Appendix B to Report PW-08-25
(Water Summary Report)

Town of Lincoln



Summary Report

Town of Lincoln Stormwater and Wastewater Systems

JANUARY 1, 2024 – DECEMBER 31, 2024

Preamble

This report was prepared by the Director, Public Works, Supervisor, Operational Engineering and Manager, Regulatory Compliance for the Owner of the Lincoln Stormwater and Wastewater Systems and, the Corporation of the Town of Lincoln, to be presented to Council at the Committee of the Whole meeting on July 7, 2025.



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APPENDIX A
Consolidated Linear Infrastructure Environmental Compliance Approval Stormwater Management (067-S701)

APPENDIX B
Consolidated Linear Infrastructure Environmental Compliance Approval Sewage Collection System (067-W601)



1. Definitions

CLI ECA	Consolidated Linear Infrastructure Environmental Compliance Approval
EA	Environmental Assessment
MECP	Ontario Ministry of the Environment, Conservations and Parks
OIC	Operator-in-Charge, as per Ontario Regulation 128/04
OIT	Operator-in-Training, as per Ontario Regulation 128/04
ORO	Overall Responsible Operator, as per Ontario Regulation 128/04
QMS	Quality Management System
I/I	Inflow and Infiltration
CSO	Combined Sewer Overflow
SSO	Sanitary Sewer Overflow



2. Purpose

Consolidated Linear Infrastructure Applications (CLI ECA) provide a modernized approach to low-risk municipal linear infrastructure permissions. This applies to sanitary sewage conveyance also referred to as wastewater and stormwater management (e.g., sewers) and includes pre-authorization conditions similar in scope to municipal drinking water. The goal of CLI ECA is to reduce the burden on municipalities, developers and the ministry, while imposing a consistent set of conditions intended to improve environmental protection.

An annual report for each system is required by the Ministry of the Environment, Conservations and Parks (MECP) to be prepared. CLI ECAs are issued under the Environmental Protection Act (EPA) to fulfill requirements in section 53 of the Ontario Water Resources Act (OWRA).

The MECP Annual Reports for 2024 have been prepared and are attached as Appendix A and B for Council approval. Once approved by Council they will be made available to the public via the internet or for viewing and pick up at Town Hall.

This summary report is the compilation of the MECP Annual Reports for both the Lincoln Stormwater and Wastewater Systems.

To enhance the communication and understanding of both reports, this Annual Summary Report contains additional non-legislated information on stormwater management and wastewater operations.



3. System Overview

The Lincoln Stormwater System services municipal residents in the urban areas of the Town of Lincoln by collecting stormwater runoff. The system is comprised of a network of storm sewers, stormwater management ponds that control both stormwater quantity and quality and oil grit separators that control stormwater quality. The stormwater collection and management systems outlet to various natural drainage courses, creeks, etc., in the community.

The Lincoln Wastewater Collection System services municipal residents in Beamsville, Jordan, Vineland, and Campden urban areas. The collection system services approximately 6680 households. The wastewater collection system's sewage is treated at the Niagara Region's Baker Road Wastewater Treatment Plant located in the Town of Grimsby. The Niagara Region owns and operates a number of wastewater pumping stations within the Town of the Lincoln located on Ontario Street (Beamsville), Victoria Avenue (Vineland), Laurie Avenue (Prudhommes), Twenty-First Street (Jordan), Bridgeport Drive (Jordan Station) and Fly Road (Campden).

The Town of Lincoln was issued an ECA for wastewater (067-W601) on August 31, 2022, and an ECA for stormwater (067-S701) on March 28, 2023. The system infrastructure is broken down as follows:

Stormwater

The Town owned system infrastructure consists of approximately:

- 48 kilometers of gravity storm sewer main in Beamsville
  - > 1819 catch basins
- 23 kilometers of gravity storm sewer main in Jordan-Vineland
  - > 1091 catch basins
- 14 Stormwater management ponds
- 6 Oil grit separators

Wastewater

The Town owned system infrastructure consists of approximately:

- 54 kilometers of sanitary sewer main in Beamsville
  - > 824 manholes
- 31.5 kilometers of sanitary sewer main in Jordan-Vineland-Campden
  - > 465 manholes





4. Compliance

Water Quality Testing

The Town of Lincoln is required by CLI-ECA 067-S701, Schedule E, Section 5.2 and 067-W601, Schedule E, Section 4.6 to prepare annual performance reports detailing the operation of the Town of Lincoln Stormwater Management and Sewage Collection Systems. The report must be submitted to the Director on or before March 31 and cover the proceeding calendar year. The report must be made available to the Public by June 1st and can be found on the Town's website and by request.

Stormwater

The Town accomplished the following:

- 1008 catch basins cleaned
- 316 double catch basins cleaned
- 2 oil grit separators cleaned
- high priority storm infrastructure systems in preparation of forecasted storm events were inspected
- annual stormwater management pond inspections
- 5814m of ditching completed
- 356m of culvert replacements

Wastewater

The Town promptly responded to:

- 13 sewer back up complaints
- 0 lateral replacement
- 1527m of CCTV data collection
- sewer flushing
- flow monitor data collection at 18 sites
- 20 manholes rehabilitated
- 806m of full-length sewer lining
- 380 laterals CCTV data collection

Sewer lateral back up complaints are usually related to blockage in the service pipe typically from tree roots or can be related to fats/oils/grease (FOGs) build up or a pipe condition/joint deficiency. Sanitary sewer lateral failures are related to a damaged or poor condition pipe unable to function as intended.

5. Training and Competency

Operator training is required by law to maintain wastewater licenses and ensure competency. In 2024, training records were reviewed for all licensed operators in an ongoing effort to ensure that staff remain competent and participate in training opportunities that are engaging and relevant to Town operations.

Operators and key wastewater staff participated in several diverse course offerings in 2024 aimed at broadening their knowledge. This included training in Operation and Maintenance for Sewer Collection Systems, Lateral Assessment and Certification, Pipeline Assessment Certification, and Manhole Assessment Certification.

6. Infrastructure

Capital Projects and Purchases

The Town updated the ten-year capital forecast plan to ensure that it represents the most current wastewater and stormwater system improvement needs.

Stormwater

- Completed Town wide stormwater management pond and oil grit separator condition assessments in collaboration with the Town of Grimsby and the Township of West Lincoln.
- Completed the detailed design work for the rehabilitation of the Ashby Drive SWM pond
- Storm sewer sections installed on Durham Road from King Street to the South Service Road
- New storm sewer design work on Lincoln Avenue from King Street to Greenlane Road
- New storm sewer and triple culvert replacement design work on Greenlane Road Phase 1 from Lincoln Avenue to Konkle Creek
- William Street neighbourhood area storm sewer replacement design

Wastewater

- 2024 targeted I/I Reduction Program focusing on the Beamsville Ontario Street sewershed
- Ontario Street sanitary sewer upgrade from Greenlane Road to King Street
- William Street neighbourhood area sanitary sewer replacement design



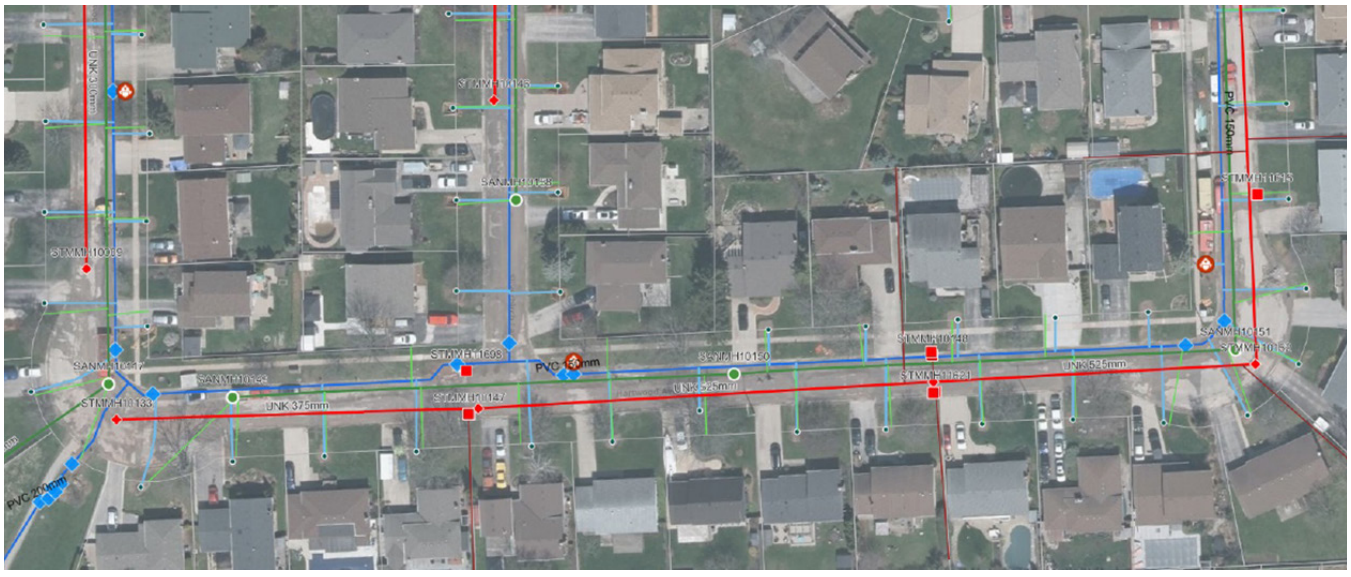


7. Asset Management Plan (AMP) and Geographic Information System (GIS)

In 2022, The Town initiated the collection of the georeferenced data for key infrastructure assets including stormwater, water, and sanitary systems. This effort included field verification to enhance the Town's GIS mapping system, supporting more efficient day to day operations. The data collection contributed to a more comprehensive infrastructure asset database which assisted in the Town's 2025 Asset Management Plan Update.

The Town continues to build upon the GIS so that it can help Public Works teams to efficiently locate, maintain, and manage infrastructure like water, storm and sanitary systems. Accurate GIS information supports faster emergency response, better decision-making, and long-term asset planning. Additionally, it ensures regulatory compliance and improves communication with the public.

To comply with provincial regulations, the Town updated its Asset Management Plan (AMP), which was due by July 1, 2025. The updated AMP included proposed levels of service and a financial strategy to support sustainable infrastructure planning. It serves as a vital tool for identifying and addressing the Town's current and future infrastructure needs. The AMP also informs Committee, Council, and the public about the Town's infrastructure and the rationale behind key decisions. As a critical resource, the AMP supports evidence-based decision-making and strengthens the partnership between Council and staff in prioritizing, planning, and investing in the Town's infrastructure.



8. Region of Niagara

Master Servicing Plan 2025-2026 Update

Niagara Region is initiating an update to their Water and Wastewater Master Servicing Plan incorporating 2051 growth forecast and a full buildout scenario. The objective will be to identify and develop a long-term wastewater servicing strategy and capital forecast to ensure level of service for existing and future residents and businesses. This will support future growth in the community to 2051 and consider potential impacts beyond 2051. Town Engineering staff are participating in the Regional MSP update which aims to review the level of service, system management/operations design standards, sustainability/climate change and future growth needs.

Niagara Region Baker Road WWTP Pollution Prevention and Control Plan and Master Servicing Plan

The Baker Road wastewater treatment plant (WWTP) wastewater system (Baker Road System) services Grimsby, the communities of Beamsville, Campden, Jordan and Jordan Station, and Vineland in the Lincoln area, and the Smithville area in West Lincoln. The Baker Road system is a two-tier wastewater treatment and collection system. The Region is responsible for the treatment and trunk conveyance of flow through the Region's network of pumping stations, force mains, and major trunk sewers and the local area municipalities (LAMs) are responsible for the collection of wastewater flows from customers through the municipally owned and operated local collection systems. The Baker Road WWTP Pollution Prevention and Control Master Plan (Baker Rd PPCP) is a regional lead study in partnership with the Town of Lincoln, Grimsby and West Lincoln and was last updated in 2021.

The Baker Rd PPCP & MSP Update provides Strategic Sewer Management Guidance that:

- Quantify existing and future levels of service;
- Analyze sewer overflows and provide opportunities to reduce or eliminate, where feasible;
- Eliminate, reduce, and/or delay inflow and infiltration (I/I);
- Enhance the wastewater collection system infrastructure, including facilities;
- Support long-term growth and sustainability; and,
- Identify a clear implementation plan.



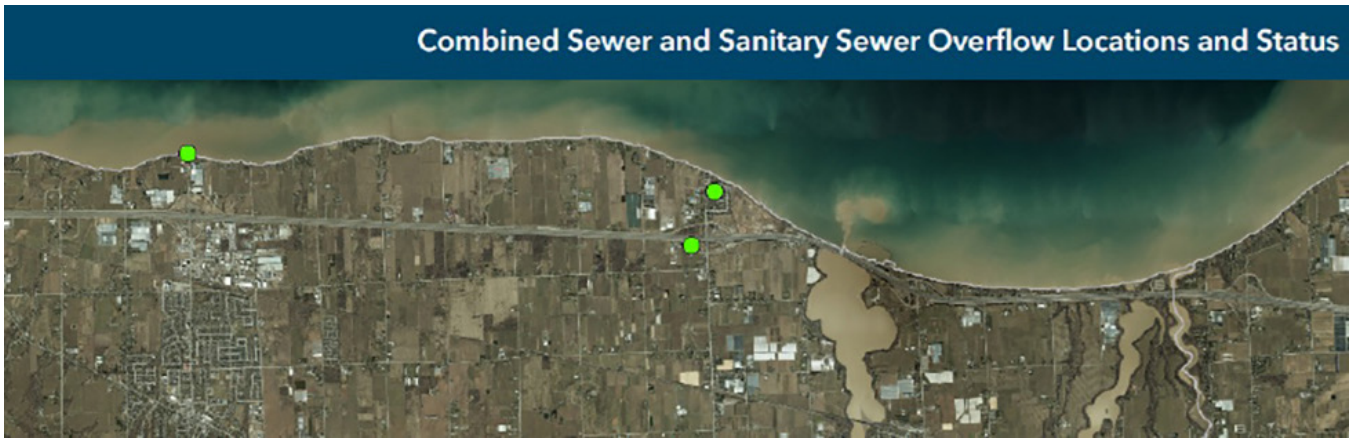
Niagara Region CSO and SSO Location and Status Map

In 2025 the Niagara Region will offer public access to near real-time GIS mapping of combined sewer overflows and sanitary sewer overflows on their website, complete with detailed information and contact resources. Updated every 15 minutes, the data is sourced from the Region's Supervisory Control and Data Acquisition (SCADA) system. The interactive map displays all regional overflow outfall locations, showing where wastewater exits the infrastructure and enters the natural environment. Each location will include an information tab with specific details, and the map will feature a legend to help users interpret the data easily.

Website: [The Niagara Region CSO & SSO Locations and Status]

The Town of Lincoln has 3 Sanitary Sewer Overflow locations within its town limits:

- Ontario Street SPS
- Laurie Avenue SPS
- Victoria Avenue SPS



9. Monitoring and Improvement Initiatives

Inflow and Infiltration (I/I) Reduction Program

Approximately every five years, the Region in combination with Grimsby, Lincoln and West Lincoln are required to complete a Pollution Prevention and Control Plan (PPCP) for the Baker Road Wastewater Treatment Plan Service Area. As part of the PPCP areas of concern are identified due to capacity constraints from inflow or infiltration (I/I) and I/I Reduction Programs are recommended to help free up capacity for potential growth. I/I programs can include sewer and lateral replacements, sewer and maintenance hole rehabilitation such as lining or spot repairs and downspout and foundation drain/sump pump disconnections. While the I/I programs play a role in supporting growth, they also reduce future capital and operating costs associated with the collection and treatment of non-sanitary water and protect the environment and residents' homes.

The Town's Asset Management Plan and Condition Assessment information, in combination with the Region led PPCP identify focus areas and projects. The Town was also a leader in the Region by being the first to implement Subdivision Flow Monitoring to ensure that sanitary sewer systems are constructed properly before assumption. Since 2023 the Town has been working on an Inflow and Infiltration Reduction Program with a focus on the Ontario Street Catchment area. This program is working towards a continued focus on identifying and removing the extraneous flows or I/I to adapt to climate change and support growth in advance of Regional infrastructure being upgraded (Ontario Street Pump Station and sewer).

The targeted inflow and infiltration (I/I) reduction program is intended to identify sources of I/I in the Town's sanitary sewer systems. In the Baker Road Pollution Prevention Control Plan and early phases of the Region's 2021 Master Service Plan, priority areas were identified for the Town to locate and address sources of Inflow and infiltration to support growth and development while also ensuring that the Region and Town adhere to regulatory requirements for sanitary sewer overflows.

The inflow and infiltration portion of the annual program could include the following activities:

- Targeted flow monitoring
- Maintenance hole and lateral Inspections
- Smoke and dye testing
- Drainage surveys of potential private side sources
- Development of public communication materials
- Review and evaluation of study findings
- Development of action items to inflow and infiltration removal
- Sanitary lateral inspections and rehabilitation



The I/I Reduction Program also focuses on rehabilitation needs on improving our wastewater system by removing groundwater and runoff from entering the system. The works in this program range from full sanitary sewer mainline, maintenance hole and lateral replacements to "trenchless" rehabilitation options including lining, grout and spot repairs. These works ensure that the sanitary sewer system is considered "tight" and generally free of inflow and infiltration to reduce the risk of basement flooding and support additional flows across Town. The removal of I/I in the system supports the avoidance of potential sewer upsizing over and above the identified upsizing along Ontario Street. The removal of I/I also potentially allows for additional growth in advance of pumping station improvements to be completed by the Region. Additionally, identification and removal of the inflow and infiltration will reduce the likelihood of basement flooding, sanitary sewer overflows at downstream Regional pumping stations and provide capacity in the sewers for growth. Reducing Inflow and Infiltration within the Town's sanitary sewer collection system ultimately helps reduce treatment costs at the wastewater treatment plant.

The Town's Sanitary Sewer Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) regulates the Town's requirement for reducing, monitoring and reporting sanitary sewer operations. Procedure F-5-5 also identifies the requirements for treatment and discharge of sanitary sewer discharges to surface waters. Both of these require the sanitary sewer system be maintained to avoid potential environmental discharges and/or basement flooding. Flow monitoring is included in the annual program to support confirmation of success from rehabilitation and replacement works completed as part of this program.

The Town's Inflow and Infiltration (I/I) Reduction Program received substantial financial support through the Region's Combined Sewer Overflow (CSO) Grant Program, with a total contribution of $465,500 in 2024. The Town continues to actively apply for funding through the CSO Grant Program as opportunities become available.



Smart Cover Monitoring System Technology

Since 2018, the Town has utilized three Smart Cover Monitoring Systems to help monitor and provide alerts when wet weather flows are high. These systems serve as a proactive risk management tool to assist the Town in identifying elevated flow levels in real time. The Smart covers are strategically placed in areas where there is a potential risk of basement flooding during wet weather events, and the Town is currently focusing on Ontario Street Sewershed. The Smart Covers are portable and can be relocated to different manholes, allowing for flexible monitoring at various locations as needed. The Town continues to monitor potential locations to implement Smart cover technology.





Fats/Oils/Grease (FOG) Campaign

In Q4 2024, the Town launched a proactive fats, oils, and grease (FOG) awareness campaign to educate residents about the issues caused by pouring FOG down the drain. When fats, oils, and grease enter the plumbing system, they can solidify and build up over time, leading to blockages, sewer backups, and even basement flooding.

Proper disposal protects your home, your neighbours, and the environment. Residents are encouraged to use the FREE FOG Cup to collect fats, oils, and grease, and then dispose of the contents in a certified organics bin.

Examples of FOGS commonly found in homes and restaurants are:

- Butter or margarine
- Cooking oils (including deep fryer oils)
- Lard
- Marinades
- Meat fats
- Milk and cream
- Olive oil
- Salad dressings
- Sandwich spreads
- Sauces and gravies
- Shortening



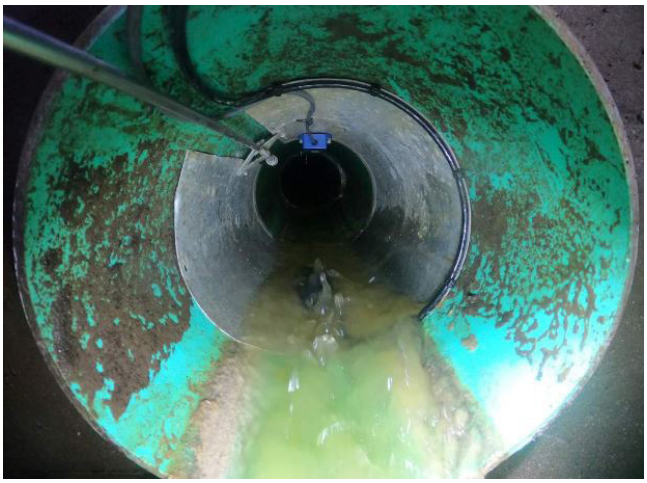
The Wege Small Cities Sustainability Best Practices Award – Jordan Village Improvement Project Stormwater Management

The Town of Lincoln was recognized for its leadership in sustainability by the Great Lakes and St. Lawrence Cities Initiative. May 30, 2024 – The Great Lakes & St. Lawrence Cities Initiative (Cities Initiative) recognized the work of the Town of Lincoln for its Low Impact Development (LID) practices integrated into the Jordan Village Improvement project. The town was one of two winning submissions of the Wege Small Cities Sustainability Best Practices Award, which recognizes meaningful projects that balance economic, social and environmental aspects of protecting water quality that could be used as a best practice inspiration for other cities.

The Jordan Village Improvement project is innovative in its integration of LID techniques, such as soil cells, engineered soils, and oil grit separators. These measures go beyond traditional infrastructure improvements, showcasing a commitment to sustainable development. The project contributes significantly to the community impact on Great Lakes and St. Lawrence River water resources by addressing the Twenty Mile Creek watershed issues identified by the Niagara Peninsula Conservation Authority. It mitigates nutrient loading, stormwater pollutants, and erosion, directly impacting water quality in Jordan Harbor and Lake Ontario.

The Wege Small Cities Sustainability Best Practices Award was created to support and recognize small cities, with populations of under 100,000 and with limited resources, who demonstrate leadership in tackling water quality issue while ensuring economic vitality and social equity.







10. Staffing

The Town currently has a complement of a Manager of Operations, a Supervisor of Environmental Services and seven (7) Water/Wastewater Maintenance Operators.

License Renewals

There were four Wastewater Operator licenses renewed in 2024.

License Upgrades

There were no Wastewater Operator license upgrades in 2024.



11. Spotlight on 2025

Capital Projects

- Final stages of the Ontario Street Sanitary Sewer Upgrade from Greenlane to King Street
- Sann Road Drainage Assessment and Study in the area of Sann Road and the CN Tracks (Golden Horseshoe Estates, Capreit Limited).
- Ashby Drive Stormwater Management Pond Outlet Retrofit will focus on maintenance work to improve the pond outlet for proper function
- Inflow and Infiltration (I/I) Reduction Program focusing on the Ontario Street Sewershed including Rehabilitation and Flow Monitoring Investigations
- William Street sanitary sewer replacement design and I/I investigations
- Master Serving Update to the Town's Sanitary and Water Models
- New storm sewer construction on Lincoln Avenue from King Street to Greenlane
- New storm sewer and triple culvert replacement on Greenlane Phase 1A from Lincoln Avenue to Konkle Creek

Regional Capital Projects

- Laurie Avenue Wastewater Pumping Station Upgrade (Prudhommes)
- Water and Wastewater Master Servicing Plan Update
- Jordan Valley SPS and Force Main Upgrades
- Victoria Avenue SPS and Force Main Upgrades

Proactive Initiatives

The Town is developing a Backwater Valve Subsidy Program to help support residents and reduce the risk of basement flooding during heavy rainfall or sewer system surges.

A backwater valve is a device that can be installed in a sewer service pipe to prevent wastewater from backing up into the basement during an overload. The program will offer financial assistance for the installation of backwater valves and may also require the disconnection of sump pumps from the sanitary sewer, if applicable to ensure proper drainage.

More information will be forthcoming once the program is fully developed.

Growth and Looking Forward

As the Town's stormwater and wastewater systems continue to grow combined with the new responsibilities triggered by the new CLI-ECA requirements, additional Regulatory Compliance staffing resources are needed.

Staff are recommending developing a proactive storm CCTV program to gain condition assessment of the Town's storm sewer systems as per the recommendations from the 2025 AMP. Staff will be including proposed funding for a phased implementation approach in the draft 2026 budget for council's consideration.







Appendix A

Consolidated Linear Infrastructure Environmental Compliance Approval Stormwater Management (067-S701)

Ontario

ENVIRONMENTAL COMPLIANCE APPROVAL
For a Municipal Stormwater Management System

ECA Number: 067-S701
Issue Number: 1

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

Lincoln, The Corporation of the Town of

4800 South Service Rd 0
Beamsville, ON L0R 1B1

For the following Sewage Works:

Lincoln Stormwater Management System

This Environmental Compliance Approval (ECA) includes the following:

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

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

DATED at TORONTO this 28th day of March, 2023

Signature



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

Schedule A: System Information

System Owner	**Lincoln, The Corporation of the Town of**
ECA Number	**067-S701**
System Name	**Lincoln Stormwater Management System**
ECA Issue Date	**March 28th, 2023**

1.0 ECA Information and Mandatory Review Date

ECA Issue Date	March 28th, 2023
Application for ECA Review Due Date	September 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 Other Documents

Document Title	Version
Design Criteria for Sanitary Sewers, Storm Sewers, and Forcemains for Alterations Authorized under Environmental Compliance Approval	v.1.2 (Jan 23, 2023)

3.0 Stormwater Master Plan and Asset Management Plan

Document Title	Version
Road R.O.W Service Asset Management Plan – 2021	v.1 (March, 2022)
Water and Wastewater Asset Management Plan	v.1 (March, 2022)
Bartlett Creek Master Drainage Plan Update Study	v.1 (November, 1995)
Campden Master Drainage Plan	v.1 (July, 2010)
NPCA-Subwatersheds	N/A
NPCA Watershed Plan 20 Mile Creek	N/A
NPCA Watershed Plan 15-16-18 Mile Creek	N/A

4.0 Operating Authority

System	Operating Authority
The Corporation of the Town of Lincoln	Town of Lincoln

Schedule B: Municipal Stormwater Management System Description

System Owner	**Lincoln, The Corporation of the Town of**
ECA Number	**067-S701**
System Name	**Lincoln Stormwater Management System**
ECA Issue Date	**March 28th, 2023**

1.0 System Description

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

Overview

The Municipal Stormwater Management (SWM) System serving the Town of Lincoln's drainage area is a separate system for stormwater within the Lake Ontario watershed. The Municipal SWM System consists of storm sewers, culverts, ditches, Stormwater Management Facilities and outlets.

This ECA covers the Municipal SWM System owned and operated by the Town of Lincoln. This ECA does not cover privately owned sewage works on industrial or commercial land.

Sewage Collection System

1.2 The Authorized System comprises:

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

Table B1: Infrastructure Map

Column 1 Document or File Name	Column 2 Date
Map Beamsville North 2021	January, 2021
Map Beamsville South	February, 2020
Master Servicing Plan Beasmville Storm System	December, 2016
Master Servicing Plan Jordan/Vineland Storm System	December, 2016
Unassumed Jordan Station	February, 2020
Unassumed Prudhommes	February, 2020
Unassumed Vineland	February, 2020
Unassumed Vineland East & Jordan	January, 2023

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

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

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

Stormwater Collection System

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

Table B2. Stormwater Collection System by Diameter

System Type	Pipe Diameter (mm)	Length (km)	System Totals (km)
Storm Sewers	Up to 250	6.6	--
Storm Sewers	> 250 - 500	20.4	--
Storm Sewers	> 500 - 1050	24.9	--
Storm Sewers	> 1050	6.5	--
Total Storm Sewers		--	
Ditches / Swales	NA	--	
Total System Length (km)		58.4	

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

Facility Type	Basic Treatment for Suspended Solids*	Normal Treatment for Suspended Solids *	Enhanced Treatment for Suspended Solids *	Other Treatment Level for Suspended Solids**	Total Quality Control	Total Quantity Control	Total Number of Facilities
LID Facilities - Retention (infiltration, evapotranspiration, harvest)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LID Facilities - Filtration	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Stormwater	N/A	10	N/A	N/A	10	N/A	10

Management Ponds – Wet (includes wetlands, hybrids)							
Stormwater Management Ponds - Dry	4			N/A	4	N/A	4
Super Pipe / Storage Facility	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Filtration MTD - Filter Unit	N/A	N/A	N/A	N/A	N/A		N/A
Sedimentation MTD - OGS	N/A	6	N/A	N/A	6		6
Pumping Stations							N/A
Other	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Number of Facilities	4	16	N/A	N/A	20	N/A	20

* Basic, normal, and enhanced treatment correspond to 60%, 70% and 80% suspended solids removal on an annual average long-term basis, respectively.

** Treatment levels below 60% suspended solids removal on an annual average long-term basis.

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

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

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

Stormwater Management Facilities

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

SWM10001 - Cherry Heights Extension Wet Pond

Location	Fracchioni Drive, Beamsville (43.162368, -79.474153)
Watershed/Subwatershed	Bartlett Creek to Lake Ontario
Receiver of discharge	N/A
Outlet location	N/A

Catchment Area	11.7 ha
Level of Treatment for suspended solids	Enhanced
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	100-yr
Reference ECA(s)	N/A
Reference Sewage Works as part of treatment train	N/A
Brief Description	Primary quality treatment is provided in a sediment forebay
Receive Emergency Sanitary Overflows	No
Notes	"Stormwater management facility (catchment area 86 ha, imperviousness 29 %): - one (1) wet pond, with sediment forebay, located at the north-western limit of the property, having a permanent pool volume of 4424 cubic metres, an extended detention volume of 3446 cubic metres, an active storage volume of approximately 12698 cubic meters for the 100-year storm event, receiving inflow via one (1) 1500 mm diameter concrete storm sewer and headwall and one (1) 900 mm diameter storm sewer and headwall, complete with concrete lined spillway, discharging via one (1) 525 mm diameter outlet pipe with 67 mm orifice plate for the extended detention volume and one (1) DICB 600 mm x 1200 mm with one (1) 500 mm diameter orifice plate for the 100-year storm event via rip rap lined swale into the existing creek (Bartlett Creek).

SWM10002 - Forest Hills Estates Wet Pond

Location	Mountain Street, Beamsville (43.15500,-79.47764)
Watershed/Subwatershed	Bartlett Creek to Lake Ontario
Receiver of discharge	Branch of Bartlett Creek
Outlet location	43.15500,-79.47764
Catchment Area	10.9 ha
Level of Treatment for suspended solids	N/A
Treatment for other	N/A

Contaminants, as required	
Level of Volume control	N/A
Design Storm	N/A
Reference ECA(s)	3-0182-97-006 April 16, 1997
Reference Sewage Works as part of treatment train	N/A
Brief Description	Storm water management pond comprising a permanet pool storage of 306m3, extended detention storage of 239m3 to be slowly released over a 24 hour period though a hickenbottom pipe and orifice control outlet structure for quality control and additional attenuation storage for the control of total peak runoff from the site, including external drainage area.
Receive Emergency Sanitary Overflows	No
Notes	Fenced, east side of Mountain St, S of Douglas St

SWM10003 - Grandview Heights

Location	Cassandra Dr, Beamsville (43.156473, -79.479395)
Watershed/Subwatershed	Bartlett Creek to Lake Ontario
Receiver of discharge	West Branch of Bartlett Creek
Outlet location	43.15655665075213, -79.47880054528876
Catchment Area	57.2ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	Quantity: 100-yr 6 hour SCS storm
Reference ECA(s)	9508-6RZN8A July 25, 2006
Reference Sewage Works as part of treatment train	No
Brief Description	Extended detention dry pond with minimum storage volume of 11,810 m3, including a minimum extended detention volume of 1,255 m3. Quality control is provided via a forebay with vegetative lining to enhance sediment removal prior to discharge through an aggregate berm to the main dry pond cell. Discharge control downstream of the wet pond cell is provided via an orifice pipe, designed to provide quality/erosion control by detaining the extended detention runoff over a 22 hour period prior to discharge to the existing municipal drainage ditch north of the stormwater management pond.
Receive Emergency Sanitary Overflows	No
Notes	This facility would ultimately outlet to Cherry Heights Extension

	Storm Water Control Facility…quality control by wetland intended for Cherry Hts

SWM10005 - Highland Estates

Location	Stadelbauer Drive, Beamsville (43.158741,-79.485807)
Watershed/Subwatershed	Beamsville Creek/Konkle Creek to Lake Ontario
Receiver of discharge	Branch of Konkle Creek
Outlet location	43.159003141361346, -79.48544038587909
Catchment Area	N/A
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	100-yr
Reference ECA(s)	Unable to find
Reference Sewage Works as part of treatment train	No
Brief Description	N/A
Receive Emergency Sanitary Overflows	NO
Notes	Fenced, constructed in 1997

SWM10006 - Lincoln Square

Location	Alyssa Dr, Beamsville (43.170888, -79.481132)
Watershed/Subwatershed	Beamsville Creek/Konkle Creek to Lake Ontario
Receiver of discharge	Surface discharge to Konkle Creek
Outlet location	43.17098157330999, -79.48171939697419
Catchment Area	11.64 ha
Level of Treatment for suspended solids	Level 3 (80%)
Treatment for other Contaminants, as required	NO
Level of Volume control	NA
Design Storm	Quantity: 100-yr storm
Reference ECA(s)	9537-9A3HQ4 August 12, 2013
Reference Sewage Works as part of treatment train	NO
Brief Description	Wetpond with a 1200mm diameter pipe inlet into a forebay and wetpool to provide a total storage volume of 6,221m3 at 3.17m

	in depth, including a permanent pool volume of 1,732m3, and extended detention volume of 1,573m3. Discharges via 13.5m long 450mm diameter outfall to creek.
Receive Emergency Sanitary Overflows	No
Notes	Catchment comprised of mixed residential/commercial/institutional development.

SWM10007 - Maplecrest Estates

Location	Bartlett Rd, Beamsville (43.175900, -79.466946)
Watershed/Subwatershed	Bartlett Creek to Lake Ontario
Receiver of discharge	Surface discharge to Bartlett Creek
Outlet location	43.17577293010422, -79.46631448545399
Catchment Area	43.76 ha or 38.6 ha?
Level of Treatment for suspended solids	Level 2
Treatment for other Contaminants, as required	NO
Level of Volume control	25mm rainfall event to be detained for 24 hours
Design Storm	Quantity: 100-yr storm (used 4-hr Chicago distribution)
Reference ECA(s)	6435-6XHS98 January 19, 2007
Reference Sewage Works as part of treatment train	NO
Brief Description	Permanent Pool Volume = 1,930m3 Active Pool Volume = 1,544m3 Extended Detention Volume = 3,376m3 150mm reverse slope outlet control oriface for erosion control volume 600mm outlet to creek
Receive Emergency Sanitary Overflows	No
Notes	Catchment composed of single family residential homes

SWM10008 - Northgate Village

Location	Northgate Crescent, Beamsville (43.179432, -79.466918)
Watershed/Subwatershed	Lake Ontario 22
Receiver of discharge	Storm sewer on Greenlane to SWM facility Village Green
Outlet location	43.17961165583315, -79.46719600840063
Catchment Area	40.78 ha
Level of Treatment for suspended solids	Basic Level 3
Treatment for other	NO

Contaminants, as required	
Level of Volume control	n/a
Design Storm	100-yr (Chicago distribution wih Lincoln IDF curves)
Reference ECA(s)	8090-69NJBM February 18, 2005
Reference Sewage Works as part of treatment train	NO
Brief Description	Fenced Dry pond with 3:1 side slopes. Receives overland flow as sheet flow. Maximum storage depth of 1.5m, Extended Detention Volume = 3,670 m3. Outlets via ditch inlet at NW corner to sewer on Greenlane to SWM facilty N of CNR tracks.
Receive Emergency Sanitary Overflows	No
Notes	At Greenlane, S of CNR tracks. ECA was for decommissioning two existing dry ponds (Green Gardens (Garden Gate Terrace/Greenlane) & Carriage Rd/Greenlane) & replacing with new facility for overland flow control for Northgate Village subdivision and future development west of Hickory Lane, as well as modifying existing Village Green SWM facility.

SWM10009 - Paradise Ravines

Location	Stadelbauer Drive, Beamsville (43.165117,-79.483230)
Watershed/Subwatershed	Beamsville Creek/Konkle Creek to Lake Ontario
Receiver of discharge	Konkle Creek
Outlet location	N/A
Catchment Area	N/A
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	N/A
Level of Volume control	N/A
Design Storm	100-yr
Reference ECA(s)	3-0087-79-006
Reference Sewage Works as part of treatment train	no
Brief Description	N/A
Receive Emergency Sanitary Overflows	NO
Notes	Constructed 1997

SWM10010 - Plateau Estates/Hillside Estates

Location	Ashby Drive, Beamsville (43.159315,-79.471694)
Watershed/Subwatershed	Bartlett Creek to Lake Ontario
Receiver of discharge	Storm sewer to Branch of Bartlett Creek
Outlet location	43.159696784216734, -79.47162132025922
Catchment Area	14.06 ha
Level of Treatment for suspended solids	N/A
Treatment for other Contaminants, as required	No
Level of Volume control	N/A
Design Storm	5 Year
Reference ECA(s)	3-1622-98-006
Reference Sewage Works as part of treatment train	No
Brief Description	Stormwater from the storm sewers of the developments will enter the sediment forebay at the southwest corner or the facility. The facility also has a extended detention area and a total storage capacity of 12,560 m3s at elevation 121.5 m. This includes a wet pool storage up to elevation 118.9 m. Outflows will be though a seepage outlet system consisting of a stone encased 1500mm vertical perforated drain and an overflow weir set at elevation 119.8 m located at the northwest end of the facility. Stormwater would percolate through the vertical drain then through a 150mm orifice limiting the max flows to 39 L/s. Stormwater then flows through a 200mm outlet storm sewer to the outfall into a tributary of Bartlett Creek.
Receive Emergency Sanitary Overflows	No
Notes	N/A

SWM10012 - Royal Orchard Estates

Location	Beverly Cr, Beamsville (43.169479, -79.467291)
Watershed/Subwatershed	Bartlett Creek to Lake Ontario
Receiver of discharge	Surface discharge to Bartlett Creek
Outlet location	43.169479, -79.467291
Catchment Area	5.5 ha
Level of Treatment for suspended solids	Level 2
Treatment for other Contaminants, as required	No
Level of Volume control	First flush runoff from 4-hr 25mm rainfall
Design Storm	5 year and 100 year storm
Reference ECA(s)	3-0757-96-006 August 15, 1996

Reference Sewage Works as part of treatment train	No
Brief Description	A stormwater wetland facility, designed to provide quality control. Storage volume = 592m3 (200m3 permanent pool, 392m3 extended storage). Inlet forebay and outlet micropool with outlet via perforated riser pipe with orifice plate. Max discharge 11 L/s over 24 hrs.
Receive Emergency Sanitary Overflows	No
Notes	N/A

SWM10013 - Village Green Estates

Location	Bartlett Road, Beamsville (43.180378, -79.467154)
Watershed/Subwatershed	Lake Ontario 22
Receiver of discharge	Storm sewer on Bartlett Rd, which outlets to ditch at Union Rd
Outlet location	43.18056895414108, -79.46671768502327
Catchment Area	40.78 ha
Level of Treatment for suspended solids	Basic Level 3
Treatment for other Contaminants, as required	No
Level of Volume control	NA
Design Storm	100-yr
Reference ECA(s)	8090-69NJBM February 18, 2005; 3-0087-79-006
Reference Sewage Works as part of treatment train	No
Brief Description	Dry pond to provide minor flow storage volume of 8,948m3. Outlets via 300mm sewer to ditch along Bartlett Rd, W on South Service Rd, N to Municipal Drain. Major overland flow storage in Northgate SWM facility.
Receive Emergency Sanitary Overflows	No
Notes	At Greenlane, N of CNR tracks. Original capacity 8705m3 (from Design Brief, Village Green SWM rpt, 1989), then 11,360m3 in 1989 report, modified with this ECA.

SWM10004 - Heritage Village

Location	Frederick Avenue, Vineland (43.162297, -79.396439)
Watershed/Subwatershed	Prudhomme Creek to Lake Ontario
Receiver of discharge	Discharge to storm sewer which ultimately flows to Prudhomme Creek near CNR west of Victoria Ave
Outlet location	43.162520426027434, -79.39614800140735
Catchment Area	19 ha (estimated from GIS)

Level of Treatment for suspended solids	NA
Treatment for other Contaminants, as required	No
Level of Volume control	Na
Design Storm	Na
Reference ECA(s)	3-1200-86-877 August 21, 1987
Reference Sewage Works as part of treatment train	No
Brief Description	Detention Volume = 1,120 m3, avg. depth 0.5m 5-yr storm (1.15 m3/s) Detention Volume = 2,940 m3, avg. depth 1.25m 100-yr storm (2.16 m3/s) Outlets to 900mm storm sewer
Receive Emergency Sanitary Overflows	No
Notes	N/A

SWM10011 - Rittenhouse Estates

Location	Azalea Crescent, Vineland (43.154386, -79.394955)
Watershed/Subwatershed	Prudhomme Creek to Lake Ontario
Receiver of discharge	Storm sewer to Prudhomme Creek
Outlet location	43.154502864017864, -79.39481682156789
Catchment Area	15.06 ha
Level of Treatment for suspended solids	Level 3
Treatment for other Contaminants, as required	No
Level of Volume control	NA
Design Storm	NA
Reference ECA(s)	Can not find
Reference Sewage Works as part of treatment train	No
Brief Description	N/A
Receive Emergency Sanitary Overflows	No
Notes	Constructed 1998

SWM10014 - Vineland Park Estates

Location	Simons Lane, Vineland (43.159291, -79.390226)
Watershed/Subwatershed	Prudhomme Creek to Lake Ontario
Receiver of discharge	Surface discharge to storm sewer on Victoria Ave.

Outlet location	43.159291, -79.390226
Catchment Area	4.38
Level of Treatment for suspended solids	NA
Treatment for other Contaminants, as required	No
Level of Volume control	NA
Design Storm	5 year
Reference ECA(s)	3-0721-99-006 / 7-0597-99-006 August 6, 1999
Reference Sewage Works as part of treatment train	No
Brief Description	SWM pond with a storage volume of 866m3 and max side slopes of 4:1, constructed west of Simons Lane, approximately 180m south of Culp Road.
Receive Emergency Sanitary Overflows	No
Notes	N/A

Stormwater Pumping Stations

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

[Stormwater Pumping Station Name]

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

Third Pipe Collection System

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

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

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

Other Works:

1.7 The following works are part of Authorized System:

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

Developer-Operated Facilities:

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

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

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

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

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

Transitional – Facilities with Individual ECAs

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

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

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

1.12 The Director Notification required in condition 1.11 shall include:

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

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

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

System Owner	**Lincoln, The Corporation of the Town of**
ECA Number	**067-S701**
System Name	**Lincoln Stormwater Management System**
ECA Issue Date	**March 28th, 2023**

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	**Lincoln, The Corporation of the Town of**
ECA Number	**067-S701**
System Name	**Lincoln Stormwater Management System**
ECA Issue Date	**March 28th, 2023**

1.0 Definitions

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

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

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

a) An extension of the system,

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

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

"Appendix A" means Appendix A of this Approval.

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

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

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

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

"Combined Sewer(s)" means pipes that collect and transmit both sanitary Sewage and other Sewage from residential, commercial, institutional, and industrial buildings and facilities and Stormwater through a single-pipe system, but does not include Nominally Separate Sewers.

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

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

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

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

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

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

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

"Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of EPA (Environmental Compliance Approvals).

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

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

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

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

“ESC” means erosion and sediment control.

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

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

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

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

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

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

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

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

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

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

“MTD” means manufactured treatment device.

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

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

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

a) A municipality, a municipal service board established under the *Municipal Act*, 2001 or a city board established under the *City of Toronto Act*, 2006; or

b) A corporation established under sections 9, 10, and 11 of the *Municipal Act*, 2001 in accordance with section 203 of that Act or under sections 7 and 8 of the *City of Toronto Act*, 2006 in accordance with sections 148 and 154 of that Act.

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

a) A municipality, a municipal service board established under the *Municipal Act*, 2001 or a city board established under the *City of Toronto Act*, 2006; or

b) A corporation established under sections 9, 10, and 11 of the *Municipal Act*, 2001 in accordance with section 203 of that Act or under sections 7 and 8 of the *City of Toronto Act*, 2006 in accordance with sections 148 and 154 of that Act.

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

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

“OGS” means Oil and Grit Separator(s).

“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 Town of Lincoln, and includes its successors and assigns.

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

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

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

“Pre-development” means the more stringent of a site’s:

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

b) Condition as defined by the local municipality.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

"Storm Sewer" means Sewers that collect and transmit, but not exfiltrate or lose by design, Stormwater resulting from precipitation and snowmelt.

"Stormwater" means rainwater runoff, water runoff from roofs, snowmelt, and surface runoff.

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

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

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

"TRCA" means the Toronto Region Conservation Authority.

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

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

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

2.0 General Conditions

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

Schedule A – System Information

Schedule B – Municipal Stormwater Management System Description

Schedule C – List of Notices of Amendment to this ECA

Schedule D – General

Schedule E – Operating Conditions

Schedule F – Residue Management

Appendix A – Stormwater Management Criteria

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

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

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

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

3.0 Alterations to the Municipal Stormwater Management System

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

3.1.1 On industrial, commercial, or institutional land;

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

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

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

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

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

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

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

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

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

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

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

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

3.6.2 Constitutes maintenance or repair of the Authorized System; or

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3.12.1 Be retained by the Owner;

3.12.2 Include at a minimum:

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

i Location relative to street names or easements; and

ii Sewer diameters.

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

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

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

e) Identification of the storm sewersheds for each outlet.

f) Identification of any source protection Vulnerable Areas.

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

3.12.3 Be updated to include:

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

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

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

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

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

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

3.13.4 The project alters access to a water body;

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

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

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

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

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

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

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

3.15.2 The Alteration shall not proceed unless:

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

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

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

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

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

a) Has been prepared by a Licensed Engineering Practitioner;

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

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

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

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

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

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

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

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

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

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

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

4.1.3 The Alteration shall not result in:

a) Adverse Effects; or

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

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

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

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

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

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

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

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

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

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

4.3.3 Is a Combined Sewer.

4.3.4 Is a concrete channel.

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

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

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

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

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

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

4.3.11 Connects to another Municipal Stormwater Management System, unless:

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

b) The Owner of the Authorized System retains a copy of the written consent from the Owner or Owner's delegate of the Municipal Stormwater Management System being connected to as part of the record that is recorded and retained under condition 4.4.

4.3.12 Is part of an Undertaking in respect of which:

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

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

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

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

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

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

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

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

4.5.2 Constitutes maintenance or repair of the Authorized System.

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

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

5.1.1 Rooftop storage

5.1.2 Parking lot storage

5.1.3 Superpipe storage

5.1.4 Reduced lot grading

5.1.5 Roof leader to ponding area

5.1.6 Roof leader to soakaway pit

5.1.7 Infiltration trench

5.1.8 Engineered grassed swales / bioswale

5.1.9 Pervious pipes

5.1.10 Pervious catchbasins

5.1.11 Vegetated filter strips

5.1.12 Natural buffer strips

5.1.13 Green roofs/Rooftop gardens

5.1.14 Wet pond

5.1.15 Engineered wetland

5.1.16 Dry pond

5.1.17 Hybrid Facility

5.1.18 Infiltration basin

5.1.19 Filtration MTD

5.1.20 Sedimentation MTD - OGS

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

a) Evapotranspiration;

b) Infiltration into the ground; or

c) Filtration.

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

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

5.2.1 The design of the Alteration shall:

a) Be prepared by a Licensed Engineering Practitioner;

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

c) Be planned, designed, and built to be consistent with the Stormwater Management Planning and Design Guidance

Manual. If there is a conflict with Appendix A of this Approval, then Appendix A shall prevail;

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

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

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

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

5.2.2 The Alteration shall not result in:

a) Adverse Effects; or

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

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

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

a) Tested in accordance with the TRCA protocol Procedure for Laboratory Testing of OGSs and testing data verified in accordance with the ISO 14034 Environmental Technology Verification (ETV) protocol. The suspended solids removal claimed for the sedimentation MTD in achieving the water quality criteria in Appendix A, and the sizing methodology used to determine the appropriate sedimentation MTD dimensions for the particular site, shall be based on the verified removal efficiency for all particle size fractions comprising the particle size distribution specified within the

testing protocol or a particle size distribution approved by the Director.

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

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

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

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

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

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

f) The sedimentation MTD should be sized for the highest suspended solids percent removal physically and economically practicable, and used as a pre-treatment device in a treatment train designed to achieve the water quality criteria in Appendix A.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

5.3 The authorization in condition 5.1 does not apply:

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

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

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

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

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

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

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

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

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

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

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

5.6.2 Constitutes maintenance or repair of the Authorized System.

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

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

6.1.1 The design of the Alteration:

a) Has been prepared by a Licensed Engineering Practitioner;

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

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

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

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

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

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

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

6.1.4 The Alteration will not result in Adverse Effects.

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

6.1.6 The Owner consents in writing to the Alteration.

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

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

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

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

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

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

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

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

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

7.0 Outlets

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

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

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

7.2.2 Result in Adverse Effects.

8.0 Previously Approved Sewage Works

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

8.1.1 The terms of this Approval; or

8.1.2 The terms and conditions of the revoked approval as of the date this approval was issued, provided that the Alteration is commenced within five (5) years of the date that the revoked approval was issued.

9.0 Transition

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

9.1.1 Effort to undertake the Alteration, such as tendering or commencement of construction of the Sewage Works associated with the Alteration, begins on or before October 06, 2023.

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

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

9.1.4 The Alteration would be otherwise authorized under this Approval.

Schedule E: Operating Conditions

System Owner	**Lincoln, The Corporation of the Town of**
ECA Number	**067-S701**
System Name	**Lincoln Stormwater Management System**
ECA Issue Date	**March 28th, 2023**

1.0 General Operations

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

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

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

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

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

2.0 Duties of Owners and Operating Authorities

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

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

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

b) Maintained in a state of good repair.

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

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

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

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

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

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

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

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

3.0 Operations and Maintenance

3.1 Inspection

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

3.1.2 The owner shall ensure that:

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

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

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

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

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

a) Asset ID and name of the Sewage Works;

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

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

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

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

ii Condition of vegetation in and around the works.

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

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

v Presence of trash build-up, and

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

3.2 Operations & Maintenance (O&M) Manual

3.2.1 The Owner shall prepare and implement an operations and maintenance manual for Sewage Works within the Authorized System on or before October 06, 2023, that includes or references, but is not necessarily limited to, the following information:

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

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

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

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

c) Maintenance and repair programs, including:

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

ii Stormwater pond sediment cleanout, dewatering, and management;

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

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

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

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

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

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

h) As-built drawings or record drawings of the Sewage Works for stormwater works constructed on or after January 1, 2010 and where available for stormwater works constructed prior to January 1, 2010.

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

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

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

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

3.3 On or before October 06, 2025, the Owner shall establish signage to notify the public at any Stormwater Management Facility identified in Schedule B that is a wet pond, dry pond, hybrid Facility, or engineered wetland. The signage shall include the following minimum information:

3.3.1 Identification that the site contains a Stormwater Management Facility;

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

3.3.3 Identification of the purpose of the Facility;

3.3.4 ECA approval number and/or asset ID; and

3.3.5 Owner's contact information.

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

4.0 Monitoring Plan

4.1 On or before October 06, 2024 or within twenty-four (24) months of the date of the publication of the Ministry's monitoring guidance, whichever is later, the Owner shall develop and implement a monitoring plan for the Authorized System. The monitoring plan shall be:

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

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

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

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

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

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

4.4 The Monitoring Plan shall include:

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

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

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

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

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

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

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

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

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

4.5.6 Identification of locations of rainfall gauges to be used;

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

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

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

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

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

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

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

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

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

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

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

5.0 Reporting

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

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

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

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

5.2.2 Includes a summary of all monitoring data along with an interpretation of the data and an overview of the condition and operational performance of the Authorized System and any Adverse Effects on the Natural Environment;

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

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

5.2.5 Includes a summary of all inspections, maintenance, and repairs carried out on any major structure, equipment, apparatus, mechanism, or thing forming part of the Authorized System;

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

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

5.2.8 Includes a summary of all Alterations to the Authorized System within the reporting period that are authorized by this Approval including a list of Alterations that pose a Significant Drinking Water Threat;

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

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

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

5.3 The report described in condition 5.2 shall be:

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

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

6.0 Record Keeping

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

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

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

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

7.0 Review of this Approval

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

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

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

8.0 Source Water Protection

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

8.2 The Owner shall prepare a “Significant Drinking Water Threat Assessment Report for Proposed Alterations” for the Authorized System on or before October 06, 2023 that includes, but is not necessarily limited to:

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

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

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

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

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

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

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

9.0 Storm Sewer Catchment Asset Inventory

9.1 The Owner shall prepare and submit to the Director an inventory of the storm sewersheds and classify in accordance with Tables E1 and E2, on or before October 06, 2025. Minimum classification of the level of Stormwater management is as follows:

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

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

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

Table E1. Storm Sewershed and Associated Treatment

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

Table E2. Summary of Storm Sewersheds

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

Level A		
Level B		
Level C		

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

Schedule F: Residue Management

System Owner	**Lincoln, The Corporation of the Town of**
ECA Number	**067-S701**
System Name	**Lincoln Stormwater Management System**
ECA Issue Date	**March 28th, 2023**

1.0 Residue Management System

1.1 Not Applicable.

Appendix A – Stormwater Management Criteria

1.0 Applicability of Criteria

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

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

Table A1. Performance Criteria

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

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

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

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

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

Table A2. Stormwater Management Practices Site Constraints

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

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





Appendix B

Consolidated Linear Infrastructure Environmental Compliance Approval Wastewater Collection System (067-W601)

Ontario

ENVIRONMENTAL COMPLIANCE APPROVAL
For a Municipal Sewage Collection System

ECA Number: 067-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:

Lincoln, The Corporation of the Town of

4800 South Service Rd
Beamsville, ON L0R 1B1

For the following Sewage Works:

Lincoln Wastewater 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 19th day of June, 2024

Signature



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

Schedule A: System Information

System Owner	**Lincoln, The Corporation of the Town of**
ECA Number	**067-W601**
System Name	**Lincoln Wastewater Collection System**
ECA Issue Date	**June 19th, 2024**

1.0 ECA Information and Mandatory Review Date

ECA Issue Date	June 19th, 2024
Application for ECA Review Due Date	September 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	Wastewater System Number	Location	ECA Number	Issue Date
Baker Road WWTP	120001684	160 Lake Street, Grimsby, ON	5755-AEFJVC	March 30, 2017
Bridgeport Sewage Pumping Station	120001684	4168 Bridgeport Dr., Lincoln	0291-C5KR2D	August 15, 2021
Campden Sewage Pumping Station	120001684	3981 Fly Rd., Lincoln	A-500-8097152999 V.01	July 2, 2021
Jordan Valley Sewage Pumping Station	120001684	3850 Twenty-First St., Lincoln	0291-C5KR2D	August 15, 2021
Laurie Avenue Sewage Pumping Station	120001684	3391 Laurie Ave., Lincoln	3-1081-79-006, 3-1461-78-001	November 5, 2001, October 24, 1995, December 21, 1978
Ontario Street Sewage Pumping	120001684	4884 Ontario St.	8713-9BFL4S	October 31, 2013

Station		N., Lincoln		
Sann Road Odour Control Facility	120001684	4740 Sann Rd., Lincoln	3-0493-87-006	May 29, 1987
Thirty Road Odour Control Facility	120001684	4810 Thirty Rd. N., Lincoln	3-0264-86-006	April 7, 1986
Victoria Avenue Sewage Pumping Station	120001684	3450 South Service Rd., Lincoln	5757-8X6PBF	November 2, 2012

2.2 Other Documents

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

3.0 Asset Management Plan

Document Title	Version
Road R.O.W Service Asset Management Plan – 2021	v.1 (March 2022)
Water and Wastewater Asset Management Plan	v.1 (March 2022)

4.0 Pollution Prevention and Control Plan (if applicable)

Document Title	Version
Draft Pollution Prevention and Control Plan Report	v.1 (September 2021)

5.0 Operating Authority

System	Operating Authority
Niagara Region	The Corporation of the Town of Lincoln

Schedule B: Municipal Sewage Collection System Description

System Owner	**Lincoln, The Corporation of the Town of**
ECA Number	**067-W601**
System Name	**Lincoln Wastewater Collection System**
ECA Issue Date	**June 19th, 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 Town of Lincoln sanitary system collects and conveys sewage through its sanitary sewers (~82 km) using sewage pump stations (6), forcemains, and trunk interceptors which are owned and operated by the Region of Niagara and convey flow to the Region's Baker Rd Wastewater Treatment Plant (WWTP) in the Town of Grimsby.

This system services two main urban areas, the communities of Beamsville and Vineland, as well as the outlying communities of Campden, Jordan, and Jordan Station. These areas comprise six catchments, each of which flows to a Regional sanitary pump station, then primarily via forcemain to the WWTP.

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
SANSYS DEC 2021-Vienland SANSYS	November 2020
SANSYS Oct 2021 Beamsville SANSYS	October 2021

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:

[Sanitary Sewage Pumping Station Name]

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

[Combined Sewage Pumping Stations]

Asset ID and Name	
Site Location	
Latitude and Longitude	
Coordinates (optional)	
Description	
Pumping Station Capacity	
Equipment	
Emergency Storage	

Equipment: Associated controls and Appurtenances	N/A
Sewage Pumping Station – Collection System Overflow	
Receiving Stations (if applicable)	
Odor Control Units	
Standby Power	
Notes	

Real-Time Control

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

	Description
Process Equipment/System Elements	N/A
Flow Measurement Locations	
Level Measurement Locations	
Other Instrumentation and Controls	

Combined Sewage Structures

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

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

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

Collection System Overflow Points

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

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

Table B5: Identified Sanitary Sewer Overflow Points including Pumping Stations			
Column 1 Asset ID	Column 2 Asset Name	Column 3 Overflow Location (Latitude & Longitude)	Column 4 Point of Entry to Receiver (Latitude and Longitude)
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	**Lincoln, The Corporation of the Town of**
ECA Number	**067-W601**
System Name	**Lincoln Wastewater Collection System**
ECA Issue Date	**June 19th, 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	**Lincoln, The Corporation of the Town of**
ECA Number	**067-W601**
System Name	**Lincoln Wastewater Collection System**
ECA Issue Date	**June 19th, 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 Town of Lincoln, and includes its successors and assigns.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

“SSO” means a sanitary sewer overflow which is a discharge of Sewage from a Separate Sewer or Nominally Separate Sewer to the environment from designated location(s) in the Authorized System as per Table B5.

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

“Storm Sewer” means Sewers that collect and transmit, but not exfiltrate or lose by design, Stormwater resulting from precipitation and snowmelt.

“Stormwater” means rainwater runoff, water runoff from roofs, snowmelt, and surface runoff.

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

“STP” means sewage treatment plant.

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

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

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

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

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

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

2.0 General Conditions

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

Schedule A – System Information

Schedule B – Municipal Sewage Collection System Description

Schedule C – List of Notices of Amendment to this ECA

Schedule D – General

Schedule E – Operating Conditions

Schedule F – Residue Management

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

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

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

2.5 The conditions of this Approval are severable. If any condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such

condition to other circumstances and the remainder of this Approval shall not be affected thereby.

3.0 Alterations to the Municipal Sewage Collection System

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

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

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

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

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

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

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

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

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

3.5.2 Constitutes maintenance or repair of the Authorized System; or

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3.10.1 Be retained by the Owner;

3.10.2 Include at a minimum:

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

i Location of Sewers relative to street names or easements;

ii Sewer and/or forcemain diameters;

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

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

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

vi Identification of any source protection Vulnerable Areas.

3.10.3 Be updated to include:

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

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

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

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

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

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

3.11.4 The project alters access to a water body;

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

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

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

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

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

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

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

3.13.2 The Alteration shall not proceed unless:

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

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

4.0 Authorizations of Future Alterations for Separate Sewers, Nominally Separate Sewers and Forcemains - Additions, Modifications, Replacements and Extensions

4.1 The Owner or a Prescribed Person may alter the Authorized System by adding, modifying, replacing, or extending a Separate Sewer, Nominally Separate Sewer or forcemain within the Authorized System subject to the following conditions and condition 4.2 below:

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

a) Has been prepared by a Licensed Engineering Practitioner;

b) Has been designed only to collect and transmit Sewage and has not been designed to treat Sewage;

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

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

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

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

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

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

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

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

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

b) Adverse Effects;

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

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

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

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

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

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

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

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

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

4.2.2 Has a nominal diameter greater than 750 mm for a Separate Sewer or Nominally Separate Sewer.

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

4.2.4 Is a Combined Sewer or Partially Separated Sewer.

4.2.5 Connects to another Municipal Sewage Collection System, unless:

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

b) The Owner of the Authorized System retains a copy of the written consent from the Owner or Owner’s delegate of the

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

4.2.6 Creates a new discharge point to the Natural Environment.

4.2.7 Is part of an Undertaking in respect of which:

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

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

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

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

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

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

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

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

4.4.2 Constitutes maintenance or repair of the Authorized System.

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

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

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

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

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

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

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

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

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

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

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

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

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

5.2.1 The design of the Alteration shall:

a) Be prepared by a Licensed Engineering Practitioner;

b) Be designed only to collect and transmit Sewage and shall not be designed to treat Sewage;

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

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

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

5.2.2 The design of the Alteration shall be:

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

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

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

ii Includes the following minimum information:

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

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

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

5.2.3 The Alteration shall not result in:

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

b) Adverse Effects;

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

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

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

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

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

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

5.2.5 The Alteration shall:

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

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

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

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

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

5.2.8 A Licensed Engineering Practitioner has verified in writing that the Alteration authorized under condition 5.1 meets the design requirements of conditions 5.2.1 a) to d) and to 5.2.2.

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

5.2.10 The Owner has verified in writing that the Alteration authorized under condition 5.1 meets the requirements of conditions 5.2.1 e) and 5.2.3 to 5.2.8.

5.3 The authorization in condition 5.1 does not apply:

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

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

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

b) The Owner of the Authorized System retains a copy of the written consent from the Owner or Owner's delegate of the Municipal Sewage Collection System being connected to as part of the record that is recorded and retained under condition 5.4.

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

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

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

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

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

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

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

5.5.2 Constitutes maintenance or repair of the Authorized System.

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

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

6.1.1 Adding, modifying, or replacing the following components of Sewage pumping stations, Separate Sewers, or Nominally Separate Sewers:

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

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

c) Any associated Equipment for cleaning; and

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

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

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

b) Grinders and screens;

c) Aeration and/or mixing Equipment;

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

e) Odour and corrosion control structures;

f) Instrumentation and controls;

g) Discharge and process piping;

h) Valves;

i) Wet-wells; and

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

6.1.3 Adding new Sewage pumping stations, where they:

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

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

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

d) Include odour and corrosion control, as applicable;

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

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

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

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

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

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

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

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

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

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

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

6.2.1 Valves and their associated controls installed for maintenance purposes;

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

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

6.2.4 Chemical metering pumps and chemical handling pumps;

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

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

6.2.7 Valve chambers or maintenance holes.

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

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

6.4 The design of the Alteration shall:

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

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

6.4.3 Include design considerations to protect sources of drinking water, such as those included in the Standard Operating Policy for Sewage Works, and any applicable local Source Protection Plan policies.

6.5 The Alteration shall:

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

6.5.2 Provide smooth flow transition to existing gravity Sewers;

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

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

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

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

a) Municipal Sewage Collection System; or

b) Receiving STPs.

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

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

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

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

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

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

6.6.8 Adverse Effects.

6.7 The Alteration is subject to the following conditions:

6.7.1 The Owner consents in writing to the Alteration.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

7.7.2 Constitutes maintenance or repair of the Authorized System.

8.0 Previously Approved Sewage Works

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

8.1.1 The terms of this Approval; or

8.1.2 The terms and conditions of the revoked approval that were applicable as of the date this approval was issued, provided that the Alteration is commenced within five (5) years of the date that the revoked approval was issued.

9.0 Transition

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

9.1.1 Effort to undertake the Alteration, such as tendering or commencement of construction of the Sewage Works associated with the Alteration, begins on or before May 19, 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	**Lincoln, The Corporation of the Town of**
ECA Number	**067-W601**
System Name	**Lincoln Wastewater Collection System**
ECA Issue Date	**June 19th, 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 frequently 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 August 01, 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 constructed after 2010 and where available, for sewage works constructed before 2010.

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

a) Type of Collection System Overflow;

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

c) ECA number and/or asset ID; and

d) The Owner’s contact information.

3.4 Monitoring

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

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

i On or before November 19, 2022 or within six (6) months of the date of the publication of the Ministry's monitoring guidance, whichever is later, collect a composite sample of the combined Sewage from the CSO tank whenever the tank(s) is(are) in operation. If there is more than one tank, the tank nearest to the discharge point shall be sampled. The composite sample shall consist, at a minimum, of one sample at the beginning of the Event, and one sample at approximately every 8-hours until the end of the Event. The composite sample shall be analyzed, at a minimum, for Biochemical Oxygen Demand (BOD) (or Chemical Oxygen Demand (COD) if agreed upon by the District Manager), total suspended solids, total phosphorus and total Kjeldahl nitrogen. If the CSO continues for more than one day, multiple composite samples are allowed.

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

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

i intentionally deleted to preserve numbering.

ii On or before November 19, 2022 or within six (6) months of the date of publication of the Ministry's monitoring guidance, whichever is later, take at least one (1) grab sample, for BOD (or COD, if agreed upon by the District Manager), total suspended solids, total phosphorus, total Kjeldahl nitrogen, and E. Coli, or

iii On or before November 19, 2022 or within six (6) months of the date of publication of the Ministry's monitoring guidance, whichever is later, use surrogate sampling to determine the Contaminant concentrations of the discharged Collection System Overflow, at a minimum,

for BOD (or COD), total suspended solids, total phosphorus, total Kjeldahl nitrogen, and E. Coli. The methodology in determining, applying, and analyzing surrogate sampling shall be proposed by the Owner and subject to the written approval of the District Manager.

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

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

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

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

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

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

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

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

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

4.0 Reporting

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

4.2 Collection System Overflows

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

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

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

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

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

ii First stage of reporting:

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

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

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

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

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

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

d) Upon request of the local office, the Owner shall within fifteen (15) calendar days of the occurrence of any Collection

System Overflow, the Owner shall submit a full written report of the occurrence to the District Manager describing the cause and discovery of the Collection System Overflow, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation, or an alternate report as agreed to in writing by the District Manager.

4.3 Spills

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

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

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

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

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

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

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

4.6.1 Is submitted to the Director on or before March 31st of each year and covers the period from January 1st to December 31st of the preceding calendar year.

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

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

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

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

4.6.3 If applicable, includes a summary of all required monitoring data along with an interpretation of the data and any conclusion drawn from the data evaluation about the need for future modifications to the Authorized System or system operations.

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

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

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

4.6.7 Includes a summary of all Alterations to the Authorized System within the reporting period that are authorized by this Approval including a list of Alterations that pose a Significant Drinking Water Threat.

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

a) Dates;

b) Volumes and durations;

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

d) Disinfection, if any; and

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

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

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

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

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

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

e) Public reporting approach including proactive efforts.

4.7 The report described in condition 4.6 shall be:

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

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

5.0 Record Keeping

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

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

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

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

6.0 Review of this Approval

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

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

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

7.0 Source Water Protection

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

7.2 The Owner shall prepare a “Significant Drinking Water Threat Assessment Report for Proposed Alterations” for the Authorized System on or before May 19, 2023 that includes, but is not necessarily limited to:

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

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

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

7.2.4 A summary of design considerations and other measures that have been put into place to mitigate risks resulting from construction or operation of the components, Equipment or Sewage Works identified in condition 7.2.3, such as those included in the Standard Operating Policy for Sewage Works.

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

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

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

8.0 Additional Studies

Assessment of Wet Weather Flows Compared to Dry Weather Flows

8.1 This condition and the following requirements apply where:

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

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

The following requirements do not apply if:

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

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

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

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

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

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

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

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

iii Inspection of the Sewers and bypass structures; and

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

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

8.2 This condition and the following requirements apply where:

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

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

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

a) The assessment shall:

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

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

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

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

v Include the date of the most recent PPCP;

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

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

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

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

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

a) No PPCP exists for the Authorized System, or

b) The PPCP for the Authorized System is older than ten (10) years as of June 19th, 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 that the previous PPCP was finalized.

Sewer Model

8.3 The Owner shall prepare a new/updated Sewer model, within three (3) years of June 19th, 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	**Lincoln, The Corporation of the Town of**
ECA Number	**067-W601**
System Name	**Lincoln Wastewater Collection System**
ECA Issue Date	**June 19th, 2024**

1.0 Residue Management System

1.1 Not Applicable:



Town of Lincoln

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