268 43.8379875004191
PS8	Kerrowood	-79.6439133705133 43.8492939217747	-79.644528769844 43.8485293793162
PS9	Maplewood	-79.504433574373 43.8882941033426	-79.5043376854098 43.8883496784646
PS1283	Molise	-79.6383092449511 43.840265515425	-79.638301198324 43.840197804154

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
SANMH10537	134 Tallgrass Trail	Off-Site Odour Control Units	The station contains 1 off-site odor control unit

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

System Owner	**Vaughan, The Corporation of the City of**
ECA Number	**011-W601**
System Name	**The City of Vaughan Municipal Sewage Collection System**
ECA Issue Date	**November 25th, 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	**Vaughan, The Corporation of the City of**
ECA Number	**011-W601**
System Name	**The City of Vaughan Municipal Sewage Collection System**
ECA Issue Date	**November 25th, 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.

"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 Sewage Collection System authorized under this Approval".

"Average Year" means the long term average of flow based on:

a) Simulation of at least twenty years of rainfall data;

b) A year in which the rainfall pattern (e.g., intensity, volume, and frequency) is consistent with the long-term mean of the area;

c) A year in which the runoff pattern resulting from the rainfall (e.g., rate, volume, and frequency) is consistent with the long-term mean of the area; or

d) Any combination of a), b) and c).

“Collection System Overflow(s)” means a discharge (SSO or CSO) to the environment at designed location(s) from the Authorized System.

“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 as per Table B4 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 Sewage Collection 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.

“Dry Weather Flow(s)” means Sewage flow resulting from both sanitary Sewage, and infiltration and inflows from foundation drains or other drains occurring during periods with an absence of rainfall or snowmelt.

"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.

"Emergency Situation" means a structural, mechanical, electrical failure, or operational health and safety incident, that causes a temporary reduction in the capacity, function, or performance of any part of the Authorized System or an unforeseen flow condition that may result in:

a) Danger to the health or safety of any person;

b) Injury or damage to any property, or serious risk of injury or damage to any property;

c) Adverse Effect to the Natural Environment; or

d) Spill.

“Equipment” means equipment or processes described in this Approval and any other equipment or process that supports the operation or maintenance of the Authorized System.

“ESC” means erosion and sediment control.

"Event(s)" means an action or occurrence, at any given location within the Authorized System that causes a Collection System Overflow. An Event ends when there is no recurrence of a CSO or SSO in the collection system at the same location in the 12-hour period following the last Collection System Overflow.

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

“Form A1” means the most recent version of the Ministry form titled Record of Future Alteration Authorized for Equipment Discharging a Contaminant of Concern to the Atmosphere from a Municipal Sewage Collection System, as obtained directly from the Ministry or from the Ministry’s website.

“Form CS1” means the most recent version of the Ministry form titled Record of Future Alteration Authorized for Combined Sewers/Partially Separated Sewers/Combined Sewage Storage Tanks and Storage Structures as obtained directly from the Ministry or from the Ministry’s website.

“Form SS1” means the most recent version of the Ministry form titled Record of Future Alteration Authorized for Separate Sewers/Nominally Separate Sewers/Forcemains, as obtained directly from the Ministry or from the Ministry’s website.

“Form SS2” means the most recent version of the Ministry form titled Record of Future Alteration Authorized for Components of the Municipal Sewage Collection System, as obtained directly from the Ministry or from the Ministry’s website.

“Hauled Sewage” has the same meaning as defined in section 1 of Regulation 347 (General – Waste Management) made under the EPA.

"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.

“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.

“Municipal Sewage Collection System” means all Sewage Works, located in the geographical area of a municipality that collect and transmit 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.

“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.

“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 City of Vaughan, 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.

“Peak Hourly Flow” means the the largest volume of flow to be received during a one-hour period expressed as a volume per unit time. This is also referred to as maximum hourly flow or maximum hour flow.

“Point of Entry” has same meaning as in the Wastewater Systems Effluent Regulations (SOR/2012-139) under the *Fisheries Act*, R.S.C 1985, c. F-14.

“Pollution Prevention and Control Plan” or “PPCP” means a plan developed for Combined Sewers in the Authorized System to meet the goals of Procedure F-5-5.

"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.

"Procedure F-5-1" means the Ministry document titled “F-5-1 Determination of Treatment Requirements for Municipal and Private Sewage Treatment Works” (as amended from time to time).

"Procedure F-5-5" means the Ministry document titled “F-5-5 Determination of Treatment Requirements for Municipal and Private Combined and Partially Separated Sewer System” (as amended from time to time).

"Publication NPC-207" means the Ministry draft technical publication "Impulse Vibration in Residential Buildings", November 1983,

supplementing the Model Municipal Noise Control By-Law, Final Report, August 1978, (as amended from time to time).

"Publication NPC-300" means the Ministry publication NPC-300, "Environmental Noise Guideline: Stationary and Transportation Sources – Approval and Planning" August 2013, (as amended from time to time).

"Pumping Station Capacity" means the design Peak Hourly Flow of Sewage which the Sewage pumping station is designed to handle.

"Real-time Control System" means the dynamic operation of the collection system, including Real-Time Physical Control Structures, by responding to continuous field monitoring to maintain and achieve performance and operational objectives, during dry and wet weather conditions.

"Real-time Physical Control Structure" means a structure (e.g., pumps, gates, and weirs) that reacts in real-time based on direction from the Real-Time Control System.

"Regulator Capacity" means the flowrate (m^3/s) at which Collection System Overflow begins.

"SAC" means the Ministry's Spills Action Centre.

"SCADA" means a supervisory control and data acquisition system used for process monitoring, control, automation, recording, and/or reporting within the Sewage system.

"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 STP(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.

“Spill(s)” has the same meaning as defined in subsection 91(1) of the EPA.

“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 as per Table B5.

“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.

“STP” means sewage treatment plant.

“STP Bypass(es)” means diversion of Sewage around one or more treatment processes, excluding preliminary treatment system, within the STP with the diverted Sewage flows being returned to the STP treatment train upstream of the final effluent sampling point(s) and discharged via the approved effluent disposal facilities.

“STP Overflow(s)” means a discharge to the environment from the STP at designed location(s) other than the approved effluent disposal facilities or via the effluent disposal facilities downstream of the final effluent sampling point.

“Uncommitted Reserve Hydraulic Capacity” means uncommitted reserve capacity as described in the Ministry document titled “D-5-1 Calculating and Reporting Uncommitted Reserve Capacity at Sewage and Water Treatment Plants” (as amended from time to time).

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

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

“Wet Weather Flow(s)” means the flow resulting from the combination of sanitary Sewage and extraneous flows resulting from the inflow and infiltration of groundwater, rainfall or snowmelt, and snow or ice melt that enters the Authorized System.

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 Sewage Collection System Description

Schedule C – List of Notices of Amendment to this ECA

Schedule D – General

Schedule E – Operating Conditions

Schedule F – Residue Management

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 Sewage Collection System

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

3.2 All Schedule C Notices issued by the Director for the Municipal Sewage Collection System shall form part of this Approval.

3.3 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.

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

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

3.4.2 Through a Schedule C Notice respecting Sewage Works other than Sewers or forcemains; or

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

3.5 The notification requirements set out in condition 3.4 do not apply to any Alteration in respect of the Authorized System which:

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

3.5.2 Constitutes maintenance or repair of the Authorized System; or

3.5.3 Is a Sewer or forcemain authorized by condition 4.1 of Schedule D of this Approval.

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

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

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

3.7 The notifications required in condition 3.4 and 3.6 shall be submitted to the Director using the Director Notification Form.

3.8 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:

3.8.1 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.

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

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

3.8.4 The ESC plan, ESC measures and its installation, inspections and maintenance shall have regard to at least one of the following:

a) CSA W202 Erosion and Sediment Control Inspection and Monitoring Standard, as amended from time to time;

b) Erosion and Sediment Control Guideline for Urban Construction (2019), as amended from time to time, prepared by the Toronto Region Conservation Authority; or

c) CSA W208 Erosion and Sediment Control Installation and Maintenance, as amended from time to time.

3.9 The Owner shall ensure that records of inspections required by this Approval during any construction activity, including those required under condition 3.8:

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

3.9.2 Be retained with records relating to the Alteration that the construction relates to, such as the form required in conditions 4.3.1, 5.4.1, 6.9.1, or 7.6.1 of Schedule D, or the Schedule C Notice.

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

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

3.10.1 Be retained by the Owner;

3.10.2 Include at a minimum:

a) Identification of the type of Sewers in the Municipal Sewage Collection System (e.g., Separate Sewer; Combined Sewer; Partially Separated Sewer; Nominally Separate Sewer) including:

i Location of Sewers relative to street names or easements;

ii Sewer and/or forcemain diameters;

iii Identification of pumping stations and storage structures, including asset IDs;

iv Identification of SSO and/or CSO locations, including asset IDs;

v Identification of small-bore systems, if any; and

vi Identification of any source protection Vulnerable Areas.

3.10.3 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.

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

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

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

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

3.11.4 The project alters access to a water body;

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

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

3.12 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:

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

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

3.13 Where an Alteration is not authorized under condition 3.11 or 3.12 above:

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

3.13.2 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 for Separate Sewers, Nominally Separate Sewers and Forcemains - 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 Separate Sewer, Nominally Separate Sewer or forcemain within the Authorized System subject to the following conditions and condition 4.2 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 Sewage and has not been designed to treat 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;

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

e) 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 cause overflows or backups nor increase surcharging at any maintenance holes or privately owned infrastructure (e.g., service connections to basements) connected to the Authorized System or any Municipal Sewage Collection System connected to it;

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

c) Not increase the generation of sulfides and other odourous compounds in the Municipal Sewage Collection System.

4.1.3 The maximum discharge/generation of Sewage by users who will be served by the addition, modification, replacement, or extension will not result in:

a) An exceedance of the Authorized System hydraulic capacity, STP Uncommitted Reserve Hydraulic Capacity, or the downstream Pumping Station Capacity as specified in this Approval;

b) Adverse Effects;

c) Any increase in Collection System Overflows that is not offset by measures; or

d) Any increase in the frequency or volume of STP Bypasses or STP Overflows that is not offset by measures.

4.1.4 The 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 municipality 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 d).

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 e) and 4.1.2 to 4.1.6.

4.2 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 Separate Sewer, Nominally Separate Sewer, or forcemain that:

4.2.1 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.

4.2.2 Has a nominal diameter greater than 900 mm for a Separate Sewer or Nominally Separate Sewer.

4.2.3 Has a nominal diameter greater than 350 mm for a forcemain.

4.2.4 Is a Combined Sewer or Partially Separated Sewer.

4.2.5 Connects to another Municipal Sewage Collection 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 Sewage Collection 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 Sewage Collection System being connected to as part of the record that is recorded and retained under condition 4.3.

4.2.6 Creates a new discharge point to the Natural Environment.

4.2.7 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.

4.3 The consents and verifications required in conditions 4.1 and 4.2, if applicable, shall be:

4.3.1 Recorded on Form SS1 prior to the Separate Sewer, Nominally Separate Sewer or forcemain addition, modification, replacement, or extension being placed into service; and

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

4.4 For greater certainty, the verification requirements set out in condition 4.3 do not apply to any Alteration in respect of the Authorized System which:

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

4.4.2 Constitutes maintenance or repair of the Authorized System.

5.0 Authorizations of Future Alterations for Combined Sewers, Partially Separated Sewers and Combined Sewage Storage Tanks and Storage Structures

5.1 Subject to conditions 5.2 and 5.3, the Owner or a Prescribed Person may alter the Combined Sewers, Partially Separated Sewers and combined Sewage storage tanks and storage structures in the Authorized System by:

5.1.1 Modifying or replacing Combined Sewers, Partially Separated Sewers, overflow Regulators and/or outfalls if the purpose of the project is to restore the Sewage Works to good condition.

5.1.2 Replacing Combined Sewers with Separate Sewers for Stormwater and sanitary Sewage.

5.1.3 Modifying or replacing Combined Sewers, Partially Separated Sewers, overflow regulators, outfalls, or combined Sewage storage tanks, provided that:

a) The Alteration is designed in such a manner that will contribute to the ultimate attainment of the capture and treatment for an Average Year of all the Dry Weather Flow plus a minimum of 90% of the volume resulting from Wet Weather Flow that is above Dry Weather Flow;

b) The volume control criterion described in 5.1.3 a) is applied:

i For a consecutive seven (7) month period commencing within fifteen (15) calendar days of April 1; and

ii To the flows collected by the Authorized System immediately above each Collection System Overflow location unless it can be shown through modelling that the criterion is being achieved on a system-wide basis.

c) The Alteration is designed in a manner that will not increase CSO volumes above existing levels at each outfall except where the increase is due to the elimination of upstream CSO outfalls as part of the Alteration; and

d) During the remainder of the year following the seven (7) month period described in condition 5.1.3 b) above, at least the same storage and treatment capacity are maintained for treating Wet Weather Flow.

5.1.4 Adding oversized pipes provided they are designed to alleviate local / neighbourhood basement flooding and the Alteration satisfies condition 5.1.3 a), b), c), and d).

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 and transmit Sewage and shall not be designed to treat Sewage;

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

d) Be consistent with or otherwise address the design objectives contained within the Design Guidelines for Sewage Works; and

e) 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 design of the Alteration shall be:

a) Undertaken in accordance with a Pollution Prevention and Control Plan; or

b) If no Pollution Prevention and Control Plan is available, undertaken in accordance with an interim detailed plan for the local sewershed that:

i Describes the location, frequency, and volume of the CSOs, as well as the concentrations and mass pollutant loadings resulting from CSOs from the study area.

ii Includes the following minimum information:

1. Location and physical description of CSO outfalls in the Authorized System, Collection System Overflows at pumping stations in Emergency Situations, STP Bypass and STP overflows locations;
2. Location and identification of receiving water bodies, including sensitive receivers, for all Combined Sewer outfalls;
3. Authorized System flow and STP treatment component capacities, present and future expected peak flow rates during dry weather and wet weather;
4. Capacity of all regulators; and
5. Location of cross connections between Sewage and Stormwater infrastructure.

iii Is intended to reduce the overall CSO volume, frequency, duration, or by-pass of treatment in the Authorized and/or municipal STP; and

iv If there is a temporary Storm Sewer connection to a combined system as part of a Combined Sewer separation project, the construction plan includes a timeline to disconnect the Storm Sewer to a separated storm outlet.

5.2.3 The Alteration shall not result in:

a) An exceedance of hydraulic capacity of the Authorized System, STP Uncommitted Reserve Hydraulic Capacity, or the Pumping Station Capacity as specified in this Approval;

b) Adverse Effects;

c) Any increase in Collection System Overflows that is not offset by measures elsewhere in the Authorized System; or

d) Any increase in the frequency and/or volume of STP Bypasses or STP Overflows that is not offset by measures.

5.2.4 Where replacement of pipes to achieve Combined Sewer separation has been authorized under conditions 5.1.2 or 5.1.3, the following conditions apply:

a) Stormwater quantity, quality and water balance control shall be provided such that Combined Sewer separation shall not result in an overall increase in pollutants discharged to the Natural Environment;

b) Any new Storm Sewers that result from the Combined Sewer separation can be constructed but not operated until the proposed Stormwater Management Facilities designed to satisfy condition 5.2.4 a) are in operation; and

c) Where any temporary structures have been installed to facilitate Combined Sewer separation, the Owner shall ensure that immediately upon Completion of the Combined Sewer separation, the temporary structure connection shall be disconnected and decommissioned.

5.2.5 The Alteration shall:

a) Not cause overflows or backups nor increase surcharging at any maintenance holes or privately owned infrastructure (e.g., service connections to basements) connected to the Authorized System or any Municipal Sewage Collection System connected to it;

b) Provide smooth flow transition to existing gravity sewers; and

c) Not increase the generation of sulfides and other odourous compounds in the Authorized System.

5.2.6 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.

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

5.2.8 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 d) and to 5.2.2.

5.2.9 The Owner has verified in writing that the Alteration authorized under condition 5.1 has complied with inspection and testing requirements in the Design Criteria.

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 e) and 5.2.3 to 5.2.8.

5.3 The authorization in condition 5.1 does not apply:

5.3.1 To the modification or replacement of a Combined Sewer or Partially Separated Sewer that has a nominal diameter greater than 750 mm.

5.3.2 To the modification or replacement of a Combined Sewer or Partially Separated Sewer that connects to another Municipal Sewage Collection System, unless:

a) Prior to construction, the Owner of the Authorized System seeking the connection obtains written consent from the Owner or Owner's delegate of the Municipal Sewage Collection 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 Sewage Collection System being connected to as part of the record that is recorded and retained under condition 5.4.

5.3.3 Where the Alteration would create a new discharge point to the Natural Environment.

5.3.4 Where the Alteration would result in the addition of a new combined Sewage storage tank in the Authorized System.

5.4 The consents and verifications required in conditions 5.2.7 to 5.2.10, and 5.3.2 if applicable, shall be:

5.4.1 Recorded on Form CS1, prior to the Combined Sewer or Partially Separated Sewer modification or replacement being placed into service; and

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

5.5 For greater certainty, the verification requirements set out in condition 5.4 do not apply to any Alteration in respect of the Authorized System which:

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

5.5.2 Constitutes maintenance or repair of the Authorized System.

6.0 Authorizations of Future Alterations to Components of the Municipal Sewage Collection System

6.1 The Owner or a Prescribed Person may make the following Alterations to the Authorized System subject to conditions 6.4 through 6.7:

6.1.1 Adding, modifying, or replacing the following components of Sewage Pumping Stations, Separate Sewers, or Nominally Separate Sewers:

a) In-line and/or off-line storage to manage peak flow / inflow and infiltration that does not require pumping;

b) Off-line storage to manage peak flow / inflow and infiltration that only requires electricity to empty the structure;

c) Any associated Equipment for cleaning; and

d) All Appurtenances associated with in-line or off-line storage facilities, including odour, and corrosion control.

6.1.2 Modifying existing Sewage pumping stations and odour control units / Facilities, including adding, replacing, or modifying the following components:

a) Pumps, including replacement parts, in an existing pumping system;

b) Grinders and screens;

c) Aeration and/or mixing Equipment;

d) Chemicals and associated Equipment and tanks (including secondary containment);

e) Odour and corrosion control structures;

f) Instrumentation and controls;

g) Discharge and process piping;

h) Valves;

i) Wet-wells; and

j) Fat, oil, and grease separators (FOGs).

6.1.3 Adding new Sewage pumping stations, where they:

a) Are designed to transmit a Peak Hourly Flow of no greater than 30 L/s;

b) Include emergency stand-by power, Spill containment, and emergency alarms (SCADA, if applicable);

c) Include emergency storage designed to provide at minimum two (2) hours of response time at peak design flow;

d) Include odour and corrosion control, as applicable;

e) Would serve a new residential development (or new phased residential development), which may include existing residential development that has no Combined or Partially Separated Sewers;

f) Are designed to only collect sanitary Sewage and not Stormwater; and

g) Do not include an emergency sanitary overflow or piping to a municipal Stormwater management system or a natural receiver to prevent the discharge to the Natural Environment.

6.1.4 Adding, modifying, or replacing Equipment associated with Real-time Control Systems, where:

a) The Equipment is designed and implemented as part of the Owner's CSO reduction strategy or to optimize use of Sewage Works comprising the Authorized System;

b) The Real-Time Control System is designed and integrated with fail-safe procedures such that they are automatically activated when the requirements of the current mode of operation cannot be met;

c) Risk management procedures are in place or will be in place prior to use of the Real-time Control System; and

d) Station alarms to control center are in place or will be in place prior to use of the Real-time Control System.

6.1.5 Adding, modifying, replacing, or removing chemical storage tanks (including fuel storage tanks) with Spill containment and associated Equipment.

6.1.6 Adding, modifying, replacing, or removing Motor Control Centre (MCC) and/or associated electrical.

6.2 The Owner or a Prescribed Person may alter the Authorized System by adding, modifying, replacing, or removing the following components subject to conditions 6.4 through 6.7:

6.2.1 Valves and their associated controls installed for maintenance purposes;

6.2.2 Instrumentation for monitoring and controls, including SCADA systems, and hardware associated with these monitoring devices;

6.2.3 Spill containment works for chemicals used within the Authorized System;

6.2.4 Chemical metering pumps and chemical handling pumps;

6.2.5 Measuring and monitoring devices that are not required by regulation, by a condition in this Approval, or by a condition otherwise imposed by the Ministry;

6.2.6 Process piping within a Sewage pumping station, storage tank, or other structures; and

6.2.7 Valve chambers or maintenance holes.

6.3 The Owner or a Prescribed Person may alter the Authorized System by adding, modifying, or replacing the following components subject to conditions 6.4 through 6.7:

6.3.1 Measuring and monitoring devices that are required by regulation, by a condition in this Approval, or by a condition otherwise imposed by the Ministry.

6.4 The design of the Alteration shall:

6.4.1 Be prepared by a Licensed Engineering Practitioner, where the Alteration falls within the practice of professional engineering as defined in the *Professional Engineers Act*, R.S.O. 1990;

6.4.2 Be consistent with or otherwise address the design objectives contained within the Design Guidelines for Sewage Works; and

6.4.3 Include design considerations 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.

6.5 The Alteration shall:

6.5.1 Not cause overflows or backups nor increase surcharging at any maintenance holes or privately owned infrastructure (e.g., service connections to basements) connected to the Authorized System or any Municipal Sewage Collection System connected to it;

6.5.2 Provide smooth flow transition to existing gravity Sewers;

6.5.3 Not increase the generation of sulfides and other odourous compounds in the Authorized System; and

6.5.4 Be 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.

6.6 Any Alteration of the Authorized System made under conditions 6.1, 6.2, or 6.3 shall not result in:

6.6.1 Exceedance of hydraulic capacity (including Uncommitted Reserve Hydraulic Capacity, as applicable) of the downstream:

a) Municipal Sewage Collection System; or

b) Receiving STPs.

6.6.2 Exceedance of any downstream Pumping Station Capacity as specified in Schedule B of this Approval.

6.6.3 An increase in the capacity of an existing Pumping Station Capacity of greater than 30%.

6.6.4 Any increase in Collection System Overflows that is not offset by measures taken elsewhere in the Authorized System.

6.6.5 Any increase in the frequency and/or volume of STP Bypasses or STP Overflows that is not offset by measures.

6.6.6 Deterioration of the normal operation of municipal STPs and/or the Authorized System.

6.6.7 A negative impact on the ability to undertake monitoring necessary for the operation of the Authorized System.

6.6.8 Adverse Effects.

6.7 The Alteration is subject to the following conditions:

6.7.1 The Owner consents in writing to the Alteration.

6.7.2 The person responsible for the design has verified in writing that the Alteration meets the requirements of conditions 6.4.1 and 6.4.2, as applicable.

6.7.3 The Owner has verified in writing that the Alteration meets the requirements of conditions 6.4.3, 6.7.1, and 6.7.2.

6.8 The Owner shall verify in writing that any Alteration of the Authorized System in accordance with conditions 6.1 or 6.2 has met the requirements of the conditions listed in conditions 6.5 and 6.6.

6.9 The consents, verifications and documentation required in conditions 6.7 and 6.8 shall be:

6.9.1 Recorded on Form SS2 prior to undertaking the Alteration; and

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

6.10 For greater certainty, the verification requirements set out in condition 6.9 do not apply to any Alteration in respect of the Authorized System which:

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

6.10.2 Constitutes maintenance or repair of the Authorized System, including changes to software for an existing SCADA system resulting from Alterations authorized in condition 6.2.

6.11 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 Sewage Collection System to reflect the Alterations of the Sewage Works, where applicable.

7.0 Authorizations of Future Alterations to Equipment with Emissions to the Air

7.1 The Owner and a Prescribed Person may alter the Authorized System by adding, modifying, or replacing the following Equipment in the Municipal Sewage Collection System:

7.1.1 Venting for odour control using solid scavenging or carbon adsorption units;

7.1.2 Venting for odour control by replacing existing biolfiltration or wet air scrubbing systems, including any components, with Equipment of the same or better performance characteristics; and

7.1.3 Emergency generators that fire No. 2 fuel oil (diesel fuel) with a sulphur content of 0.5 per cent or less measured by weight, natural gas, propane, gasoline, or biofuel, and that are used for emergency duty only with periodic testing.

7.2 Any Alteration of the Municipal Sewage Collection System made under condition 7.1 that may discharge or alter the rate or manner of a discharge of a Compound of Concern to the atmosphere is subject to the following conditions:

7.2.1 The Owner shall, at all times, take all reasonable measures to minimize odorous emissions and odour impacts from all potential sources at the Facility.

7.2.2 The Owner shall ensure that the noise emissions from the Facility comply with the limits set out in Publication NPC-300.

7.2.3 The Owner shall ensure that the vibration emissions from the Facility comply with the limits set out in Publication NPC-207.

7.3 The Owner shall not add, modify, or replace Equipment in the Municipal Sewage Collection System as set out in condition 7.1 unless the Equipment performs an activity that is directly related to municipal Sewage collection and transmission.

7.4 The emergency generators identified in condition 7.1.3 shall not be used for non-emergency purposes (excluding generator testing) including the generation of electricity for sale or for peak shaving purposes.

7.5 The Owner shall verify in writing that any addition, modification, or replacement of Equipment in accordance with condition 7.1 has met the requirements of the conditions listed in conditions 7.2, 7.3, and 7.4.

7.6 The verifications and documentation required in condition 7.5 shall be:

7.6.1 Recorded on Form A1 prior to the additional, modified or replacement Equipment being placed into service; and

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

7.7 For greater certainty, the verification and documentation requirements set out in condition 7.5 and 7.6 do not apply to any addition, modification, or replacement in respect of the Authorized System which:

7.7.1 Is exempt from the requirements of the EPA, or for Equipment that is exempt from s.9 of the EPA under O. Reg. 524/98; or

7.7.2 Constitutes maintenance or repair of the Authorized System.

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 that were applicable 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 (c) of condition 4.1.1 and clause (c) of condition 5.2.1 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 beforeMay 31, 2024.

9.1.2 The design of the Alteration conforms to the 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	**Vaughan, The Corporation of the City of**
ECA Number	**011-W601**
System Name	**The City of Vaughan Municipal Sewage Collection System**
ECA Issue Date	**November 25th, 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.

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 having the training or expertise for their operating functions that is required by O. Reg. 129/04 (Licensing of Sewage Works Operators) under the OWRA and 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 Any person who is operating the Sewage Works within the Authorized System is supervised by an operator-in-charge as described in O. Reg. 129/04 under the OWRA.

2.2 For clarity, the requirements outlined in the above conditions 2.1.1 through 2.1.4 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 pumping stations, combined Sewage storage tanks, and any Collection System Overflow within the Authorized System as of the date of issuance of this Approval are inspected at least once per calendar year starting the year after the O&M Manual is required to be prepared and implemented as per condition 3.2.1 in Schedule E of this Approval, and more frequently if required by the O&M Manual; and

b) Any pumping stations, combined Sewage storage tanks, and any Collection System Overflow 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 once per calendar year and more frequenctly if required by the O&M Manual.

3.1.3 The inspection of the combined Sewage storage tanks required in condition 3.1.2 shall include physical inspection at the Point of

Entry, including looking for signs of unplanned discharges from Wet Weather Flow and Dry Weather Flow.

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

3.1.5 The Owner shall maintain records of the results of the inspections required in condition 3.1.1, 3.1.2, and 3.1.3, monitoring (if applicable) 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; and

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

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 beforeNovember 15, 2025, 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;

c) Maintenance and repair programs, including:

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

ii Clean out requirements for any storage or overflow tanks, if applicable.

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 checks of controlling systems (e.g., SCADA) to ensure the mechanical integrity of Equipment and its accuracy on the controlling system.

f) Procedures for preventing odours and odour impacts;

g) Procedures for calibration of monitoring Equipment (e.g., flow, level, pressure);

h) 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 SAC, the Medical Officer of Health, and the District Manager, as applicable;

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

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

3.2.2 The Owner shall review and update the O&M Manual and ensure that operating staff have access, as per O. Reg 129/04 (Licensing of Sewage Works Operators) under the OWRA. Upon request, the Owner shall make the O&M Manual available to Ministry staff.

3.2.3 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.

3.2.4 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 Collection System Overflows

3.3.1 Any CSO at a point listed in Table B4 of Schedule B is considered a Class 1 approved discharge type Spill under O.Reg.675/98:

a) Where the CSO is as a result of wet weather events when the designed capacity of the Authorized System is exceeded;

b) Where the CSO is a direct and unavoidable result of a planned repair and/or maintenance procedure, the Owner has notified the Local Ministry Office fifteen at least (15) calendar days prior to the CSO and the Local Ministry Office has provided written consent of the CSO; or

c) Where the CSO is planned for research or training purposes, the Owner has notified the Local Ministry Office fifteen at least (15) calendar days prior to the CSO and the Local Ministry Office has provided written consent of the CSO.

3.3.2 Any SSO at a point listed in Table B5 of Schedule B is considered a Class 1 approved discharge type Spill under O.Reg. 675/98:

a) Where the SSO is a direct and unavoidable result of a planned repair or maintenance procedure and the Owner has notified the Local Ministry Office at least fifteen (15) calendar days prior to the SSO and the Director for the purposes of s.4 of O. Reg. 675/98 under the EPA has provided written consent of the SSO; or

b) Where the SSO is planned for research or training purposes, the Owner has notified the Local Ministry Office at least fifteen (15) calendar days prior to the SSO and the Director for the purposes of s.4 of O. Reg. 675/98 under the EPA has provided written consent of the SSO.

3.3.3 On or before May 19, 2025, the Owner shall establish signage to notify the public, at the nearest publicly accessible point(s) downstream of any CSO outfall location identified in Schedule B, Table B4, and any SSO when the overflow is piped to a specified outlet point. If the nearest publicly accessible point is more than 100m away, then signage shall be established at the CSO or SSO outfall location. The signage shall include the following minimum information:

a) Type of Collection System Overflow;

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

c) ECA number and/or asset ID; and

d) The Owner’s contact information.

3.4 Monitoring

3.4.1 For a Collection System Overflow that occurs at a designated location, the following conditions apply:

a) For CSO storage tanks/facilities listed in Table B3, the Owner shall:

i On or beforeMay 15, 2023 or within six (6) months of the date of the publication of the Ministry's monitoring guidance, whichever is later, collect a composite sample of the combined Sewage from the CSO tank whenever the tank(s) is(are) in operation. If there is more than one tank, the tank nearest to the discharge point shall be sampled. The composite sample shall consist, at a minimum, of one sample at the beginning of the Event, and one sample at approximately every 8-hours until the end of the Event. The composite sample shall be analyzed, at a minimum, for Biochemical Oxygen Demand (BOD) (or Chemical Oxygen Demand (COD) if agreed upon by the District Manager), total suspended solids, total phosphorus and total Kjeldahl nitrogen. If the CSO continues for more than one day, multiple composite samples are allowed.

ii If 3.4.1 a) i) cannot be achieved, then surrogate sampling may be used to determine the contamination concentrations of the discharge CSO tank overflow, at a minimum, for BOD (or COD), total suspended solids, total phosphorus and total Kjeldahl nitrogen. The methodology in determining, applying, and analyzing surrogate sampling shall be proposed by the Owner and subject to the written approval of the District Manager.

b) For CSO regulator structures listed in Table B2, and for any CSO or SSO locations listed under Table B4 or Table B5, the Owner shall:

i intentionally deleted to preserve numbering.

ii On or before May 15, 2023 or within six (6) months of the date of publication of the Ministry's monitoring guidance, whichever is later, take at least one (1) grab sample, for BOD (or COD, if agreed upon by the District Manager), total suspended solids, total phosphorus, total Kjeldahl nitrogen, and E. Coli, or

iii On or before May 15, 2023 or within six (6) months of the date of publication of the Ministry's monitoring

guidance, whichever is later, use surrogate sampling to determine the Contaminant concentrations of the discharged Collection System Overflow, at a minimum, for BOD (or COD), total suspended solids, total phosphorus, total Kjeldahl nitrogen, and E. Coli. The methodology in determining, applying, and analyzing surrogate sampling shall be proposed by the Owner and subject to the written approval of the District Manager.

c) The Owner shall use the Event discharged volume and the concentrations as determined in condition 3.4.1 to calculate the loading to the Natural Environment for each parameter.

3.4.2 For any Spill of Sewage that does not meet 3.4.1 a) or b):

a) Where practicable, take at least one (1) grab sample, for BOD (or COD, if agreed upon by the District Manager), total suspended solids, total phosphorus, total Kjeldahl nitrogen, and E. Coli

b) The Owner shall use the discharged volume, where possible, and the concentrations as determined in condition 3.4.2 a) to calculate the loading to the Natural Environment for each parameter.

3.4.3 If COD sampling was completed, the equivalent BOD values are required to be included with the data reported to the Ministry.

3.4.4 The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following documents and all analysis shall be conducted by a laboratory accredited to the ISO/IEC:17025 standard or as directed by the District Manager:

a) Procedure F-10-1, “Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only)”, as amended from time to time.

b) The Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), as amended from time to time.

c) The publication "Standard Methods for the Examination of Water and Wastewater", as amended from time to time.

4.0 Reporting

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

4.2 Collection System Overflows

4.2.1 If the Collection System Overflow meets the criteria listed in condition 3.3.1 or 3.3.2:

a) The Owner shall report the Event as a Class 1 approved discharge type Spill as soon as practicable to the Ministry either by a verbal to SAC or in an electronic format if the Ministry makes a system available;

b) The Owner shall report the Event to the local Medical Officer of Health in a manner agreed upon with the local Medical Officer of Health;

c) The manner of notification to the Ministry shall be in two (2) stages and include, at a minimum, the following information:

i The Asset ID, infrastructure description as detailed in Table B5 in Schedule B, the outfall location, and the Point of Entry (as applicable), and the reason(s) for the Event.

ii First stage of reporting:

a. The date and time (start) of the Event.

iii Second stage of reporting (as soon as practicable and may be reported at same time as first stage):

a. The date, duration, and time (start and end) of the Event;

b. The estimated or measured volume of the Event, accurate to at least +/- 20% of the volume;

i. If the volume of the Event is not readily available at the time of the second stage of reporting, the estimated volume can be provided to the Ministry within seven (7) calendar days of the second stage of reporting;

c. If any, summary of complaints, observed adverse impacts, any additional sampling obtained, disinfection, and any corrective measures taken;

d) Upon request of the local office, the Owner shall within fifteen (15) calendar days of the occurrence of any Collection System Overflow, the Owner shall submit a full written report of the occurrence to the District Manager describing the cause and discovery of the Collection System Overflow, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation, or an alternate report as agreed to in writing by the District Manager.

4.3 Spills

4.3.1 If the Collection System Overflow does not meet the criteria listed in condition 3.3.1 or 3.3.2, or is otherwise considered a Spill of Sewage:

a) The Owner shall report the Spill to SAC pursuant to O.Reg.675/98 and Part X of the EPA;

b) The Owner shall report the Event to the local Medical Officer of Health in a manner agreed upon with the local Medical Officer of Health;

c) In addition to the obligations under Part X of the Environmental Protection Act, the Owner shall, within fifteen (15) calendar days of the occurrence of any reportable Spill, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill or loss, actual/estimated volume of the Spill, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation.

4.4 If the Owner is unable to determine the volume of a Collection System Overflow for the purpose of reporting, the Owner shall develop procedures that enable estimated or measured volumes to be included in the required reporting for any Collection System Overflow occurring on or after May 19, 2023.

4.5 The Owner shall follow the direction of the Ministry and the local Medical Officer of Health regarding any Collection System Overflows.

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

4.6.1 Is submitted to the Director on or before March 31st 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 1st, 2023 to December 31st, 2023 and be submitted to the Director on or before March 31st, 2024.

b) For the transitional period of January 1, 2022 to December 31, 2022, annual reporting requirements from previous ECAs pertaining to Spills only, where these occurred in the reporting period, and that have been revoked through issuance of this ECA shall apply.

i For the transitional period, condition 4.7.2 does not apply.

4.6.2 Is also submitted to the District Manager where a Collection System Overflow or Spill of Sewage has occurred in the reporting period.

4.6.3 If applicable, includes a summary of all required 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.

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

4.6.5 Includes a summary of all calibration, maintenance, and repairs carried out on any major structure, Equipment, apparatus, mechanism, or thing forming part of the Municipal Sewage Collection System.

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

4.6.7 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.

4.6.8 Includes a summary of all Collection System Overflow(s) and Spill(s) of Sewage, including:

a) Dates;

b) Volumes and durations;

c) If applicable, loadings for total suspended solids, BOD, total phosphorus, and total Kjeldahl nitrogen, and sampling results for E.coli;

d) Disinfection, if any; and

e) Any adverse impact(s) and any corrective actions, if applicable.

4.6.9 Includes a summary of efforts made to reduce Collection System Overflows, Spills, STP Overflows, and/or STP Bypasses, including the following items, as applicable:

a) A description of projects undertaken and completed in the Authorized System that result in overall overflow reduction or elimination including expenditures and proposed projects to eliminate overflows with estimated budget forecast for the year following that for which the report is submitted.

b) Details of the establishment and maintenance of a PPCP, including a summary of project progresses compared to the PPCP's timelines.

c) An assessment of the effectiveness of each action taken.

d) An assessment of the ability to meet Procedure F-5-1 or Procedure F-5-5 objectives (as applicable) and if able to meet the objectives, an overview of next steps and estimated timelines to meet the objectives.

e) Public reporting approach including proactive efforts.

4.7 The report described in condition 4.6 shall be:

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

4.7.2 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.

5.0 Record Keeping

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

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

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

5.2 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 Sewage Collection System to reflect the Alteration of the Sewage Works, where applicable.

6.0 Review of this Approval

6.1 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:

6.1.1 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

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

7.0 Source Water Protection

7.1 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.

7.2 The Owner shall prepare a “Significant Drinking Water Threat Assessment Report for Proposed Alterations” for the Authorized System on or before December 31, 2023 that includes, but is not necessarily limited to:

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

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

7.2.3 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.

7.2.4 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 7.2.3, such as those included in the Standard Operating Policy for Sewage Works.

7.3 The Owner shall make any necessary updates to the report required in condition 7.2 at least once every twelve (12) months.

7.4 Any components, Equipment or Sewage Works added to the report required in condition 7.2 shall be included in the report for the operational life of the Sewage Works.

7.5 Upon request, the Owner shall make a copy of the report required in condition 7.2 available to the Ministry or Source Protection Authority staff.

8.0 Additional Studies

Assessment of Wet Weather Flows Compared to Dry Weather Flows

8.1 This condition and the following requirements apply where:

a) The Authorized System has no Combined Sewers or Partially Separated Sewers; and

b) There has been one or more of: an STP Overflow, STP Bypass, or Collection System Overflow within the ten (10) year period starting January 1, 2012 and ending December 31, 2021.

The following requirements do not apply if:

a) The Collection System Overflow is a result of emergency overflows at pumping stations during power outage or Equipment failure; and

b) There has been no STP Overflow or STP Bypass.

8.1.1 The Owner shall conduct an assessment of Wet Weather Flows compared to the Dry Weather Flows in the Authorized System and/or to the STP(s) described in Schedule A, as per the following conditions:

a) The assessment shall evaluate available data from the ten (10) year period starting January 1, 2012 and ending December 31, 2021.

b) The assessment shall be completed and submitted to the Director by November 19, 2023.

c) In the event that Wet Weather Flows in the ten (10) year period described above have created STP Bypasses or STP Overflows at the STP(s) specified in Schedule A or Collection System Overflows in an Average Year, then the study shall include:

i Actions and timelines to meeting the Procedure F-5-1 objectives;

ii Review of causes of STP Overflow, STP Bypass and/or Collection System Overflow Events, including inflow and infiltration, sewer use, and characteristics of rainfall events, as applicable;

iii Inspection of the Sewers and bypass structures; and

iv Identification of any near and/or long-term corrective actions with anticipated timelines.

Assessment of Conformance to Procedure F-5-1 and F-5-5

8.2 This condition and the following requirements apply where:

a) The Authorized System includes Combined Sewers or Partiality Separated Sewers, and

b) The Authorized System experienced a Collection System Overflow, an STP Bypass, or STP Overflow within the ten (10) year period starting January 1, 2012 and ending December 31, 2021.

8.2.1 The Owner shall conduct an assessment to demonstrate conformance of the Authorized System to Procedure F-5-1 or Procedure F-5-5, as applicable, in accordance with the following conditions:

a) The assessment shall:

i Be prepared by a Licensed Engineering Practitioner and be submitted to the Director by November 19, 2023;

ii Be performed for each of the years 2012 through to 2021;

iii Include the number of Collection System Overflows as a result of storms that are not Significant Storm Events for each year;

iv Include the estimated length of Combined Sewers and Separate Sewers within the collection system;

v Include the date of the most recent PPCP;

vi Include the status of each action items specified in the PPCP, as applicable;

vii Include a summary of additional action items not specified in a PPCP which have been taken to prevent

Collection System Overflows in the ten (10) year period starting January 1, 2012 and ending December 31, 2021; and

viii Identify timelines for achieving conformance to Procedure F-5-1 or Procedure F-5-5 objectives, as applicable.

8.2.2 The Owner shall submit a new or updated PPCP to the Director, no later than May 19, 2027, if:

a) No PPCP exists for the Authorized System, or

b) The PPCP for the Authorized System is older than ten (10) years as of November 25th, 2022.

8.2.3 The PPCP shall include, at minimum:

a) Characterization of the Combined Sewer System (CSS) – Monitoring, modeling and other appropriate means shall be used to characterize the CSS and the response of the CSS to precipitation events. The characterization shall be based on the ten (10) year period starting January 1, 2012 and ending December 31, 2021 and include the determination of the location, frequency and volume of the CSOs, concentrations and mass pollutants resulting from CSOs, and identification and severity of suspected CSS deficiencies. Records shall be kept for CCS including the following:

i Location and physical description of CSO and SSO outfalls in the collection systems, emergency overflows at pumping stations, and bypass locations at STPs;

ii Location and identification of receiving water bodies, including sensitive receivers, for all Combined Sewer outfalls;

iii Combined Sewer system flow and STP treatment capacities, present and future (20-year timeframe) expected peak flow rates during dry weather and wet weather;

iv Capacity of all regulators;

v Location of cross connections between sanitary Sewage and Stormwater infrastructure; and

vi Location and identification of infrastructure in the CSS where monitoring Equipment is installed.

b) Operational procedures shall be developed including the following:

i Combined Sewer maintenance program; and

ii Regulator inspection and maintenance programs.

c) An examination of non-structural and structural CSO control alternatives that may include:

i Source control;

ii Inflow/Infiltration reduction;

iii Operation and maintenance improvements;

iv Control structure improvements;

v Collection system improvements;

vi Storage technologies;

vii Treatment technologies; and

viii Sewer separation.

d) An implementation plan with a schedule of all practical measures to eliminate dry weather overflows and minimize wet weather overflows, as well as an overflow percent reduction target.

i The implementation plan shall show how the minimum CSO prevention and control requirements and other criteria in Procedure F-5-5 are being achieved.

8.2.4 The Owner shall ensure that an updated PPCP for the Authorized System is prepared within ten (10) years of the date that the previous PPCP was finalized.

Sewer Model

8.3 The Owner shall prepare a new/updated Sewer model, within three (3) years of November 25th, 2022, if any of the following pertain to the Authorized System:

8.3.1 It includes Combined Sewers;

8.3.2 It services a population greater than 10,000; or

8.3.3 The Sewer model for the Authorized System was last updated prior to 2012 and 8.3.1 or 8.3.2 apply.

Schedule F: Residue Management

System Owner	**Vaughan, The Corporation of the City of**
ECA Number	**011-W601**
System Name	**The City of Vaughan Municipal Sewage Collection System**
ECA Issue Date	**November 25th, 2022**

1.0 Residue Management System

1.1 Not Applicable:

Ontario

ENVIRONMENTAL COMPLIANCE APPROVAL
For a Municipal Stormwater Management System

ECA Number: 011-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:

Vaughan, The Corporation of the City of

2141 Major Mackenzie Dr.
Vaughan, ON L6A 1T1

For the following Sewage Works:

The City of Vaughan Municipal Stormwater Management 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 25th day of November, 2022

Signature

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

Schedule A: System Information

System Owner	**Vaughan, The Corporation of the City of**
ECA Number	**011-S701**
System Name	**The City of Vaughan Municipal Stormwater Management System**
ECA Issue Date	**November 25th, 2022**

1.0 ECA Information and Mandatory Review Date

ECA Issue Date	November 25th, 2022
Application for ECA Review Due Date	November 15, 2027

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 (Jul 28, 2022)

3.0 Stormwater master Plan and Asset Management Plan

Document Title	Version
City of Vaughan Asset Management Plans (Core Assets)	v.1 (May 2021)
Stormwater Master Plan	v.1 (June 2014)
Don River Watershed Plan – Implementation Guide	v.1 (2001)
Humber River Watershed Plan – Pathways to a Healthy Humber	v.1 (June 2008)

4.0 Operating Authority

System	Operating Authority
Municipal Stormwater Management System	The Corporation of the City of Vaughan

Schedule B: Municipal Stormwater Management System Description

System Owner	**Vaughan, The Corporation of the City of**
ECA Number	**011-S701**
System Name	**The City of Vaughan Municipal Stormwater Management System**
ECA Issue Date	**November 25th, 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 System serving the City of Vaughan's drainage area, is a separate system for Stormwater (i.e. designed not to transmit sanitary Sewage and/or Combined Sewage) within the Don River and Humber River watershed(s). The Municipal Stormwater Management System consists of Storm Sewers, culverts, ditches, Stormwater Management Facilities and outlets.

This Approval covers the entire Municipal Stormwater Management System owned and operated by the City of Vaughan. This Approval does not cover municipally, or Privately Owned Stormwater Works on industrial, commercial, or institutional land.

This Municipal SWM System connects to the Regional Municipality of York SWM system. **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
Vaughan Storm Infrastructure Map_Nov 2022	November 2022

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.

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.

Any Sewage Works described in conditions 1.3 through 1.8 below.

Stormwater Collection System

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	16.98	--
Storm Sewers	> 250 - 500	270.22	--
Storm Sewers	> 500 - 1050	401.05	--
Storm Sewers	> 1050	152.46	--
Total Storm Sewers		--	840.72
Ditches / Swales	NA	--	416.4
Total System Length (km)		--	1257.12

Note: Length of sewers also contain superpipes and underground storage.

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, evapotranspiration, harvest)	--	--	--	--	--	--	--
LID Facilities - Filtration	--	--	--	--	--	--	--
Stormwater Management Ponds – Wet (includes wetlands, hybrids)	1	13	79	11	119	106	119
Stormwater Management Ponds						26	26

- Dry							
Super Pipe / Storage Facility	--	--	--	--	--		19
Filtration MTD - Filter Unit	--	--	--	--	--		--
Sedimentation MTD - OGS	0	4	10	0			28
Pumping Stations							1
Other							
Total Number of Facilities	1	11	114	11	193	59	245

* 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 (FDC)	Up to 250	61.23185	N/A	
Third Pipe Sewer (FDC)	> 250 - 500	12.97454	N/A	
Third Pipe Sewer (FDC)	> 500	1.444722	N/A	
Total	--	--	--	75.65km
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)
infiltration trenches / soak away pits within the private lots to treat the rooftop runoff before entering DP8.	West of Dufferin, south of Kirby Road allowance, on the east half of concession 3.	
Filter strips via sodded yards of the lots provide the removal of pollutants through the filtering action of the grass and deposition in velocity areas. Roof drains of individual dwellings discharge over splash pads to sodded areas and are not connected to storm sewers.	North side of Avdell Avenue between Bush Drive.	
Rear lot swales on private properties discharging to DP66.	North of Mattucci Road, immediately east of Weston Road, along Rosemary Place.	
Grass swales, and filter strips	South side of	

provide removal of pollutants through the filtering action of the grass and by deposition in low velocity. The grass swales have been identified at rear and between lots, and the filter strips are provided by the large, sodded yards of the lots. These swales discharge to DP71. Roof drains of the individual dwellings discharge over splashpads to sodded areas.	Teston Road, between Cooper Creek Court and Cranston Park Avenue. North of Fermar Drive.	
Grass swales, and filter strips provide removal of pollutants through the filtering action of the grass and by deposition in low velocity. The grass swales have been identified at rear and between lots, and the filter strips are provided by the large sodded yards of the lots. Roof drains of the individual dwellings discharge over splashpads to sodded areas.	South side of Teston Road between Cranston Park Avenue and Limosano Avenue. North of Blackthorn Drive.	
Rear lot catch basin swale flows through pipe to inlet headwall of DP104.	South of Nashville sideroad, east of CPR lands, North of Kleinburg Golf and Country Club.	
Grassed areas in private lots afford the opportunity for further infiltration and settlement of suspended solids before discharging to DP105.	North-eastern corner of Mackenzie Glen Subdivision	

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

Stormwater Management Facilities

The following are Stormwater Management Facilities in the Authorized System:

DP1 TIGI WET POND

Location	618965.4176, 4854119.995
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	IO347 43.8298715817125, -79.520737732660
Catchment Area	41.3 ha

Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the Regional storm event.
Reference ECA(s)	3-1677-98-006
Reference Sewage Works as part of treatment train	None
Brief Description	Sediment forebay, wet pond, 300mm dia outlet housed in 1600 mm dia perforated CSP riser, 150 mm orifice, outlet structure with concrete headwall with a 190 mm dia orifice and a 415 mm wide weir, 600 mm dia emergency outfall pipe Permanent Pool: 5,598m^3 Active Storage: 1,066m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP3 OAKBANK WET POND

Location	625907.0337, 4852553.537
Watershed/Subwatershed	Don / Upper East Don River
Receiver of discharge	East Don River
Outlet location	43.814617, -79.433339
Catchment Area	30 ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	TBD
Level of Volume control	TBD
Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	Main inlet originating within the boundary of Thornhill Golf Course enters pond via culvert under Thornbank Road, receives storm water from ditches, outlet located at southeast end of pond,
Receive Emergency Sanitary Overflows	No
Notes	This pond is currently being monitored for water quality by a consultant. Additional Information regarding this pond may be provided as this monitoring program progresses.

DP4 AUDIA POND S WET POND

Location	621522.7795, 4852201.539
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	43.812497400168, -79.4886512857206
Catchment Area	90ha
Level of Treatment for suspended solids	Normal Protection Level (70% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	Refer to DP120 for upstream pond.
Brief Description	Emergency spillway transitions to 4m wide channel at river bank. Outlet control structure is 240mm orifice, 2 concrete headwalls, sediment forebay Permanent Pool: 3,115m^3 Active Storage: 3,615m^3
Receive Emergency Sanitary Overflows	No
Notes	Erosion Control of 25mm Receives overflow from DP120 by way of 5-1500mm CSP culverts into forebay

DP5 MAPLE NEIGHBOURHOOD DRY POND

Location	619137, 4855140
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	43.839316, -79.517866
Catchment Area	~1.7ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	TBD
Reference ECA(s)	TBD

Reference Sewage Works as part of treatment train	TBD
Brief Description	North inlet and headwall, headwall with quality outlet at bottom and overflow grate at top, 500mm dia steel pipe 1.5 m above the ground
Receive Emergency Sanitary Overflows	No
Notes	Catchment Area roughly estimated via storm drainage drawing. Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report.

DP7 MACJANE WET POND

Location	617664.1508, 4856329.798
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	IO416 43.8502684357703, -79.5362606021428
Catchment Area	13.23ha
Level of Treatment for suspended solids	Detention of the First Flush runoff of 25mm over 24 hours.
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the Regional storm event.
Reference ECA(s)	3-0539-94-006
Reference Sewage Works as part of treatment train	N/A
Brief Description	Wetland with 1 inlet and 1 wetcell, low flow channel towards outlet, with hickenbottom riser and orifice at outlet Permanent Pool: 10,605m^3 Active Storage: 15,236m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP8 LAURENTIAN WET POND

Location	619977.293, 4860702.571
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	IO3082

	43.8890210545009, -79.5059214155899
Catchment Area	55 ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	3-1201-97-006
Reference Sewage Works as part of treatment train	Forebay, wetland cell adjacent to wet cell. The design reports indicate infiltration trenches / soak away pits within the private lots to treat the rooftop runoff.
Brief Description	Storm inlet headwall, bypass spillway with rip rap from forebay to wetland, hickenbottom outlet and water quality control structure from wetland to wet cell Permanent Pool: 1,217m^3 Active Storage: 2,200m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP10 HEINTZMAN WET POND

Location	622298.7634, 4858512.733
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	IO1205_5072 43.8699052062072, -79.4776726105766
Catchment Area	5.38ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	2034-7AXPP7
Reference Sewage Works as part of treatment train	None
Brief Description	extended detention pond, forebay, wet cell, inlet pipes and headwalls, emergency spillway, hicken bottom outlet pipe, ditch outlets, outflow control manhole with orifices, outfall pipe, scour pool Permanent Pool: 2,100m^3

	Active Storage: 6,360m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP11 PEAKPOINT WET POND

Location	618972.2428, 4860460.056
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	IO2006_0003 43.8873481113608, -79.5192295868905
Catchment Area	62.16ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	9434-6FKK8S
Reference Sewage Works as part of treatment train	Stormceptor STC 750 (or equivalent) at STMMH43723
Brief Description	sediment forebay and a main wet stormwater detention cell, inlet pipes and headwalls, bottom draw outlet pipe and outflow control manhole with orifices and major outflow top grate, outfall pipe discharging to the existing culvert crossing under Keele St Permanent Pool: 3,600m^3 Active Storage: 16,120m^3
Receive Emergency Sanitary Overflows	No
Notes	Outflows from DP11 are likely routed through DP34.

DP12 HUMBERVIEW DRY POND

Location	611610.11, 4850829.814
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Humber River
Outlet location	IO100 43.8014235892262, -79.6130219087194
Catchment Area	33.05ha
Level of Treatment for suspended solids	N/A

Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Maintan 100-year pre development condition. Overcontrol the 2-year design flows to reduce the peak flow at the outlet by 15% when compared to predevelopment conditions
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	None
Brief Description	Terrafix lined channel, 10.0 m geoweb lined emergency spillway,concrete headwall, terrafix low flow channel, concrete inlet control structure, 4 removable bollards, siltation control fence, weeper pipe to manhole
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP13 IVY GLEN WET POND

Location	621470.8245, 4856885.806
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Tributary of Carrville Creek
Outlet location	IO1806_0083 43.8544975068718, -79.487650329457
Catchment Area	37.92 ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	5619-6EPJ87
Reference Sewage Works as part of treatment train	Stormceptor at STMMH1806_0082 approximately 250m upstream
Brief Description	extended wet detention pond, 2 sediment forebays, main wet stormwater detention cell,hicken bottom outlet, ditch outlet, outflow control manhole with orifices, outlet discharges to culvert under dufferin street, access rpad, headwalls Permanent Pool: 8,172m^3 Active Storage: 31789m^3
Receive Emergency Sanitary Overflows	No
Notes	3.03 ha of catchment area bypasses pond and drains directly via STMMH1806_0082 Stormceptor

DP14 SYLVAN DRY POND

Location	614540.6296, 4849034.247
Watershed/Subwatershed	Humber / Lower Humber
Receiver of discharge	Jersey Creek
Outlet location	43.7855918039516, -79.5766399081685
Catchment Area	6.165ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Minor System Detention Pond: Control post-development peak flows to pre-development peak flows for all storm events up to and including the 2 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	None
Brief Description	Headwall, terrafix block erosion protection continuous from headwall to north side of creek, inlet, outlet with weir, spillway Active Storage: 224m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP16 GLENKINDIE WET POND

Location	618338.9146, 4856854.253
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	IO426 43.8547319425373, -79.5273236349288
Catchment Area	24.55ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	3337-6CCPX2
Reference Sewage Works as part of treatment train	N/A

Brief Description	10" dia. Hickenbottom w/ 72 1" holes/ft, inlet, 150 mm dia rip rap on outlet Active Storage: 1,642m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP17 PONDVIEW DRY POND

Location	625662.2412, 4852012.112
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	IO0112_1000 43.8104711292647, -79.4372507700625
Catchment Area	16.20ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	3653-96FQ4L
Reference Sewage Works as part of treatment train	STC 1500 at STMMH12092 to provide Enhanced water quality treatment for 0.5 ha, swale
Brief Description	Headwall sewer, orifice tube Active Storage: 1,157m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP18 DOLORES DRY POND

Location	610818.824, 4850337.267
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Robinson Creek
Outlet location	43.7975465100701, -79.6218282437062
Catchment Area	28.4 ha
Level of Treatment for suspended solids	Removal efficiency of particles 40µ and larger at 92% including overflows
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A

Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 5 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 inlets with headwalls, outlet with grate, emergency overflow outlet
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP19 SADOT WET POND

Location	624230.6703, 4853466.748
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	43.8239122404842, -79.4549525837858
Catchment Area	TBD
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	TBD
Level of Volume control	TBD
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	Outlet control structure, headwall, inlet, 50mm clear stone spillway
Receive Emergency Sanitary Overflows	No
Notes	Catchment Area roughly estimated via storm drainage drawing. Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report.

DP20 SIERRA WET POND

Location	617980.8125, 4857415.799
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	43.860249081653, -79.5316646235856
Catchment Area	12.10ha

Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	3-0539-94-006
Reference Sewage Works as part of treatment train	N/A
Brief Description	Extended Detention Pond for 25mm, Vertical perforated stand pipes, hickenbottom with orifice, 2 inlets, 1 outlet
Receive Emergency Sanitary Overflows	No
Notes	Extended Detention for 25mm event

DP21 CREDITSTONE WET POND

Location	619383.3357, 4851716.125
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributar of West Don River
Outlet location	43.804861, -79.513872
Catchment Area	46.863ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	2871-4YRKH7
Reference Sewage Works as part of treatment train	N/A
Brief Description	swales, forebay, ditch, control structure, hickenbottom outlet, rectangular weir, emergency overflow spillway Permanent Pool: 3,030m^3 Active Storage: 6,690m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP22 MAPLERIDGE DRY POND

Location	620380.3899, 4860132.438
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	43.8841966982291, -79.5018749498042
Catchment Area	39.9ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	2032-4YTS8V
Reference Sewage Works as part of treatment train	DP115 is a wet pond directly upstream and discharges to DP22 for additional quantity control.
Brief Description	dry: one (1) flow through outlet control pipe, one (1) overflow spillway, one (1) outlet flow level spreader structure, two (2) infiltration basins, which outlets to the East Don River. Active Storage: 14,600m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP23 RAINBOWS END WET POND

Location	610200.1266, 4856631.909
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	East Humber River
Outlet location	IO17995 43.8541014127076, -79.6288541934755
Catchment Area	24.10ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	6680-68LPRM
Reference Sewage Works as part of treatment train	N/A

Brief Description	plunge pool, bypass channel, flow splitter, outlet structure, orifice, pipes, DICB, infiltration trench, emergency spillway Permanent Pool: 3,340m^3 Active Storage: 5,470m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP25 FRANKLIN NORTH DRY POND

Location	625255.3529, 4852170.802
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	43.8118843642524, -79.442459477451
Catchment Area	1.86ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	Overflow from ponds DP25 and DP26 goes to DP53.
Brief Description	Inlet pipe with headwall, outlet pipe to DP26. Dry detention pond.
Receive Emergency Sanitary Overflows	No
Notes	2.24 x 1.63 Pipe arch from DP25 to DP26. Provides enough storage volume to accommodate overland flow up to 100-year event without overspilling the Control Dam.

DP26 FRANKLIN SOUTH DRY POND

Location	625306.4996, 4852129.343
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	43.811568, -79.441762
Catchment Area	TBD
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A

Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	Outlet from DP25 and spillway/berm into DP53.
Receive Emergency Sanitary Overflows	N
Notes	Overflow from ponds DP25 and DP26 goes to DP53.

DP53 THORNHILL VAUGHAN NEIGHBOURHOOD A4 DRY POND 3

Location	625427.8467, 4852071.501
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	IO295 43.8105514192854, -79.4398116246139
Catchment Area	6.13 ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	Linear facility with outlet pipe and headwall/inlet.
Receive Emergency Sanitary Overflows	No
Notes	Collects from DP25 and DP26 Catchment Area roughly estimated via storm drainage drawing.

DP27 FREEDOM TRAIL WET POND

Location	621477.6091, 4857173.767
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Tributary of Carrville Creek
Outlet location	IO1806_0082 43.857204680104, -79.4882747414704
Catchment Area	41ha

Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Peak flows control up to the 100 year storm event to the target maximum release rates based on the Don River Unit Flows.
Reference ECA(s)	3777-6EBJF6
Reference Sewage Works as part of treatment train	N/A
Brief Description	wet cell, forebay, inlet pipes and headwall, hicken-bottom outlet pipe and ditch inlet catchbasins, outflow control manhole with orifices, outfall pipe and scour pool discharging to the adjacent valley land and therefrom to the headwaters of the East Don Permanent Pool: 6,800m^3 Active Storage: 19,880m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP28 AVDELL WET POND

Location	611633.9852, 4851900.029
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Tributary of Humber River
Outlet location	IO5299_0004 43.8112563153603, -79.6115482111751
Catchment Area	39ha
Level of Treatment for suspended solids	Treat 15mm storm rainfall volume
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	3-1226-95-006
Reference Sewage Works as part of treatment train	Filter strips via sodded yards of the lots provide the removal of pollutants through the filtering action of the grass and deposition in velocity areas. Roof drains of individual dwellings discharge over splash pads to sodded areas and are not connected to storm sewers. Permanent Pool: 520m^3 Active Storage: 4,270m^3
Brief Description	2 inlets with 2 forebays, 1 wet cell with concrete headwall outlet

Receive Emergency Sanitary Overflows	N
Notes	N/A

DP29 LAKEVIEW ESTATES LTD DRY POND

Location	624821.5049, 4852640.669
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	IO376 43.8164839534858, -79.4471698256995
Catchment Area	68.242 ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	1 ditch inlet, outfall, intake structure
Receive Emergency Sanitary Overflows	N
Notes	Catchment Area roughly estimated via storm drainage drawing.

DP30 HAWKVIEW WET POND

Location	616219.5868, 4853753.172
Watershed/Subwatershed	Humber / Black Creek
Receiver of discharge	Black Creek
Outlet location	43.827751, -79.554345
Catchment Area	17 ha
Level of Treatment for suspended solids	Normal Protection Level (70% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Designed to provide water quantity attenuation for the 2 through 100-year return periods, servicing a total upstream drainage area of approximately 70 ha.
Reference ECA(s)	TBD

Reference Sewage Works as part of treatment train	N/A
Brief Description	Concrete headwall, emergency spillway, DICB, gravel jacket Hickenbottom pipe, concrete pier, forebay, outfall control structure Permanent Pool: 2,008m^3 Active Storage: 7,469m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP31 ACUMEN INVESTMENTS DRY POND

Location	612129.1863, 4849559.613
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Robinson Creek
Outlet location	43.790627, -79.606189
Catchment Area	36.4 ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	TBD
Level of Volume control	TBD
Design Storm	Controls post development flow to pre-development flow up to the 25-year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	1 cell with subdrains, riprap at inlet, sodded outfall channel with gabion spillway
Receive Emergency Sanitary Overflows	No
Notes	There is a dry to wet retrofit pending for this pond and a Director Notification will be sent once the construction takes place.

DP33 PINE VALLEY WET POND

Location	613798.578, 4853016.886
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	Marigold Creek
Outlet location	43.821145, -79.585496

Catchment Area	8.21 ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	TBD
Level of Volume control	TBD
Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	2 Headwalls, 2 terrafix/filter cloth splash pads, outflow control, structure,
Receive Emergency Sanitary Overflows	No
Notes	Catchment area roughly estimated via storm drainage drawing. Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report.

DP34 VISTA WET POND

Location	618923.6738, 4860628.056
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	TBD
Catchment Area	31ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	0832-4ULJLQ
Reference Sewage Works as part of treatment train	N/A
Brief Description	inlet with headwalls, sediment forebay, wet pond, emergency overflow spillway and outlet structure, perforated reverse sloped pip, orifice, 2 DICB, outlet sewer pipe discharging into ditch, access road Permanent Pool: 4,500m^3 Active Storage: 16,263m^3

Receive Emergency Sanitary Overflows	No
Notes	Outflows from DP11 are likely routed through DP34.

DP35 FLETCHER WET POND

Location	618299.1303, 4857232.42
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	43.8580922628267, -79.5277887000494
Catchment Area	87.52ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	3-0539-94-006
Reference Sewage Works as part of treatment train	N/A
Brief Description	Extended Detention Pond for 25mm, Vertical perforated stand pipes, hickenbottom with orifice Active Storage: 6,258m^3
Receive Emergency Sanitary Overflows	No
Notes	DP85 outlets to DP35 and controls post development flows to pre-development for DP71 and DP98.

DP36 WOODBRIDGE HIGHLANDS NORTH DRY POND

Location	611907.8728, 4851636.394
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Tributary of Humber River
Outlet location	IO96 43.8089115250217, -79.6075553238978
Catchment Area	21.03ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A

Design Storm	Maintan 100-year pre development condition. Overcontrol the 2-year design flows to reduce the peak flow at the outlet by 15% when compared to predevelopment conditions
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 stage overflow weir, 2 stage lowflow control structure
Receive Emergency Sanitary Overflows	No
Notes	

DP37 SUNSET WET POND

Location	611532.1756, 4853797.111
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	Tributary of East Humber River
Outlet location	43.828848, -79.612446
Catchment Area	63ha
Level of Treatment for suspended solids	Normal Protection Level (70% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	4 inlets into the first two cells of the pond. Ditch inlet structure at outfall to concrete storm outfall into watercourse.
Receive Emergency Sanitary Overflows	No
Notes	Erosion control volume provided for the 25mm storm

DP39 EDGELEY POND

Location	618768.6247, 4850336.238
Watershed/Subwatershed	Humber / Black Creek
Receiver of discharge	Black Creek
Outlet location	Southwest corner of pond
Catchment Area	767ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)

Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	9164-CEAQJ5 (2022)
Reference Sewage Works as part of treatment train	N/A
Brief Description	Existing conditions include a gabion spillway into the adjacent channel, an inlet Weir diverting flow via bioswale feature to polishing pond, storm inlet on east side via OGS, two inlets on west side
Receive Emergency Sanitary Overflows	No
Notes	The Edgeley Pond is owned and operated by the City of Vaughan and has recently been issued an ECA (9164-CEAQJ5) to undergo upgrades. The timeline for these upgrades is anticipated to be over the next 2-3 years. Enhanced Level of Protection is only required for the drainage area from VMC, not for the entire 767ha upstream external drainage area for these future upgrades. OGS, constructed wetland and a detention facility will provide water quality control and erosion control. Western DA = 31.13ha, Eastern DA = 17.38ha It has been acknowledged that the City will send a DN once these future works have been constructed.

DP40 UPPER POST WET POND

Location	622053.7646, 4857136.592
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Carrville Creek
Outlet location	IO1108_0024 43.8579890509478, -79.4804017217159
Catchment Area	23ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	4414-6MYSN5
Reference Sewage Works as part of treatment train	Stormceptor at STMMH1108_0066 approximately 300m upstream.

Brief Description	forebay, wet cell, inlet pipe and headwall, emergency overflow intake structure and outfall, hicken-bottom outlet pipe and ditch outlet manholes, outflow control manhole with orifices, outfall pipe discharging to the foundation drainage collection system Permanent Pool: 3,390m^3 Active Storage: 10,800m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP41 BARHILL WET POND

Location	620260.7727, 4855125.799
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of the West Don River
Outlet location	43.838646, -79.503918
Catchment Area	280 ha
Level of Treatment for suspended solids	Designed for < 200 ppm
Treatment for other Contaminants, as required	Dissolved Oxygen < 200ppm, 30 degrees C removes excess nutrients
Level of Volume control	N/A
Design Storm	Controls post development flow to pre-development flow up to Regional Storm events.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	DP116 wetland cells outlet to drainage swale decreasing flow rates and trapping nutrients and sediments. The swale is integrated into outfall to reduce sediment and nutrient concentration. South of the outfall may be a 360 cu. m off-line quality pond with a porous berm functioning similarly to Hicken bottom drain. The berm maintains baseflow levels, and levels beyond a 1 in 2-year storm shall pass through the berm back into the river. The pond is heavily for the absorption of excess nutrients or pollutants. Pools and riffles follow the water quality pond to cool down and oxygenate the water. The pools are armoured with rockery and gravel to reduce turbidity and act as a base for nitrogen fixing micro-organisms. Another wetland continues the treatment train to filter water and dissipate the flow. Scattered boulders also dissipate energy to prevent severe erosion during storm periods. DP41 ends the treatment train.
Brief Description	Inlet weir, north inlet, inlet channel, 1 sediment basin, rip-rap stones to trainstion from forebay to main pond, 1 outlet, outlet channel, outlet headwall, 40 m wide Regional Storm overflow outlet weir
Receive Emergency Sanitary Overflows	No

Notes	

DP42 JOC WET POND

Location	618508.9093, 4854385
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	43.833017, -79.525460
Catchment Area	13.47ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 inlet structures, 1 sediment basn, 1 outlet Permanent Pool: 2,335m^3 Active Storage: 6,295m^3
Receive Emergency Sanitary Overflows	N
Notes	N/A

DP43 COLUMBUS TRAILS PH 2 DRY POND C

Location	616760.0162, 4857362.581
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	43.8597525635247, -79.5468597377123
Catchment Area	35.3 ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Controlling 100 year event up to 0.15 cms. Active Storage: 5,800m^3
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A

Brief Description	Precast ditch inlet with flat cap and grate, rip rap splash pad, headwall with grate
Receive Emergency Sanitary Overflows	NO
Notes	N/A

DP44 VAUGHAN MILLS WET POND

Location	611890.3527, 4850539.485
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Main Humber River
Outlet location	IO79 43.7989005493029, -79.6087172874106
Catchment Area	6.79ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including a regional event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 inlets, 1 outfall with outlet control structure and 200mm dia orifice, 1 wetcell, 200mm, perforated PVC subdrain, rip rap spillway Permanent Pool: 2,200m^3 Active Storage: 4,427m^3
Receive Emergency Sanitary Overflows	No
Notes	First flush over 9 hours is detained to extract transported material through settlement.

DP45 NAPA VALLEY WET POND

Location	611318.2103, 4852196.056
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Tributary of Humber River
Outlet location	IO5398_9081 43.8140498098289, -79.6145527763113
Catchment Area	118ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A

Level of Volume control	N/A
Design Storm	fanshore pond: 25mm storm (0.12cms) , 5yr (1.2cms), 100yr (4.3cms). 0.236cms, 1.7cms, 4.3cms) for 25mm, 5yr, 100yr
Reference ECA(s)	6798-5DTTS2C, 7146-BHQNHD (Amended), 6509-B5ZHE6 (Amended)
Reference Sewage Works as part of treatment train	STA/STC 4000 at STMMH2454 with a 2.9 ha drainage area, STC4000 at STM5399_0003 with a 5.9 ha drainage area. Both units are for Normal Control (70% TSS removal)
Brief Description	forebay, 2 culverts, berm, extended detention pool, inlet headwall, control flow splitter, access road, hickenbottom pipe Permanent Pool: 6,868m^3 Active Storage: 13,712m^3
Receive Emergency Sanitary Overflows	No
Notes	Target Design storms were determined through the MESP stage

DP46 SUGARBUSH WET POND

Location	623641.2319, 4853852.159
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Tributary of East Don River
Outlet location	IO1003_9378 43.8275190315172, -79.460469820927
Catchment Area	TBD
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	provide 24 hours detention of the runoff from a 25 millimetres storm event, and to control the release rates to 1.80 cubic metres per second for the 100-year storm event.
Reference ECA(s)	0102-7NZJG8
Reference Sewage Works as part of treatment train	N/A
Brief Description	forebay, wet cell, outlet perforated reverse sloped pipe, orifice, 2 DICB, discharged to east don river tributary via existing culvert under Langstaff Road, access raod, emergency spillway Permanent Pool: 3,505m^3 Active Storage: 22,436m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP47 LADY VALENTINA WET POND

Location	622334.3087, 4859006.121
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Tributary of East Don River
Outlet location	IO17977 43.8731969809732, -79.4766543926099
Catchment Area	59.97ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	4650-6DEL3J
Reference Sewage Works as part of treatment train	DP111 acts as Forebay #1 for this facility.
Brief Description	2 forebays, wet cell, inlet pipes and headwalls, emergency spillway, hicken-bottom outlet pipe and twin ditch outlets, outflow control manhole with orifices, outfall pipe and scour pool discharging to the adjacent valley land into the headwaters of the E Permanent Pool: 9,366m^3 Active Storage: 33,591m^3 (Including DP111)
Receive Emergency Sanitary Overflows	N
Notes	DP111 acts as Forebay #1 for this facility.

DP48 CONCORD STORM DRAINAGE DRY POND B

Location	623067.0431, 4852550.064
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Westminister Creek
Outlet location	43.814778, -79.470154
Catchment Area	50.5ha
Level of Treatment for suspended solids	Normal Protection Level (70% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD

Reference Sewage Works as part of treatment train	N/A
Brief Description	1 forebay, 1 wetcell, 2 inlet, 1 outlet, Outflow is 5.96m3/sec
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP49 ILAN RAMON WET POND

Location	623362.7469, 4856049.037
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	IO17976 43.8479601064592, -79.4641053597912
Catchment Area	35.02 ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	7675-6EFJT6
Reference Sewage Works as part of treatment train	N/A
Brief Description	wet cell, forebay, inlet pipes and headwalls, emergency spillway, hicken-bottom outlet pipe and ditch outlets, outflow control manhole with orifices, outfall pipe and scour pool discharging to the East Don River, access road Permanent Pool: 6,940m^3 Active Storage: 23,210m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP50 AUTUMN HILL WET POND

Location	623936.521, 4855091.556
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Tributary of East Don River
Outlet location	IO2119 43.8372626843302, -79.4571464386042
Catchment Area	198ha
Level of Treatment for	Enhanced Protection Level (80% TSS Removal)

suspended solids	
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Designed to provide 24 hours detention of the runoff from a 25 millimetre storm event, and to control the release rates to 2.02 cubic metre per second for the 100 year storm event
Reference ECA(s)	8721-4QNQZ9
Reference Sewage Works as part of treatment train	N/A
Brief Description	Wetland, 2 forebays, 2 inlets, wet cell. Outflow perforated reverse sloped pipe, orifice, 2 DICB, discharged through culvert, maintenance access road Permanent Pool: 14,154m^3 Active Storage: 92,100m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP51 MARITA PAYNE WET POND

Location	622657.1685, 4850572.993
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West don River
Outlet location	43.797957, -79.475414
Catchment Area	280ha
Level of Treatment for suspended solids	N/A - wet pool created due to grading constraints and will have some water quality benefits
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 5 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	1 inlet, 1 wet cell, overflow berm at 5-year, 6 - 750mm outlet pipes for control structure Active Storage: 10,217m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP54 MAURIER WET POND

Location	621710.448, 4856244.434
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Tributary of Carrville Creek
Outlet location	IO1806_0090 43.8488899001468, -79.486514260966
Catchment Area	17 ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	5221-6EEHFV
Reference Sewage Works as part of treatment train	N/A
Brief Description	wet cell, forebay, inlet pipe and headwall, emergency spillway, hicken-bottom outlet pipe and ditch outlet manholes, outflow control manhole with orifices, outfall pipe, headwall and scour pool discharging to the adjacent valley land Permanent Pool: 2,878m^3 Active Storage: 11,253m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP55 GRANDVISTA WET POND

Location	614033.8235, 4853513.577
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	Marigold Creek
Outlet location	IO488 43.8253584708712, -79.582717751599
Catchment Area	58.60ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	4558-5LFGTT
Reference Sewage Works as part of treatment train	N/A

Brief Description	wet cell, forebay, 2 outflow control structures, hickenbottom inlet drain, orifice, overspill weir, outlet weir, access road Permanent Pool: 4,191m^3 Active Storage: 28,634m^3
Receive Emergency Sanitary Overflows	NO
Notes	N/A

DP56 GREAT GULF WET POND

Location	621753.0893, 4849759.259
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	IO337 43.788913256105, -79.4860062829059
Catchment Area	40.29ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	2871-4YRKH7
Reference Sewage Works as part of treatment train	N/A
Brief Description	extended detention control structure at the stormwater management pond with a Hickenbottom horizontal intake at one end of a reversed sloped pipe, orifice, wet cell, forebay, access road Permanent Pool: 8,837m^3 Active Storage: 7,200m^3
Receive Emergency Sanitary Overflows	N
Notes	N/A

DP57 MELVILLE WET POND

Location	617888.4172, 4856397.543
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	IO419, IO420 43.8509756993402, -79.5334312467016 43.8509524882237, -79.533220693294

Catchment Area	13.4ha
Level of Treatment for suspended solids	Detention of the First Flush runoff of 25mm over 24 hours.
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	3-0539-94-006
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 inlets with 2 forebays, 1 wet cell with 2 outlets connected to storm sewer, low flow channel Permanent Pool: 16,000m^3 Active Storage: 4,810m^3
Receive Emergency Sanitary Overflows	N
Notes	N/A

DP58 HUMBER GREEN ESTATES

Location	612568.2934, 4847859.465
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Robinson Creek
Outlet location	TBD
Catchment Area	TBD
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	N/A
Receive Emergency Sanitary Overflows	No
Notes	Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report.

DP59 LARISSA WET POND

Location	618531.2427, 4854816.599
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	43.8370105312687, -79.5264406952667
Catchment Area	17.56ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including a Regional storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	Double celled facility, forebay, permanent pool, outfall Permanent Pool: 2,500m^3 Active Storage: 2,959m^3
Receive Emergency Sanitary Overflows	No
Notes	Appears to discharge to DP117, which is the main quantity control pond

DP62 JANE & STEELES DRY POND

Location	619149.8478, 4848128.854
Watershed/Subwatershed	Humber / Black Creek
Receiver of discharge	Black Creek
Outlet location	IO447 43.776417673435, -79.5187956847479
Catchment Area	74.79ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	inlet flows at 100yr peak (19.5cms uncontrolled, 10.47cms controlled)
Reference ECA(s)	0338-76KQ7Y
Reference Sewage Works as part of treatment train	ECA refers to OGS units that need to be confirmed which contribute to treatment level
Brief Description	dry pond, culvert inlet, outlet structure, orifice, weir, box concrete culvert, trunk sewer, high water spillway, swale, easements

	Active Storage: 840m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP63 FOREST WET POND

Location	608964.7838, 4855982.791
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Humber River
Outlet location	43.8487280638554, -79.6443728566082
Catchment Area	16ha
Level of Treatment for suspended solids	25mm Rainfall Event, first flush
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	1 inlet into forebay, 1 outlet with overflow weir and hickenbottom drain control structure Permanent Pool: 1,500m^3
Receive Emergency Sanitary Overflows	Yes - From Kerrowood Pumping Station
Notes	N/A

DP64 LADY NADIA WET POND

Location	623205.1389, 4859301.055
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	McNair Creek
Outlet location	IO17975 43.8751728803259, -79.4655690719051
Catchment Area	49ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A

Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	7355-6DTMWA
Reference Sewage Works as part of treatment train	N/A
Brief Description	forebay, wet cell, inlet pipes with headwalls, emergency spillway, hicken bottom outlet pipe, outlet catchbasins, outlet control with orifice, outfall pipe, scour pool discharging to McNair Creek Permanent Pool: 10,505m^3 Active Storage: 21,575m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP66 MATTUCCI WET POND

Location	615288.1689, 4858163.635
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	East Humber River
Outlet location	IO17974 43.8672374723844, -79.5652558888876
Catchment Area	8.831ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Post-development peak flows to the targeted outflow rate for the all storm events up to and including 100-year
Reference ECA(s)	7264-ATAN7W, 0962-BMBR5M amended, 1012-56URNC
Reference Sewage Works as part of treatment train	Rear lot swales on private properties
Brief Description	wet cell, forebay, control structure outlet, jorizontal bottom draw outlet, perforated section, orifice plate, overflow spillway, weir, swale, access road/path Permanent Pool: 883m^3 Active Storage: 3199m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP67 FOSSIL HILL WET POND

Location	615714.9576, 4853593.627
Watershed/Subwatershed	Humber / Black Creek
Receiver of discharge	Black Creek
Outlet location	IO207 43.8262106193677, -79.5590258241992
Catchment Area	~161.6ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	TBD
Level of Volume control	TBD
Design Storm	Designed to attenuate excess runoff from events up to Regional storm events
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	3 inlet structures into 2 forebays, 1 outlet control device, 915mm dia CSP culvert, 300mm dia orifice, 7.50m wide weir
Receive Emergency Sanitary Overflows	No
Notes	Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report.

DP68 GRANITERIDGE WET POND

Location	618895.626, 4853884.092
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	43.828138, -79.520471
Catchment Area	99.8 ha
Level of Treatment for suspended solids	Normal Protection Level (70% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	3-0707-99-006
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 inlets into 2 forebays, 1 wet cell with 1 outfall with perforated pipe outlet structure and emergency spillway

	Permanent Pool: ~10,060m^3 Active Storage: 65,700m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP69 MAST WET POND

Location	616955.9856, 4856455.824
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of the West Don River
Outlet location	43.851105, -79.545857
Catchment Area	75ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Target peak “unit flow rates” as agreed to by governing authorities for post-development purposes up to 100-year storm event. Flow rates based on SCS Type II – 12 hour storm.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 inlets with 2 forebays into the east and west cells, 1 central wet cell with reverse sloped outlet pipe and outlet chamber (pre-case MH). Outlet chamber consisting of a 2400mm pre-case MH to include openings that will serve as quantity control detention and overflow protection. Permanent Pool: 13,530m^3 Active Storage: 35,214m^3
Receive Emergency Sanitary Overflows	NO
Notes	Extended detention period of 48 hrs for the 25mm First Flush.

DP70 FAIRFAX WET POND

Location	622760.7774, 4852162.183
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Westminister Creek
Outlet location	IO17973 43.812461, -79.473013
Catchment Area	74.90ha
Level of Treatment for suspended solids	Normal Protection Level (70% TSS Removal)

Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	3722-4QGHYW
Reference Sewage Works as part of treatment train	N/A
Brief Description	inlet structure, forebay, wet cell, outlet structure perforated pipe with orifice, DICB, culvert, overflow weir, access road, concrete piers Permanent Pool: 6,550m^3 Active Storage: 34,800m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP71 WILLOWTREE WET POND

Location	617851.9601, 4858191.603
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	IO240 43.8674041509722, -79.5338857606341
Catchment Area	8.3 ha
Level of Treatment for suspended solids	Normal Protection Level (70% TSS Removal) (between storm events)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	During a storm event the permanent pool acts as a buffer to clean and dilute the water discharging from the pond
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	Grass swales, and filter strips provide removal of pollutants through the filtering action of the grass and by deposition in low velocity. The grass swales have been identified at rear and between lots, and the filter strips are provided by the large sodded yards of the lots. Roof drains of the individual dwellings discharge over splashpads to sodded areas.
Brief Description	Inlet structure, sediment forebay, control structure- 250 mm DIA hickenbottom drain with 100-25 mm holes storm headwall, weir, inlet grate, 250mm orifice plate, gate valve- outfall channel, outfall structure Permanent Pool: 1,742m^3 Active Storage: 2,409m^3

Receive Emergency Sanitary Overflows	No
Notes	DP85 was expanded to facilitate quantity control for this pond.

DP72 CANADA HOUSING AND MORTGAGE DRY POND

Location	616179.9366, 4849779.897
Watershed/Subwatershed	Humber / Lower Humber
Receiver of discharge	Jersey Creek
Outlet location	43.791838977, -79.555651375
Catchment Area	36.63 ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	TBD
Receive Emergency Sanitary Overflows	No
Notes	Catchment Area roughly estimated via storm drainage drawing. Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report.

DP73 VILLA PARK DRY POND

Location	614636.5322, 4849446.705
Watershed/Subwatershed	Humber / Lower Humber
Receiver of discharge	Jersey Creek
Outlet location	IO141 43.78875971828061, -79.57501483921328
Catchment Area	12.39 ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	TBD
Level of Volume control	TBD

Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	TBD
Receive Emergency Sanitary Overflows	No
Notes	Catchment Area roughly estimated via storm drainage drawing. Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report. There is a dry to wet retrofit pending for this pond and a Director Notification will be sent once the construction takes place.

DP74 FLORAL PARKWAY WET POND

Location	621797.7423, 4854229.632
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	IO414 43.8306340528519, -79.4846275932286
Catchment Area	TBD
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	Extended detention off-line wet pond, control structure, 3000mm perforated corrugated steel pipe riser outlet structure, orifice, sediment forebay, baffles Permanent Pool: 11,872m^3 Active Storage: 11,790m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP75 SAGECREST WET POND

Location	622580.3439, 4853729.907
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Westminister Creek
Outlet location	IO479 43.8275778986319, -79.475310342886
Catchment Area	61.2ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Provide 24 hours detention of the runoff from a 25 millimetres storm event, and to control the release rates to 1.20 cubic metres per second for the 100-year storm event.
Reference ECA(s)	5264-4QVPVC
Reference Sewage Works as part of treatment train	N/A
Brief Description	forebay, wet cell, outflow control structure perforated reverse sloped pipe with orifice, DICB, discharge to existing culvert under Dufferin Street, access road Permanent Pool: 8,247m^3 Active Storage: 30,202m^3
Receive Emergency Sanitary Overflows	N
Notes	N/A

DP76 SIR STEVENS WET POND

Location	622503.5078, 4858756.712
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Tributary of East Don River
Outlet location	IO17972 43.871046, -79.475860
Catchment Area	10ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	6661-6DYHNM
Reference Sewage Works as part of treatment train	N/A
Brief Description	forebay, wet cell, inlet pipe and headwall, outlet control with orifice, emergency spillway, hickenbottom outlet pipe, DICBs,

	scour pool discharges to adjacent valley land and therefrom to the headwaters of the east don river, access road Permanent Pool: 2,880m^3 Active Storage: 6260m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP77 NEEDLE WET POND

Location	614789.3972, 4849569
Watershed/Subwatershed	Humber / Lower Humber
Receiver of discharge	Jersey Creek
Outlet location	43.8710351506154, -79.4758201423862
Catchment Area	TBD
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	TBD
Level of Volume control	TBD
Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	TBD
Receive Emergency Sanitary Overflows	No
Notes	Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report.

DP78 CLARKSON WET POND

Location	618343.5767, 4857034.835
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	TBD
Catchment Area	15.44ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A

Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	1050 mm DIA, headwall, outfall Active Storage: 975m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP79 KEEGAN WET POND

Location	612308.0941, 4852498.743
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Humber River
Outlet location	IO8538 43.8168039754507, -79.6028145155612
Catchment Area	72 ha
Level of Treatment for suspended solids	Normal Protection Level (70% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Attenuates 2 year to 100 year storm flows to pre-development levels
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	Forebay, 2 control manholes with orifice, F.D.C. inlet, emergency spillway, storm sewer outlet with headwall, perforated pipe rider structure, forebay berm and low flow berm Permanent Pool: 5,000m^3 Active Storage: 28,000m^3
Receive Emergency Sanitary Overflows	No
Notes	Captures runoff from 25mm storm, with 24 hour detention

DP80 RIVERMEDE WET POND

Location	621820.3137, 4852134.972
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River

Outlet location	IO278 43.8131078797234, -79.4846204574876
Catchment Area	21.80ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	1262-4E6QCJ
Reference Sewage Works as part of treatment train	N/A
Brief Description	Outfall channel, swm overspill routed overland to road
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP82 VENETO WET POND

Location	613133.9537, 4847782.905
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Tributary of the Main Humber River
Outlet location	IO195, IO196 43.7747685021065, -79.5939325437118 43.7743007801895, -79.5945105597544
Catchment Area	15.9ha
Level of Treatment for suspended solids	Designed to store entire 2-year or 25mm rainfall volume and drains out in 24 hours to allow time for suspended solids to setttle
Treatment for other Contaminants, as required	Related pollutants such as metals
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	1 inlet into forebay, 1 inlet directly into wet cell, 2 outlet structures Permanent Pool: 1050m^3 Active Storage: 2000m^3
Receive Emergency Sanitary Overflows	No

Notes	N/A

DP83 GEORGE KIRBY WET POND S

Location	623529.7205, 4856215.651
Watershed/Subwatershed	Don River / Upper East Don
Receiver of discharge	East Don River
Outlet location	IO17971 43.848567314254, -79.4638999918792
Catchment Area	10.88ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	Minor oil spills- volatilization, sedimentation, metabolization
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	7675-6EFJT6
Reference Sewage Works as part of treatment train	N/A
Brief Description	wet cell, forebay, inlet pipes and headwalls, emergency spillway, hicken-bottom outlet pipe and ditch outlets, discharging via the Pond 1A outflow control manhole, outfall pipe and scour pool to the East Don River Permanent Pool: 2,462m^3 Active Storage: 6,710m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP84 COLOSSUS WET POND

Location	617404.3141, 4849247.286
Watershed/Subwatershed	Humber / Lower Humber
Receiver of discharge	Rouge_5
Outlet location	IO4361 43.7875760153685, -79.5406705363997
Catchment Area	~34 ha
Level of Treatment for suspended solids	Normal Level Protection (70% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Attenuates post-development flow to pre-development flow up to the 100-year storm event.

Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	1 Headwall without chute blocks, headwall with chute blocks, protected slope with gabion mat 0.23m thick, hickenbottom manhole outlet, turf stone paved forebay, (3) 2400mm dia STM Permanent Pool: 3,740m^3 Active Storage: 12,980m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP85 CUNNINGHAM WET POND

Location	618150.3962, 4857410.238
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	IO249 43.8596059757163, -79.5288767258552
Catchment Area	87.52 ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	DP71, DP98, and DP135* independently act as quality control ponds and DP85 controls post-development flow for these ponds
Brief Description	Quantity pond with 1 inlet and 1 outlet, control flow structure Active Storage: 34,700m^3
Receive Emergency Sanitary Overflows	No
Notes	Outlet to DP35 Minor system flow splitter diverts 2.49m^3/s of runoff from Mackenzie Glen Phase VI subdivision for water quality control to DP35

DP86 VAUGHAN VALLEY WET POND

Location	610560.2637, 4848281.695
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Rainbow Creek

Outlet location	43.779708, -79.625295
Catchment Area	88ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	quantity pool: 53000 m3 storage for up to 5yr storm. Extended detention pond: 24 hours detention for a 25 millimetre 4 hour Chicago storm event, 22800m3 storage with sediment forebay
Reference ECA(s)	3269-5DQNTZ
Reference Sewage Works as part of treatment train	N/A
Brief Description	quantity pond, extended detention pond, perforated pipe outlet, reverse slope slope outlet pipe, orifice, weir, bypass manhole at inlet, forebay Permanent Pool: 10,600m^3 Active Storage: 53,000m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP87 PIONEER WET POND

Location	618710.4116, 4848180.84
Watershed/Subwatershed	Humber / Black Creek
Receiver of discharge	Black Creek
Outlet location	43.7769157008791, -79.52432387092605
Catchment Area	22.30ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	Timber control structure, cobble stone spillway, siltation control device, 1 drop inlet, wet cell and 1 drop outlet Active Storage: 2825.2m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP88 ASHBRIDGE WET POND

Location	611041.2023, 4848162.821
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Rainbow Creek
Outlet location	43.778146944444444, -79.61984722222222
Catchment Area	14.9ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the Regional storm event.
Reference ECA(s)	0104-BDBLEK
Reference Sewage Works as part of treatment train	2 EF6 (or equivalent) Stormceptors working in parallel to treat 11.32 ha with a maximum treatment rate of 49.6 l/s each. Both discharge via a 705mm dia pipe into 2,400mm dia manhole then into DP88. They remove 50% of TSS. 2 of the following storm manholes contain the stormceptors: ~STMMH9039/STMMH9038/STMMH11534
Brief Description	1 cell with 1 inlet and 1 outlet directly to tributary
Receive Emergency Sanitary Overflows	No
Notes	ECA is for stormceptor units as we are still locating the pond ECA and there is a field investigation pending to confirm the location of these units.

DP89 WILDBERRY WET POND

Location	HWY 400 & MAJOR MACKENZIE DR WEST
Watershed/Subwatershed	616657.3428, 4854767.726
Receiver of discharge	Don / Upper West Don
Outlet location	IO483 43.8357878166927, -79.5484515464414
Catchment Area	60 ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A

Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	3-0345-99-006
Reference Sewage Works as part of treatment train	N/A
Brief Description	Storm headwall, outfall headwall, concrete headwall, forebay twin 300 dia Hickenbottom Pipe, concrete pier Permanent Pool: 13,161m^3 Active Storage: 21,490m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP90 SILMORO WET POND

Location	617665.286, 4858004.82
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	TBD
Catchment Area	8.95 ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 5-year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 Concrete headwalls, spillway, 150 dia clear stone gravel jacket, minislab enclosure around gravel jacket, flow control structure, 300 dia hickenbottom Permanent Pool: 457m^3 Active Storage: 13,555m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP91 ENTERPRISE WET POND N

Location	609548.3646, 4848302.67
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	West Rainbow Creek

Outlet location	IO17970 43.7794350441986, -79.6376709198484
Catchment Area	127ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	6215-9ASJHF-AMENDED, 1064-6VAKX8
Reference Sewage Works as part of treatment train	N/A
Brief Description	extended detention pond, forebay, wetland type detention cell, inlet pipes, headwalls, emergency overflow weir, reverse sloped outlet pipe, outflow control manhole, orifice, outfall channel, access road Permanent Pool: 14,500m^3 Active Storage: 129,300m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP92 AVIVA PARK WET POND

Location	615802.9356, 4847940.614
Watershed/Subwatershed	Humber / Lower Humber
Receiver of discharge	Rouge_5
Outlet location	43.77433861111111, -79.56127083333332
Catchment Area	55ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the Regional storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	1 inlet, wet cell and 1 outlet, concrete headwall with outfall grate, control structure, silt control device, emergency spillway
Receive Emergency Sanitary Overflows	No

Notes	N/A

DP93 CREDITVIEW WET POND

Location	616953.2959, 4851879.918
Watershed/Subwatershed	Humber / Black Creek
Receiver of discharge	Black Creek
Outlet location	43.810533, -79.545388
Catchment Area	23.30 ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the Regional storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	Gabion cutoff wall, rock check dam, headwall, sediment forebay Active Storage: 118,562m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP95 JANE / 7 DRY POND N

Location	618061.7703, 4851067.552
Watershed/Subwatershed	Humber / Black Creek
Receiver of discharge	Black Creek
Outlet location	Jane / 7 Pond S (DP39)
Catchment Area	TBD
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	TBD
Level of Volume control	TBD
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the Regional storm event.
Reference ECA(s)	N/A

Reference Sewage Works as part of treatment train	Peak flow control in conjunction with Jane / 7 Pond S (DP39) Stormceptor at STMMH2319_2004
Brief Description	Trapezoidal open channel that conveys up to the Regional storm peak flows.
Receive Emergency Sanitary Overflows	No
Notes	Black Creek from Jane / 7 Pond S to the east limit of Highway 400, was channelized for additional peak flow control benefits. The channelization took place to increase the additional storage within the channel and reduce the demand on DP39. It conveys the runoff from the external watershed of Black Creek in addition to the post development runoff from the adjacent development and performs as a linear reservoir in order to supplant the natural floodplain storage lost from urbanization.

DP96 SOUTHVALE WET POND

Location	623169.3608, 4857241.739
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	IO17969 43.85730027777778, -79.46815944444445
Catchment Area	42.43ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	9607-6EGKK7
Reference Sewage Works as part of treatment train	N/A
Brief Description	forebay, wet cell, nlet pipe and headwall, emergency spillway, hicken-bottom outlet pipe and ditch outlets, outflow control manhole with orifice, outfall pipe and scour pool discharging to the headwaters of East Don River, access road Permanent Pool: 6,560m^3 Active Storage: 23,540m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP97 FIELDSTON WET POND

Location	617047.6556, 4850151.524
Watershed/Subwatershed	Humber / Lower Humber
Receiver of discharge	Jersey Creek
Outlet location	IO3085_3470 43.7944369096443, -79.5447329598569
Catchment Area	112ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	1456-C6NHVZ
Reference Sewage Works as part of treatment train	N/A
Brief Description	wet cell, forebay, 2 inlet sewers with headwalls, outlet of 2 pipes with orifice plate to a wingwall with concrete weir, overflow and low flow opening, discharges to sewer network on Chrislea Road Permanent Pool: 14,380m^3 Active Storage: 39,560m^3
Receive Emergency Sanitary Overflows	NO
Notes	N/A

DP98 JOAN WET POND

Location	618645.1215, 4858307.061
Watershed/Subwatershed	Don / Upper West don
Receiver of discharge	Tributary of West Don River
Outlet location	IO263 43.8681655981813, -79.5236964756657
Catchment Area	28.69 ha
Level of Treatment for suspended solids	Basic Protection level (60% TSS removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	Grass swales, and filter strips provide removal of pollutants through the filtering action of the grass and by deposition in low velocity. The grass swales have been identified at rear and between lots, and the filter strips are provided by the large

	sodded yards of the lots. Roof drains of the individual dwellings discharge over splashpads to sodded areas.
Brief Description	Sediment forebay, inlet with standard headwall, control structure with standard headwall Permanent Pool: 2,257m^3 Active Storage: 3,746m^3
Receive Emergency Sanitary Overflows	NO
Notes	DP85 was expanded to facilitate quantity control for this pond. With external areas included total runoff from 25mm storm exceeds the pond capacity by ~10% 24hr detention time for first flush

DP99 WOODLAND WET POND

Location	622773.663, 4860371.695
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Tributary of East Don River
Outlet location	43.886427570558, -79.47229971153384
Catchment Area	TBD
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	TBD
Level of Volume control	TBD
Design Storm	Post to pre peak flow control for 2 year to Regional storm events.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	Inlet with head wall and channel for big pond, outlet with culvert and channel for big pond, spillway inlet with culvert for small pond, baffle block, permanent pool
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP100 LADY VALENTINA WET POND S

Location	622360.9693, 4858844.619
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	IO17994 43.8721260949678, -79.4767743101405

Catchment Area	4.29ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	4650-6DEL3J
Reference Sewage Works as part of treatment train	N/A
Brief Description	forebay, wet cell, inlet pipe and headwall, emergency spillway, hicken-bottom outlet pipe and twin ditch outlet, outflow control manhole with orifices, outfall pipe and scour pool discharging to the adjacent valley land into the headwaters of the East Don Permanent Pool: 745m^3 Active Storage: 2,234m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP101 TIERRA WET POND

Location	616662.4287, 4856833.766
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary to West Don River
Outlet location	43.855011, -79.547498
Catchment Area	90 ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	10m wide inlet spillway, headwall, additional 36 m 150mm perforated subdrain, headwall with armour stone wingwalls, 1.0 m long clay plug for anti-seepage, 10.5m wide emergency outlet spillway, outfall Permanent Pool: 12,375m^3 Active Storage: 38,000m^3

Receive Emergency Sanitary Overflows	No
Notes	N/A

DP102 MCNAUGHTON WET POND

Location	618457.057, 4856650.883
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	43.852712, -79.525730
Catchment Area	91.53ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flow to pre-development peak flow for 2-year return storm.
Reference ECA(s)	3-0539-94-006
Reference Sewage Works as part of treatment train	N/A
Brief Description	Reinforced concrete headwall and wingwall, reinforced concrete headwall and outfall, concrete headwall, gabion lined overspill weir Permanent Pool: 3,700+m^3 Active Storage: 8,700+m^3
Receive Emergency Sanitary Overflows	N
Notes	N/A

DP103 CROFTERS WET POND

Location	612528.8603, 4851364.572
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Tributary of the Humber River
Outlet location	IO5644 43.8067551880243, -79.6010618854969
Catchment Area	44.09ha
Level of Treatment for suspended solids	TSS removal of 90% of particles with mean diameter of 40 microns under a ten year storm.
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A

Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the Regional storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	Acts as sedimentation pond, 1 outlet control structure - box culvert. Inlet control structure
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP104 ENGLISH DAISY DRY POND

Location	608527.1226, 4854821.827
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Tributary of Humber River
Outlet location	43.83822212335508, -79.65033754168364
Catchment Area	12.9ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 inlets, 1 outlet, weir, 1 wet cell with low flow channel, interlocking block erosion protection
Receive Emergency Sanitary Overflows	No
Notes	Rear lot catch basin swale flows through pipe to inlet headwall.

DP105 SOLWAY WET POND

Location	619326.6584, 4857741.424
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	IO250 43.8628831727471, -79.5154196312461
Catchment Area	6.29ha
Level of Treatment for	First Flush of 25mm over 2 hours with OGS units

suspended solids	
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	3-1322-95-006
Reference Sewage Works as part of treatment train	STC2000 stormceptor at STMMH13986 to STMMH17400 to POND Grassed areas in private lots afford the opportunity for further infiltration and settlement of suspended solids before discharging to DP105
Brief Description	1 inlet, 1 forebay, wet cell, 1 outlet structure with hickenbottom control, emergency spilloway weir Active Storage: 2,307m^3
Receive Emergency Sanitary Overflows	No
Notes	Field investigations are pending to confirm if two other stormceptors are in the treatment train..

DP106 SIR BENSON WET POND

Location	621972.8126, 4857794.063
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Tributary of Carrville Creek
Outlet location	43.862563, -79.481446
Catchment Area	34ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	7884-6DYJRM
Reference Sewage Works as part of treatment train	N/A
Brief Description	inlet pipes and headwall, emergency spillway, hicken-bottom outlet pipe and ditch outlets, outflow control manhole with orifices, outfall pipe and manhole discharging to the existing culvert across Major Mackenzie Drive and therefrom to the headwaters of the East Don River Permanent Pool: 8,820m^3 Active Storage: 16,940m^3

Receive Emergency Sanitary Overflows	No
Notes	N/A

DP108 ELDERS MILL WET POND

Location	610620.4375, 4852235.623
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Tributary of Humber River
Outlet location	43.81434255495663, -79.6252615378837 43.81448672382078, -79.62527066399687
Catchment Area	46ha
Level of Treatment for suspended solids	Normal Protection Level (70% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	0805-5DPK92, 3-0217-98-006
Reference Sewage Works as part of treatment train	N/A
Brief Description	1 inlet with flow splitter for 100 year and 25mm flows. 1 forebay and 1 wetcell Permanent Pool: 2,575m^3 Active Storage: 5,418m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP109 QUEEN FILOMENA WET POND

Location	623197.2178, 4858959.544
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Patterson Creek
Outlet location	43.8738198161381, -79.4651553534216
Catchment Area	21.11ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A

Design Storm	Control up to the 100 year storm event to the target maximum release rates based on the Don River Unit Flows
Reference ECA(s)	7535-6DSJJP
Reference Sewage Works as part of treatment train	OGS unit at STMMH51747 discharging into pond
Brief Description	forebay, wet cell, inlet pipes with headwalls, hickenbottom outlet pipe, DICBs, outflow control with orifice, discharges to McNair Creek culvert crossing under Bathurst street, rip rap emergency spillway Permanent Pool: 7,860m^3 Active Storage: 11680m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP110 GEORGE KIRBY WET POND N

Location	623460.2881, 4856360.569
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	same as dp83 outlet: IO17971 43.848567314254, -79.4638999918792
Catchment Area	48ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	7675-6EFJT6
Reference Sewage Works as part of treatment train	N/A
Brief Description	forebay, wet cell, inlet pipes and headwalls, emergency spillway, hicken-bottom outlet pipe and ditch outlets, outflow control manhole with orifices, outfall pipe and scour pool discharging to the East Don River Permanent Pool: 7,650m^3 Active Storage: 27,397m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP111 VIA ROMANO WET POND

Location	622399.101, 4859170.631
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Tributary of East Don River
Outlet location	DP47: IO17977 43.8731969809732, -79.4766543926099
Catchment Area	59.97ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	4650-6DEL3J
Reference Sewage Works as part of treatment train	DP111 is Forebay #1 to DP47
Brief Description	Forebay #1 with one inlet and one spillway towards the wet cell of DP47. Permanent Pool: 745m^3 Active Storage: 2,234m^3 (Including DP47)
Receive Emergency Sanitary Overflows	No
Notes	DP111 acts as Forebay #1 for DP47. The identified contributing area is the total drainage area to DP47.

DP112 GOLDEN FOREST WET POND

Location	620550.9632, 4856029.231
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	43.8472264514751, -79.5000573727176 43.8480040675369, -79.5005079838322
Catchment Area	69ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	7897-6EBH5X
Reference Sewage Works as part of treatment train	N/A

Brief Description	2 forebays, wet cell, inlet pipes and headwalls, emergency spillway, hicken-bottom outlet pipes and ditch outlet manholes, outflow control manholes with orifices, outfall pipes and headwalls discharging to the existing culverts crossing under the Canadian National Railway and ditch system and therefrom to the headwaters of the East Don River Permanent Pool: 15,526m^3 Active Storage: 35,766m^3
Receive Emergency Sanitary Overflows	N
Notes	N/A

DP113 WOLFCREEK WET POND

Location	622792.495, 4856042.394
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Carrville Creek
Outlet location	IO17992 43.8475194954088, -79.4725672951278
Catchment Area	9.51ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	0718-6EGKAF
Reference Sewage Works as part of treatment train	N/A
Brief Description	forebay, wet cell, inlet pipe and headwall, emergency spillway, hicken-bottom outlet pipe and ditch outlet, access road, outflow control manhole with orifice, outfall pipe and scour pool discharging to the East Don River Permanent Pool: 5,060m^3 Active Storage: 13,383m^3
Receive Emergency Sanitary Overflows	No
Notes	Adjacent to a Wetland buffer

DP114 SUNVEW WET POND

Location	616632.666, 4854631.495
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River

Outlet location	IO3299_0002 43.8350934564903, -79.5482121451568
Catchment Area	90 ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	3-0345-99-006
Reference Sewage Works as part of treatment train	N/A
Brief Description	Outfall headwall, twin 300 dia hickenbottom pipe, concrete pier, outfall structure, forebay, inlet structure, concrete headwall Permanent Pool: 15,333m^3 Active Storage: 24,480m^3
Receive Emergency Sanitary Overflows	No
Notes	24 hour detention of first flush

DP115 MAPLEDOWN WET POND

Location	620484.9214, 4860155.609
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	IO340 43.884436822257, -79.5005763569548
Catchment Area	39.9ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	2032-4YTS8V
Reference Sewage Works as part of treatment train	DP22 is a dry pond directly downstream that DP115 outlets to.
Brief Description	wet: one (1) inlet control flow splitter manhole, one (1) Hickenbottom-style 450 mm diameter PVC outlet control pipe complete with 200 mm diameter control riser pipe, one (1) gravel jacket, one (1) overflow spillway, which outlets into the dry pond. Permanent Pool: 4,100m^3 Active Storage: 3700m^3

Receive Emergency Sanitary Overflows	No
Notes	N/A

DP116 FIELDGATE WET POND

Location	619986.8793, 4855423.695
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of the West Don River
Outlet location	43.8419397161706, -79.5073103752534
Catchment Area	280 ha
Level of Treatment for suspended solids	Designed for < 200 ppm
Treatment for other Contaminants, as required	Dissolved Oxygen < 200ppm, 30 degrees C Removes excess nutrients
Level of Volume control	TBD
Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	Wetland cells outlet to drainage swale decreasing flow rates, and trapping nutrients and sediments. The swale is integrated into outfall to reduce sediment and nutrient concentration. South of the outfall may be a 360 cu. m off-line quality pond with a porous berm functioning similarly to hickenbottom drain. The berm maintains baseflow levels, and levels beyond a 1 in 2 year storm shall pass through the berm back into the river. The pond is heavily for the absorption of excess nutrients or pollutants. Pools and riffles follow the water quality pond to cool down and oxygenate the water. The pools are armoured with rockery and gravel to reduce turbidity and act as a base for nitrogen fixing micro-organisms. Another wetland continues the treatment train to filter water and dissipate the flow. Scattered boulders also dissipate energy to prevent severe erosion during storm periods. DP41 ends the treatment train.
Brief Description	Designed as wetland with two marsh areas, discharging to natural heritage system, inlet is a channel from the creek, outlets through limestone weirs into creek, spillway is a small channel between the creek and DP41
Receive Emergency Sanitary Overflows	No
Notes	The creek this pond outlets into inlets into DP41

DP117 PARKTREE DRY POND

Location	618329.819, 4854778.827
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	43.836126784629506, -79.52943270677963
Catchment Area	83.35ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	Hickenbottom with orifice at outlet, emergency overspill, inlet Active Storage: 22,930m^3
Receive Emergency Sanitary Overflows	No
Notes	DP53 appears to overflow into Dp117 which is mainly a quanitity control pond. 25mm erosion detention over 24 hours.

DP119 LADY FENYROSE WET POND

Location	621760.0842, 4859190.959
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	43.875411, -79.484703
Catchment Area	24ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	4610-6DCJGJ
Reference Sewage Works as part of treatment train	N/A

Brief Description	2 forebays, wet cell, inlet pipes with headwalls, emergency spillway, hickenbottom oulet pipe, 2 DICBs, outflow control with orifices, outfall pipe, scour pool Permanent Pool: 4,190m^3 Active Storage: 13,540m^3
Receive Emergency Sanitary Overflows	N
Notes	N/A

DP120 AUDIA WET POND N

Location	621569.7319, 4852275.823
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	43.813473, -79.488504
Catchment Area	90ha
Level of Treatment for suspended solids	Normal Protection Level (70% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	1 wet cell, emergency overflow berm, storm outfall Permanent Pool: 1940m^3 Active Storage: 1455m^3
Receive Emergency Sanitary Overflows	No
Notes	5 – 1500 dia CSP culverts outlet ~ 3.8 m^3/s flow to adjacent DP4

DP121 BLACKBURN Wet POND

Location	615391.5955, 4851847.83
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	East Humber River
Outlet location	IO166 43.8100658344815, -79.5659588445679
Catchment Area	76.094ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other	N/A

Contaminants, as required	
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the Regional storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 inlet, wet cell, 1 outlet, retrofitted in 1988 for additional quantity control
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP122 RETREAT WET POND

Location	615670.7619, 4856309.933
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	Purpleville Creek
Outlet location	IO17990 43.8496396849481, -79.5612742807309
Catchment Area	107.3ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	6781-6AJM9P
Reference Sewage Works as part of treatment train	N/A
Brief Description	forebay, wet cell, outlet control, flow splitter, access road, bottom draw pipe, orifice, gate valve, DICB, pipe with orifice, discharge to storm sewer on Weston Rd Permanent Pool: 25,000m^3 Active Storage: 52,180m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP123 CITYVIEW WET POND

Location	616407.9517, 4856129.318
Watershed/Subwatershed	Humber / East Humber

Receiver of discharge	Purpleville Creek
Outlet location	IO17989 43.849293, -79.550373
Catchment Area	53.79ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	6781-6AJM9P
Reference Sewage Works as part of treatment train	N/A
Brief Description	outlet control, bottom draw pipe, flow control manhole, gate valve, maintenance pipe, DICB, orifice, emergency overflow, discharges to sewer, earth berm, culvert overflow Permanent Pool: 10,510m^3 Active Storage: 28,410m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP124 PEARSON WET POND

Location	610101.054, 4855659.838
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Tributary of the Humber River
Outlet location	IO8214 43.8453683197831, -79.6303945346269
Catchment Area	31.49ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the Regional storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 inlets with concrete headwalls, 1 forebay, 1 wetcell, 1 outlet with emergency spillway

Receive Emergency Sanitary Overflows	No
Notes	N/A

DP126 FOUR VALLEY WET POND

Location	617193.3283, 4852254.687
Watershed/Subwatershed	Humber / Black Creek
Receiver of discharge	Black Creek
Outlet location	IO3101_0001 43.813856089283, -79.5418819320015
Catchment Area	68.70ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the Regional storm event.
Reference ECA(s)	4585-5CCJLZ
Reference Sewage Works as part of treatment train	N/A
Brief Description	extended detention pond, 2 forebay, outflow pipe with orifice, inlet concrete box with headwall, weir, plunge pool, forebay berm, access road, control structure Permanent Pool: 13,659m^3 Active Storage: 43,870m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP127 WESTRIDGE DRY POND

Location	610172.0963, 4854653.607
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Humber River
Outlet location	IO104 43.8367472395414, -79.6300475726605
Catchment Area	34.11ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A

Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the Regional storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	1 inlet, 1 wet cell, 1 outlet with dry weather flow channel
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP128 SPRINGSIDE WET POND

Location	617896.6727, 4855078.14
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	IO2502_0002 43.8389394791444, -79.5331153604785
Catchment Area	16.96ha
Level of Treatment for suspended solids	Normal Protection Level (70% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	Hickenbottom inlet drain device with internal control orifice Permanent Pool: 1,527m^3 Active Storage: 678m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP129 KORTRIGHT WET POND

Location	613894.9507, 4853930.533
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	Marigold Creek
Outlet location	43.830318, -79.583656
Catchment Area	42.95ha

Level of Treatment for suspended solids	Normal Protection Level (70% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	0162-6VSK9J
Reference Sewage Works as part of treatment train	N/A
Brief Description	wet cell, forebay, maintenance road, inlet headwall, outlet structure, orifice, reverse sloped pipe, grate Permanent Pool: 4,068m^3 Active Storage: 16,793m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP130 REGINA WET POND

Location	611553.2318, 4847220.491
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Plunketts Creek
Outlet location	43.769646, -79.614060 43.770182, -79.613749
Catchment Area	5.66ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	Removes excess nutrients
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the Regional storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	Expended to accommodate expansion, hickenbottom drain with 90mm diameter orifice. Active Storage: 1950m^3
Receive Emergency Sanitary Overflows	No
Notes	25mm storm event, erosion

DP131 ATKINSON/CENTRE DRY POND

Location	625227.3423, 4852280.677
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	IO395 43.8128091720991, -79.443029278264
Catchment Area	~27.3677 ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	TBD
Receive Emergency Sanitary Overflows	No
Notes	Catchment area roughly estimated via storm drainage drawing. Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report.

DP133 BASALTIC WET POND

Location	620550.324, 4853622.543
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	 43.825867, -79.500793
Catchment Area	TBD
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	TBD
Level of Volume control	TBD
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	TBD

Receive Emergency Sanitary Overflows	No
Notes	Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report.

DP134 SANDWAY WET POND

Location	617753.267, 4857916.644
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	43.8645992736977, -79.5344682150125
Catchment Area	23.18ha
Level of Treatment for suspended solids	First flush runoff from a 25mm storm even and discharge the volume over a 24 hour period.
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	TBD
Reference ECA(s)	3-0148-96-006
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 inlets into forebay both using flow splitter manholes with weirs, 1 flow control outlet structure from wet cell with 140mm outlet orifice Active Storage: 2500m^3
Receive Emergency Sanitary Overflows	No
Notes	25mm over 2 hour detention storage

DP135 KETTLE WET POND

Location	617915.9954, 4857685.546
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	43.862423, -79.532143
Catchment Area	7.194ha
Level of Treatment for suspended solids	First flush runoff from a 25mm storm even and discharge the volume over a 24 hour period.
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A

Design Storm	N/A
Reference ECA(s)	3-0148-96-006
Reference Sewage Works as part of treatment train	N/A
Brief Description	Flow splitter manhole with weir, 100 mm outlet orifice in outflow control structure Active Storage: 1270m^3
Receive Emergency Sanitary Overflows	No
Notes	Discharges to quantity control pond DP85

DP136 EXCHANGE WAY WET POND

Location	617953.7812, 4849223.011
Watershed/Subwatershed	Humber / Black Creek
Receiver of discharge	Black Creek
Outlet location	IO470 43.7865956763645, -79.5346917244655
Catchment Area	13.81ha
Level of Treatment for suspended solids	Normal Protection Level (70% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Post-development peak flows to allowable release levels for all storm events up to and including the 100-year return storm
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	1 inlet, 1 wet cell, 1 quantity control outlet, 1 quality control outflow device, Overflow spillway, overland spillway Permanent Pool: 3213m^3 Active Storage: 2492m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP137 DEEPSPRINGS WET POND

Location	617298.4364, 4854515.427
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	IO3400

	43.8338874923879, -79.5401274876118
Catchment Area	38ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Attenuates flows for the 2 through 100-year return period events.
Reference ECA(s)	1105-4J2KG9
Reference Sewage Works as part of treatment train	N/A
Brief Description	off-line and on-line (an extended detention pond and a quantity pond), forebay, main cell, reverse sloped pipe, manhole within berm, hickenbottom pipe, spillway, access road, berm, headwalls Permanent Pool: 2850m^3 Active Storage: 6350m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP138 DAVOS WET POND

Location	613828.066, 4854427.972
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	Marigold Creek
Outlet location	IO4609_0001 43.8327496283362, -79.5848724087788
Catchment Area	92.89ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	4461-7GUHEX
Reference Sewage Works as part of treatment train	N/A
Brief Description	hybrid wet pond/wetland, inlet structure concrete box culvert, outfall concrete headwall, forebay, wetland cell, design spillway, permanent pool, maintenance access road, riprap emergency spillway weir, outlet structure perforated hickenbottom Permanent Pool: 8,354m^3

	Active Storage: 27,178m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP139 RAINBOW DRY POND

Location	611863.2099, 4848785.776
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Tributary of Rainbow Creek
Outlet location	43.783433, -79.609030
Catchment Area	232.22 ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	TBD
Level of Volume control	TBD
Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	2 inlet structures, to low flow swale at outlet
Receive Emergency Sanitary Overflows	No
Notes	Catchment area roughly estimated using drainage plan drawing. Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report.

DP140 HARMONIA DRY POND

Location	612366.9822, 4849145.983
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Robinson Creek
Outlet location	TBD
Catchment Area	TBD
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	TBD
Level of Volume control	TBD

Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	TBD
Receive Emergency Sanitary Overflows	No
Notes	Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report. There is a dry to wet retrofit pending for this pond and a Director Notification will be sent once the construction takes place.

DP143 INNOVATION WET POND

Location	610223.9697, 4849157.277
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Rainbow Creek
Outlet location	outlets marked as inlets IO5642: 43.787070947599, -79.6294165004608 IO5643: 43.7870815974167, -79.6292917777417
Catchment Area	9.193ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	9491-6UVP3F
Reference Sewage Works as part of treatment train	N/A
Brief Description	forebay, wet cell, balancing culverts, outlet box, orifice, grate, trunk storm sewer Permanent Pool: 4,080m^3 Active Storage: 15,519m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP145 MARC SANTI WET POND W

Location	622349, 4856202
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Carrville Creek
Outlet location	IO1108_0021 43.8485386088364, -79.4777443132307
Catchment Area	11ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	0718-6EGKAF
Reference Sewage Works as part of treatment train	TBD
Brief Description	forebay, wet cell, inlet pipe and headwall, emergency spillway, hicken-bottom outlet pipe and ditch outlet, outflow control manhole with orifice, outfall pipe and scour pool discharging to the East Don River Permanent Pool: 2,280m^3 Active Storage: 7,150m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP149 JANE RUTHERFORD INDUSTRIAL SD PH4 WET POND

Location	617690.568, 4854487.881
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	IO17984 43.8338738977546, -79.5357440197264
Catchment Area	24.93ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	1358-5TDP5P
Reference Sewage Works as part of treatment train	N/A

Brief Description	forebay, wet cell, inlet pipe with headwall, outlet control structures, outfall pipe hickenbottom, access road, berm, baffle blocks, scour pool, emergency spillway to don river Permanent Pool: 3,750m^3 Active Storage: 6,092m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP150 LANTERNA WET POND

Location	616097.2726, 4855187.554
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	43.840579, -79.555674
Catchment Area	TBD
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	TBD
Level of Volume control	TBD
Design Storm	TBD
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD
Brief Description	3-0345-99-006
Receive Emergency Sanitary Overflows	7
Notes	DP150 located north of valley works described in DP114 and DP 89 ECA 3-0345-99-006. Valley works conveys discharge from DP150 to DP89. There's no further design confirmation at this time. After further investigation, this pond has not been confirmed as having a function in storm water quantity or quality control. The storm water reports for nearby subdivisions and the block were examined and it appears this pond was designed as part of the water coarse feature. However, this pond continues to be under investigation.

DP151 TWIN HILLS WET POND

Location	615457.4905, 4857505.209
Watershed/Subwatershed	Humber / East Humber

Receiver of discharge	Purpleville Creek
Outlet location	IO17983 43.8622905724819, -79.5630943375645
Catchment Area	15.4ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Upper: Control post-development peak flows to pre-development peak flows for all storm events up to and including the 10 year storm event. Lower: Control post-development peak flows to pre-development peak flows for 10-year to 100 year storm events, accepting overflow from upper pond.
Reference ECA(s)	6781-6AJM9P
Reference Sewage Works as part of treatment train	N/A
Brief Description	upper cell: wet cell, impermeable liner, outlet control with orifice, pipe with orifice, DICBs, overflow spillway from upper to lower cell. Lower cell: recharge/quantity control cell, impermeable liner, outlet control structure,m DICB, pipe with orifice Permanent Pool: 2990m^3 Active Storage: 9040m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP152 PARK RIDGE WET POND

Location	610631.1789, 4853803.165
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Humber River
Outlet location	IO1485 43.8283294893139, -79.6238217002476
Catchment Area	16.5ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	5300-5EZRZ5
Reference Sewage Works as part of treatment train	N/A

Brief Description	wet cell, extended detention, forebay berm spillway, outlet perforated riser with pipe, orifice
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP157 DUFFERIN HUNTERWOOD CHASE WET POND

Location	620997.4042, 4860118.977
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	IO2011_0001 43.8841914650615, -79.493416730279
Catchment Area	13.0 ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	1189-7P4LRR
Reference Sewage Works as part of treatment train	N/A
Brief Description	3 concrete headwalls, sediment forebay, inlet structure, quality control outlet structure Permanent Pool: 1,908m^3 Active Storage: 3,787m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP158 CREDITVIEW NORTH WET POND

Location	616778.6852, 4852041.488
Watershed/Subwatershed	Humber / Black Creek
Receiver of discharge	Black Creek
Outlet location	43.812252, -79.548530
Catchment Area	23.30ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A

Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 Headwalls, overflow device with 150mm dia orfice opening Permanent Pool: 4,893m^3 Active Storage: 5,016m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP159 ROMINA WET POND

Location	617921.0955, 4852875.824
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Upper West Don River
Outlet location	IO3103_0001 43.8196082061905, -79.5324952085842
Catchment Area	68.6ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control the release rate of the 68.6 hectares site area to a maximum of 2.378 cubic metres per second for storms up to the 100-year event
Reference ECA(s)	2107-54QQSN, 6615-5JMJEF(Amended)
Reference Sewage Works as part of treatment train	N/A
Brief Description	forebay, wet cell, outflow perforated pipe, perforated riser, control manhole with grate, flow discharged to existing 1200 mm diameter storm sewer along the south edge of pond, access road, plunge pool, berm Permanent Pool: 13,000m^3 Active Storage: 29,400m^3
Receive Emergency Sanitary Overflows	No
Notes	The pond is designed to provide 48 hours detention of the runoff from a 25 millimetre storm event

DP161 WORTHVIEW WET POND

Location	611045.9568, 4850147.844
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Robinson Creek
Outlet location	IO17980 43.7964417050711, -79.619878790925
Catchment Area	16.67ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	1023-6QKJPT
Reference Sewage Works as part of treatment train	N/A
Brief Description	wetland, forebay, access road, outlet structure, reverse sloped pipe, orifice, swale, emergency weir structure, berm Permanent Pool: 1,200m Active Storage: 2,750m
Receive Emergency Sanitary Overflows	No
Notes	Outlet swale at 1%, 500 mm deep with 3:1 side slopes stake sodded DP161 controls the minor system flows, while DP164 controls the major system flows.

DP162 MAPLEGLEN RESIDENCES DRY POND

Location	620030.472, 4856733.109
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of the West Don River
Outlet location	-79.507187, 43.853933
Catchment Area	TBD
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	TBD
Level of Volume control	
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	TBD
Reference Sewage Works as part of treatment train	TBD

Brief Description	Rip rap channel inlet, concrete headwall with outfall grate,
Receive Emergency Sanitary Overflows	No
Notes	Working towards confirming if pond outlets to Wilkinson Water Box Model 22 Oil/Grit removal chamber. Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report.

DP164 CRESTLAWN DRY POND

Location	611317.3725, 4850113.206
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Robinson Creek
Outlet location	IO9177 43.7956324394832, -79.6163716348924
Catchment Area	16.67 ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	1023-6QKJPT
Reference Sewage Works as part of treatment train	major system flows from
Brief Description	emergency spillway, dry pond, outlet structure, orifice
Receive Emergency Sanitary Overflows	No
Notes	DP161 controls the minor system flows, while DP164 controls the major system flows.

DP165 CHATFIELD WET POND

Location	615289.1924, 4855988.177
Watershed/Subwatershed	Humber / Black Creek
Receiver of discharge	Black Creek
Outlet location	IO4016_0001 43.8483426894314, -79.5640711764433
Catchment Area	59.72ha
Level of Treatment for	Enhanced Protection Level (80% TSS Removal)

suspended solids	
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Regional storm release (2.98 cms, 227.17m elev.) Ultimate conditions (3.22 cms, 226.27m elev.)
Reference ECA(s)	4105-7L6QCC
Reference Sewage Works as part of treatment train	N/A
Brief Description	2 inlet structures, sediment forebay, 3 deep pockets in wetland cell, forebay berm, maintenance access, outlet structure, orifice plate,ditch inlet catchbasins, control manhole, triangular emergency sillway, conveyance channel, sediment drying area Permanent Pool: 9,157m^3 Active Storage: 90,790m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP166 STALLIONS DRY POND

Location	617886.6949, 4863002.245
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	East Humber River
Outlet location	IO2811_0004 43.9107379675915, -79.5316794931401
Catchment Area	5.3 ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Designed for 100-year capacity
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	TBD
Brief Description	Concrete headwall with wingwall, overland flow weir, flow spreader, concrete headwall with grate, hickenbottom outlet structure, emergency overland flow channel
Receive Emergency Sanitary Overflows	No
Notes	Field investigation pending to confirm ogs unit discharging to pond.

DP 168 WET POND

Location	619776.2904, 4857992.348
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Don River
Outlet location	43.865089, -79.509704
Catchment Area	79.17ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Attenuates post-development peak flows to pre-development levels for all storm events up to and including the 100-year storm event,
Reference ECA(s)	8761-9ZPR5T (AMENDED)
Reference Sewage Works as part of treatment train	N/A
Brief Description	wet pond, 2 sediment forebays, inflow from storm sewer, outfall sewer Permanent Pool: 11,131m^3 Active Storage: 53,445m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP169 Wet Pond

Location	608254, 4849917
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Rainbow Creek
Outlet location	43.7954768949999, -79.655586511286
Catchment Area	117.85 ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Attenuates post-development peak flows to pre-development levels for all storm events up to and including the 100-year return storm
Reference ECA(s)	2809-7RRQLY
Reference Sewage Works as part of treatment train	N/A
Brief Description	Forebay, wet cell, spillway between forebay and wet cell, 3 storm outfalls, hickenbottom pipe, gravel jacket, control flow

	structure, outfall headwall, emergency spillway Permanent Pool: 31,253m^3 Active Storage: m^3
Receive Emergency Sanitary Overflows	No
Notes	Additional Information will be collected by way of obtaining Stormwater Management Reports, as-built drawings and/or other related detailed design report.

DP171 WET POND

Location	622720, 4856695
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Carrville Creek
Outlet location	IO17979 43.8526188031705, -79.4726281937042
Catchment Area	7.5ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Post development flow rates to the allowable release levels for all storm events up to and including the 100-year storm event
Reference ECA(s)	3728-6EGJA2
Reference Sewage Works as part of treatment train	N/A
Brief Description	forebay, wet cell, inlet pipe and headwall, emergency spillway, hickenbottom outlet pipe and ditch outlets, outflow control manhole with orifice, outfall Permanent Pool: 1,580m^3 Active Storage: 4,750m^3
Receive Emergency Sanitary Overflows	pipe and scour pool discharging to the headwaters of East Don River
Notes	N/A

DP 172 WET POND

Location	611582, 4850337
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Tributary of Rainbow Creek
Outlet location	IO5210_0002, IO5210_0003 43.7970796277216, -79.6133124190937 43.7973022680442, -79.6131380755078
Catchment Area	6.58ha

Level of Treatment for suspended solids	Enhanced Level of Protection (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	3228-7XXRDK
Reference Sewage Works as part of treatment train	N/A
Brief Description	wet cell, extended detention, inlet pipe, forebay, emergency spillway, outlet pipe, orifice, headwall, river run stone on woven filter fabric Permanent Pool: 1,270m^3 Active Storage: 3,580m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP174 Pleasant Ridge WET POND

Location	622359.5007, 4855537.651
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Tributary of East Don River
Outlet location	IO1009_0003 43.8428523843677, -79.4768536864999
Catchment Area	36.79ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100-year storm event.
Reference ECA(s)	4178-7EDPYE
Reference Sewage Works as part of treatment train	N/A
Brief Description	wet pond, 2 inlet structures (separate), 2 forebays, emergency overflow weir, outlet reverse slope pipe, orifice, perforated pipe in cooling/infiltration trench to a multi-stage outlet quantity control structure consisting of a three (3) additional inflow Permanent Pool: 6,800m^3 Active Storage: 25,510m^3

Receive Emergency Sanitary Overflows	No
Notes	N/A

DP175 Major Mackenzie Drive and Coaster Way WET POND

Location	617007.0612, 4856056.373
Watershed/Subwatershed	Don / West Don
Receiver of discharge	Tributary of West Don River
Outlet location	43.848079, -79.545077
Catchment Area	23.44ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Attenuates post-development peak flows to targeted peak flows based on unit flow rates established for the 2-year to 100-year storm events.
Reference ECA(s)	0112-9QTPG4 Amended
Reference Sewage Works as part of treatment train	N/A
Brief Description	wet pond, 1 inlet structure into forebay, outlet to proposed greenway channel Permanent Pool: 8,639m^3 Active Storage: 27,988m^3
Receive Emergency Sanitary Overflows	No
Notes	Discharges through greenway channel

DP176 WET POND

Location	616857.7139, 4856060.543
Watershed/Subwatershed	Don / West Don
Receiver of discharge	Tributary of West Don River
Outlet location	43.848306, -79.545907
Catchment Area	6.31 ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Attenuates post-development peak flows to targeted peak flows based on unit flow rates established for the 2-year to 100-

	year storm events.
Reference ECA(s)	0112-9QTPG4 Amended
Reference Sewage Works as part of treatment train	Discharges into natural channel upstream of culverts under Mackenzie Drive
Brief Description	Wet pond Permanent Pool: 1,326m^3 Active Storage: 2,340m^3
Receive Emergency Sanitary Overflows	No
Notes	This pond has been noted as an “interim” pond but is assumed by the City.

DP178 Poetry WET POND

Location	614493.6318, 4855809.909
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	Marigold Creek
Outlet location	IO4013_0003 43.8463789150222, -79.5739532939349
Catchment Area	118.8ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	4597-8C7JQG
Reference Sewage Works as part of treatment train	N/A
Brief Description	4 orifice plates, 3 DICB, 1 forebay, 2 inlets, wet cell, forebay, access road, control flow structure, hickenbottom pipe, headwalls Permanent Pool: 18,534m^3
Receive Emergency Sanitary Overflows	No
Notes	N/A

DP183 WET POND

Location	621624.3192, 4858698.502
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	McNair Creek
Outlet location	IO1217_0003

	43.870409545751, -79.4864401691788
Catchment Area	10.74ha
Level of Treatment for suspended solids	Enhanced Protection Level (80% TSS Removal)
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Control post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event.
Reference ECA(s)	4334-A84LRY
Reference Sewage Works as part of treatment train	N/A
Brief Description	reverse slope outlet pipe complete with Hickenbottom (or Equivalent Equipment) perforated pipe and 84 millimetre diameter orifice control, ditch inlet catchbasin complete with 174 millimetre diameter orifice control,and emergency spillway Permanent Pool: 2,600m^3 Active Storage: 8,190m^3
Receive Emergency Sanitary Overflows	N
Notes	N/A

STMMH14363 Manufactured Treatment Device - OGS

Location	43.8341910649004, -79.5105528715882
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Don River West Branch
Outlet location	IO334
Catchment Area	3.85 ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A

Brief Description	STC5000 Stormceptor Receives drainage from Wedgewood Place, Sherwood Park Drive and Alberta Drive. Discharges to an outlet located in a Natural Heritage System that supports the Don River West Branch. Total Volume = 24301L Sediment Capacity = 3360L Oil Capacity = 18716L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a stand alone method of TSS removal / water quality treatment before discharging to the receiving waterbody.

STMMH14125 Manufactured Treatment Device - OGS

Location	43.8633131869137, -79.5277730040251
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of West Don River
Outlet location	IO262
Catchment Area	4.56 ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC5000 Stormceptor Receives drainage from Cranston Park Avenue, part of Drummond Drive and Regal Pine Court. Outlets to tributary south of Cranston Park Avenue. Total Volume = 24301L Sediment Capacity = 3360L Oil Capacity = 18716L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a stand alone method of TSS removal / water quality treatment before discharging to the receiving waterbody.

STMMH2454 Manufactured Treatment Device - OGS

Location	43.8144918566686, -79.6155784883424
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Napa Valley Pond, DP45 Tributary of the Humber River
Outlet location	IO40
Catchment Area	4.21 ha
Level of Treatment for suspended solids	70% TSS removal
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC4000 Stormceptor Receives drainage from Buena Vista Drive, Fanshore Drive, Mendocino Drive. Outlets to Napa Valley Pond (DP45), south of Buena Vista Drive which ultimately discharges to a tributary of Humber River potentially via the York Regional Storm Sewer along Rutherford Road. Total Volume = 19850L Sediment Capacity = 3360L Oil Capacity = 14265L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a pre-treatment method of TSS removal / water quality treatment before discharging to stormwater management pond.

STMMH5399_0003 Manufactured Treatment Device - OGS

Location	43.8145170504394, -79.612485021545
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Napa Valley Pond, DP45 York Region Storm Sewer Tributary of the Humber River
Outlet location	Regional Storm Outfall ObjectID59

Catchment Area	4.11 ha
Level of Treatment for suspended solids	70% TSS removal
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	STC6000 Stormceptor Receives drainage from Century Grove Boulevard, Buena Vista Drive and Masi Court. Outlets to Region of York storm sewer which outlets towards the Napa Valley Pond (DP45), south of Buena Vista Drive which ultimately discharges to a tributary of Humber River. Total Volume = 30878L Sediment Capacity = 3360L Oil Capacity = 23741L
Brief Description	N
Receive Emergency Sanitary Overflows	This appears to be a pre-treatment method of TSS removal / water quality treatment before discharging to stormwater management pond.
Notes	STC6000 Stormceptor Receives drainage from Century Grove Boulevard, Buena Vista Drive and Masi Court. Outlets to Region of York storm sewer which outlets towards the Napa Valley Pond (DP45), south of Buena Vista Drive which ultimately discharges to a tributary of Humber River. Total Volume = 30878L Sediment Capacity = 3360L Oil Capacity = 23741L

STMMH5199_0001 Manufactured Treatment Device - OGS

Location	43.7769857031598, -79.6054908325054
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Robinson Creek
Outlet location	STMMH20963
Catchment Area	1.8 ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A

Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC6000 Stormceptor Receives drainage from Parkfield Court and Creekwood Court. Outlet must be confirmed. Appears to outlet ultimately to Robinson Creek. May outlet via Regional storm sewer. Total Volume = 14862L Sediment Capacity = 2890L Oil Capacity = 10546L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a stand alone method of treatment before discharging into the York Regional sewer and ultimately to Robinson Creek.

STMMH30898 Manufactured Treatment Device - OGS

Location	43.7913378945892, -79.6258358324228
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	York Region Storm Sewer
Outlet location	Region Facility ID 12922
Catchment Area	0.88 ha
Level of Treatment for suspended solids	80% TSS Removal
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	2471-64FGXT
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC750 Stormceptor Receives drainage from Langstaff Road. Outlets via Regional storm sewer. Total Volume = 3921L Sediment Capacity = 915L Oil Capacity = 2202L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a stand alone method of treatment before

	discharging into the York Regional sewer.

STMMH12092 Manufactured Treatment Device - OGS

Location	43.8111498202627, -79.604935550551
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Pondview Pond, DP17 Tributary of the East Don River
Outlet location	IO0112_1000
Catchment Area	1.39 ha
Level of Treatment for suspended solids	80% TSS Removal
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	8387-92VKMH
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC1500 Stormceptor Receives drainage from Pondview Road and partial Edward Street. Discharges to Pondview Pond which appears to discharge to a tributary of the East Don River. Total Volume = 7124L Sediment Capacity = 915L Oil Capacity = 5404L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a method of pre-treatment before discharging to the existing swm pond.

STMMH38919 Manufactured Treatment Device - OGS

Location	43.8111499412346, -79.604935550551
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Woodbridge Highlands North Pond, DP36 Humber River
Outlet location	IO86
Catchment Area	4.7 ha
Level of Treatment for suspended solids	TBD
Treatment for other	N/A

Contaminants, as required	
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC2000 Stormceptor Receives drainage from Delia Place and Clarence Street. Ultimately discharges to Woodbridge Highlands North Pond which discharges to a tributary of the Humber River. Total Volume = 10595L Sediment Capacity = 2890L Oil Capacity = 6279L
Receive Emergency Sanitary Overflows	NO
Notes	This appears to be a method of pre-treatment before discharging to the existing swm pond.

STMMH3307 Manufactured Treatment Device - OGS

Location	43.8440495038514, -79.6561722537225
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Tributary of Main Humber River
Outlet location	IO53
Catchment Area	8.51 ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC1500 Stormceptor Receives drainage from Richard Lovat Court. Total Volume = 7124L Sediment Capacity = 915L Oil Capacity = 5404L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a stand alone method before discharging to additional storm sewers and then outletting to a Tributary of the Main Humber River.

STMMH13737 Manufactured Treatment Device - OGS

Location	43.8682433695831, -79.5343698508117
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	IO241
Catchment Area	3.42ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC3000 Stormceptor Receives drainage from Queensberry Crescent, Copper Creek Court and Ashton Drive. Drainage discharges into a storm sewer and outlets to a natural heritage system that is adjacent to West Don River and Willowtree Pond (DP71) Total Volume = 14862L Sediment Capacity = 2890L Oil Capacity = 10546L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a stand alone method before discharging to additional storm sewers and then outletting to a natural heritage area adjacent to Willowtree Pond.

STMMH60063 Manufactured Treatment Device - OGS

Location	43.7947946854254, -79.6113589213106
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Robinson Creek
Outlet location	IO9816
Catchment Area	1.84ha
Level of Treatment for suspended solids	80% TSS Removal
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A

Design Storm	N/A
Reference ECA(s)	N
Reference Sewage Works as part of treatment train	This appears to be a part of a treatment train with the drainage being conveyed to Robinson Creek via a vegetated swale.
Brief Description	STC300 Stormceptor Receives drainage from Langstaff Road. Discharging to Robinson Creek via a 375 mm diameter storm sewer and vegetated swale. Total Volume = 1756L Sediment Capacity = 300L Oil Capacity = 1453L
Receive Emergency Sanitary Overflows	No
Notes	This could be a method of pre-treatment prior to discharging into a vegetated swale.

STMMH1007_0005 Manufactured Treatment Device - OGS

Location	43.8461138806992, -79.4647790359796
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Carrville Creek
Outlet location	STMMH1007_0006
Catchment Area	0.46ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC300 Stormceptor Receives drainage from 941 Rutherford Road. Appears to discharge via a storm sewer towards Carrville Creek, west of the property. Total Volume = 1756L Sediment Capacity = 300L Oil Capacity = 1453L
Receive Emergency Sanitary Overflows	No
Notes	This appears to be a stand alone method of treatment before discharging towards Carrville Creek.

STMMH5007_0005 Manufactured Treatment Device - OGS

Location	43.7603783069761, -79.6140656022951
Watershed/Subwatershed	Humber / West Humber
Receiver of discharge	Tributary of Robinson Creek
Outlet location	IO5007_0001
Catchment Area	TBD
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC2000 Stormceptor Receives drainage from 7251 Highway 27. Appears to discharge via a storm sewer towards a tributary of Robinson Creek. Total Volume = 10595L Sediment Capacity = 2890L Oil Capacity = 6279L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a stand alone method of treatment before discharging towards a tributary of Robinson Creek.

STMMH30231 Manufactured Treatment Device - OGS

Location	43.8004343201194, -79.5015814051058
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	Tributary of the West Don River
Outlet location	IO4043
Catchment Area	5.75ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A

Brief Description	STORMWATER TREATMENT SYSTEM VORTECHS MODEL 16000 Receives drainage from 7810 and 7800 Keele Street, north of Highway 7. Discharges to a storm sewer and then ultimately to a tributary of West Don River. Sediment Capacity = 5430L Oil Capacity = 3175L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a stand alone method of treatment before discharging towards a tributary of West Don River.

STMMH1108_0077 Manufactured Treatment Device - OGS

Location	43.8605266296823, -79.4702522648378
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	East Don River
Outlet location	IO1108_0016
Catchment Area	19.37ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	ST92000 Stormceptor Receives drainage from Thomas Cook Avenue and Valley Vista Drive (and the properties adjacent to these two streets). Discharges to the East Don River. Total Volume = 43538L Sediment Capacity = 10555L Oil Capacity = 28530L
Receive Emergency Sanitary Overflows	No
Notes	This appears to be a stand alone method of treatment before discharging towards the West Don River.

STMMH1108_0066 Manufactured Treatment Device - OGS

Location	43.8593598951444, -79.4782859821554

Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	West Reach of East Don River
Outlet location	STMH1108_0066
Catchment Area	0.97ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	1972-6QKNMU
Reference Sewage Works as part of treatment train	N/A
Brief Description	ST92000 Stormceptor Receives drainage from Valley Vista Drive. Discharges to the West Reach of the East Don River. Total Volume = 10595L Sediment Capacity = 2890L Oil Capacity = 6279L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a stand alone method of treatment before discharging towards the West Reach of the East Don River.

STMMH51747 Manufactured Treatment Device - OGS

Location	43.8734178224279, -79.4649571213295
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Ditch adjacent to DP109 Patterson Creek
Outlet location	STMMH51747
Catchment Area	0.49ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	ST9300 Stormceptor Receives drainage from Queen Filomena Avenue. Discharges towards a ditch adjacent to Queen Filomena Pond and

	Bathurst Street. Total Volume = 1756L Sediment Capacity = 300L Oil Capacity = 1453L
Receive Emergency Sanitary Overflows	No
Notes	This appears to be a stand alone method of treatment before discharging towards Patterson Creek. Additional quality may be provided in the ditch before reaching Patterson Creek.

STMMH4510_0007 Manufactured Treatment Device - OGS

Location	43.8047933342724, -79.5884088951669
Watershed/Subwatershed	Humber / Main Humber Humber / East Humber
Receiver of discharge	York Region Storm Sewer
Outlet location	Region STMMH5283
Catchment Area	3.76ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	ST94000 Stormceptor Receives drainage from Charmaine Road and Sarracini Crescent. Appears to continue through City storm sewers and discharges ultimately to the York Region Sewer along Islington Avenue, south of Landstaff Road. Total Volume = 19850L Sediment Capacity = 3360L Oil Capacity = 14265L
Receive Emergency Sanitary Overflows	No
Notes	This appears to be additional treatment throughout a series of storm sewers between the City of Vaughan and York Region.

STMMH2811_0007 Manufactured Treatment Device - OGS

Location	43.9101932001951, -79.5318307743723
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	Stallions Pond, DP166, Wetland

	East Humber River
Outlet location	IO2811_0002
Catchment Area	4.93ha
Level of Treatment for suspended solids	80% TSS Removal
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	9676-7NSLNJ
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC1500 Stormceptor Receives drainage from Stallions Court. Discharges into a storm sewer then to an outlet at Stallions Pond (DP166) and ultimately to a wetland adjacent to the East Humber River. Total Volume = 7124L Sediment Capacity = 915L Oil Capacity = 5404L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be pre-treatment before discharging to an existing stormwater management pond.

STMMH2811_0001 Manufactured Treatment Device - OGS

Location	43.910994969849, -79.5347953555069
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	Wetland, East Humber River
Outlet location	IO2811_0001
Catchment Area	4.06ha
Level of Treatment for suspended solids	85% TSS Removal
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	9676-7NSLNJ
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC750 Stormceptor Receives drainage from Stallions Court. Discharges into a storm sewer then to an outlet towards a wetland adjacent to the East Humber River.

	Total Volume = 3921L Sediment Capacity = 915L Oil Capacity = 2202L
Receive Emergency Sanitary Overflows	No
Notes	This appears to be a stand alone method of treatment before discharging towards an existing wetland.

STMMH1914_8322 Manufactured Treatment Device - OGS

Location	43.8639668722111, -79.5051492196636
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	STMMH1915_5033
Outlet location	STMMH1915_5033
Catchment Area	2.55ha
Level of Treatment for suspended solids	TBD
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC6000 Stormceptor Receives drainage from property located at 225 McNaughton Road East. Conveyed through storm sewers along Troon Avenue to STMMH1915_5004. Total Volume = 33899L Sediment Capacity = 3360L Oil Capacity = 23741L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be one method of treatment through a series of storm sewers within the City of Vaughan.

STMMH0115_0003 Manufactured Treatment Device - OGS

Location	43.8121583213283, -79.4247582172347
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	York Region Storm Sewer
Outlet location	Region STMMH12094
Catchment Area	0.63ha

Level of Treatment for suspended solids	80% TSS Removal
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC750 Stormceptor Receives drainage from property located at 7604 Yonge Street. Convey through City storm sewer towards York Region storm sewer on Arnold Avenue. Total Volume = 3921L Sediment Capacity = 915L Oil Capacity = 2202L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be one method of treatment through a series of storm sewers within the City of Vaughan.

STMMH2916_2201 Manufactured Treatment Device - OGS

Location	43.7931186088299, -79.527018052377
Watershed/Subwatershed	Humber / Black Creek
Receiver of discharge	DP39, Black Creek
Outlet location	IO3017_0001
Catchment Area	9057ha
Level of Treatment for suspended solids	80% TSS Removal
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC750 Stormceptor Receives drainage from property located at 3131 Highway 7. Discharges through a series of storm sewers and ultimately to Jane / 7 Pond (Dp39) which is an online pond along Black Creek.
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a method of pre-treatment before

	discharging into an existing swm pond.

STMMH1019_0020 Manufactured Treatment Device - OGS

Location	43.8437222739233, -79.4592195786371
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Upper East Don River
Outlet location	IO1019_002
Catchment Area	3.97ha
Level of Treatment for suspended solids	80% TSS Removal
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	STC3000 Stormceptor Receives drainage from subdivision located west of Bathurst Street and south of Rutherford Road. Conveyed through storm sewers towards outlet located within the natural heritage system along the Upper East Don River. Total Volume = 14862L Sediment Capacity = 2890L Oil Capacity = 10546L
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a stand alone method of treatment prior to discharging to the watercourse.

STMMH2319_2004 Manufactured Treatment Device - OGS

Location	43.7984942647351, -79.5231032698538
Watershed/Subwatershed	Humber / Black Creek
Receiver of discharge	Black Creek, DP39/95
Outlet location	Vegetated Filter Strip, Bypass to Black Creek
Catchment Area	1.6ha
Level of Treatment for suspended solids	70% TSS Removal
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A

Design Storm	N/A
Reference ECA(s)	5253-BJJLVY
Reference Sewage Works as part of treatment train	N/A
Brief Description	STORMCEPTOR EFO10 Receives drainage from Portage Parkway. Discharges into a vegetated filter strep before discharging to Jane / 7 Pond (DP95) which is an online pond along Black Creek. Total Volume = 23700L Sediment Capacity = 17.79m3
Receive Emergency Sanitary Overflows	N
Notes	This appears to be a method of pre-treatment before discharging to DP95 and ultimately to Black Creek.

CB5808_0001 CB5808_0002

Location	43.7842622258676, -79.6248982167367
Watershed/Subwatershed	Humber / Main Humber
Receiver of discharge	Rainbow Creek
Outlet location	STMMH8369
Catchment Area	0.65ha
Level of Treatment for suspended solids	70% TSS Removal
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	2749-6S4T3L
Reference Sewage Works as part of treatment train	
Brief Description	Two - SINGLE CB C/W STC-300I STORMCEPTOR Receives drainage from Milani Boulevard. Conveyed through a series of City of Vaughan storm sewers and then ultimately to Rainbow Creek southeast of Brasswinds Court. Total Volume = 1775L Sediment Capacity = 1450L
Receive Emergency Sanitary Overflows	N
Notes	N/A

STMMH1116_0005 Manufactured Treatment Device - OGS

Location	43.8621502860177, -79.4813443933307

Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Don River
Outlet location	Existing Ditch
Catchment Area	0.98ha
Level of Treatment for suspended solids	83% TSS Removal
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	8925-9CKNYU
Reference Sewage Works as part of treatment train	N/A
Brief Description	Hydroguard HG-5 Receives drainage from Major Macknezie Drive. Discharging to the existing ditch located on Municipal Land and ultimately to the tributary of Don River Total Volume = 3589L Sediment Capacity = 2330L Oil Capacity = 465L
Receive Emergency Sanitary Overflows	No
Notes	N/A

Stormwater Pumping Stations

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

STMMH13355 Church Street Stormwater Pumping Station

Asset ID and Name	STMMH13355 Church Street Stormwater Pumping Station
Site Location	Intersection of Church Street and Angel View Court
Watershed/Subwatershed	Don / Upper West Don
Latitude and Longitude	43.8524761490204 -79.5188028575014
Coordinates (optional)	N/A
Description	This stormwater pumping station will be decommissioned in 2022 and stormwater will be conveyed via a newly planned gravity system.
Pumping Station Capacity	There is only one pump, n-1=0, as a result capacity is 0 L/s. Note: Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full.
Equipment	[1] pumps (1 duty, 0 standby) with X m3/d and X total head, [0] grinders, [0] screens, [1] wet well of 3 m3 capacity. The station

	is connected to [1] 50 mm diameter forcemains, discharging to ditch on the school yard of Joseph A. Gibson Public School.
Emergency Storage	N/A
Equipment: Associated controls and Appurtenances	The Church St. Storm Pumping Station is a small stormwater pumping station comprising a concrete wet well (estimated volume of 3 m3) housing a single 0.5 HP submersible pump, and an above grade control panel.
Overflow	Overland on the street (municipal right-of-way)
Standby Power	0 kW 0 propane/diesel/natural gas or ATS for portable generator or battery, and fuel tank size
Notes	This stormwater pumping station will be decommissioned in 2022 and stormwater will be conveyed via a newly planned gravity system.

Third Pipe Collection System

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

Foundation Drain Collectors

ECAFDC_01

Asset ID and Name	ECAFDC_01
Location	Block 15, South of Highway 407, West of Upper West Don River
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	IO336
Catchment Area	2042761.69 15913658.50
Treatment, if applicable	63.35 ha
Reference ECA(s), if applicable	N/A
Brief Description	Discharges directly to West Don River.
Notes	Glen Shields Subdivision

ECAFDC_02

Asset ID and Name	ECAFDC_02
Location	Block 15, South of Highway 407, East of Upper West Don River
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	IO1582_0001
Catchment Area	2042323.90 15914086.25
Treatment, if applicable	17.95 ha

Reference ECA(s), if applicable	N/A
Brief Description	Discharges directly to West Don River.
Notes	Glen Shields Subdivision

ECAFDC_03]

Asset ID and Name	ECAFDC_03
Location	Block 8 & 15, South of Highway 407, East of Upper West Don River
Watershed/Subwatershed	Don / Upper West Don
Receiver of discharge	West Don River
Outlet location	IO314
Catchment Area	2042767.43 15913528.02
Treatment, if applicable	87.18 ha
Reference ECA(s), if applicable	N/A
Brief Description	Discharges directly to West Don River.
Notes	Glen Shields Subdivision

ECAFDC_08

Asset ID and Name	ECAFDC_08
Location	Block 11, north of Rutherford Road, along Wolf Creek Crescent
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Carrville Creek
Outlet location	FDCMH1107_0002
Catchment Area	2043852.82 15931766.06
Treatment, if applicable	8.18 ha
Reference ECA(s), if applicable	1646-6P9SEL
Brief Description	Foundation drain collector system outlets directly to Carrville Creek.
Notes	Outlets directly to Carrville Creek at Thomas Cook Avenue

ECAFDC_09

Asset ID and Name	ECAFDC_09
Location	Block 11, north of Rutherford Road, along Mark Santi Boulevard

Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Tributary of Carrville Creek
Outlet location	IO1108_0020
Catchment Area	2043160.11 15932298.95
Treatment, if applicable	6.59 ha
Reference ECA(s), if applicable	3160-6REGQ8, 2307-6MBPRG
Brief Description	Foundation drain collector system outlets directly to Tributary of Carrville Creek.
Notes	Outlets directly to Tributary of Carrville Creek at Thomas Cook Avenue

ECAFDC_10

Asset ID and Name	ECAFDC_10
Location	Block 11, south of Major Mackenzie Drive, along Valley Vista Drive
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Carrville Creek
Outlet location	DP40
Catchment Area	2040932.65 15935728.18
Treatment, if applicable	16.53 ha
Reference ECA(s), if applicable	6875-6V3SFA
Brief Description	Foundation drain collectors discharging to DP40
Notes	Outlets to Detention Pond DP40, Thornhill Ravines Development Corporation

ECAFDC_11

Asset ID and Name	ECAFDC_11
Location	Block 12, directly north of Major Mackenzie Drive West
Watershed/Subwatershed	Don / Upper East Don
Receiver of discharge	Carrville Creek
Outlet location	FDCMH1211_0004
Catchment Area	2040836.78 15937403.5
Treatment, if applicable	1.29 ha
Reference ECA(s), if applicable	5637-75HSEW

Brief Description	Foundation drain collector system outletting directly to Carrville Creek
Notes	Discharges directly to Carrville Creek, south of DP106

ECAFDC_20

Asset ID and Name	ECAFDC_20
Location	Block 40, west of Poetry Drive
Watershed/Subwatershed	Humber / East Humber
Receiver of discharge	East Humber River
Outlet location	FDCMH4013_0018
Catchment Area	2010552.55 15934412.78
Treatment, if applicable	7.29 ha
Reference ECA(s), if applicable	3543-8BCT7E
Brief Description	Hailsham Court, Oldham Street, Isherwood Cr, Major Mackenzie Dr discharges to existing CSP culvert under Millwood Ct towards a tributary of East Humber River.
Notes	Kortridge Estates Residential Subdivision. Drawing No. D3. Discharges towards East Humber River at FDCMH4720_0015

Other Works:

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:

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			

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:

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

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

Transitional – Facilities with Individual ECAs

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
DP2	Macfarlane Wet Pond	West of Netherford Road & Clemson Crescent		
DP6	SWM Pond, Peter Rupert Pond W	West of Dufferin, North of Rutherford, Block 18, Pond D	4741-6C8JE5	BLOCK 18 DEVELOPERS' GROUP (BLOCK 18 PROPERTIES INC. – TRUSTEE)
DP24	SWM Pond, Huntington Wet Pond	South of Langstaff, East of Huntington Rd	9966-A6ENW9	Square Ridge Investments Ltd
DP38	SWM Pond, Randolph Wet Pond	East of Cedar Point Court		
DP65	SWM Pond, Peter Rupert Wet Pond E	West of Dufferin, North of Rutherford, Block 18, Pond E	7776-6EPJ8V	BLOCK 18 DEVELOPERS' GROUP (BLOCK 18 PROPERTIES INC. – TRUSTEE)
DP81	SWM Pond, Crossroads Wet Pond	West of Hwy 427, North of 407, South of Hwy 7	4342-7FQN2E	1284824 ONTARIO LIMITED AND 1406979 ONTARIO LIMITED
DP94	Vanda Wet Pond	North East end of Vanada Drive		
DP118	SWM Pond, Royal Wet Pond	West of Hwy 27, North of 407, South of Hwy 7		ROYBRIDGE INVESTMENTS LIMITED

Table B8: Facilities with Individual ECAs				
Asset ID	Type of Facility	Location	ECA Number	Developer Name
DP125	SWM Pond, Apple Grove Wet Pond	North of Rutherford, East of Dufferin, along Wolf Creek Cr, Block 11, Pond 6	0718-6EGKAF	BLOCK 11 DEVELOPERS' GROUP (BLOCK 11 PROPERTIES INC. – TRUSTEE)
DP141	SWM Pond, Enterprise Wet Pond S	Motion Court & New Enterprise Way	6215-9ASJHF-Amended, 1064-6VAKX8	
DP144	SWM Pond, Marc Santi Wet Pond E	East of Dufferin, North of Marc Santi Blvd, Block 11, Pond 7	0718-6EGKAF	BLOCK 11 DEVELOPERS' GROUP (BLOCK 11 PROPERTIES INC. – TRUSTEE)
DP148	SWM Pond, Bellaria Wet Pond	Northeast corner of Jane and Rutherford, DA.04.023	5967-BGQRNZ	Solmar Development Group
DP154	SWM Wet Pond	Southwest corner of Teston and Pine Valley Dr	8350-AR8RXE	MOLISE KLEINBURG ESTATES SOUTH INC.
DP155	SWM Pond, Cultec Chamber (underground storage)	Southeast corner of Teston and Pine Valley Dr		Prima Vista Estates Inc
DP156	SWM Pond, two constructed wetlands, infiltration gallery	10601 Pine Valley Dr, East of Pine Valley Dr, south of Teston Rd	1701-APCPTG	Mosaik Pinewest Inc
DP163	SWM Pond, Milani Wet Pond	Milani and Hwy27	8740-8VUL3N	611428 Ontario Limited
DP167	SWM Pond, Annsleywood Wet Pond	Northwest corner of Hwy 27 and Nashville Rd	6404-986LH8	Berkley Homes (Kleinburg) Inc.
DP170	SWM wet pond	West of Foley Crescent, North of Major Mackenzie, Longyard Phase 1 19T-03V13 65M-4425, Pond 7		Longyard Properties Inc.
DP177	SWM Wet Pond	Northwest corner of Major Mackenzie and	5838-9E2JZG	Longyard Properties Inc.

Table B8: Facilities with Individual ECAs				
Asset ID	Type of Facility	Location	ECA Number	Developer Name
		Bathurst, Longyard Phase 1 19T-03V13 65M-4425, Pond 8		
DP182	SWM Pond, Poetry Wet Pond	North of Rolling Green Court	7315-8X6PJ8	Molise Kleinburg Estates South Inc.
DP185	SWM Wet Pond	North of Millwood Parkway, south of Stormont Trail (near Pine Valley and Major Mackenzie)	1831-8XDJDS	Belmont Properties (Weston) Inc.
DP186	SWM Wet Pond	Northeast corner of Kleinburg Summit Way and Teston	9035-AWMK8F	Monarch Castlepoint Kipling South Development Limited
DP187	SWM Wet Pond	West of Kipling Ave, North of Pierre Berton Blvd	9035-AWMK8F	Monarch Castlepoint Kipling South Development Limited
DP192	SWM Wet Pond	North of Major Mackenzie, East of Huntington Road	0317-9Y3R7Z	NASHVILLE MAJOR DEVELOPMENTS INC., NASHVILLE DEVELOPMENTS (SOUTH) INC., NASHVILLE DEVELOPMENTS INC.
DP193	SWM Wet Pond	Northwest corner of Major Mackenzie and CPR	4643-7C9REQ	NASHVILLE MAJOR DEVELOPMENTS INC., NASHVILLE DEVELOPMENTS (SOUTH) INC., NASHVILLE DEVELOPMENTS INC.
DP194	SWM Wet Pond	Northwest corner of Major Mackenzie and CPR	4643-7C9REQ	NASHVILLE MAJOR DEVELOPMENTS INC., NASHVILLE DEVELOPMENTS (SOUTH) INC., NASHVILLE DEVELOPMENTS INC.
DP195	SWM Wet Pond	Northwest corner of Major MacKenzie Dr	1550-BCZPM2	NASHVILLE DEVELOPMENTS

Table B8: Facilities with Individual ECAs				
Asset ID	Type of Facility	Location	ECA Number	Developer Name
		and HWY 27		(NORTH) INC. / NASHVILLE TEN ACRE DEVELOPMENTS INC.
DP196	SWM Wet Pond	West of Kleinburg Summit Way, North of Pierre Berton Blvd	9035-AWMK8F	MONARCH CASTLEPOINT KIPLING SOUTH DEVELOPMENT LIMITED
DP206 / LID09	SWM Wet Pond, Enhanced Grass Swale with Infiltration trenches	Teston Road and Kipling Avenue	4613-AXNRRT	
LID08	Dry SWM pond, OGS unit	Teston Road and Kipling Avenue	1167-AEMR78	1539028 Ontario Inc.
LID04	Permeable pavers, Enhanced Grass Swales	Kirby Road and Highway 27	3530-9L6SKP	11220 Highway 27 Holdings Inc.
LID01, LID02, LID03	Permeable pavers, Enhanced Grass Swales	Kirby Road and Highway 27	2895-99VQKA	11336 Highway 27 G.P. Inc.
LID05, DP211	SWM Dry Pond, Enhanced Grass Swales, Infiltration trenches	Major Mackenzie and CNR	4800-8EYMXE	MOLISE KLEINBURG ESTATES SOUTH INC.
LID06, DP212	SWM Dry Pond, Enhanced Grass Swales, Infiltration trenches	Major Mackenzie and CNR	4800-8EYMXE	MOLISE KLEINBURG ESTATES SOUTH INC.
LID07, DP213	SWM Dry Pond, Enhanced Grass Swales, Infiltration trenches	Major Mackenzie and CNR	4800-8EYMXE	MOLISE KLEINBURG ESTATES SOUTH INC.
‘-----	Infiltration trenches, RDC	MacTier Drive, Rotando Cres Nashville Heights	5512-AHAKJ3	Pinestaff Developments Inc.

Table B8: Facilities with Individual ECAs				
Asset ID	Type of Facility	Location	ECA Number	Developer Name
		Block 61		
'-----	Infiltration Gallery, pond, wetland, water balance facility	10601 Pine Valley Drive Mosaik Pinewest Inc Residential Subdivision	3827-BMCLC8	Mosaik Pinewest Inc.
'-----	FDC, sewers, infiltration gallery, Hybridge wet pond, wetland	Brant Drive Zzen Lindvest Residential Subdivision Phase 1	8350-AR8RXE	Roybridge Holdings Limited
'-----	SWM pond, infiltration gallery, lot level infiltration trenches, FDC	Copper Ridge Drive, Teston Rd Prima Vista Estates Phase 2 and 3, Block 40/47	7478-BSGNEW	Prima Vista Estates Inc.

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.

The Director Notification required in condition 1.11 shall include:

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

1.2.2 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	**Vaughan, The Corporation of the City of**
ECA Number	**011-S701**
System Name	**The City of Vaughan Municipal Stormwater Management System**
ECA Issue Date	**November 25th, 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	**Vaughan, The Corporation of the City of**
ECA Number	**011-S701**
System Name	**The City of Vaughan Municipal Stormwater Management System**
ECA Issue Date	**November 25th, 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 City of Vaughan, 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 notices 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 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 Underground Storage Tanks

5.1.22 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.

5.1.23 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:

d) Be prepared by a Licensed Engineering Practitioner;

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

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

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

h) 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;

i) 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

j) 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; and

d) 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;

5.4 Where the Alteration will result in conversion of an existing Stormwater Management Facility into another type of Stormwater Management Facility, unless the conversion results in enhanced treatment for the Works, quantity control does not decrease, and the new facility is not a manufactured treatment device."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 May 31, 2024.

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	**Vaughan, The Corporation of the City of**
ECA Number	**011-S701**
System Name	**The City of Vaughan Municipal Stormwater Management System**
ECA Issue Date	**November 25th, 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 November 15, 2027, 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 November 15, 2025, 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 SAC, 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 possible, 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 May 21, 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 November 15, 2025 or within thirty six (36) 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 ouft 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 December 31, 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 November 15, 2027. 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.

9.1.4 Level D – Stormwater receives no treatment for water quantity or water quality

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		
Level D		

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	**Vaughan, The Corporation of the City of**
ECA Number	**011-S701**
System Name	**The City of Vaughan Municipal Stormwater Management System**
ECA Issue Date	**November 25th, 2022**

1.0 Residue Management System

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.