

Ministry of the Environment, Conservation and Parks

Area-Wide Linear Infrastructure ECAs

November 2019

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Overview

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- Project Objectives
- Working Group
- Prescribed Persons Regulation (O. Reg. 208/19)
- Area-Wide Linear Infrastructure ECAs
 - Proposed Framework
 - Design Criteria
 - Inspection & Testing Requirements
 - ECA Templates
 - Municipal Sewage Collection Systems
 - Municipal Stormwater Management Systems
- Next Steps & Timing

This presentation reviews concepts developed at the Working Group Level, for discussion and awareness, including concepts not formally adopted by the MECP

Project Objectives

- Implement **Prescribed Persons Regulation** to allow property developers to carry out future specified alterations to the sanitary sewage and stormwater collection system on behalf of the municipal owners, for developers who have entered into an agreement with a municipality under *the Planning Act* or *the Development Charges Act*
- Transition to an **Area-wide linear infrastructure ECA** framework for municipal sewage collection and stormwater management systems, including all sanitary sewers, pumping stations and stormwater facilities, in their municipal boundaries

Working Group

External/Internal Stakeholder Working Group established to develop Design Criteria, and framework for future consolidated permissions process (ie. Area Wide Linear Infrastructure), including prescribed persons regulation:

- Meeting weekly since December 2018
- Composed of municipalities, major consultants, industry organizations and ministry staff
- 25 municipalities including Toronto, Peel, York, Hamilton, Durham, Niagara, Barrie, Halton, Waterloo, Thunder Bay, Sudbury, Kingston, Sarnia, Milton
- Associations and operators including OCWA, WEAO, OWWA, OHBA, BILD
- Consultants including B&V, MTE, Jacobs, SCS, RVA, CIMA, GMBP
- Ministry staff from EAPB, BTB, CSPB, DWECD, TASDB
- MECP Internal Stakeholder working group established in June, composed of staff from EAPD, DWECD, ESSD, to review draft Design Criteria and linear ECA templates

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Authorization of Future Alterations, EPA Part II.1

Terms and conditions

20.6 (1) In imposing terms and conditions in an environmental compliance approval, the Director may include terms and conditions in respect of, but not limited to,

(a) **future specified alterations**, extensions, enlargements or replacements, including future specified alterations, extensions, enlargements or replacements to be carried out **by persons prescribed by the regulations**;

(b) operational parameters, including maximum rates of production, process limits, performance limits and parameters relating to equipment and infrastructure; and

(c) alterations, extensions, enlargements or replacements to be carried out within the operational parameters mentioned in clause (b), including alterations, extensions, enlargements or replacements to be carried out within the operational parameters by persons prescribed by the regulations.

“Prescribed Persons Regulation”

- R208/19 (ECA in respect of Sewage Works aka “Prescribed Persons Regulation”) to streamline approval requirements for constructing sanitary sewage collection and stormwater management systems that a municipality will own
- Prescribed persons, such as developers would be able to construct these works under the municipality’s Environmental Compliance Approval (ECA), if specific conditions are met, instead of having to obtain a separate ECA
- Specific conditions referenced are meeting the Sewer and Forcemain Design Criteria, and owner complies with the conditions of pre-authorization in the linear infrastructure area-wide ECA for the municipality

Prescribed Persons Regulation

1. (1) Subject to subsection (2), any person who alters, extends, enlarges or replaces a sewage works on or after the day this section comes into force is prescribed for the purposes of clause 20.6 (1) (c) of the Act.

(2) Subsection (1) applies if the following conditions are satisfied:

1. The altering, extending, enlarging or replacing is carried out under an agreement with a municipality, entered into under the Planning Act or the Development Charges Act, 1997.
2. The agreement, whether entered into before or after the day this Regulation comes into force, provides that ownership of the sewage works may be transferred to one of the following:
 - i. The municipality.
 - ii. A public utility commission deemed to be a municipal service board under section 195 of the Municipal Act, 2001.
 - iii. A municipal service board established under sections 9, 10, 11 and 196 of the Municipal Act, 2001 or a city board as defined in subsection 3 (1) of the City of Toronto Act, 2006.
 - iv. 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.

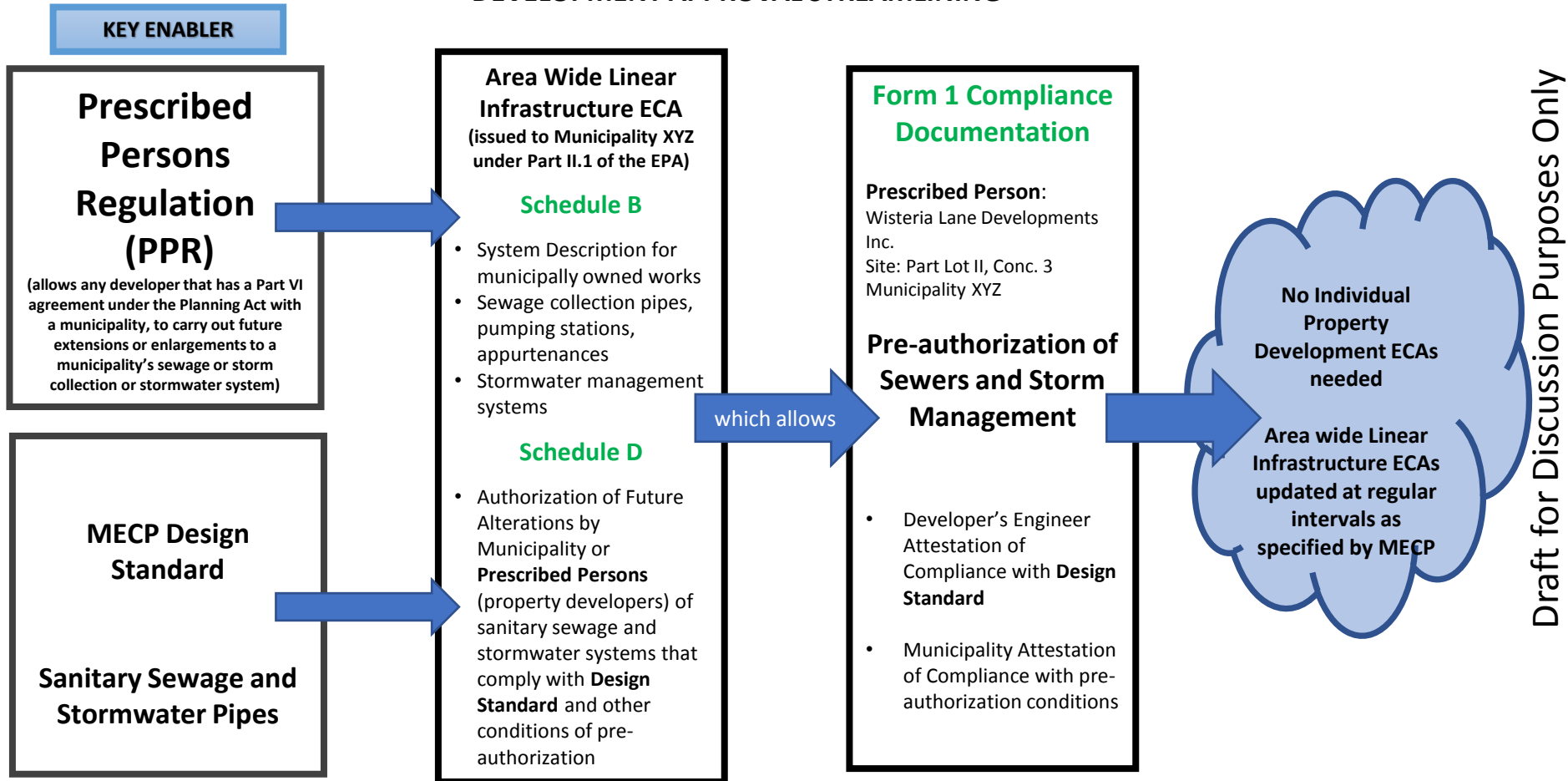
2. This Regulation comes into force on the later of **July 1, 2019** and the day it is filed.

Area-wide Linear Infrastructure ECA

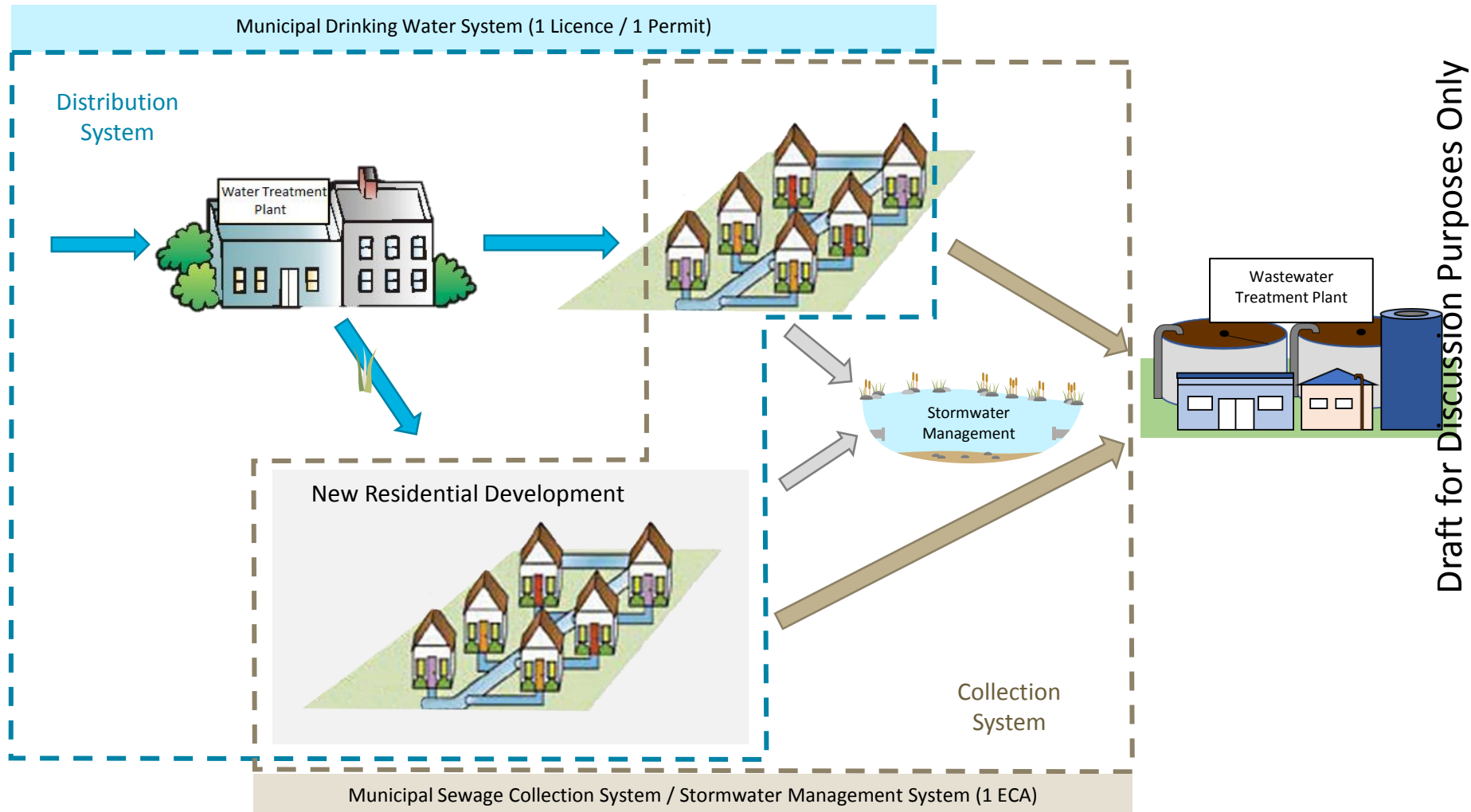
The framework is being modelled after what is currently used for municipal drinking water licensing, transfer of review, and existing wastewater systemwide pilots:

- One permission for all interconnected works with the same owner
- Standardized permission templates for Municipal Collection Systems and for Stormwater Management Systems that include:
 - Pre-authorization for routine alterations to the system by municipality
 - Pre-authorization for expanding the collection and storm systems to include new residential development projects by property developers
 - Modern terms and conditions for environmental protection
- A standardized design criteria for sanitary sewers, storm sewers and forcemains for alterations authorized under an ECA

PREScribed PERSONS REGULATION TO ENABLE DEVELOPMENT APPROVAL STREAMLINING



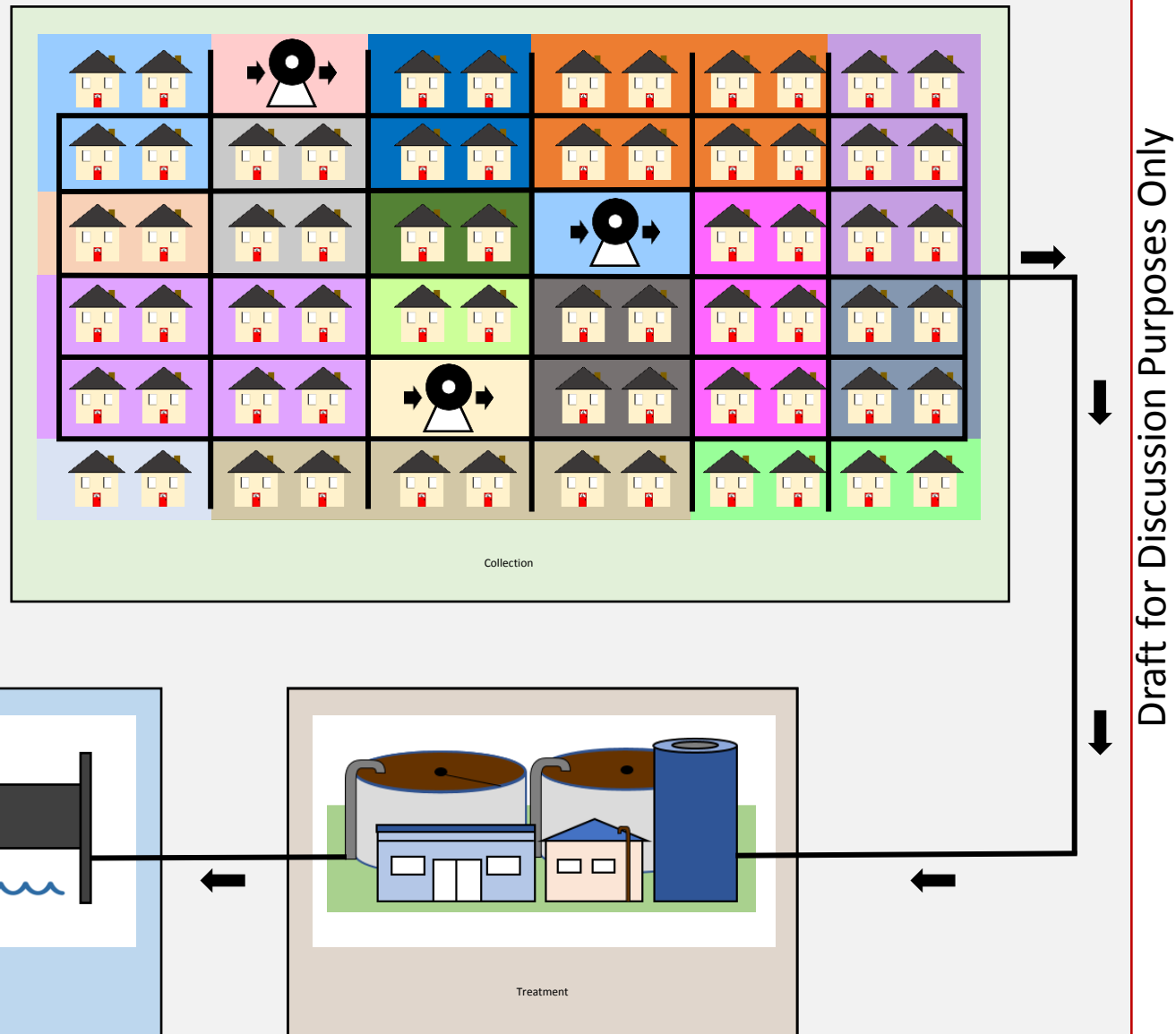
Similar Framework to Municipal Drinking Water



Current State – Sanitary Sewage Collection

Multiple permissions issued for collection system.

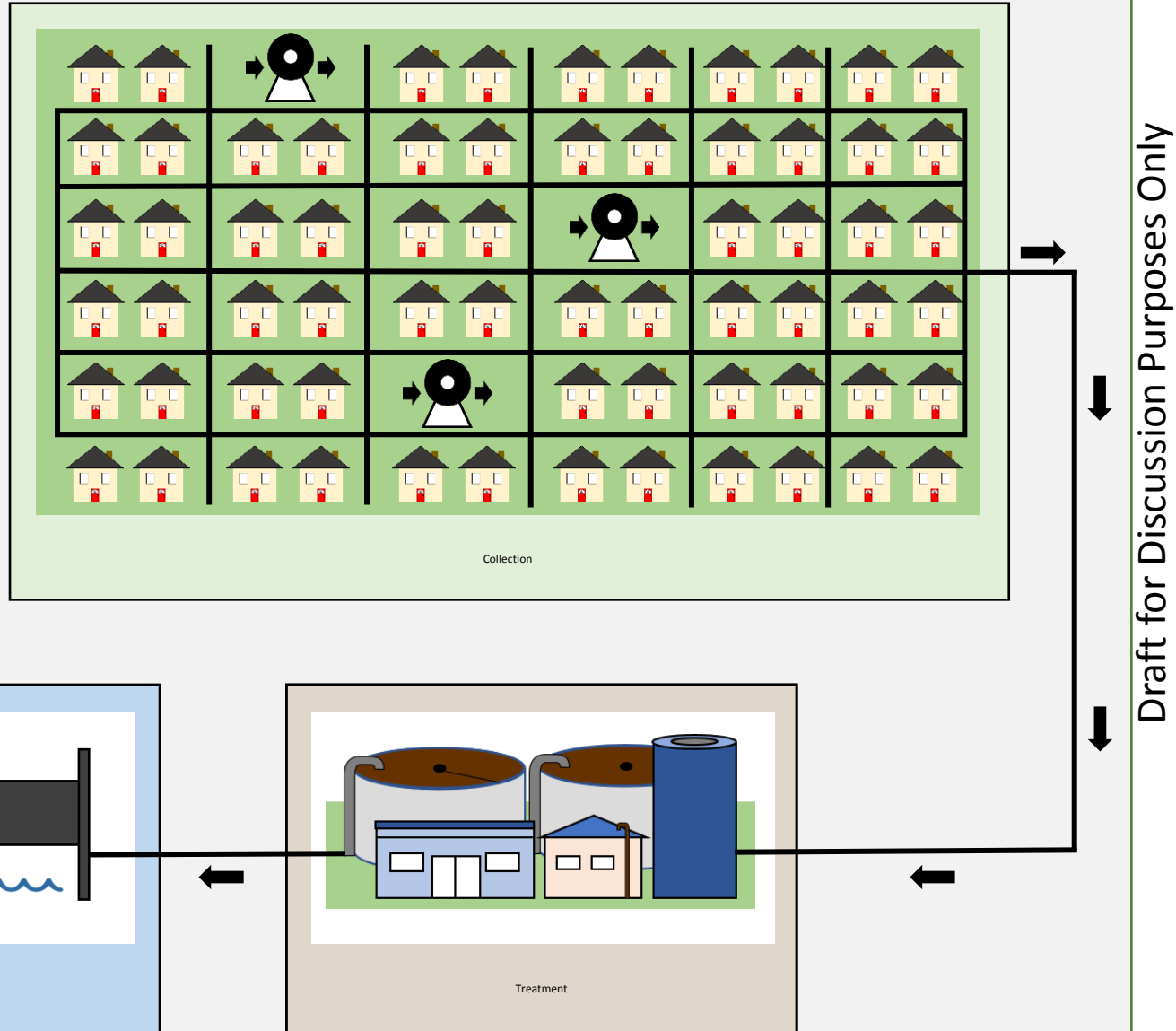
For example: there are more than 4,000 issued to the City of Toronto.



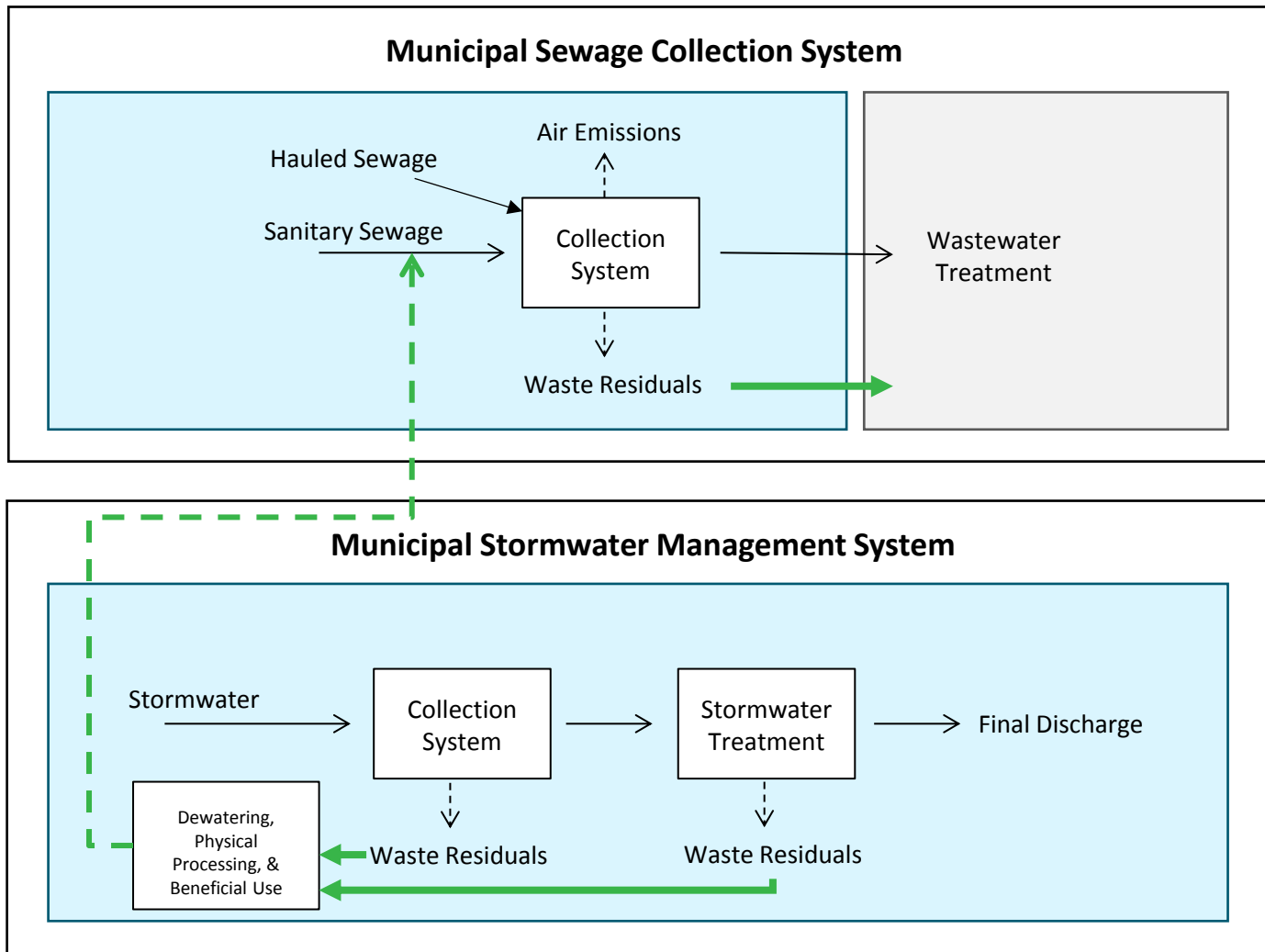
Future State – Sanitary Sewage Collection

One permission issued for entire sewage collection system.

For example: there would be 1 ECA issued for the City of Toronto's sanitary sewage collection system and 1 ECA for stormwater



Future State: Multi-Media Approvals



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Design Criteria: Sanitary, Forcemain, Storm and “3rd” Pipes

- Establishes the minimum design requirements for alteration to an existing sewage conveyance system and stormwater system by adding, modifying, replacing or extending sanitary sewers, forcemains or storm sewers to satisfy one of the conditions imposed by the Director authorizing future alteration
- If undertaken in compliance with conditions in the ECA and in accordance with the design criteria, pre-authorized alterations can be made to the system without obtaining separate approval from the ministry
- Written in compliance language, as opposed to guideline
- Municipalities can adopt standards higher than those in the Design Criteria

Design Criteria - Highlights

Sanitary Sewers Requirements Specified for:

- Design flows
- Pipe Diameters
- Friction Factors
- Flow Velocity
- Anchors / Restraints
- Maintenance Holes
- Pipe Strength
- Pipe Cover and Frost Protection
- Sewers installed below Seasonally High Groundwater Table
- Inverted Siphons
- Service Connections

Design Criteria - Highlights

Forcemain Requirements Specified for:

- Pipe Diameters
- Flow Velocity
- Pipe Cover
- Friction Factors
- Identification
- Anchors/Restraints
- Termination
- Pipe Material
- Pipe Strength
- Pipe Cover and Frost Protection
- Maintenance
- Transient Pressures
- Air & Vacuum Relief Valves
- Drain Valves
- Service Connections

Design Criteria - Highlights

Storm Sewer Requirements Specified for:

- Design Consideration
- Runoff Calculations
- Pipe Size
- Flow Velocity
- Pipe Material
- Pipe Cover and Frost Protection
- Maintenance Holes
- Catch Basins
- Inverted Siphons
- Third Pipe Collection Systems

Combined Sewer Requirements Specified for:

- Rehabilitation
- CSO Detention Facilities

Inspection and Testing Requirements

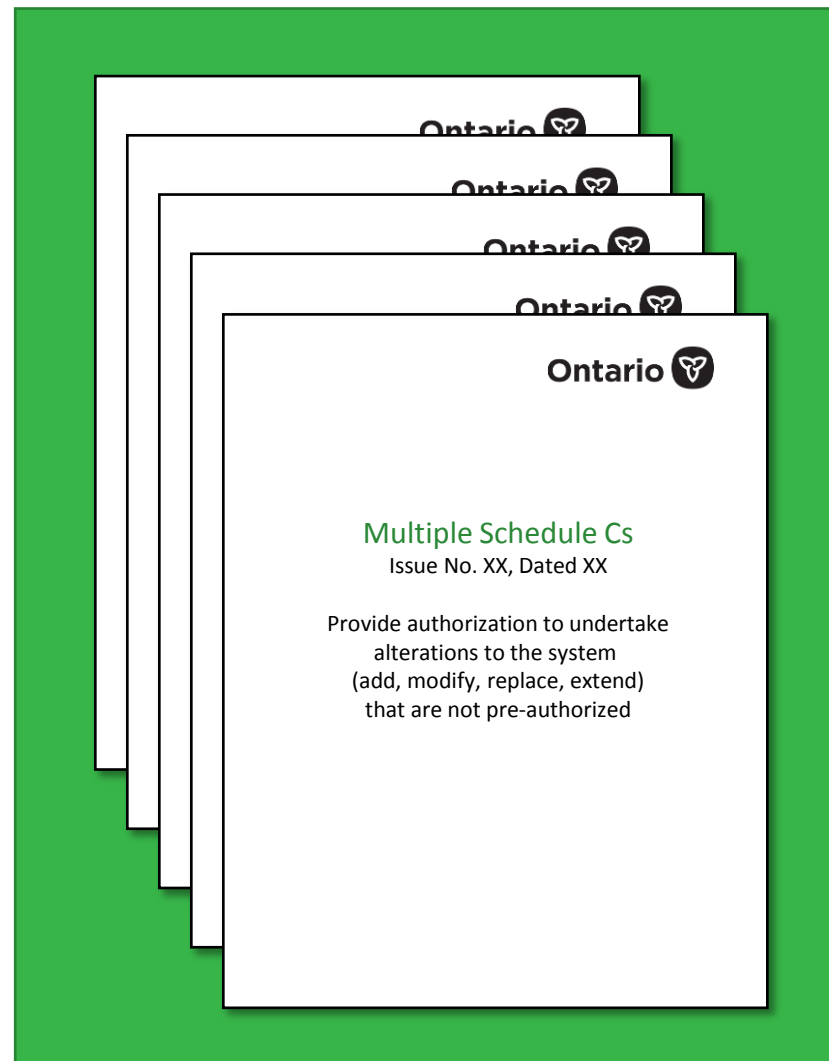
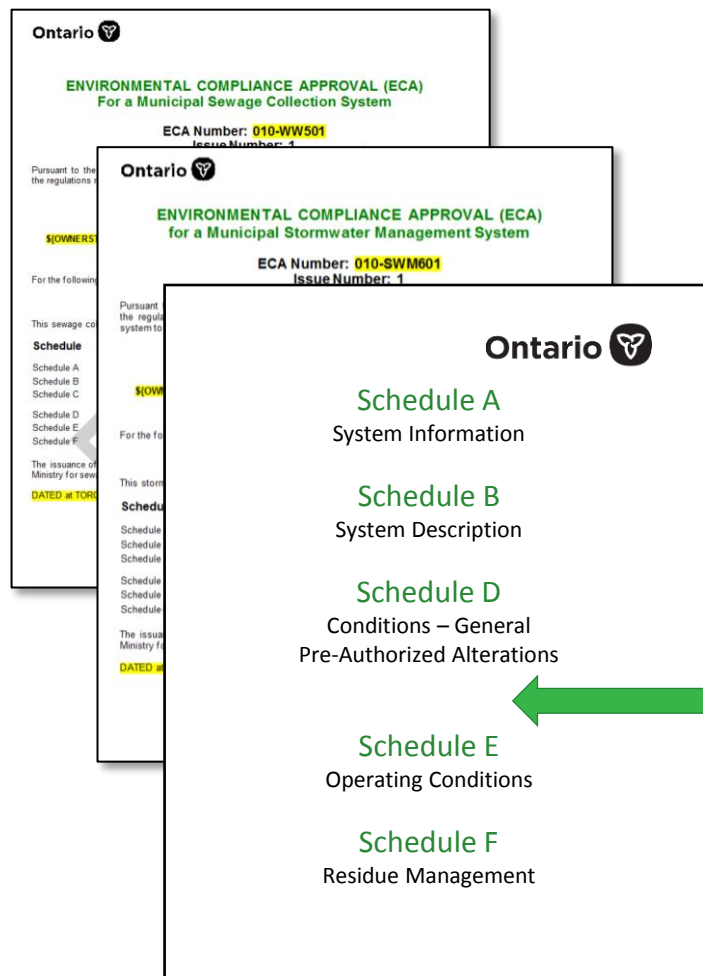
Mandatory post-construction inspection and testing requirements are being developed to ensure:

- Quality of construction
- Reduce inflow and infiltration in sanitary sewers
- Protection of drinking water supplies and infrastructure

Highlights:

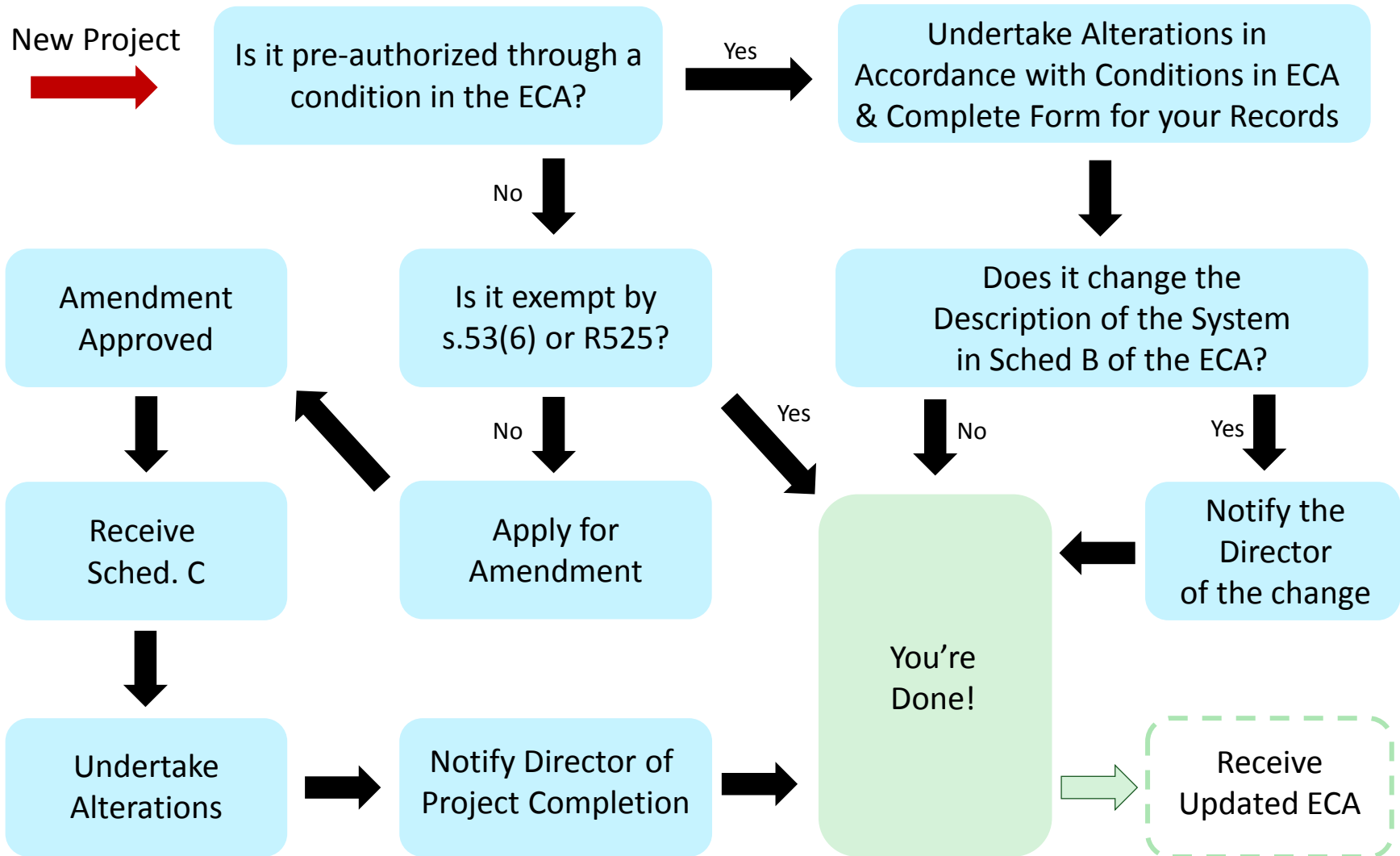
- Mandatory video inspection of all new sewers and associated appurtenances
- Mandatory leak testing for all sanitary sewers and forcemains
- Mandatory deflection testing for all new flexible pipes
- Protection of water supplies
- Additional testing requirement if water and sewage infrastructure are located in close proximity
- Expanding and clarifying requirements in procedure F-6-1
- Adding requirements for infrastructure when located in a source protection area

Proposed Consolidated ECA Template



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System Alterations



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ECA Templates – General Overview

Collection Systems	Stormwater Management Systems
<p>Description of system components (collection only)</p> <p>Identification of overflow points and combined sewer structures</p> <p>Pre-Authorized Alterations</p> <p>Permission / Pre-authorization for Certain Emissions to Air (e.g., Emergency Generators, odour control)</p> <p>Operations & Maintenance</p> <p>Monitoring & Reporting</p> <p>System-specific requirements or studies</p>	<p>Description of system components (collection and treatment)</p> <p>Pre-Authorized Alterations</p> <p>Identification of Stormwater Management Criteria</p> <p>Operations & Maintenance</p> <p>Monitoring & Reporting</p> <p>System-specific requirements or studies</p>

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Municipal Sewage Collection Systems

Key Highlights:

- Describes all collection system components in operation (ie. In the ground, owned by a municipality, or municipality is “beneficial owner”)
- Describes key system components (e.g., pumping stations)
- References a separate document (e.g., PDF file) listing all sewers, that is updated and maintained by the system owner
- Identifies overflow points and combined sewer structures
- Pre-authorizes alterations to the system, including:
 - Addition, modification, replacement and extension of sanitary sewers and forcemains
 - Rehabilitation of existing combined sewers (“like for like”, no additional flows)
 - Specified modifications to the sewage collection systems
 - Addition, modification or replacement of specified equipment with emissions to air (e.g., emergency generators, odour control)

Municipal Sewage Collection Systems

Key Highlights:

- Includes operating conditions relating to general operations, duties of owners and operating authorities, operations and maintenance, and reporting
- Includes requirements for additional studies, as required (e.g., an assessment of wet weather flows compared to dry weather flows)
- Authorizes and includes requirements relating to the management of waste residuals from the sewage collection system

Municipal Sewage Collection Systems

Proposed Pre-Authorized Modifications

- Adding, modifying or replacing specified storage equipment, alterations to existing pumping stations, and physical control structures
- Adding, modifying, replacing or removing chemical metering pumps, chemical storage tanks and specified measuring and monitoring devices
- Replacing process piping, fuel storage tanks and spill containment works

Municipal Stormwater Management System

Key Highlights:

- Generally describes key stormwater infrastructure components, with reference to a detailed stormwater infrastructure map that is maintained by the system owner
- Pre-authorizes alterations to the system, including:
 - Addition, modification, replacement and extension of storm sewers
 - Specified modifications to stormwater management facilities
 - Addition, modification, replacement, extension and operation of municipal third pipe collection system, subject to certain conditions

Municipal Stormwater Management Systems

Key Highlights:

- Includes operating conditions relating to general operations, duties of owners and operating authorities, operations and maintenance, **monitoring plans / programs**, and reporting
- Includes requirements for additional studies, as required
- Authorizes and includes requirements relating to the management of waste residuals from the stormwater management system

Municipal Stormwater Management Systems

Proposed Pre-Authorized Modifications

- Adding, modifying or replacing specified storage, pervious pipes, filter or buffer strips, ponds, wetlands, filters, oil-grit separators, and other facilities that may be accepted by the Director
- Low impact development and green infrastructure
- Storm pipes must be designed in accordance with Design Criteria
- Specific Stormwater Management Criteria are identified that must be met for modifications to be pre-authorized

Next Steps & Timing

- External/Internal Stakeholder working group meetings continuing as forum for early feedback on concepts, recent meeting on October 9
- Internal working group received over 800 comments on Design Criteria and draft sewage collection and stormwater ECAs in August, all comments reviewed, process expected to be completed September
- EBR Consultation on area-wide linear ECA process proposed, with stakeholder outreach sessions to be determined

Questions?

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