ENVIRONMENTAL COMPLIANCE APPROVAL (ECA) For a Municipal Sewage Collection System

ECA Number: 0X0-WW501 Issue Number: 1

Pursuant to the *Environmental Protection Act*, R.S.O 1990, c. E. 19 (*Environmental Protection Act*), and the regulations made thereunder and subject to the limitations thereof, this Municipal Sewage Collection System to:

\${OWNERNAME}

\${OWNERUNITID} \${OWNERSTNO}\${OWNERSUFFIX} \${OWNERSTREET} \${OWNERSTTYPE} \${OWNERSTDIR} \${OWNERPBOX} \${OWNERMUNICIPALITY}, \${OWNERPROV} \${OWNERPCODE}

For the following municipal sewage collection system:

\${SYSTEMNAME}

This Municipal Sewage Collection System ECA includes the following:

Schedule	Description			
Schedule A	System Information			
Schedule B	Municipal Sewage Collection System Description			
Schedule C	All documents issued as Schedule C to this ECA which authorize alterations to the System			
Schedule D	General			
Schedule E	Operating Conditions			
Schedule F	Residue Management			

The issuance of this ECA revokes and replaces all ECAs, or portions thereof, issued by the Ministry for sewage Works included under section 1 of Schedule B.

DATED at TORONTO this \${DAY} day of \${MONTH}, \${YEAR}

Signature

\${CURRENTUSER}, P.Eng.
Director
Part II.1, Environmental Protection Act

Schedule A: System Information		
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System Owner	\${OWNERNAME}
ECA Number	\${ECANO}
System Name	\${SYSTEMNAME}
ECA Effective Date	\${MONTH} \${DAY}, \${YEAR}

1.0 ECA Information

ECA Issue Date	\${ISSUEDATE}
ECA Effective Date	Date
Application for ECA Renewal Date	\${APPRENEWAL}

1.1 The Owner shall, within thirty (30) calendar days of issuance of this ECA, submit a Municipal Wastewater System Profile Information Form.

2.0 Related Documents



2.1 Sewage Treatment Facilities for the Collection System

System Name Location		ECA Number	Issue Date		
\${SYSTEMNAME}		[ECA #]	[issue date]		

2.2 Other Documents

Document Title	Version
Design Criteria for Sanitary Sewers, Storm Sewers and	Most recent
Forcemains for future Alterations Authorized under ECA	version

3.0 Asset Management Plan

Placeholder for reference to the Asset Management	Most recent version
Plan	

4.0 Pollution Prevention and Control Plan (if applicable)

Placeholder for reference to the Pollution	Most recent version
Prevention and Control Plan	

5.0 Operating Authority

System	Operating Authority			
[Operational System Name]	[O.A. Name]			

Schedule B: Municipal Sewage Collection System Description

System Owner	\${OWNERNAME}
ECA Number	\${ECANO}
System Name	\${SYSTEMNAME}
ECA Effective Date	\${MONTH} \${DAY}, \${YEAR}

1.0 System Description

1.1 The following is a summary description of the works comprising the above municipal sewage collection system:

Overview

The	\${SYSTEMN	IAME}	consists	of	works	for	the	CC	ction	and
trans	mission of se	wage, c	onsisting of	of tru	ınk sewe	ers, s	sewer	's, [X	<mark>, </mark> kilom	eters
of co	mbined sewe	rs, sew	age pump	ing	stations	, wet	-weat	ther i	interce	ptors
tanks	, forcemains,	with dis	scharge in	to	,	, 8	and _	\	Wastev	vater
Treat	ment Plant.	7								

Sewage Collection System



- **1.2** The Municipal Sewage Collection System comprises:
 - 1.2.1 The Municipal Sewage Collection System that has been set out in each document or file identified in column 1 of Table 1.

Table 1: Municipal Sewage Collection System

Column 1 Document or File Name	Column 2 Date		
Document Name	Date		

- 1.2.2 Sewers, forcemains, pumping stations and other Municipal Sewage Collection System works that have been added, modified, replaced or extended further to the provisions of Schedule C of this ECA on or after the date identified in column 2 of Table 1 for each document or file identified in column 1.
- 1.2.3 Sewers, forcemains, pumping stations and other Municipal Sewage Collection System works that have been added, modified, replaced or extended further to an authorization by the Director on or after the date identified in column 2 of Table 1 for each document or file identified in column 1.
- 1.2.4 Sewers, forcemains, pumping stations and other Municipal Sewage Collection System works that have been added, modified, replaced

or extended by persons prescribed for the purposes of s.20.6(b) and (c) of the Environmental Protection Act.

- 1.3 The information provided in Table 1 of condition 1.2.1 shall, at minimum, include the following:
 - 1.3.1 Identification of the type of sewers in the Municipal Sewage Collection System (e.g. sanitary sewer; combined sewer; partially separated sewer; nominally separate sewer) including:
 - Location of sewers relative to street names or easements a)
 - Sewer and/or forcemain diameters b)
 - 1.3.2 Identification of pumping stations and storage structures;
 - 1.3.3 Identification of separate sewer and/or combined sewer overflow locations:
 - 1.3.4 Identification of any source protection vulnerable areas.

Sewage Pumping Stations

1.4 The following are identified sewage pumping stations:

Schedule B

[Sanitary Sewage Pumping Station Name]

Asset ID and Name	
Site Location	
Latitude and Longitude	
Coordinates (optional)	
Description	
Pumping Station Capacity	
Equipment	[x] pumps (x duty, x standby), [x] grinders, [x] screens, [x] wet well of m3 capacity. The station is connected to [x] mm diameter forcemains, discharging to
	Emergency storage tank/pipe volume (volume in m3)
Equipment: Associated controls and appurtenances	
Overflow	Overflow discharge location and pathway to final receiver (waterbody/creek/river) Response time (buffer volume in m3 available in storage prior to overflow at peak flow) Emergency storage volume (m3)
Receiving Stations (if applicable)	Specify any septage or leachate collection receiving station(s), hauled sewage and storage tanks, snow receiving stations, any measurement and screening devices.
Off-site Receiving Stations (if applicable)	Specify any off-site septage receiving stations
Odour Control Units	The station contains [x] odour control units The station contains [x] off-site odour control units
Standby Power	kW propane/diesel/natural gas or ATS for portable generator or battery, and fuel tank size
Notes	Discharging to Wastewater Treatment Plant (for final pumping station only) Chemical addition If a former ECA exists for a pumping station, it would be included in this notes section

[Combined Sewage Pumping Stations]

Asset ID and Name	
Site Location	
Latitude and Longitude	
Coordinates (optional)	
Description	
Pumping Station Capacity	
Equipment	[x] pumps, [x] grinders, [x] screens, [x] wet well of m3 capacity, The station is connected to [x] mm diameter forcemains, discharging to Emergency storage tank volume (volume in m3)
Equipment: Associated controls and	
appurtenances	
Overflow	Overflow discharge location and pathway to final receiver during wet weather events (waterbody/creek/river) Response time (volume in m3 available in storage prior to overflow at peak flow)
Receiving Stations (if applicable)	Specify any septage or leachate collection receiving station(s), hauled sewage, storage tanks, snow receiving stations, any measurement and screening devices.
Odor Control Units	The station contains [x] odor control units The station contains [x] off-site odor control units
Standby Power	kW propane/diesel/natural gas or ATS for portable generator or battery, and fuel tank size
Notes	Discharging to Sewage Treatment Plant (for final pumping station only) Chemical addition If a former ECA exists for a pumping station, it would be included in this notes section

Real-Time Control and SCADA

Overflow Points

1.5 The following are identified overflow points:

Table 2: Identified Sanitary Sewer Overflow Points

Column 1 Asset ID	Column 2 Asset Name	Column 3 Overflow Location (Latitude & Longitude)	Column 4 Point of Entry
[Name]	厚	[Location]	

Table 3: Identified Combined Overflow Points

Column 1 Asset ID	Column 2 Asset Name	Column 3 Regulators or Combined Sewer Storage Asset ID	Column 4 Overflow Location (Latitude & Longitude)	Column 5 Point of Entry
[ID]	[Name]	[Location]	[Location]	

Combined Sewer Structures

1.6 The following are identified regulators and combined sewage storage structures

Table 4: Identified Combined Sewer Overflow Regulators

Column 1 Asset ID/Name	Column 2 Site Location (Latitude & Longitude)	Column 3 Volume (m3)	Column 4 Overflow Location (Latitude & Longitude)
[Name]	[Location]		

Table 5: Identified Combined Sewage Tanks and Facilities

Column 1 Asset ID/Name	Column 2 Site Location (Latitude & Longitude)	Column 3 Volume (m3)	Column 4 Overflow Location (Latitude & Longitude)
[Name]	[Location]		

Schedule C

Schedule C: Authorization to Alter the Sewage Collection System

System Owner	\${OWNERNAME}
ECA Number	\${ECANO}
System Name	\${SYSTEMNAME}
ECA Effective Date	\${MONTH} \${DAY}, \${YEAR}

^{*}Placeholder for Director approved alterations (via direct submission applications) to the system subject to an ECA application submission. Schedule Cs are numbered forms with a description of the works to be constructed.

Once constructed, a Director notification form is submitted, and the Schedule C form is revoked and incorporated into Schedule B upon commission.

Below is what would be seen in subsequent renewals of the ECA. The first issuance of this ECA will have the below section blank.*

1.0 General

- **1.1** Table 5 provides a reference list of all documents to be incorporated into Schedule C that have been issued as of the date that this ECA was issued.
 - 1.1.1 Table 5 is not intended to be a comprehensive list of all documents that are part of Schedule C. For clarity, any document issued by the Director to be incorporated into Schedule C after this ECA has been issued is considered part of this ECA.

Table 5: Schedule C Documents

Column 1 Issue #	Column 2 Issued Date	Column 3 Description	Column 4 Status	Column 5 DN#

1.2 For each document described in columns 1, 2 and 3 of Table 5, the status of the document is indicated in column 4. Where this status is listed as 'Archived', the approved alterations have been completed and relevant portions of this ECA have been updated to reflect the altered works. These 'Archived' Schedule C documents remain as a record of the alterations.

Schedule D: Genera

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System Owner	\${OWNERNAME}
ECA Number	\${ECANO}
System Name	\${SYSTEMNAME}
ECA Effective Date	\${MONTH} \${DAY}, \${YEAR}

1.0 **Definitions**

1.1 For the purpose of this environmental compliance approval, the following definitions apply:

"ACB list" means the Ministry document entitled "Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants", as amended:

"Acceptable Point of Impingement Concentration" concentration accepted by the Ministry as not likely to cause an adverse effect for a Compound of Concern that,

- Is not identified in the ACB list, or a)
- b) Is identified in the ACB list as belonging to the category "Benchmark 2" and has a concentration at a Point of Impingement that exceeds the concentration set out for the contaminant in that document.

With respect to the original ESDM Report, the Acceptable Point of Impingement Concentration for a Compound of Concern mentioned above is the concentration set out in the Original ESDM Report:

"Adverse Effect" has the same meaning as in the EPA, as amended;

"Appurtenance" has the same meaning as in O. Reg. 525/98, as amended:

"Average Daily Flow" means the cumulative total sewage flow to the Sewage Treatment Plant during a calendar year divided by the number of days during which sewage was flowing to the Sewage Treatment Plant that year;

"Class Environmental Assessment Project" means an Undertaking that does not require any further approval under the EAA if the planning process set out in the MEA class environmental assessment document is followed and successfully completed.

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- "Combined Sewer" means pipes that collect and convey both wastewater from residential, commercial, institutional and industrial buildings and facilities and stormwater runoff through a single-pipe system, but do not include Nominally Separate Sewers;
- "Combined Sewer Overflow (CSO)" means a discharge to the environment from a Combined Sewer or Partially Separated Sewer that usually occurs as a result of precipitation when the capacity of the sewer is exceeded; An intervening time of twelve hours or greater separating a CSO from the last prior CSO at the same location is considered to separate one overflow event from another;
- "Compound of Concern" means a contaminant described in paragraph 4 of subsection 26 (1) of the O. Reg. 419/05, namely, a contaminant that is discharged from the Facility in an amount that is not negligible;
- "Contaminant" has the same meaning as in the EPA, as amended;
- "CWA" means the Clean Water Act, R.S.O. 2006, c.22, as amended;
- "**Director**" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;
- "District Manager" means the District Manager or a designated representative of the appropriate local office of the Ministry, where the Works are geographically located;
- "Dry Weather Flow" means sewage flow resulting from both sanitary sewage, and infiltration and inflows from pundation 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, as amended;
- "ECA" means an Environmental Compliance Approval;
- "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 Sewage Collection 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; or,
 - c) deleterious adverse impact to the natural environment

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- "Emission Summary Table" means a table described in paragraph 14 of subsection 26 (1) of O. Reg. 419/04;
- **"EPA"** means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
- **"Equipment"** means equipment or processes described in the ESDM Report, this ECA and in the Schedules referred to herein and any other equipment or processes;
- **"Event"** means an action or occurrence, at a given location within the Works that causes an Overflow. An Event ends when there is no recurrence of the Overflow at the same location in the 12-hour period following the last Overflow;
- "Facility" means the entire operation located on the property where the Equipment is located;
- "Hauled Sewage" means the same as defined under RRO 990, Regulation 347;
- "Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the Professional Engineers Act;
- **"Log"** means a document that contains a record of each change that is required to be made to the ESDM Report, including the date on which the change occurred;
- **"Minister"** means the Minister of the Environment, Conservation and Parks;
- "Ministry" means the ministry of the government of Ontario responsible for the EPA, CWA and OWRA and includes all officials, employees or other persons acting on its behalf;
- "Municipal Sewage Collection System" means a sewage system or part of a sewage system, excluding plumbing, whose Ownership is in accordance with O. Reg 208/19, and is established for the purpose of collecting sewage from users of the system and includes:
 - a) Anything used for the collection, storage, pumping, transmission, or discharge of sewage, excluding treatment (e.g. satellite systems);
 - b) Anything used for the management of residue from collection system or the management of the discharge of a substance into the natural environment from the collection system

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- c) That for greater certainty does not include anything within the property line of the sewage treatment facility.
- "Municipal Waste Management Site" means any facilities or equipment used in, and any operations carried out for, the management of waste including the collection, handling, transportation, storage, processing or disposal of waste, and may include one or more waste disposal sites;
- "Natural Environment" means the same as in the EPA, as amended;
- "Noise Screening Documents" means the completed Primary Noise Screening Method or the completed Secondary Noise Screening Method with supporting information and documentation, as amended;
- "Nominally Separate Sewers" mean Sanitary 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 a municipal sewage collection system, the person or entity that is given responsibility by the Owner for the operation, management, maintenance or alteration of the system;
- "Overflow" means a discharge to the environment from the Municipal Sewage Collection System or the treatment system, other than the approved treated effluent disposal facilities;
- "Owner" means the [Municipality or Municipal Services Board], and includes its successors and assignees;
- "OWRA" means the Ontario Water Resources Act, R.S.O. 1990, c. O.40, as amended;
- "Part II Order" means an order issued by the Minister that makes a Class Environmental Assessment Project an Undertaking that is subject to Part II of the EAA:
- "Partially Separated Sewers" mean Combined Sewers that have been retrofitted to convey sanitary sewage but in which roof leaders or foundation drains still contribute stormwater inflow to the separated sewer;
- "Peak Instantaneous Flow" means the instantaneous maximum flow rates as measured by a metering device;
- "Point of Entry" has some meaning as in the Wastewater Systems Effluent Regulations SCN/2012-139;
- "Point of Impingement" has the same meaning as in section 2 of O. Reg. 419/05;

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- "Pollution Prevention and Control Plan (PPCP)" means a plan developed for the Municipal Sewage Collection System to meet the goals of the Ministry's publication titled "F-5-5 Determination of treatment requirements for municipal and private combined", as amended;
- "Prescribed Persons" means persons prescribed as per O. Reg. 208/19, as amended;
- "Primary Noise Screening Method" means the Ministry Primary Noise Screening Method form as described in the "Primary Noise Screening Method Guide", January 31, 2017, as amended;
- "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;
- "Publication NPC-300" means the Ministry publication titled "Environmental Noise Guideline: Stationary and Transportation Sources Approval and Planning" dated August 2013, as amended;
- "Pumping Station Capacity" means the design Peak Instantaneous Flow of sewage which the sewage pumping station is designed to handle;
- "Rated Capacity" means the Average Daily Flow which the Sewage Treatment Plan is designed to handle;
- "Sanitary Sewer" means pipes that collect and convey wastewater from residential, commercial, institutional and industrial buildings;
- "Sanitary Sewer Overflow" means a release of sanitary sewage to the environment:
- "SCADA" means a supervisory control and data acquisition system used for process monitoring tomation, recording and/or reporting within the sewage system;
- "Secondary Noise Screening Method" means the Ministry Secondary Noise Screening Method form as described in the "Secondary Noise Screening Method Guide", January 31, 2017, as amended;
- "Sensitive Receptor" means any location where routine or normal activities occurring at reasonably expected times would experience adverse effect(s) from discharges from the Facility to the atmosphere, including one or a combination of:
 - a) private residences or public facilities where people sleep (e.g.: single and multi-unit dwellings, nursing homes, hospitals, trailer parks, camping grounds, etc.);

- b) institutional facilities (e.g.: schools, churches, community centres, day care centres, recreational centres, etc.);
- c) outdoor public recreational areas (e.g.: trailer parks, play grounds, picnic areas, etc.); and/or
- d) other outdoor public areas where there are continuous human activities (e.g.: commercial plazas and office buildings).
- "Sewage" has the same meaning as in the OWRA, as amended;
- "Sewer" has the same meaning as in O. Reg. 525/98, as amended;
- "Significant Drinking Water Threat" has the same meaning as in the CWA, as amended;
- "Significant Drinking Water Threat Policy(ies)" has the same meaning as in the CWA, as amended:
- "Source Protection Authority" has the same meaning as in the CWA, as amended;
- **"Source Protection Plan"** means a drinking water source protection plan prepared under the CWA;
- "Spill" means the same as defined under O. Reg. 675/98, as amended;
- "Storm Sewer" means pipes that collect and convey runoff resulting from precipitation and snowmelt;
- "Stormwater" means rainwater runoff, water runoff from roofs, snowmelt and surface runoff;
- "Undertaking" has the same meaning as in the EAA, as amended;
- "Vulnerable Area" has the same meaning as in the CWA; as amended;
- "Wet Weather Flow" means the combined sewage flow resulting from sanitary sewage, infiltration and inflows from foundation drains or other drains resulting from rainfall or snowmelt, and stormwater runoff that enters the combined sewer system;
- **"Works"** means the sewage works described in the Owner's application, this ECA, and the alterations authorized under Schedule D, conditions 4, 5 and 6.

2.0 Applicability

2.1 In addition to any other requirements, the Municipal Sewage Collection System identified in Schedule B shall use, operate, establish, alter, extend or replace in accordance with the conditions of this ECA.

3.0 Alterations to the Municipal Sewage Collection System

- 3.1 Any document issued by the Director as a Schedule C to this ECA shall provide authority to alter the Municipal Sewage Collection System in accordance, where applicable, with the conditions of this ECA.
- 3.2 All Schedule C documents issued by the Director for the Municipal Sewage Collection System shall form part of this ECA.
- 3.3 Any addition, modification, replacement or extension of the Municipal Sewage Collection System authorized through Schedule D of this ECA is to be accompanied by an engineering assessment and technical information as outlined in O. Reg. 255/11 and the ministry's publication titled "Guide to applying for an environmental compliance approval", as amended.
- 3.4 The Owner shall notify the Director through the Director Notification form within thirty (30) days of the placing into service or the completion of any addition, modification, replacement or extension of the Municipal Sewage Collection System which had been authorized through:
 - 3.4.1 Schedule D to this ECA which would require an alteration of the description of a Municipal Sewage Collection System component described in Schedule B of this ECA;
 - 3.4.2 Any Schedule C to this ECA respecting works other than sewers or forcemains; or
 - 3.4.3 Any other approval issued prior to the issue date of this ECA.
- 3.5 For greater certainty, the notification requirements set out in condition 3.4 do not apply to any addition, modification, replacement or extension in respect of the Municipal Sewage Collection System which:
 - 3.5.1 Is exempt from section 53(6) of the OWRA or by O. Reg. 525/98;
 - 3.5.2 Constitutes routine maintenance or repair of the municipal sewage collection system; or
 - 3.5.3 Is a sewer or forcemain authorized by condition 4.1 of Schedule D of this ECA.
- 3.6 The Owner shall notify the Director through the Director Notification form within ninety (90) days of the discovery of existing works not documented in Schedule B, or if changes in the description are more of existing works in Schedule B.

- 3.7 The Owner shall notify the Prescribed Persons of any part of the Municipal Sewage Collection System, if any, of the requirements of this ECA.
- 3.8 For greater certainty, any alteration to the Municipal Sewage Collection System made in accordance with this ECA may only be carried out after other legal obligations have been complied with including those arising from the Environmental Assessment Act, Niagara Escarpment Planning and Development Act, Oak Ridges Moraine Conservation Act, 2001 and Greenbelt Act, 2005
- 3.9 The Owner and/or the Prescribed Persons shall install and maintain temporary sediment and erosion control measures during any construction activity on the municipal sewage collection system, including conducting inspections once every two (2) weeks and a reach significant storm event (a significant storm event is defined as a minimum of 25 mm of rain in any 24 hours period). The inspections and maintenance of the temporary sediment and erosion control measures shall continue until they are no longer required and at which time they shall be removed and all disturbed areas reinstated properly.
- 3.10 The Owner and/or the Prescribed Persons shall maintain records of inspections during any construction activity on the Municipal Sewage Collection System and make them available to the Ministry, upon request. The record shall include the name of the inspector, date of inspection, visual observations, and the remedial measures, if any, undertaken to maintain the temporary sediment and erosion control measures.
- 4.0 Authorizations of Future Alterations for Sanitary Sewers, Nominally Separate Sewers and Forcemains Additions, Modifications, Replacements and Extensions
 - **4.1** The Municipal Sewage Collection System may be altered by adding, modifying, replacing or extending a sanitary sewer, nominally separate sewer or forcemain within the Municipal Sewage Collection System subject to the following conditions:
 - 4.1.1 The design of the sanitary sewer, nominally separate sewer or forcemain 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 set out in the Ministry publication "Design Criteria for Sanitary Sewers, Storm Sewers and Forcemains dated November 2019" as amended;

- d) Is consistent with or otherwise addresses the design objectives contained within the Ministry publication "Design Guidelines for Sewage Works, 2008", as amended; and
- e) Includes design considerations to protect sources of drinking water, as may be included in a Standard Operating Policy for Sewage Works and Implementing Source Protection Policies developed by the Ministry, or Policy summaries published on the Environmental Registry (Posting #012-2968), as amended.
- 4.1.2 The maximum discharge/generation of sewage by users who will be serviced by the addition, modification, replacement or extension of the sanitary sewer, nominally separate sewer or forcemain will not result in:
 - a) an exceedance of the rated capacity of a sewage treatment system or the pumping station capacity as specified in this ECA; or,
 - b) the creation of adverse effects; or
 - c) any increased overflows or deterioration of quality, within the municipal sewage collection system; or,
 - any increase in the frequency and/or volume of bypasses or overflows, or any deterioration of quality, within the municipal sewage treatment facility.
- 4.1.3 The sanitary sewer, nominally separate sewer or forcemain addition, modification, replacement or extension will not adversely affect the municipal sewage collection system's ability to maintain a gravity flow without surcharging any maintenance holes or privately owned infrastructure (e.g. basements) or resulting in environmental discharge, provide smooth flow transition to existing gravity sewers, minimize the generation of sulfides and other odourous compounds at all points in the collection system.
- 4.1.4 The sanitary sewer, nominally separate sewer or forcemain addition, modification, replacement or extension is wholly located within the municipal boundary over which the Owner has jurisdiction.
- 4.1.5 The Owner of the Municipal Sewage Collection System consents in writing to the sanitary sewer, nominally separate sewer or forcemain addition, modification, replacement or extension.
- 4.1.6 A Licensed Engineering Practitioner has verified in writing, as per condition 4.3, that the sanitary sewer, nominally separate sewer or

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forcemain addition, modification, replacement or extension meets the requirements of condition 4.1.1.

- 4.1.7 The Owner has verified in writing that the sanitary sewer, nominally separate sewer or forcemain addition, modification, replacement or extension has complied with inspection and testing requirements in the Ministry publication "Design Criteria for Sanitary Sewers, Storm Sewers and Forcemains dated November 2019", as amended.
- 4.1.8 The Owner of the Municipal Sewage Collection System has verified in writing, as per condition 4.3, that the sanitary sewer, nominally separate sewer or forcemain addition, modification, replacement or extension meets the requirements of conditions 4.1.2 to 4.1.7.
- 4.2 The authorization for the addition, modification, replacement or extension of a sanitary sewer, nominally separate sewer or forcemain provided for in condition 4.1 does not include the addition, modification, replacement or extension of a sanitary 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:
 - 4.2.2 Has a nominal diameter greater than 750 mm;
 - 4.2.3 Is a combined sewer or partially separated sewer;
 - 4.2.4 Connects to another municipal sewage collection system, unless:
 - a) Prior to construction, the Owner of the Municipal Sewage Collection 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 Municipal Sewage Collection System seeking the connection 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.
 - 4.2.5 Creates a new discharge point to the natural environment;
 - 4.2.6 Is part of an Undertaking for which a request to issue a Part II Order has been submitted to the Ministry; or
 - 4.2.7 Is part of an Undertaking for which a Part II Order has been issued by the Minister.
- **4.3** The verifications required in conditions 4.1.6, 4.1.7 and 4.1.8 shall be:

- 4.3.1 Recorded on "Form SS1 Record of Sanitary Sewers / Nominally Separate Sewers / Forcemains Authorized as a Future Alteration", as published by the Ministry, prior to the sanitary sewer, nominally separate sewer or forcemain addition, modification, replacement or extension being placed into service; and
- 4.3.2 Retained for a period of 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 addition, modification, replacement or extension in respect of the Municipal Sewage Collection System which:
 - 4.4.1 Is exempt from section 53(6) of the OWRA or by O. Reg. 525/98
 - 4.4.2 Constitutes maintenance or repair of the municipal sewage collection system.
- 4.5 The document(s) or file(s) referenced in Column 1 of Table 1 of Schedule f this ECA shall be updated in accordance with condition 1.3 of Schedule B to include sanitary sewer, nominally separate sewer or forcemain additions, modifications, replacements and extensions within 12 months of the addition, modification, replacement or extension.
- 5.0 Authorizations of Future Alterations for Combined Sewers and Partially Separated Sewers Modifications, Replacements and Decommissioning
 - **5.1** The Municipal Sewage Collection System may be altered by modifying or replacing a combined sewer subject to one of the following conditions:
 - 5.1.1 The purpose of the project is to restore the combined sewer, overflow regulator and/or outfall to good condition and there is no increase in potential overflow event duration, frequency, volume or deterioration of quality
 - 5.1.2 The purpose of the project is to reduce pollutant loading to the natural environment through construction of new separate sewers for stormwater and sanitary sewage, and:
 - a) The combined sewer separation is undertaken in accordance with a Pollution Prevention Control Plan that covers, at minimum, the municipal sewage collection system; and
 - b) Stormwater quantity, quality and water balance control will be provided such that combined sewer separation will not result in an overall increase in pollutants discharged to the natural environment.
 - 5.1.3 The purpose of the project is to contribute to ultimate attainment of the capture and treatment for an average year all the dry weather

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flow plus a minimum of 90% of the volume resulting from wet weather flow that is above dry weather, and:

- a) The volume control criterion is applied:
 - i For a seven-month period commencing within 15 days of April 1; and
 - ii To the flows collected by the sewer system immediately above each overflow location unless it can be shown through modelling and on-going monitoring that the criterion is being achieved on a system-wide basis.
- b) No increases in CSO volumes above existing levels at each outfall will be allowed except where the increase is due to the elimination of upstream CSO outfalls; and
- c) During the remainder of the year, at least the same storage and treatment capacity should be maintained for treating wet weather flow.
- 5.2 In addition to condition 5.1, the Municipal Sewage Collection System may be altered by modifying or replacing a combined sewer or a partially separated sewer subject to the following conditions:
 - 5.2.1 The design of the combined sewer or partially separated sewer modification or replacement:
 - 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 set out in the Ministry publication "Design Criteria for Sanitary Sewers, Storm Sewers and Forcemains dated November 2019" as amended; and,
 - d) Is consistent with or otherwise addresses the design objectives contained within the Ministry publication "Design Guidelines for Sewage Works, 2008", as amended.
 - e) Includes design considerations to protect sources of drinking water, as may be included in a Standard Operating Policy for Sewage Works and Implementing Source Protection Policies developed by the Ministry, or Policy summaries published on the Environmental Registry (Posting #012-2968), as amended.

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- 5.2.2 The maximum discharge/generation of sewage by users who will be serviced by the modification or replacement of the combined sewer or partially separated sewer will not result in:
 - a) an exceedance of the rated capacity of a wastewater treatment system or the pumping station capacity as specified in this ECA; or,
 - b) the creation of adverse effects; or
 - c) any increased overflows or deterioration of quality, within the municipal sewage collection system; or,
 - any increase in the frequency and/or volume of bypasses or overflows, or any deterioration of quality, within the municipal wastewater treatment facility.
- 5.2.3 The combined sewer or partially separated sewer modification or replacement will not adversely affect the municipal sewage collection system's ability to maintain a gravity flow without surcharging any maintenance holes (e.g. basements), provide smooth flow transition to existing gravity sewers, minimize the generation of sulfides and other odourous compounds at all points in the municipal sewage collection system.
- 5.2.4 The combined sewer or partially separated sewer modification or replacement is wholly located within the municipal boundary over which the Owner has jurisdiction.
- 5.2.5 The Owner of the Municipal Sewage Collection System consents in writing to the combined sewer or partially separated sewer modification or replacement.
- 5.2.6 A Licensed Engineering Practitioner has verified in writing, as per condition 5.4, that the combined sewer or partially separated sewer modification or replacement meets the requirements of condition 5.2.1.
- 5.2.7 The Owner has verified in writing that the combined sewer or partially separated sewer modification or replacement has complied with inspection and testing requirements in the Ministry publication "Design Criteria for Sanitary Sewers, Storm Sewers and Forcemains dated November 2019", as amended.
- 5.2.8 The Owner of the Municipal Sewage Collection System has verified in writing, as per condition 5.4, that the combined sewer or partially separated sewer modification or replacement meets the requirements of conditions 5.2.2 to 5.2.7.

- 5.3 The authorization for the modification or replacement of a combined sewer or partially separated sewer provided for in conditions 5.1 and 5.2 does not include the modification or replacement of a combined sewer or partially separated sewer that:
 - 5.3.1 Has a nominal diameter greater than 750 mm;
 - 5.3.2 Connects to another municipal sewage collection system, unless:
 - a) Prior to construction, the Owner of the Municipal Sewage Collection 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 Municipal Sewage Collection System seeking the connection 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 Creates a new discharge point to the natural environment.
- **5.4** The verifications required in conditions 5.2.6, 5.2.7 and 5.2.8 shall be:
 - 5.4.1 Recorded on "Form CS1 Record of Combined Sewer or Partially Separated Sewer Authorized as a Future Alteration", as published by the Ministry, 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 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 modification or replacement in respect of the Municipal Sewage Collection System which:
 - 5.5.1 Is exempt from section 53(6) of the OWRA or by O. Reg. 525/98
 - 5.5.2 Constitutes maintenance or repair of the municipal sewage collection system.
- The document(s) or file(s) referenced in Column 1 of Table 1 of Schedule B of this ECA shall be updated in accordance with condition 1.3 of Schedule B to include combined sewer or partially separated sewer modifications or replacements within 12 months of the modification or replacement.
- 6.0 Authorizations of Future Alterations to Components of the Municipal Sewage Collection System
 - **6.1** The Municipal Sewage Collection System may be altered as follows:

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- 6.1.1 Add, modify or replace storage for sanitary sewers or nominally separate sewers, including:
 - a) In-line and/or off-line storage to manage peak flow and excess inflow and infiltration that does not use electricity;
 - 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.
- 6.1.2 Modify Existing Sewage Pumping Stations, including:
 - 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;
 - e) Odour control;
 - f) Instrumentation and controls;
 - g) Discharge and process piping;
 - h) Valves; and,
 - i) Wet-wells
- 6.1.3 Add New Sewage Pumping Stations, where it:
 - a) Is designed to convey an instantaneous peak flow of up to 30 L/s;
 - b) Includes emergency stand-by power, spill containment and an alarm system (SCADA, if applicable);
 - c) Includes emergency storage designed to provide at minimum 2 hours of response time at peak flows;
 - d) Includes odour control, as applicable;

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- e) Serves a new residential development which may include existing residential development that has no combined sewers;
- f) Is designed to serve the phased residential development;
- g) Only collects sanitary sewage and not stormwater run-off; and,
- h) Does not include an emergency sanitary overflow or piping to a stormwater pond or a natural receiver to prevent the discharge to the surface
- 6.1.4 Add new or replace real-time physical control structures, where:
 - a) The station will be operated locally (i.e. not remotely);
 - b) The system includes a failsafe such that failure will not result in basement flooding or an unauthorized discharge:
 - c) Station control structure set-points will be operated locally (i.e. not remotely);
 - d) Station alarms to control center;
 - e) Indicator lights or alarms at station; and,
 - f) Flow controlled on level or flow rate.
- 6.1.5 Valves and their associated controls installed for maintenance purposes;
- 6.1.6 Instrumentation for monitoring, including SCADA systems, and software associated with these monitoring devices;
- 6.1.7 Spill containment works for chemicals used within the sewage collection system.
- 6.2 The Municipal Sewage Collection System may be altered by adding, modifying, replacing or removing the following components:
 - 6.2.1 Chemical metering pumps and chemical handling pumps;
 - 6.2.2 Chemical storage tanks (including fuel storage tanks) with spill containment and associated equipment; or,
 - 6.2.3 Measuring and monitoring devices that are not required by regulation, by a condition in this ECA, or by a condition otherwise imposed by the Ministry.

- **6.3** The Municipal Sewage Collection System may be altered by the following:
 - 6.3.1 Add, modify, or replace process piping;
 - 6.3.2 Replace fuel storage tanks and spill containment works, and associated equipment;
- Any alteration of the Municipal Sewage Collection System made under conditions 6.1, 6.2, or 6.3 is subject to the following conditions:
 - 6.4.1 The design of the alteration:
 - a) Has been prepared by a Licensed Engineering Practitioner in respect to alterations made under conditions 6.1.1, 6.1.3 and 6.1.4;
 - b) Is consistent with or otherwise addresses the design objectives contained within the Ministry publication "Design Guidelines for Sewage Works, 2008", as amended; and,
 - c) Includes design considerations to protect sources of drinking water, as may be included in a Standard Operating Policy for Sewage Works and Implementing Source Protection Policies developed by the Ministry, or Policy summaries published on the Environmental Registry (Posting #012-2968), as amended.
 - 6.4.2 The maximum discharge/generation of sewage by users who will be serviced by the alterations will not result in:
 - a) an exceedance of the rated capacity of a sewage treatment system or the pumping station capacity as specified in this ECA; or,
 - b) the creation of adverse effects; or
 - c) any increased overflows or deterioration of quality, within the municipal sewage collection system; or,
 - any increase in the frequency and/or volume of bypasses or overflows, or any deterioration of quality, within the municipal sewage treatment facility.
 - 6.4.3 The alteration will not adversely affect the municipal sewage collection system's ability to maintain a gravity flow without surcharging any maintenance holes (e.g. basements), provide smooth flow transition to existing gravity sewers, minimize the generation of sulfides and other odorous compounds at all points in the municipal sewage collection system.

- 6.4.4 The alteration is wholly located within the municipal boundary over which the Owner has jurisdiction.
- 6.4.5 The Owner of the Municipal Sewage Collection System consents in writing to the alteration.
- 6.4.6 A Licensed Engineering Practitioner has verified in writing, as per condition 6.7, that the alteration meets the requirements of condition 6.4.1.
- 6.4.7 The Owner of the Municipal Sewage Collection System has verified in writing, as per condition 6.7, that the alteration meets the requirements of conditions 6.4.2 to 6.4.6.
- 6.5 Any alteration of the Municipal Sewage Collection System made under conditions 6.1, 6.2 or 6.3 shall not result in:
 - 6.5.1 Exceedance of uncommitted reserve hydraulic capacity of the downstream:
 - a) conveyance system including sewage pumping stations; or,
 - b) combined sewer overflow structures or facilities; or,
 - c) receiving sewage treatment facilities.
 - 6.5.2 A decrease in existing pumping station capacity
 - 6.5.3 An adverse effect on the approved effluent quality, performance and/or operation of sewage treatment facilities;
 - 6.5.4 A negative impact on the ability to undertake monitoring necessary for the operation of the municipal sewage collection system; or
 - 6.5.5 An adverse effect, as defined in the EPA.
- 6.6 The Owner shall verify in writing, as per condition 6.7, that any addition, modification, replacement or removal of Municipal Sewage Collection System components in accordance with conditions 6.1, 6.2 or 6.3 has met the requirements of the conditions listed in condition 6.5.
- Prior to the alteration, the verifications and documentation required in conditions 6.4.6, 6.4.7 and 6.6 shall be:
 - 6.7.1 Recorded on "Form SS2 Record of Alterations to a Municipal Sewage Collection System", as published by the Ministry; and
 - 6.7.2 Retained for a period of ten (10) years by the Owner.

- 6.8 For greater certainty, the verification requirements set out in conditions 6.6 and 6.7 do not apply to any addition, modification, replacement or removal in respect of the Municipal Sewage Collection System which:
 - 6.8.1 Is exempt from section 53(6) of the OWRA or by O. Reg. 525/98
 - 6.8.2 Constitutes routine maintenance or repair of the municipal sewage collection system.
- 6.9 The Owner shall update, within 12 months of the alteration of the works, any drawings maintained for the Municipal Sewage Collection System to reflect the alterations of the works, where applicable.
- 6.10 The document(s) or file(s) referenced in Column 1 of Table 1 of Schedule B of this ECA shall be updated, as applicable, in accordance with condition 1.3 of Schedule B to include alterations of the Municipal Sewage Collection System within 12 months of the alterations.

7.0 Equipment with Emissions to the Air

- 7.1 The Municipal Sewage Collection System may be altered by adding, modifying or replacing any of the following Municipal Sewage Collection System components that may discharge or alter the rate or manner of a discharge of a compound of concern to the atmosphere:
 - 7.1.1 Any equipment, apparatus, mechanism or thing that is used for the transfer of outdoor air into a building or structure that is not a cooling tower;
 - 7.1.2 Any equipment, apparatus, mechanism or thing that is used for the transfer of indoor air out of a space used for the production, processing, repair, maintenance or storage of goods or materials, including chemical storage;
 - 7.1.3 Low temperature handling of compounds with a vapor pressure of less than 1 kilopascal;
 - 7.1.4 Maintenance welding stations;
 - 7.1.5 Minor painting operations used for maintenance purposes;
 - 7.1.6 Parts washers for maintenance shops;
 - 7.1.7 Emergency chlorine gas scrubbers and absorbers;
 - 7.1.8 Venting for odour control units;
 - 7.1.9 Natural gas or propane fired boilers, water heaters, space heaters and make-up air units with a total facility-wide heat input rating of

less than 20 million kilojoules per hour, and with an individual fuel energy input of less than or equal to 10.5 gigajoules per hour; or

- 7.1.10 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 Subject to Condition 7.2.2, the Owner shall not discharge or cause or permit the discharge of a Compound of Concern into the air if:
 - a) The Compound of Concern is identified in the ACB list as belonging to the category "Benchmark 1" and the discharge results in the concentration at a Point of Impingement exceeding the Benchmark 1 concentration; or
 - b) The Compound of Concern is not identified in the ACB list as belonging to the category "Benchmark 1" and the discharge results in the concentration at a Point of Impingement exceeding the higher of:
 - If an Acceptable Point of Impingement Concentration exists, the most recent Acceptable Point of Impingement Concentration, and
 - ii The concentration set out for the contaminant in the ACB list, if the contaminant is identified in that document.
 - 7.2.2 Condition 7.2.1 does not apply if the benchmark set out in the ACB list has a 10-minute averaging period and no ambient monitor indicates an exceedance at a Point of Impingement where human activities regularly occur at a time when those activities regularly occur.
 - 7.2.3 The Owner shall, at all times, take all reasonable measures to minimize odorous emissions and odour impacts from all potential sources at the Facility, including the following conditions:
 - a) If the facility is within 1,000 metres of a sensitive receptor, the Owner shall prepare an Odour Best Management Practices Plan according to the Ministry's publication titled "Best

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Management Practices for Industrial Sources of Odour", dated January 31, 2017, as amended;

- b) The Owner shall update and revise the Odour Best Management Practices Plan:
 - i Within three (3) months of alterations to sources or installation of odour control equipment;
 - ii Every twelve (12) months from the date of this ECA, or at a frequency directed or agreed to in writing by the District Manager.
- c) The Owner shall maintain the updated Odour Best Management Practices Plan at the Facility and make them available to Ministry staff upon request; and implement, at all times, the most recent version with sixty (60) days of an update.
- 7.2.4 The Owner shall ensure that the noise emissions from the Facility comply with the limits set out in Ministry Publication NPC-300.
- 7.2.5 The Owner shall ensure that the vibration emissions from the Facility comply with the limits set out in Ministry Publication NPC-207.
- 7.3 The Owner shall not add, modify or replace a Municipal Sewage Collection System component set out in condition 7.1 for an activity that is not directly related to municipal sewage collection and conveyance.
- 7.4 The emergency generators identified in condition 7.1.10 shall not be used for non-emergency purposes 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 works in accordance with condition 7.1 has met the requirements of the conditions listed in conditions 7.2 to 7.4.
- **7.6** The verifications and documentation required in condition 7.5 shall be:
 - 7.6.1 Recorded on "Form A1 Record of Addition, Modification or Replacement of Equipment Discharging a Contaminant of Concern to the Atmosphere from a Municipal Sewage Collection System", as published by the Ministry, prior to the additional, modified or replacement equipment being placed into service; and
 - 7.6.2 Retained for a period of 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 Municipal Sewage Collection System which:
 - 7.7.1 Is exempt from the requirements of the EPA; or
 - 7.7.2 Constitutes maintenance or repair of municipal sewage collection system.
- 7.8 The Owner shall update, within 12 months of the alteration of the works, any drawings maintained for the works to reflect the addition, modification or replacement of the works, where applicable.

8.0 Previously Approved Works

8.1 The Owner may add, modify, replace or extend, and operate part of a Municipal Sewage Collection System if permitted through a previously issued approval and the approval was revoked by virtue of the issuance of this ECA.

Schedule E: Operating Conditions

System Owner	\${OWNERNAME}
ECA Number	\${ECANO}
System Name	\${SYSTEMNAME}
ECA Effective Date	\${MONTH} \${DAY}, \${YEAR}

1.0 General Conditions

- 1.1 The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Municipal Sewage Collection System is notified of this ECA and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
- 1.2 Except as otherwise provided by these conditions, the Owner and/or the Prescribed Persons shall design, build, install, operate and maintain the Works in accordance with the description given in this ECA, and the application for approval of the municipal sewage collection system.
- 1.3 Where there is a conflict between a provision of any document in the schedule referred to in this ECA and the conditions of this ECA, the conditions in this ECA shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.
- 1.4 The conditions of this ECA are severable. If any condition of this ECA, or the application of any requirement of this ECA to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this ECA shall not be affected thereby.

2.0 General Operations

- 2.1 The Owner shall ensure that, at all times, the Municipal Sewage Collection System and the related equipment and appurtenances used to achieve compliance with this ECA are properly operated and maintained. Proper operation and maintenance shall include effective performance, adequate funding, adequate operator staffing and training, including training in all procedures and other requirements of this ECA 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 municipal sewage collection system.
- 2.2 The Owner shall provide for the overall operation of the Municipal Sewage Collection System an operator who holds a Licenth that is applicable to that type of facility and that is of the same class as or higher than the class of the facility in accordance with Ontario Regulation 129/04.

3.0 Duties of Owners and Operating Authorities

- 3.1 Every Owner of this Municipal Sewage Collection System and the operating authority, if an operating authority is responsible for the operation of the system, shall ensure the following:
 - 3.1.1 That, at all times in which it is in service, the municipal sewage collection system,
 - is operated in accordance with the requirements under the a) EPA.
 - b) is maintained in a state of good repair, and
 - satisfies the requirements of the standards prescribed for the c) system or the class of systems to which the system belongs.
 - 3.1.2 That the Municipal Sewage Collection System is operated by persons having the training or expertise for their operating functions that is required by the regulations and approval issued or granted for the system under the EPA.
 - 3.1.3 That all sampling, testing and monitoring requirements under the EPA that relate to the Municipal Sewage Collection System are complied with.
 - 3.1.4 That personnel at the Municipal Sewage Collection System are under the supervision of persons having the prescribed qualifications as required by regulation.
 - 3.1.5 That the persons who carry out functions in relation to the Municipal Sewage Collection System comply with such reporting requirements as may be prescribed or that are required by the conditions in this ECA issued or granted for the system under the EPA.
- 3.2 All reasonable steps shall be taken 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 municipal sewage collection system, including such accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.

4.0 **Operations and Maintenance**

4.1 Inspection

4.1.1 The Owner shall inspect the pumping stations, storage tanks, and any overflow points identified in Schedule B, at minimum once a year and more frequently if required by the operations and maintenance manual, and the Municipal Sewage Collection System identified in Schedule B, at minimum once every five (5) years, and, clean and maintain the Works to ensure the Works perform as designed.

- 4.1.2 The Owner shall inspect the pumping stations, storage tanks, and any overflow points authorized in Schedule D, at a minimum once a year and more frequently if required by the operations and maintenance manual, and the Municipal Sewage Collection System pre-authorized in Schedule D. at minimum once every five (5) years. and, clean and maintain the Works to ensure the Works perform as designed.
- 4.1.3 The inspection of the storage tanks required in conditions 4.1.1 and 4.1.2 shall include physical inspection at the point of entry, including looking for signs of unplanned discharges and conducting the inspection during both wet weather flow and dry weather flow.
- 4.1.4 The Owner shall maintain records of the results of the inspections required in condition 4.1.1 to 4.1.3, monitoring (if applicable) and any cleaning and maintenance operations undertaken, and shall keep the records at the Owner's administrative office for inspection by the Ministry. The records shall include the following:
 - the asset ID and name of the Works: a)
 - b) the date and results of each inspection, maintenance and cleaning; and
 - c) the name of the inspector or inspecting official.

4.2 Operations & Maintenance (O&M) Manual

- 4.2.1 The Owner shall prepare an O&M manual for works in the Municipal Sewage Collection System within twelve (12) months of the issuance date of this ECA, that includes or references, but is not necessarily limited to, the following information:
 - operating and maintenance procedures for routine operation a) of the municipal sewage collection system; inspection, repair and maintenance programs, including the frequency of inspection, repair and maintenance for the system and the methods or test employed to detect when maintenance is necessary;
 - b) operational and maintenance requirements to protect sources of drinking water, including those referenced in a Standard Operating Policy for Sewage Works and Implementing Source Protection polices developed by the Ministry, or Policy summaries published on the Environmental Registry (Posting #012-2968), as amended;

- c) 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.
- d) procedures for both primary (e.g. hardware) and secondary (e.g. against standards) calibration of monitoring equipment.
- e) Emergency Response, Spill Reporting and Contingency Plans and Procedures for dealing with equipment breakdowns, potential spills and any other abnormal situations, including notification to the Spills Action Centre (SAC), the Medical Officer of Health, and the District Manager; and
- f) procedures for receiving, responding and recording public complaints, including recording any follow-up actions taken.
- g) as-built drawings of the municipal sewage collection system.
- 4.2.2 The Owner shall maintain the O&M manual corrent and ensure that operating staff have access to a copy for each sewage pumping station for the operational life of the station, as per O. Reg 129/04. Upon request, the Owner shall make the manual available to Ministry staff.

4.3 Air Emissions

- 4.3.1 The Owner shall maintain an updated Log.
- 4.3.2 No later than March 31 in each year, the Owner shall update the ESDM Report in accordance with section 26 of O. Reg. 419/05 shall update the Noise Screening Documents so that the information in the reports is accurate as of December 31 in the previous year.
- 4.3.3 The Owner shall make the Emission Summary Table (see section 27 of O. Reg. 419/05) and the Noise Screening Documents available for examination by any person, without charge through publication on the Internet or by making it available during regular business hours at the Facility.

4.4 Overflows

- 4.4.1 Any Sanitary Sewage Pumping Station Overflow (PSO) or Sanitary Sewer Overflow (SSO) listed in Schedule B is prohibited, except:
 - a) in an Emergency Situation;
 - b) where the Sanitary Sewage PSO or SSO is a direct and unavoidable result of a planned maintenance procedure, the

Owner has notified the local Ministry office fifteen days prior to the Sanitary Sewage PSO or SSO and the local Ministry office has given written consent of the Sanitary Sewage PSO or SSO; or,

- c) where the Sanitary Sewage PSO or SSO is planned for research or training purposes, the Owner has notified the local Ministry office fifteen (15) days prior to the Sanitary Sewage PSO or SSO and the local Ministry office has given written consent of the Sanitary Sewage PSO or SSO.
- 4.4.2 Any Combined Sewage Pumping Station Overflow or Combined Sewer Overflow listed in Schedule B is prohibited, except:
 - a) in an Emergency Situation;
 - b) where the Combined Sewer PSO is as a result of unavoidable wet weather events; or
 - c) where the Combined Sewer PSO is a direct and unavoidable result of a planned maintenance procedure, the Owner has notified the local Ministry office fifteen (15) days prior to the Combined Sewer PSO and the local Ministry office has given written consent of the Combined Sewer PSO.

4.5 Monitoring

- 4.5.1 For SSO, PSO or CSO Events that occur at existing overflow points identified in Schedule B of this ECA, the following conditions apply:
 - a) For CSO storage tanks/facilities listed in Table 5, the Owner shall:
 - i 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 inlet shall be sampled. The composite sample shall consist of one sample at the beginning of the operation, one sample at every 4-hours, and one at the end of the operation of the CSO tank(s). The composite sample shall be analyzed, at a minimum, for BOD5, total suspended solids, total phosphorus, total Kjeldahl nitrogen, and E. Coli.
 - b) For regulated CSO structures listed in Table 4, and for any pumping station overflow locations listed under Table 2 or Table 3, the Owner shall:

- use surrogate sampling to determine the contaminant concentrations of the discharged overflow, at a minimum, for BOD5, total suspended solids, total phosphorus, total Kjeldahl nitrogen, and E. Coli. The methodology in determining, applying and analyzing surrogate sampling shall be recommended by the Owner and agreed upon by the District Manager.
- 4.5.2 The owner shall use the Event discharged volume and the concentrations as determined in condition 4.5.1 to calculate the loading to the natural environment for each parameter.
- 4.5.3 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) the Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only), as amended;
 - b) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;
 - the publication "Standard Methods for the Examination of c) Water and Wastewater", as amended.

5.0 Reporting

- 5.1 The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.
- 5.2 Combined Sewer Overflow (CSO)
 - 5.2.1 When a CSO Event occurs in a location identified in Schedule B of this ECA, the Owner shall notify the Ministry, as soon as reasonably possible, in an electronic format as required by the Ministry, along with the local Medical Officer of Health. This notice shall be reported in two (2) stages and include, at a minimum, the following information:
 - a) The Asset ID, the regulator or combined sewer structure location, the outfall location and the Point of Entry;
 - b) the reason(s) for the CSO Event;
 - c) First stage of reporting:

- i the date and time (start) of the CSO Event;
- d) Second stage of reporting:
 - i the date, duration and time (start and end) of the CSO Event;
 - ii the estimated or measured volume of the CSO, accurate to at least +/- 20% of the volume; and,
 - iii if any, summary of complaints, observed adverse impacts, and any additional sampling results and corrective measures undertaken at the direction of the Ministry or Medical Officer of Health.
- 5.2.2 If the Owner is unable to determine the volume of a CSO Event as per condition 5.2.1, the Owner shall have up to one year after the issuance of this ECA to develop and implement such a methodology and report as per condition 5.2.1.
- 5.2.3 The Owner shall follow the direction of the Ministry and the local Medical Officer of Health regarding the CSO Event;
- 5.2.4 The Owner and/or Operating Authority shall provide a summary of these events in the performance report, including the date, start of CSO Event, duration, and volume of combined sewer discharge.
- **5.3** Pumping Station Overflow (PSO)
 - 5.3.1 When a PSO Event occurs in a location identified in Schedule B of this ECA, the Owner shall notice the Ministry, as soon as reasonably possible, in an electronic format as required by the Ministry, along with the local Medical Officer of Health. This notice shall be reported in two (2) stages and include, at a minimum, the following information:
 - a) The Asset ID, the pumping station location, the outfall location and the Point of Entry;
 - b) the reason(s) for the PSO Event;
 - c) First stage of reporting:
 - i the date and time (start) of the PSO Event;
 - d) Second stage of reporting:
 - i the date, duration and time (start and end) of the PSO Event;

- ii the estimated or measured volume of the PSO, accurate to at least +/- 20% of the volume; and,
- iii if any, summary of complaints, observed adverse impacts, and any additional sampling results and corrective measures as directed by the Ministry or Medical Officer of Health.
- 5.3.2 If the Owner is unable to determine the volume of a PSO Event as per condition 5.3.1, the Owner shall have up to one year after the issuance of this ECA to develop and implement such a methodology and report as per condition 5.3.1.
- 5.3.3 The Owner shall follow the direction of the Ministry and the local Medical Officer of Health regarding the PSO Event;
- 5.3.4 The Owner shall provide a summary of these events in the performance report, including the date, start of PSO Event, duration, and volume of pumping station discharge.
- **5.4** Sanitary Sewer Overflow (SSO)
 - 5.4.1 When a SSO Event occurs in a location identified in Schedule B of this ECA, the Owner shall notify, as soon as reasonably possible, the Spills Action Centre (SAC) in a manner prescribed by the Director, and in an electronic format if the Ministry makes a system available, along with the local Medical Officer of Health. This notice shall be reported in two (2) stages and include, at a minimum, the following information:
 - a) The Asset ID, the outfall location and the Point of Entry;
 - b) the reason(s) for the SSO Event;
 - c) First stage of reporting:
 - i the date and time (start) of the SSO Event;
 - d) Second stage of reporting:
 - i the date, duration and time (start and end) of the SSO Event:
 - ii the estimated or measured volume of the SSO, accurate to at least +/- 20% of the volume; and,
 - iii if any, summary of complaints, observed adverse impacts, and any additional sampling results and

corrective measures as directed by the direction of the Ministry or Medical Officer of Health.

- 5.4.2 If the Owner is unable to determine the volume of a SSO Event as per condition 5.4.1, the Owner shall have up to one year after the issuance of this ECA to develop and implement such a methodology and report as per condition 5.4.1.
- 5.4.3 The Owner shall follow the direction of the Ministry and the local Medical Officer of Health regarding the SSO Event;
- 5.4.4 The Owner shall provide a summary of these events in the performance report, including the date, start of SSO Event, duration, and volume of sanitary sewer discharge.
- 5.5 Notwithstanding conditions 5.2.1, 5.3.1 and 5.4.1, if the CSO, PSO or SSO Event meets the definition of a spill as per the EPA and O. Reg. 675/98, the Owner shall report the Event as a Class 1 spill to the Spills Action Centre (SAC) in a manner as prescribed by the Director, and in an electronic format if the ministry makes a system available, along with the local Medical Officer of Health.
- 5.6 The Owner shall prepare and submit electronically in a format acceptable to the Ministry a performance report to the Director and a copy to the District Manager, or as otherwise specified by the Director, on or before March 31st of each year. The report shall contain, but shall not be limited to, the following information:
 - 5.6.1 a summary and interpretation of all monitoring data, including raw data, as required in this ECA, including an overview of the success and adequacy of the municipal sewage collection system;
 - 5.6.2 a description of any operating problems encountered and corrective actions taken;
 - 5.6.3 a summary of all maintenance and repairs carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the municipal sewage collection system;
 - 5.6.4 a summary of the calibration and maintenance carried out on all monitoring equipment;
 - 5.6.5 a summary of any complaints received during the reporting period and any steps taken to address the complaints;
 - 5.6.6 a summary of all Works under Forms SS1, SS2, CS1, A1 and Schedule C's that were pre-authorized and/or installed during the reporting period, including a list of alterations that pose a Significant

Drinking Water Threat. Accompanying the summary will be a statement by the Owner, certified by a Licensed Engineering Practitioner, that Works associated with pumping stations and CSO tanks were constructed in accordance with the engineered specifications and drawings:

- 5.6.7 a summary of all PSOs, CSOs, SSOs, spill or abnormal discharge events, including dates, volumes and durations and loadings for TSS, BOD5, TP, TKN and E.coli;
- 5.6.8 a summary of efforts made to achieve conformance with Procedures F-5-1 or F-5-5 (as applicable) including but not limited to:
 - a) projects undertaken and completed in the sanitary sewer 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) establish /maintain a Pollution Prevention and Control Plan (PPCP), including a summary of project progresses compared to the PPCP's timelines;
 - an assessment of the effectiveness of each action taken under c) condition 6.6.8;
 - d) ability to meet Procedure F-5-1 or F-5-5 objectives (as applicable) and, if not meeting, an overview of next steps and estimated timelines to meet objectives;
 - public reporting approach including proactive efforts. e)
- 5.7 The report described in condition 5.6 shall be:
 - 5.7.1 Made available, on request, to members of the public who are served by the Municipal Sewage Collection System without charge; and
 - 5.7.2 Made available, by June 1st, to members of the public without charge through publication on the Internet, if the Owner maintains a website on the Internet
- 5.8 The Owner shall retain for a minimum of ten (10) years from the date of their creation, all records, reports and information related to or resulting from the operation, maintenance and monitoring activities required by this ECA.

6.0 Review of ECA

- 6.1 No later than the date identified in Schedule A of this ECA, the Owner shall submit to the Director an application to have the ECA reviewed. The application shall include, at minimum, the following information:
 - 6.1.1 an updated description of the Works, including any modifications to the Works that were made since the ECA was last reviewed in accordance with the terms and condition of this ECA.
 - 6.1.2 any other information requested by the Director.

7.0 **Source Protection**

- 7.1 The Owner shall ensure that the Works are designed, constructed and operated in such a way as to be protective of sources of drinking water in vulnerable areas.
- 7.2 The Owner shall prepare a report within six (6) months of the issuance date of this ECA, that includes, but is not necessarily limited to:
 - 7.2.1 an outline of the circumstances under which the Works pose a significant threat to sources of drinking water based on the Director's Technical Rules established under the Clean Water Act, 2006 as amended:
 - 7.2.2 an outline of how the Owner screens the Works to identify drinking water threats under the Clean Water Act;
 - 7.2.3 a summary of the design considerations and mitigating measures during operation of the Works that protect sources of drinking water, and
 - 7.2.4 a list of which components of the Works were found to be a Significant Drinking Water Threat.
- 7.3 The Owner shall maintain the report in section 7.2 current, for the operational life of the Works, and upon request, the Owner shall make the report available to the Ministry or Source Protection Authority staff.

8.0 **Additional Studies**

- 8.1 If the Municipal Sewage Collection System has no combined sewers or partially separated sewers and has bypasses or overflows:
 - 8.1.1 The Owner shall conduct an assessment of wet weather flows to the sewage treatment plants described in Schedule A compared to the dry weather flows from the Municipal Sewage Collection System described in Schedule B as per the following conditions:

- a) The study shall evaluate available data from the past 10 (ten) years as of the date of the ECA;
- b) The study shall be completed and submitted to the Director within 18 months of the date that this ECA is issued;
- c) In the event that wet weather flows in the past 10 years have created bypasses or overflows at the sewage treatment plant in more than 1% of storm events, or, overflows in the collection systems as a result of storms less that 25mm over a 24 hour duration, then the study shall include:
 - i Actions and timelines to meeting the Procedure F-5-1 objectives;
 - ii Review of causes of overflow and bypass events, including inflow and infiltration and characteristics of rainfall events, as applicable;
 - iii Inspection of the sewers and bypass structures;
 - iv Identification of any near and/or long-term corrective actions with anticipated timelines.
- **8.2** If the Municipal Sewage Collection System has bypasses or overflows as a result of combined sewers or partially separated sewers:
 - 8.2.1 The Owner shall conduct an assessment to demonstrate conformance of the Municipal Sewage Collection System to Procedure F-5-1 or F-5-5, as applicable, in accordance with the following conditions:
 - a) The assessment shall:
 - i Be prepared by a Licensed Engineering Practitioner is submitted to the Director within 18 months of the date that this ECA is issued;
 - ii Be performed for each of the past ten (10) years as of the date of the ECA;
 - iii Include the number of overflows in the collection systems as a result of storms less that 25mm over a 24 hour duration for each year;
 - iv Include the estimated length of combined sewers and separated sewers within the collection system.

- v Include the date of the most recent Pollution Prevention Control Plan;
- vi Include the status of each action items mentioned in the Pollution Prevention Control Plan, as applicable;
- vii Include a summary of additional action items not specified in a Pollution Prevention Control Plan which have been taken to prevent overflows within the collection system in the previous 10 years from the date of the ECA issuance:
- viii Timelines to meeting Procedure F-5-5 objectives.
- 8.2.2 The Owner shall arrange to submit a new or updated Pollution Prevention Control Plan to the Director, within three (3) years of issuance of the ECA, if.
 - a) no Pollution Prevention and Control Plan exists for the municipal sewage collection system, or
 - b) the Pollution Prevention and Control Plan for the Municipal Sewage Collection System is older than ten (10) years after the ECA is issued.
- 8.2.3 The Owner shall ensure that an updated Pollution Prevention Control Plan is prepared within ten (10) years of the date of issuance of the previous Pollution Prevention Control Plan.
- 8.3 The Owner shall arrange to prepare a new/updated sewer model, within three (3) years of issuance of the ECA, if:
 - 8.3.1 no sewer model exists for the system, or
 - 8.3.2 the system's sewer model is older than ten (10) years after the ECA is issued.

Schedule F: Residue Management

System Owner	\${OWNERNAME}
ECA Number	\${ECANO}
System Name	\${SYSTEMNAME}
ECA Effective Date	\${MONTH} \${DAY}, \${YEAR}

^{*}Placeholder for residue management systems if the municipality has them and they have been approved by the ministry. This is a direct application submission and as such nothing to populate below as of yet. Terms and Conditions will be populated as required and informed by ministry review of the direct application submissions*

1.0 Residue Management System

1.1 The following waste management sites, sewage works and waste management systems are considered part of the Municipal Sewage Collection System described in this ECA.

Item 1

Location	
UTM Coordinates	
Description	

2.0 Terms & Conditions

2.1 The operation of the residue management systems described in condition (above) are subject to the following conditions