

ENVIRONMENTAL COMPLIANCE APPROVAL For a Municipal Sewage Collection System

ECA Number: 318-W601

Issue Number: 2

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:

Windsor, The Corporation Of The City Of
350 City Hall Square West P.O. Box 1607
Windsor, ON N9A 6S1

For the following Sewage Works:

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 18th day of April, 2024

Signature



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

Schedule A: System Information

System Owner	Windsor, The Corporation Of The City Of
ECA Number	318-W601
System Name	Municipal Sewage Collection System
ECA Issue Date	April 18th, 2024

1.0 ECA Information and Mandatory Review Date

ECA Issue Date	April 18th, 2024
Application for ECA Review Due Date	December 15, 2026

- 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	Location	Wastewater System Number	ECA Number	Issue Date
Lou Romano Water Reclamation Plant (LRWRP)	4155 Ojibway Parkway	120001103	1853-B43PVC	September 28, 2018
LRWRP Main pump house		120001103	1853-B43PVC	September 28, 2018
LRWRP Primary Effluent Pumping station		120001103	1853-B43PVC	September 28, 2018
Little River Pollution Control Plant	9400 Little River	120001096	4681-BT3L39	January 29, 2021
Riverside Retention Treatment Basin (RTB)	594 Riverside Drive East		3730-85LRWM	June 4, 2010

- 2.2 Other Documents

Document Title	Version
Design Criteria for Sanitary Sewers, Storm Sewers, and Forcemains for future Alterations Authorized under ECA	v.2.0 (May 31, 2023)

3.0 Asset Management Plan

Document Title	Version
City of Windsor - Corporate Asset Management Plan	v.1 (Jul. 16, 2019)

4.0 Pollution Prevention and Control Plan (if applicable)

Document Title	Version
Windsor Riverfront Pollution Control Planning Study - Phase 1	1995
Windsor Riverfront Pollution Control Planning Study - Phase 2	1997
Windsor Riverfront Pollution Control Planning Study - Phase 3	1999

5.0 Operating Authority

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

Schedule B: Municipal Sewage Collection System Description

System Owner	Windsor, The Corporation Of The City Of
ECA Number	318-W601
System Name	Municipal Sewage Collection System
ECA Issue Date	April 18th, 2024

1.0 System Description

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

Overview

The City of Windsor’s municipal sewage collection system consists of works for the collection and transmission of sewage, consisting of trunk sewers, separate sewers, partially separate sewers, nominally separate sewers, 205 kilometers of combined sewers, sewage pumping stations, wet-weather interceptor tanks, and forcemains, with discharge into Lou Romano Water Reclamation Plant and the Little River Pollution Control Plant.

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
Municipal Sewage Collection System City of Windsor	v.1 (Feb. 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:

Ambassador

Asset ID and Name	8SPS4374, Ambassador
Site Location	1021 Sprucewood (between Ojibway & Matchett)
Latitude and Longitude	42°15'17.0"N -83°04'51.3" W
Coordinates (optional)	42.254722 -83.080917
Description	Sanitary Pumping Station
Pumping Station Capacity	Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full. 1710.72 m ³ /d
Equipment	2 Pumps (2 duty, 0 standby), with 1710.72 m ³ /d and 38.7' total head, zero grinders, zero screens, 1 wet well of 26.55 m ³ capacity. The station is connected to 1 150 mm diameter forcemains, discharging to Sanitary MH on Marigold Dr.
Emergency Storage	The pumping station does not have emergency storage.
Equipment: Associated controls and appurtenances	Telemetry, Multiranger level control, high well level Flygt ball.
Collection System Overflow	Overflow discharge location and pathway to final receiver (waterbody/creek/river). Intermediate receiver should be identified, if applicable. – N/A Response time (buffer volume in m ³ available in storage prior to overflow at peak flow) –N/A Emergency storage volume (m ³) – N/A
On-site Receiving Stations (if applicable)	Specify any septage and/or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices. – N/A
Odour Control Units	The station contains no on-site odour control units N/A
Standby Power	40 kW diesel generator, fuel tank size – 94 gal.
Reference ECA(s)	Number 8534-5SLRTR
Notes	Discharging to the Lou Romano Water Reclamation Plant. There are no chemical addition prior to entering the WWT plant.

GHIB (Gordie Howe)

Asset ID and Name	7SPS4857, GHIB (Gordie Howe) – future ownership pending, City of Windsor currently operating only
Site Location	4460 Sandwich Street
Latitude and Longitude	42°16'45.6"N -83°05'28.1"W
Coordinates (optional)	42.279333 -83.091126
Description	Sanitary Pumping Station
Pumping Station Capacity	Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full.
Equipment	2 Pumps (2 duty, zero standby), with 6765.15 m ³ /d and 42' total head, zero grinders, zero screens, 1 wet well of 38.51 m ³ capacity. The station is connected to 1 250 mm diameter forcemains, discharging to Sanitary Sewer on Broadway.
Emergency Storage	The pumping station does not have emergency storage.
Equipment: Associated controls and appurtenances	Telemetry, Multiranger level control, high well level flygt ball
Collection System Overflow	Overflow discharge location and pathway to final receiver (waterbody/creek/river). Intermediate receiver should be identified, if applicable. – N/A Response time (buffer volume in m ³ available in storage prior to overflow at peak flow) – N/A Emergency storage volume (m ³) – N/A
On-site Receiving Stations (if applicable)	Specify any septage and/or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices. – N/A
Odor Control Units	The station contains no on-site odour control units – N/A
Standby Power	54 kW diesel generator and fuel tank size = 133 gal.
Reference ECA(s)	Number 7338-AB7P59
Notes	Discharging to Lou Romano Water Reclamation Plant. There are no chemical addition prior to entering the WWT plant. The GHIB Pumping Stations replaced the Brighton Beach Power Pumping Station ECA Number 1480-5J3TSK

Huron Estates

Asset ID and Name	8SPS3376, Huron Estates
Site Location	2355 Lambton (Lambton St. & Emilia Dr.)
Latitude and Longitude	42°15'41.6"N -83°02'48.7"W
Coordinates (optional)	42.261564 -83.046858
Description	Sanitary Pumping Station
Pumping Station Capacity	Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full. 1900.8 m ³ /d
Equipment	2 Pumps (2 duty, zero standby), with 1900.8 m ³ /d and 28.2' total head, zero grinders, zero screens, 1 wet well of 31.75 m ³ capacity. The station is connected to 1 200 mm diameter forcemains, discharging to Concrete discharge box to outlet sanitary sewer MH on Emilia Rd.
Emergency Storage	The pumping station does not have emergency storage however the pumping station bypass at MH 8S3331 @ elevation 174.787 to MH 8S3332
Equipment: Associated controls and appurtenances	Telemetry, Multiranger level control, high well level flygt ball
Collection System Overflow	Overflow discharge location and pathway to final receiver (waterbody/creek/river). Intermediate receiver should be identified, if applicable. – N/A Response time (buffer volume in m ³ available in storage prior to overflow at peak flow) – N/A Emergency storage volume (m ³) – N/A
On-site Receiving Stations (if applicable)	Specify any septage and/or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices. – N/A
Odor Control Units	The station contains no on-site odour control units. N/A
Standby Power	22 kW diesel generator and fuel tank size = 165 gal.
Reference ECA(s)	Number 8-1178-96-976, 3-2422-89-006
Notes	Discharging to Lou Romano Water Reclamation Plant. There are no chemical addition prior to entering the WWT plant.

Janette/Charl

Asset ID and Name	8SPS1, Janette/Charl
Site Location	2331 Charl Ave. (end Charl N. of Tecumseh Road W)
Latitude and Longitude	42°17'25.6"N -83°01'42.4"W
Coordinates (optional)	42.290450 -83.028437
Description	Sanitary Pumping Station
Pumping Station Capacity	Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full 2445.12 m ³ /d
Equipment	2 Pumps (2 duty, zero standby), with 2445.12 m ³ /d and 28.2' total head, zero grinders, zero screens, one wet well of 70.68 m ³ capacity. The station is connected to one 100 mm diameter forcemains, discharging to 300mm San Sewer MH on North Terminal Rd.
Emergency Storage	The pumping station does not have emergency storage, however pumping station bypasses at MH 8S1862 at elevation 184.906 to MH 8S1863.
Equipment: Associated controls and appurtenances	Telemetry, Multiranger level control, high well level flygt ball
Collection System Overflow	Overflow discharge location and pathway to final receiver (waterbody/creek/river). Intermediate receiver should be identified, if applicable. N/A Response time (buffer volume in m ³ available in storage prior to overflow at peak flow) – N/A Emergency storage volume (m ³) N/A
On-site Receiving Stations (if applicable)	Specify any septage and/or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices. - N/A
Odor Control Units	The station contains no on-site odour control units. N/A
Standby Power	25 kW diesel generator and fuel tank size = 275 gal.
Reference ECA(s)	Number 3-0101-89-006
Notes	Discharging to Lou Romano Water Reclamation Plant. There are no chemical addition prior to entering the WWT plant.

Maplewood

Asset ID and Name	8SPS1630, Maplewood
Site Location	5555 Maplewood Drive
Latitude and Longitude	42°15'48.4"N -83°05'55.3"W
Coordinates (optional)	42.263434 -83.098695
Description	Sanitary Pumping Station
Pumping Station Capacity	Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full. 6540.8 m ³ /d
Equipment	2 Pumps (2 duty, zero standby), with 6540.48 m ³ /d and 42' total head, zero grinders, zero screens, one wet well of 158 m ³ capacity. The station is connected to one 3600 mm diameter forcemains, discharging to sanitary Sewer MH on Sprucewood Drive.
Emergency Storage	The pumping station does not have emergency storage.
Equipment: Associated controls and appurtenances	Telemetry, Multiranger level control, high well level flygt ball
Collection System Overflow	Overflow discharge location and pathway to final receiver (waterbody/creek/river). Intermediate receiver should be identified, if applicable. N/A Response time (buffer volume in m ³ available in storage prior to overflow at peak flow) – N/A Emergency storage volume (m ³) – N/A
On-site Receiving Stations (if applicable)	Specify any septage and/or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices. - N/A
Odor Control Units	The station contains on-site odour control using a "Super Oxygenation System by ECO ₂ ".
Standby Power	127 kW diesel generator, and fuel tank size of 316 gal.
Reference ECA(s)	Unknown
Notes	Discharging to Lou Romano Water Reclamation Plant. The Pumping Station has oxygenation of the Pumping Station effluent at the forcemain. No other chemical addition prior to entering the WWT plant.

Twin Oaks

Asset ID and Name	7SPS4420, Twin Oaks
Site Location	7750 Twin Oaks Drive
Latitude and Longitude	42°17'31.1"N -82°55'09.3"W
Coordinates (optional)	42.291974 -82.919253
Description	Sanitary Pumping Station
Pumping Station Capacity	Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full. 4086.7 m ³ /d
Equipment	2 Pumps (2 duty, zero standby), with 4086.7 m ³ /d and 26' total head, zero grinders, zero screens, one wet well of 29.47 m ³ capacity. The station is connected to one 150 mm diameter forcemains, discharging to Aluminum discharge box to 300mm Sanitary Sewer MH on Twin Oaks Drive.
Emergency Storage	The pumping station does not have emergency storage.
Equipment: Associated controls and appurtenances	Telemetry, Multiranger level control, high well level Flygt Ball
Collection System Overflow	Overflow discharge location and pathway to final receiver (waterbody/creek/river). Intermediate receiver should be identified, if applicable N/A. Response time (buffer volume in m ³ available in storage prior to overflow at peak flow) – N/A Emergency storage volume (m ³) – N/A
On-site Receiving Stations (if applicable)	Specify any septage and/or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices. – N/A.
Odor Control Units	The station contains no on-site odour control units. N/A
Standby Power	There are no standby power.
Reference ECA(s)	Number 3-0772-97-006
Notes	Discharging to Little River Pollution Control Plant. There are no chemical addition prior to entering the WWT plant.

Combined Sewage Pumping Stations

Bridge Avenue Interceptor

Asset ID and Name	RG1, Bridge Avenue Interceptor
Site Location	1902 Riverside Drive W.
Latitude and Longitude	42°18'32.4"N -83°04'17.9"W
Coordinates (optional)	42.308987 -83.071648
Description	Combined Sewer Interceptor, provides relief to Lou Romano Water Reclamation Plant during storm events when criteria is met
Pumping Station Capacity	Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full. N/A
Equipment	0 pumps (0 duty, 0 standby), with X m ³ /d and 0 total head, 0 grinders, 0 screens, 1 well of __ m ³ capacity. The station is connected to 1 450 mm diameter gravity pipe, discharging to Manhole 5S929 and 1 1200 mm gravity pipe discharging to Storm Outlet 5RO96-
Emergency Storage	The pumping station does not have emergency storage.
Equipment: Associated controls and appurtenances	Telemetry, PLC level control, Flow control gates, Bubbler system and airflow valves.
Collection System Overflow	Overflow discharge location and pathway to final receiver – Detroit River. Response time (buffer volume in m ³ available in storage prior to overflow at peak flow) N/A Emergency storage volume (m ³) N/A
On-site Receiving Stations (if applicable)	Specify any septage and/or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices. Specify any maximum quantity allowable for septage and/or leachate from existing ECA. N/A
Odor Control Units	The station contains 0 on-site odor control units. N/A
Standby Power	25 kW diesel or ATS for portable generator or battery, and fuel tank size 34 gal.
Reference ECA(s)	Number 4900-9RLKTG
Notes	Discharging to Sewage Treatment Plant (for final pumping station only) – yes unless relief is needed for the Lou Romano Water Reclamation Plant is needed, under such circumstances a portion of the combined sewage is discharged to the Detroit River. Chemical addition (e.g., coagulants, flocculants, disinfection, pH adjustment that pre-condition sewage for further treatment downstream) – no treatment before discharge from the Interceptor

C.M.H. Woods

Asset ID and Name	4CPS902, C.M.H. Woods
Site Location	620 Riverside Drive, Windsor, ON
Latitude and Longitude	42°19'6.2"N -83°02'53.3"W
Coordinates (optional)	42.318402 -83.048139
Description	Combined Sewage Pumping Station
Pumping Station Capacity	Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full.397,922 m ³
Equipment	4 pumps (4 duty, 0 standby), with 512,393 m ³ /d and 28' total head, 0 grinders, 0 screens, 1 wet well of 287 m ³ capacity. The station is connected to 1 1200mm diameter forcemain, discharging to Manhole 4S903
Emergency Storage	The pumping station does not have emergency storage.
Equipment: Associated controls and appurtenances	Telemetry, Multiranger level control, PLC, VFD control
Collection System Overflow	Overflow discharge location and pathway to final receiver (waterbody/creek/river). Intermediate receiver should be identified, if applicable. N/A Response time (buffer volume in m ³ available in storage prior to overflow at peak flow) N/A Emergency storage volume (m ³)N/A
On-site Receiving Stations (if applicable)	Specify any septage and/or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices. Specify any maximum quantity allowable for septage and/or leachate from existing ECA.N/A
Odor Control Units	The station contains 0 on-site odor control units. N/A
Standby Power	1086 kW diesel or ATS for portable generator or battery, and fuel tank size 1500 gal.
Reference ECA(s)	unknown
Notes	Discharging to Sewage Treatment Plant (for final pumping station only) - yes Chemical addition (e.g., coagulants, flocculants, disinfection, pH adjustment that pre-condition sewage for further treatment downstream) – no treatment before entering the WWT plant

Clairview

Asset ID and Name	6SPS990, Clairview Pumping Station
Site Location	9349 Clairview Ave (Corner of Bertha and Riverside Drive), Windsor, Ontario
Latitude and Longitude	42°20'19.8"N -82°55'48.3W
Coordinates (optional)	42.338821 -82.930075
Description	Combined Sewage Pumping Station
Pumping Station Capacity	Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full 76522 m ³
Equipment	4 pumps (4 duty, 0 standby), with 85,248 m ³ /d and pump 1 and 2 @25.4' of head, pump 3 @ 30' of head and pump 4 @22' of head 0 grinders, 0 screens, 1 wet well of 236 m ³ capacity. The station is connected to 1 675mm diameter forcemain, discharging to Manhole 6S674
Emergency Storage	The pumping station does not have emergency storage.
Equipment: Associated controls and appurtenances	Telemetry, Multiranger level control, Overflow.
Collection System Overflow	Overflow discharge location and pathway to final receiver (waterbody/creek/river). Intermediate receiver should be identified, if applicable. N/A Response time (buffer volume in m ³ available in storage prior to overflow at peak flow) N/A Emergency storage volume (m ³) N/A
On-site Receiving Stations (if applicable)	Specify any septage and/or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices. Specify any maximum quantity allowable for septage and/or leachate from existing ECA. N/A
Odor Control Units	The station contains 0 on-site odor control units. N/A
Standby Power	325 kW diesel or ATS for portable generator or battery, and fuel tank size 476 gal.
Reference ECA(s)	For stand by power system only R-002-4403522278
Notes	Discharging to Sewage Treatment Plant (for final pumping station only) - yes Chemical addition (e.g., coagulants, flocculants, disinfection, pH adjustment that pre-condition sewage for further treatment downstream) – no treatment before entering the WWT plant

Dougall Interceptor

Asset ID and Name	RG3 Dougall Interceptor
Site Location	300 Riverside Drive W
Latitude and Longitude	42°19'8.89" -83°02'37.14"
Coordinates (optional)	42.319135, -83.043651
Description	Combined Sewer Interceptor, provides relief to Lou Romano Water Reclamation plant during storm events when criteria is met.
Pumping Station Capacity	Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full. N/A
Equipment	0 pumps (0 duty, 0 standby), with X m ³ /d and 0 total head, 0 grinders, 0 screens, 1 wet well of 32 m ³ capacity. The station is connected to 1 450mm diameter forcemains, discharging to Manhole 4S273 and 1 1200mm gravity pipe discharging to Storm Outlet 4RO443.
Emergency Storage	The pumping station does not have emergency storage.
Equipment: Associated controls and appurtenances	Telemetry, PLC level control, Flow control gates, Bubbler system and airflow valves.
Collection System Overflow	Overflow discharge location and pathway to final receiver (waterbody/creek/river). Detroit River Response time (buffer volume in m ³ available in storage prior to overflow at peak flow) N/A Emergency storage volume (m ³) N/A
On-site Receiving Stations (if applicable)	Specify any septage and/or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices. Specify any maximum quantity allowable for septage and/or leachate from existing ECA. N/A
Odor Control Units	The station contains 0 on-site odor control units. N/A
Standby Power	25 kW diesel ATS for portable generator or battery, and fuel tank size 34 gal.
Reference ECA(s)	Number 4900-9RLKTG
Notes	Discharging to Sewage Treatment Plant (for final pumping station only) – yes unless relief is needed for the Lou Romano Water Reclamation Plant under such circumstances a portion of the combined sewage is discharged to the Detroit River. Chemical addition (e.g., coagulants, flocculants, disinfection, pH adjustment that pre-condition sewage for further treatment downstream) – no treatment before discharge from the Interceptor

Elm Interceptor

Asset ID and Name	Elm Interceptor
Site Location	1100 Riverside Drive W
Latitude and Longitude	Combined Sewer Interceptor, provides relief to Lou Romano Water Reclamation Plant during storm events when criteria is met.
Coordinates (optional)	42°19'0.48" -83°03'14.79"
Description	42.316799, -83.054109
Pumping Station Capacity	Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full. N/A
Equipment	0 pumps (0 duty, 0 standby), with X m ³ /d and 0 total head, 0 grinders, 0 screens, 1 wet well of 41m ³ capacity. The station is connected to 1 450 mm diameter gravity pipe, discharging to Manhole 4S948 and 1 1200 mm gravity pipe discharging to Storm Outlet 4RO907.
Emergency Storage	The pumping station does not have emergency storage.
Equipment: Associated controls and appurtenances	Telemetry, PLC level control, Flow control gates, Bubbler system and airflow valves.
Collection System Overflow	Overflow discharge location and pathway to final receiver (waterbody/creek/river). Detroit River Response time (buffer volume in m ³ available in storage prior to overflow at peak flow) N/A Emergency storage volume (m ³) N/A
On-site Receiving Stations (if applicable)	Specify any septage and/or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices. Specify any maximum quantity allowable for septage and/or leachate from existing ECA. N/A
Odor Control Units	The station contains 0 on-site odor control units. N/A
Standby Power	25 kW diesel or ATS for portable generator or battery, and fuel tank size 34 gal.
Reference ECA(s)	Number 4900-9RLKTG
Notes	Discharging to Sewage Treatment Plant (for final pumping station only) – yes unless relief is needed for the Lou Romano Water Reclamation Plant is needed, under such circumstances a portion of the combined sewage is discharged to the Detroit River. Chemical addition (e.g., coagulants, flocculants, disinfection, pH adjustment that pre-condition sewage for further treatment downstream) No treatment before discharge from the Interceptor

Riverdale

Asset ID and Name	6SPS3838, Riverdale Pumping Station
Site Location	594 Riverdale Ave
Latitude and Longitude	42°20'01.6"N -82°55'45.5W
Coordinates (optional)	42.3337904 -82.9293126
Description	Combined Sewage Pumping Station
Pumping Station Capacity	Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full. 16416 m ³
Equipment	3 pumps (2 duty, 1 standby), with 16416 m ³ /d and 16' total head, 0 grinders, 0 screens, 1 wet well of 62 m ³ capacity. The station is connected to 1 250mm diameter forcemain, discharging to Manhole 6S972.
Emergency Storage	The pumping station does not have emergency storage.
Equipment: Associated controls and appurtenances	Telemetry, Multiranger level control, Flygt Balls.
Collection System Overflow	Overflow discharge location and pathway to final receiver (waterbody/creek/river). N/A Response time (buffer volume in m ³ available in storage prior to overflow at peak flow) N/A Emergency storage volume (m ³) N/A
On-site Receiving Stations (if applicable)	Specify any septage and/or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices. Specify any maximum quantity allowable for septage and/or leachate from existing ECA. N/A
Odor Control Units	The station contains 0 on-site odor control units. N/A
Standby Power	40 kW diesel or ATS for portable generator or battery, and fuel tank size 450L
Reference ECA(s)	Number 7157-66DKTG; 7624 6F3P9P (air)
Notes	Discharging to Sewage Treatment Plant (for final pumping station only) - yes Chemical addition (e.g., coagulants, flocculants, disinfection, pH adjustment that pre-condition sewage for further treatment downstream) no treatment before entering the WWT plant

Ypres Pumping Station

Asset ID and Name	2CPS2, Ypres Pumping Station
Site Location	2170 Ypres Blvd.
Latitude and Longitude	42°17'58.9"N -82°59'37.6"W
Coordinates (optional)	42.29968692 -82.9937688
Description	Combined Sewage Pumping Station
Pumping Station Capacity	Capacity of pump station should be the peak flow with n-1 pumps running against a head with the wet well full. 32659.2 m ³
Equipment	3 pumps (3 duty, 0 standby), with 48989 m ³ /d and 16' total head, 0 grinders, 0 screens, 1 wet well of 134 m ³ capacity. The station is connected to one 500 mm diameter forcemain, discharging to Manhole 2C3001.
Emergency Storage	The pumping station does not have emergency storage.
Equipment: Associated controls and appurtenances	Telemetry, Multiranger level control, Flygt Balls
Collection System Overflow	Overflow discharge location and pathway to final receiver (waterbody/creek/river). Intermediate receiver should be identified, if applicable. N/A Response time (buffer volume in m ³ available in storage prior to overflow at peak flow) N/A Emergency storage volume (m ³) N/A
On-site Receiving Stations (if applicable)	Specify any septage and/or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices. Specify any maximum quantity allowable for septage and/or leachate from existing ECA. N/A
Odor Control Units	The station contains 0 on-site odor control units. N/A
Standby Power	50 kW diesel or ATS for portable generator or battery, and fuel tank size 150 gal.
Reference ECA(s)	unknown
Notes	Discharging to Sewage Treatment Plant (for final pumping station only) yes Chemical addition (e.g., coagulants, flocculants, disinfection, pH adjustment that pre-condition sewage for further treatment downstream) – no treatment before entering the WWT plant

Real-Time Control

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

	Description
Process Equipment/System Elements	SCADA is used for Real-Time Control Systems for the pumping stations and monitored by the Chief at the Lou Romano Water Reclamation Plant. Staff are dispatched to attend the pumping stations in case of an emergency or alarm.
Flow Measurement Locations	There are no Real-Time Control Systems that measure flow in the sewers.
Level Measurement Locations	For the pumping stations only, there are level measurement devices and alarms in the wells and is monitored by SCADA and the LRWRP chief.
Other Instrumentation and Controls	Interceptor Gates Open/Closed

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)
RG1 /ECA4900-9RLKTG	Bridge Ave. Interceptor	N/A	42o18'32.4" -83o04'17.9'
RG2 /ECA4900-9RLKTG	Elm Interceptor	N/A	42o19'0.48" -83o03'14.79"
RG3/ECA4900-9RLKTG	Dougall Interceptor	N/A	42o19.8'89" -83o02'37.14"

Table B3: Identified Combined Sewage Storage Tanks and Storage Structures

Column 1 Asset ID/Name	Column 2 Site Location (Latitude & Longitude)	Column 3 Volume (m ³)	Column 4 Overflow Location (Latitude & Longitude)
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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)
17432		42.30292316, -83.00156226	42.32570867 -83.01856493
18956		42.31944288, -83.03797278	42.3204917 -83.03954568
19192		42.30803119, -83.03652059	42.31934286 -83.04446899
19533		42.29858513, -83.03354009	42.31934286 -83.04446899
19723		42.30877046, -83.03436478	42.31934286 -83.04446899
21880		42.31284987, -83.00418377	42.32570867 -83.01856493
22235		42.31060741, -83.06281203	42.31218921 -83.06676766
29025		42.29683389, -83.06846088	42.30107667 -83.08101318
30305		42.30984853, -83.06522407	42.31218921 -83.06676766
30780		42.32124086, -83.01689804	42.32570867 -83.01856493
31425		42.31018873, -83.06388572	42.31218921 -83.06676766
33822		42.30665816, -83.00054229	42.32570867 -83.01856493
35273		to be confirmed	42.31815486 -83.04816771
37001		42.31036405, -83.06365835	42.31218921 -83.06676766
37107		42.31865501, -83.03748206	42.3204917 -83.03954568
121770		42.31028231, -83.06394268	42.31218921 -83.06676766
123803		42.32250727, -83.0041635	42.32762509 -83.00598276
129241		42.31771772, -82.99987003	42.32762509 -83.00598276
130417		42.30291316, -83.00159113	42.32570867 -83.01856493
130475		42.32571011, -82.99820929	42.3275078 -82.99845792
130554		42.29853673, -82.99572462	42.32570867 -83.01856493
130575		42.30484272, -82.99616818	42.32570867 -83.01856493

130576		42.30292316, -83.00156226	42.32570867 -83.01856493
130578		42.30433908, -82.99759393	42.32570867 -83.01856493
130580		42.30392516, -82.99874671	42.32570867 -83.01856493
130584		42.30755399, -82.9980078	42.32570867 -83.01856493
130588		42.3047565, -83.0015098	42.32570867 -83.01856493
130590		42.30463039, -83.00137534	42.32570867 -83.01856493
130596		42.303312, -82.99517555	42.32570867 -83.01856493
130609		42.30854208, -83.0052761	42.32570867 -83.01856493
130635		42.32050229, -83.01290485	42.32570867 -83.01856493
130646		42.32124086, -83.01689804	42.32570867 -83.01856493
130648		42.32083878, -83.01794654	42.32570867 -83.01856493
130712		42.31913901, -83.02263341	42.32358146 -83.02668459
130783		42.31930132, -83.02273837	42.32358146 -83.02668459
130790		42.31075972, -83.01721111	42.32358146 -83.02668459
130792		42.30649133, -83.01592181	42.32358146 -83.02668459
130796		42.30030051, -83.01964405	42.32358146 -83.02668459
130801		42.30030051, -83.01964405	42.32358146 -83.02668459
130804		42.30578959, -83.0209497	42.32358146 -83.02668459
130807		42.30741919, -83.01931521	42.32358146 -83.02668459
130809		42.29618844, -83.01842619	42.32136607 -83.03617128
130811		42.2972287, -83.01679326	42.32358146 -83.02668459
130815		42.29468281, -83.01766557	42.32358146 -83.02668459
130817		42.29468281, -83.01766557	42.32358146 -83.02668459
130819		42.29883342, -83.02009456	42.32358146 -83.02668459
130821		42.29618844, -83.01842619	42.32358146 -83.02668459
130825		42.29322814, -83.01674212	42.32358146 -83.02668459
130827		42.29322814, -83.01674212	42.32358146 -83.02668459
130833		42.29625191, -83.02639718	42.31934286 -83.04446899

130835		42.29585843, -83.02838624	42.31934286 -83.04446899
130837		42.29564032, -83.0295714	42.31934286 -83.04446899
130839		42.29604949, -83.02745254	42.31934286 -83.04446899
130845		42.29521691, -83.02685528	42.31934286 -83.04446899
130847		42.29353018, -83.02578173	42.31934286 -83.04446899
130849		42.29438028, -83.02631598	42.31934286 -83.04446899
130851		42.29438028, -83.02631598	42.31934286 -83.04446899
130853		42.29796491, -83.03314707	42.31934286 -83.04446899
130855		42.29604805, -83.03191949	42.31934286 -83.04446899
130857		42.29669924, -83.03233454	42.31934286 -83.04446899
130859		42.30172627, -83.03555555	42.31934286 -83.04446899
130861		42.30114229, -83.03518105	42.31934286 -83.04446899
130863		42.29733544, -83.03274498	42.31934286 -83.04446899
130871		42.29957844, -83.03106318	42.31934286 -83.04446899
130873		42.29943069, -83.02211147	42.32358146 -83.02668459
130877		42.29894626, -83.0325172	42.31934286 -83.04446899
130882		42.30239544, -83.03598471	42.31934286 -83.04446899
130884		42.30283196, -83.03626466	42.31934286 -83.04446899
130892		42.30839403, -83.03545175	42.31934286 -83.04446899
130894		42.30753003, -83.03789618	42.31934286 -83.04446899
130897		42.30350305, -83.03664035	42.31934286 -83.04446899
130902		42.30723209, -83.030151	42.31934286 -83.04446899
130904		42.31073274, -83.02942469	42.32136607 -83.03617128
130931		42.30921055, -83.03858735	42.31934286 -83.04446899
130933		42.31342195, -83.03084157	42.32136607 -83.03617128
130935		42.31062546, -83.03942272	42.31934286 -83.04446899
130940		42.31011254, -83.04087501	42.31934286 -83.04446899
130946		42.3187728, -83.04427442	42.31934286 -83.04446899

130962		42.31549507, -83.04242651	42.31934286 -83.04446899
130964		42.31965995, -83.03692132	42.3204917 -83.03954568
130968		42.31836227, -83.04658079	42.31880754 -83.04676803
131098		42.3078064, -83.01823387	42.32358146 -83.02668459
131103		42.30720369, -83.04640364	42.31645782 -83.056422
131109		42.30539525, -83.04382035	42.31645782 -83.056422
131118		42.3017151, -83.04145418	42.31645782 -83.056422
131120		42.30130001, -83.04259708	42.31645782 -83.056422
131148		42.30079956, -83.06043392	42.31003432 -83.07241452
131215		42.31068296, -83.06575595	42.31218921 -83.06676766
131238		42.31054815, -83.06301798	42.31218921 -83.06676766
131242		42.31028231, -83.06394268	42.31218921 -83.06676766
131246		42.30480447, -83.07595799	42.30548539 -83.07792085
131282		42.29976044, -83.06588528	42.31003432 -83.07241452
131286		42.30297015, -83.07851716	42.30313471 -83.07865446
131298		42.29755595, -83.06705563	42.30107667 -83.08101318
131302		42.29940542, -83.06564158	42.31003432 -83.07241452
131398		42.29139599, -83.08418317	42.30313471 -83.07865446
131402		42.29042782, -83.07821519	42.30313471 -83.07865446
131407		42.29079728, -83.07928213	42.30313471 -83.07865446
131435		42.32727033, -82.98629509	42.32779895 -82.98663022
131448		42.32684313, -82.99491422	42.32751427 -82.99504555
131594		42.29888954, -82.99473738	42.32570867 -83.01856493
131595		42.29927378, -82.99365629	42.32570867 -83.01856493
131612		42.30481064, -83.00087287	42.32570867 -83.01856493
131614		42.30527399, -82.99959386	42.32570867 -83.01856493
131617		42.3082111, -83.01112097	42.32358146 -83.02668459
131619		42.3085936, -83.01007068	42.32358146 -83.02668459

131622		42.30779683, -83.01224511	42.32358146 -83.02668459
131626		42.30809767, -83.00651577	42.32570867 -83.01856493
131634		42.31470211, -83.01269462	42.32570867 -83.01856493
131638		42.31431421, -83.01376583	42.32570867 -83.01856493
131639		42.3155634, -83.01025579	42.32570867 -83.01856493
131643		42.32066196, -83.01245892	42.32570867 -83.01856493
131646		42.3175003, -83.01579274	42.32570867 -83.01856493
131647		42.31788648, -83.01473965	42.32570867 -83.01856493
131654		42.32156692, -83.01462423	42.32570867 -83.01856493
131669		42.32521715, -83.01545535	42.32601537 -83.01597873
131671		42.32250888, -83.02721761	42.32332906 -83.02767839
131674		42.31427345, -83.02497832	42.32353044 -83.02689548
131718		42.31500754, -83.02548889	42.32353044 -83.02689548
131722		42.31543725, -83.02169476	42.32353044 -83.02689548
131733		42.31653173, -83.0185464	42.32570867 -83.01856493
131734		42.31502522, -83.02287486	42.32353044 -83.02689548
131736		42.31393537, -83.02584206	42.32353044 -83.02689548
131737		42.31713553, -83.016863	42.32570867 -83.01856493
131739		42.31394596, -83.01483438	42.32570867 -83.01856493
131741		42.30694363, -83.01467156	42.32358146 -83.02668459
131742		42.30740837, -83.01342913	42.32358146 -83.02668459
131760		42.29985741, -83.03002055	42.31934286 -83.04446899
131763		42.30116848, -83.0262111	42.31934286 -83.04446899
131765		42.30018818, -83.02902626	42.31934286 -83.04446899
131767		42.30087327, -83.02707104	42.31934286 -83.04446899
131772		42.30647498, -83.02841649	42.31934286 -83.04446899
131777		42.30392309, -83.03544561	42.31934286 -83.04446899
131779		42.30310872, -83.03771377	42.31934286 -83.04446899

131785		42.30485743, -83.03902645	42.31934286 -83.04446899
131797		42.31548065, -83.04248571	42.31934286 -83.04446899
131799		42.31500727, -83.04417255	42.31934286 -83.04446899
131832		42.30182715, -83.06725229	42.31003432 -83.07241452
131837		42.30358707, -83.06830892	42.31003432 -83.07241452
131845		42.3050187, -83.06922242	42.31003432 -83.07241452
132415		42.29105324, -83.08047168	42.30313471 -83.07865446
134065		42.30412362, -82.99569415	42.32570867 -83.01856493
134241		42.30412362, -82.99569415	42.32570867 -83.01856493
135513		42.30298514, -83.0136353	42.32358146 -83.02668459
161500		42.30475167, -83.03309668	42.31934286 -83.04446899
161502		42.30475167, -83.03309668	42.31934286 -83.04446899
161506		42.30433033, -83.03431155	42.31934286 -83.04446899
162438		42.30724084, -83.07064044	42.31003432 -83.07241452
163803		42.3206201, -82.96819086	42.33113013 -82.97498364
167273		42.29839723, -83.03407394	42.31934286 -83.04446899
168017		42.3124734, -83.00661286	42.32570867 -83.01856493
172431		42.29634385, -83.03819411	42.31645782 -83.056422
172439		42.29871292, -83.03974317	42.31645782 -83.056422
172443		42.29837369, -83.04070895	42.31645782 -83.056422
182020		42.30949087, -82.95735613	42.31449616 -82.9273009
182043		42.30949845, -82.95131345	42.31449616 -82.9273009
183021		42.28741225, -83.06677261	42.30313471 -83.07865446
184693		42.31807616, -82.96794863	42.33113013 -82.97498364
184695		42.31829592, -82.9667001	42.33113013 -82.97498364
185756		42.30457369, -82.95553226	42.3093567 -82.92945796
185765		42.30583983, -82.95186943	42.3093567 -82.92945796
185766		42.30624623, -82.95072487	42.3093567 -82.92945796

185773		42.30658876, -82.94970905	42.3093567 -82.92945796
186053		42.30549611, -82.95290478	42.3093567 -82.92945796
188932		42.29918044, -83.03184553	42.31934286 -83.04446899
196817		42.29953896, -83.03103788	42.31934286 -83.04446899
197127		42.30418557, -82.95649721	42.3093567 -82.92945796
197617		42.28598545, -83.06016873	42.30313471 -83.07865446
205440		42.31423994, -83.00885012	42.32570867 -83.01856493
267403		42.32156692, -83.01462423	42.32570867 -83.01856493
294034		42.31121575, -83.0674944	42.31218921 -83.06676766
294036		42.31121575, -83.0674944	42.31218921 -83.06676766
297682		42.30440679, -83.06443105	42.31218921 -83.06676766
302335		42.30601552, -83.02938341	42.31934286 -83.04446899
303273		42.3020188, -83.01450829	42.32358146 -83.02668459
304716		42.29679964, -83.06833826	42.30107667 -83.08101318
304738		42.30365344, -83.00434337	42.32570867 -83.01856493
304806		42.31339619, -83.04110839	42.31934286 -83.04446899
304864		42.30051485, -83.02811012	42.31934286 -83.04446899
305195		42.2974352, -83.07080886	42.30107667 -83.08101318
305246		42.29887294, -83.07452414	42.30107667 -83.08101318
305252		42.29967206, -83.07686645	42.30107667 -83.08101318
305256		42.300307, -83.07874447	42.30107667 -83.08101318
305278		42.29636034, -83.06990079	42.30107667 -83.08101318
305382		42.30398142, -83.03846085	42.31934286 -83.04446899
305429		42.30942026, -83.03254781	42.31934286 -83.04446899
305729		42.31364064, -83.02068119	42.32353044 -83.02689548
305757		42.30387872, -83.01114549	42.32358146 -83.02668459
305866		42.32502583, -83.01812095	42.32570867 -83.01856493
305879		42.3010943, -82.99614745	42.32570867 -83.01856493

305941		42.31016981, -83.00506913	42.32570867 -83.01856493
305942		42.31540718, -83.01071366	42.32570867 -83.01856493
305947		42.2974538, -83.0708144	42.30107667 -83.08101318
305985		42.32050229, -83.01290485	42.32570867 -83.01856493
305988		42.30947918, -82.95659128	42.31449616 -82.9273009
305989		42.30947918, -82.95659128	42.31449616 -82.9273009
306014		42.30581273, -82.95944381	42.3093567 -82.92945796
306015		42.30540147, -82.96059805	42.3093567 -82.92945796
306017		to be confirmed	42.3093567 -82.92945796
306126		42.30297853, -82.95991522	42.3093567 -82.92945796
306143		42.3154224, -82.96632571	42.33113013 -82.97498364
306144		42.3156774, -82.9650218	42.33113013 -82.97498364
306498		to be confirmed	42.32601537 -83.01597873
307430		42.3258907, -83.00496072	42.32762509 -83.00598276
307933		42.30821068, -83.01702847	42.32358146 -83.02668459
307975		42.31802295, -82.99899079	42.32762509 -83.00598276
307989		42.32137308, -83.0014256	42.32762509 -83.00598276
309387		42.28892293, -83.06227518	42.30107667 -83.08101318
309390		42.28823555, -83.0612658	42.30107667 -83.08101318
309391		42.31407786, -83.04153648	42.31934286 -83.04446899
309393		to be confirmed	42.31934286 -83.04446899
332711		42.30766313, -83.03790906	42.31934286 -83.04446899
332717		42.31463143, -83.04526459	42.31934286 -83.04446899
332755		42.30485869, -83.03608761	42.31934286 -83.04446899
332772		42.30197926, -83.03260781	42.31934286 -83.04446899
332775		42.30122524, -83.03211896	42.31934286 -83.04446899
337756		42.29281853, -83.01791038	42.32358146 -83.02668459
348856		42.30346465, -82.95860263	42.3093567 -82.92945796

349367		42.31230093, -83.00771934	42.32570867 -83.01856493
349393		42.32085105, -83.01417548	42.32570867 -83.01856493
349396		42.31956059, -83.01334442	42.32570867 -83.01856493
2C250- 2CJ801		to be confirmed	42.32570867 -83.01856493
2C74- 2R3113		42.30092505, -82.99671026	42.32570867 -83.01856493
2C786- 2C905		42.30790657, -83.00704261	42.32570867 -83.01856493
2CJ3297- 2RJ3348		to be confirmed	42.32658237 -83.01337182
2R929- 3R905		42.30469566, -83.00886901	42.32358146 -83.02668459
3C772- 3R199		42.3231022, -83.02519409	42.32358146 -83.02668459
3CJ3413- 3RJ3447		to be confirmed	42.32353044 -83.02689548
3R905- 3R906		42.3042937, -83.00998912	42.32358146 -83.02668459
3R906- 3R918		42.30387872, -83.01114549	42.32358146 -83.02668459
3R917- 3R478		42.30298514, -83.0136353	42.32358146 -83.02668459
3S3156- 3R199		42.3231022, -83.02519409	42.32358146 -83.02668459
4C107- 4RJ3241		42.31987946, -83.04048933	42.32034507 -83.04099333
4C149- 4RJ3333		42.30874882, -83.03442723	42.31934286 -83.04446899
4C275- 4RJ914		to be confirmed	42.31956437 -83.04384744
4C409- 4RJ946		42.30971946, -83.04199077	42.31934286 -83.04446899
4C527- 4RO908		42.317808, -83.051641	42.31780838 -83.0516412
4C948- 4RO907		42.31697, -83.054529	42.31697024 -83.0545294
4CJ3226- 3RJ3243		42.318155, -83.048168	42.32136607 -83.03617128
4R915- 4RJ915		to be confirmed	42.3200799 -83.04199918
5C249- 5R951		42.31206259, -83.06667512	42.31218921 -83.06676766
5C2-5R993		42.31564412, -83.05860434	42.31576678 -83.05868046
5C345- 5RJ3621		42.30884323, -83.07167061	42.31003432 -83.07241452

5CPS1000-5RO960		42.314167, -83.062897	42.31416659 -83.06289665
7C67-7R69		42.31948769, -82.95692958	42.3189249 -82.95349513
7S3080-6R1448		42.32101866, -82.96834962	42.33113013 -82.97498364

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)
N/A			

Other Works:

1.7 The following works are part of Authorized System:

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

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

System Owner	Windsor, The Corporation Of The City Of
ECA Number	318-W601
System Name	Municipal Sewage Collection System
ECA Issue Date	April 18th, 2024

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	Windsor, The Corporation Of The City Of
ECA Number	318-W601
System Name	Municipal Sewage Collection System
ECA Issue Date	April 18th, 2024

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 Windsor 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 (m³/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 (above or underground) 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 Approval 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 1500 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 Modify or replace Combined Sewers, Partially Separated Sewers, overflow regulators, outfalls, or combined Sewage storage tanks and storage structures, 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 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 Add 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 during the agreed upon ownership period.

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 e) and 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 f) 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 1500 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 storage to 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 Alterations 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 biofiltration 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 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 before June 25, 2023.
- 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	Windsor, The Corporation Of The City Of
ECA Number	318-W601
System Name	Municipal Sewage Collection System
ECA Issue Date	April 18th, 2024

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 frequency 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 before December 31, 2024 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.
- 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 June 25, 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. The Owner shall only be required to establish a singular sign where there are clustered CSO or SSO points. 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 before December 31, 2025 or within twelve (12) 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 On or before December 31, 2025 or within twelve (12) 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
 - ii On or before December 31, 2025 or within twelve (12) 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 estimated 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 a 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 Spill estimated 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 under condition 4.3.

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 available 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 June 25, 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 July 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, loading estimates 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 June 25, 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 include 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 December 25, 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 Partially 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 December 25, 2024;
 - 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 June 25, 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 April 18th, 2024.
- 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 of that the previous PPCP was finalized.

Sewer Model

8.3 The Owner shall prepare a new/updated Sewer model, within three (3) years of April 18th, 2024, 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	Windsor, The Corporation Of The City Of
ECA Number	318-W601
System Name	Municipal Sewage Collection System
ECA Issue Date	April 18th, 2024

1.0 Residue Management System

1.1 Not Applicable: