



**MDC and Member Town Meeting:  
Equivalent Inflow Removal Rate Letter- Sewer System Capacity**

June 1, 2026

# Stormwater Impacts on Separated Sewer Systems

# How Stormwater Impacts All Towns

- Multiple meetings regarding impact of stormwater and groundwater have been held with Member Towns dating back to March 2017. Most recent was May 2024 presentation on stormwater regionalization.
- Consent Decree related reports identified several areas within separated Member Towns, where private inflow removal is required for Consent Decree Compliance
  - Prior “pilot projects” developed approach for separation of properties and connection to Town-owned storm infrastructure
- Towns have ordinances that prohibit non-sanitary water to the MDC’s sewer system
  - Requires enforcement
  - Impractical if Town’s don’t have adequate stormwater system
- Cost to treat stormwater flow in sewer system from one town impacts all other Member Towns
  - Direct impact to Sewer Ad Valorem

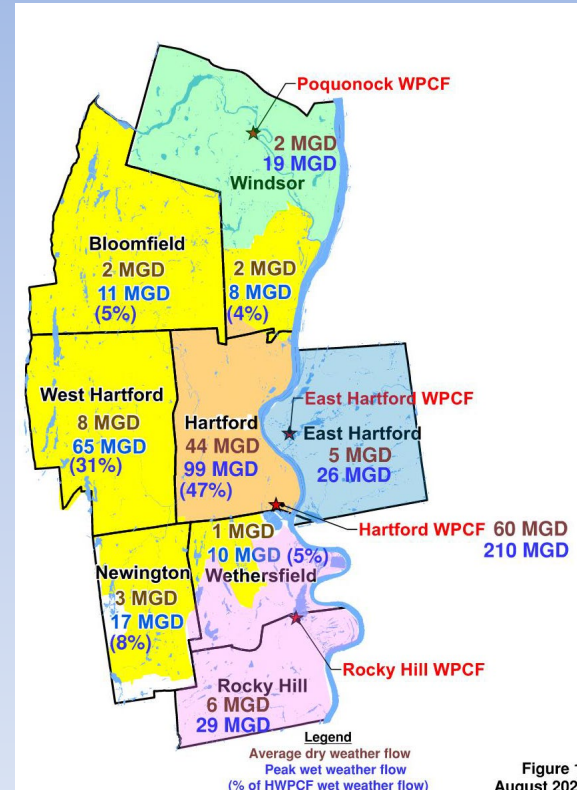


Figure 1  
August 2023

# MDC Stormwater Management Considerations

- Prior attempts of private I/I removal denied by Towns due to inadequate drainage system. For example:
  - FB2 Subarea in Wethersfield along Folly Brook
  - WH 34 Subarea in West Hartford
- Over half the flow treated at the MDC's 4 Water Pollution Control Facilities (WPCFs) is from stormwater and infiltration and inflow (I/I)
  - Even with approximately 320 miles of lining completed since 2008 & a projected IP Spend of \$385M (2018 \$) for mainline Sewer Rehabilitation work.
- Per 2018 LTCP Update, the cost to treat excess wet weather flow is about \$650 (2017 \$) per million gallons of wastewater
  - \$854.21 per million gallons of wastewater in 2025 \$
- Total flow to all plants is about 26 billion gallons per year, thus about 14 billion gallons per year is stormwater and I/I
- About \$11.96M per year (2025 \$) to treat the stormwater and I/I
  - Funds that could be used to disconnect private inflow connections
  - Direct impact to Sewer Ad Valorem

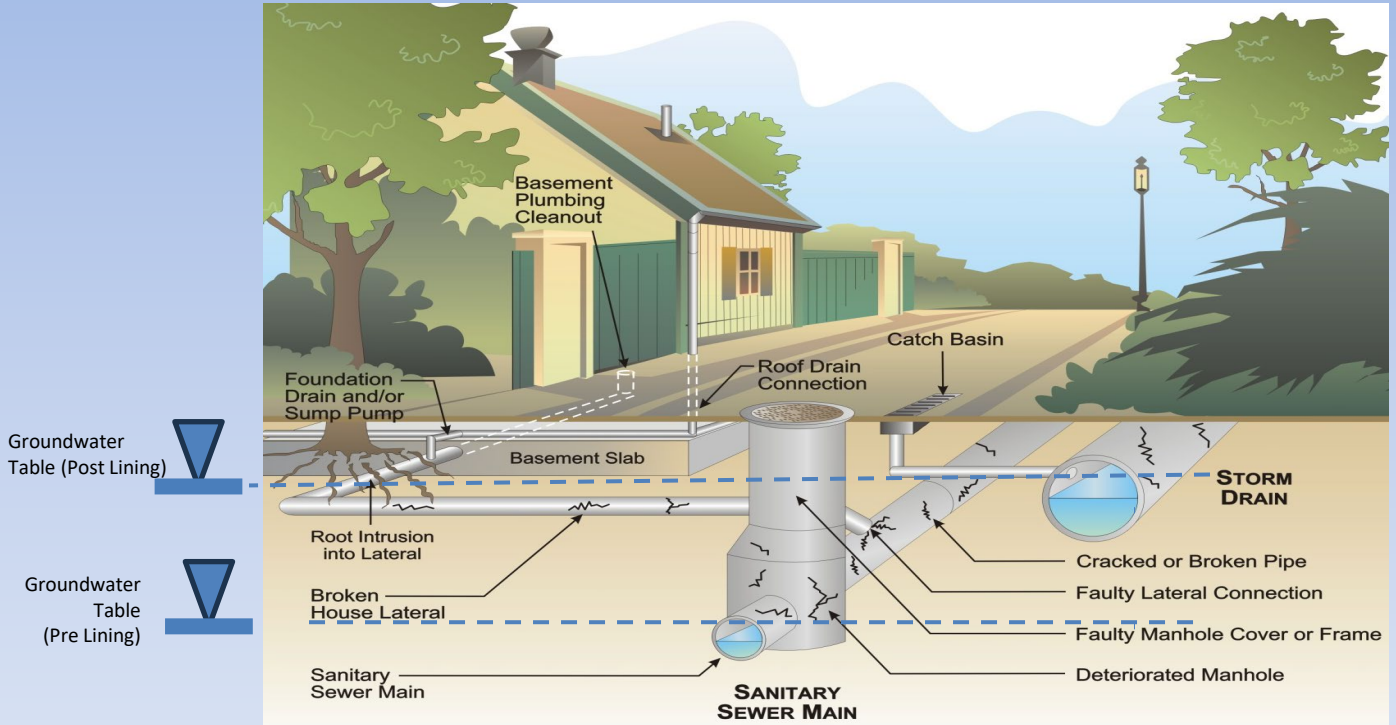
# Example Wet Weather Expansion Projects

- Hartford WPCF
  - \$500M upgrade completed
- Rocky Hill WPCF
  - \$60M upgrade completed
  - \$13.1M headworks improvements in Construction
- South Hartford Conveyance & Storage Tunnel
  - \$600M
  - Intended for Wet Weather Only
- Conveyance (larger interceptor) projects
  - \$100M – Homestead, Goff Brook, etc



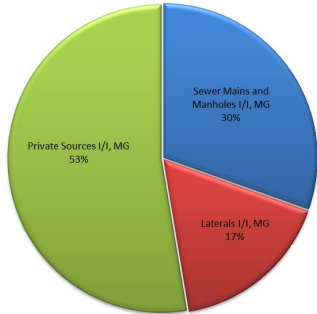
These projects, and many others like them, would not have been needed if stormwater from Hartford and seven other Member Towns was not in sewer system – [These Examples represent over \\$1.3B in work to address infiltration and inflow transportation & treatment and do not account for future Repair and Rehabilitation work of the additional assets](#)

# Inflow and Infiltration



# Public vs Private Wet Weather (HWPCF)

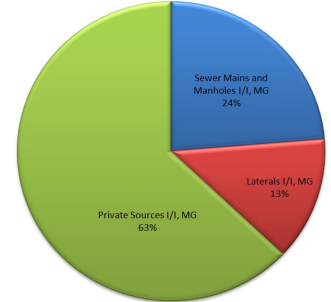
## HWPCF - Windsor



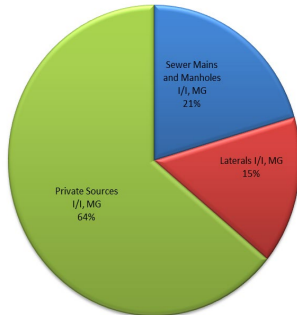
Legend:

- Green** = Inflow Connections (Private)
- Red** = Infiltration (Private)
- Blue** = Mainline Infiltration (Public)

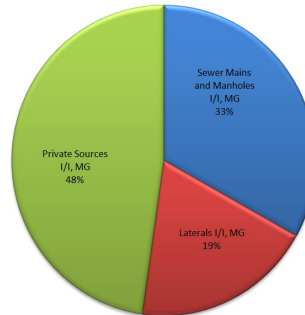
## HWPCF - West Hartford



## HWPCF - Wethersfield



## HWPCF - Newington



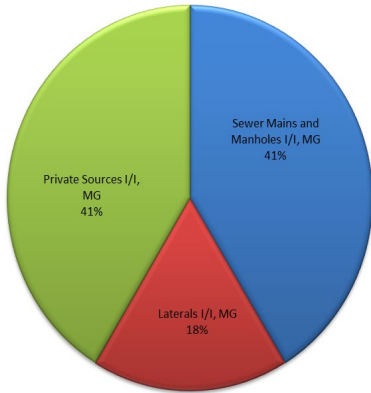
**% Private (average) =**

**73%**

**% Public (average) = 27%**

# Public vs Private Wet Weather (Non-HWPCF)

**PWPCF**



**% Private = 59%**

**% Public = 41%**

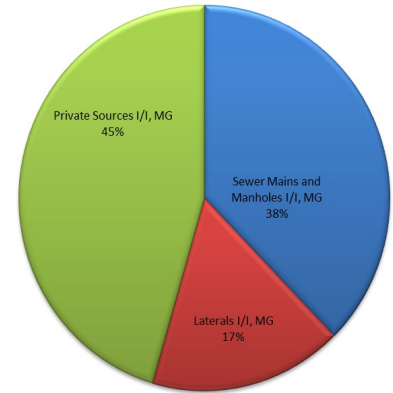
Legend:

**Green** = Inflow Connections (Private)

**Red** = Infiltration (Private)

**Blue** = Mainline Infiltration (Public)

**RHWPCF**



**% Private = 62%**

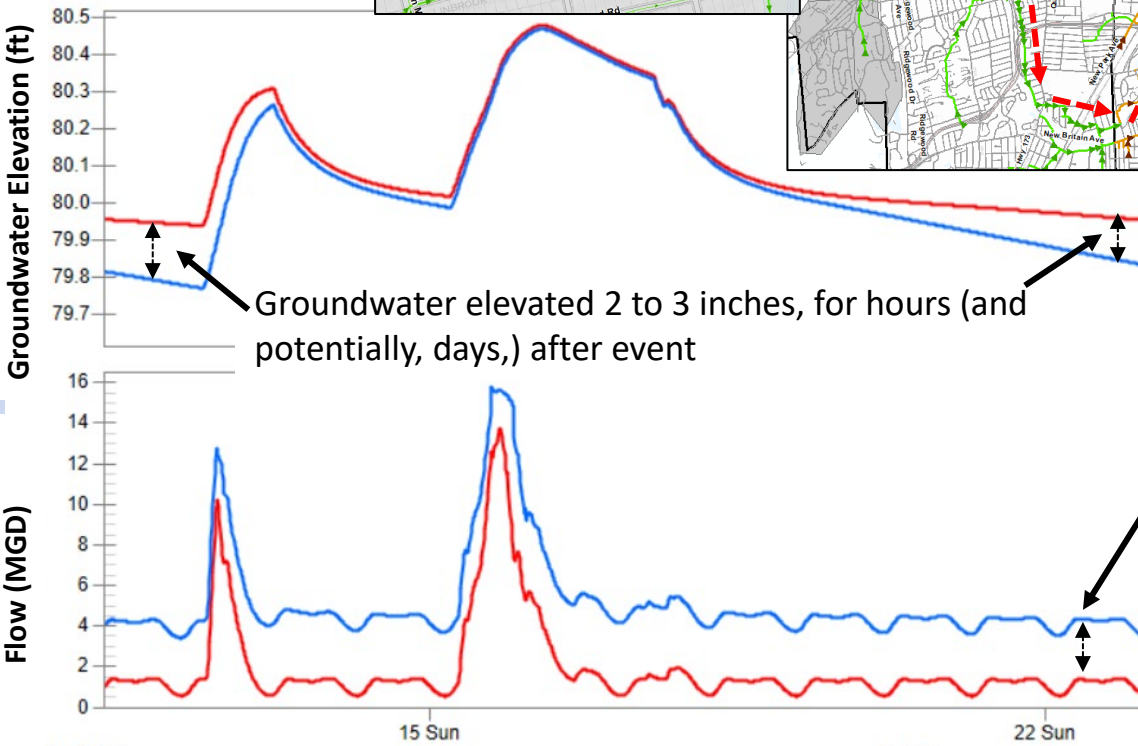
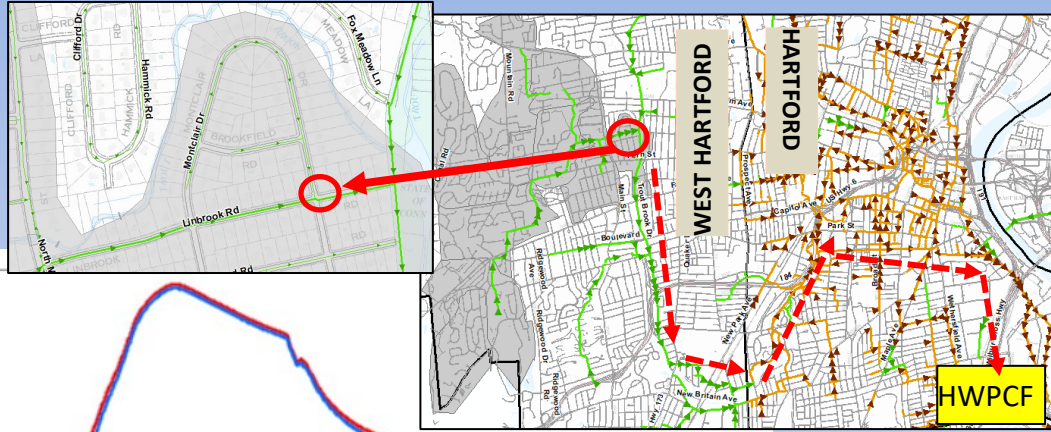
**% Public = 38%**

# Status of Projects: Key Performance Indicators (District Wide)

Key Performance Indicators	Q1 2026 (January 1 through March 31)	2025 Annual (Jan 1, 2025 through Dec 31, 2025)	Total To Date (since 2019)
Storm drains or sanitary sewers installed (feet)	404	5,197	39,170
Sewer mains rehabilitated (feet) (miles)	7,534 (1.4)	181,940 (34.5)	595,622 (112.8)
Sewer laterals inspected (# of properties)	657	6,001	14,904
Sewer laterals renewed (# of properties) (feet)	288 (10,285)	2,966 (92,962)	5,851 (188,009)
Backwater valve/surcharge protection (# of properties)	114	695	2,435
Private property internal disconnects (# of properties)	60	426	1,151
Sewer or storm laterals installed via separation (to property line) (# of properties)	4	32	151
Private property separation completed (# of properties)	0	27	77

# West Hartford Infiltration & Inflow Removal Example (25-yr storm)

--Sewers Not Lined  
--Sewers Lined

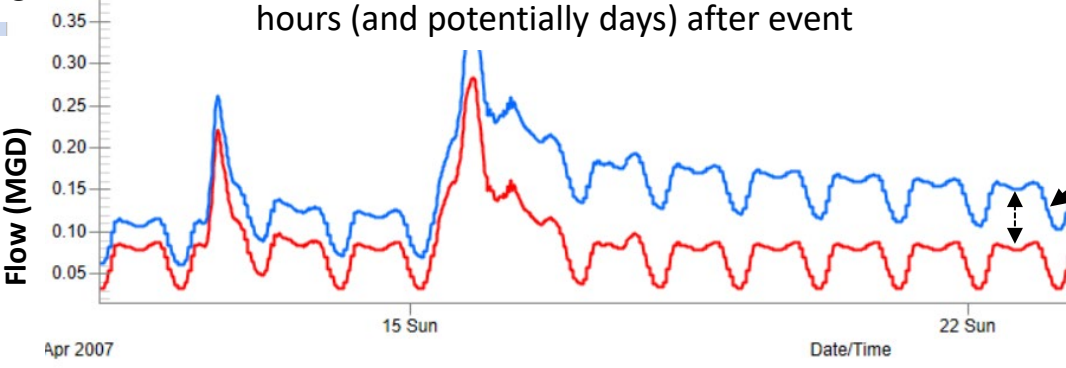
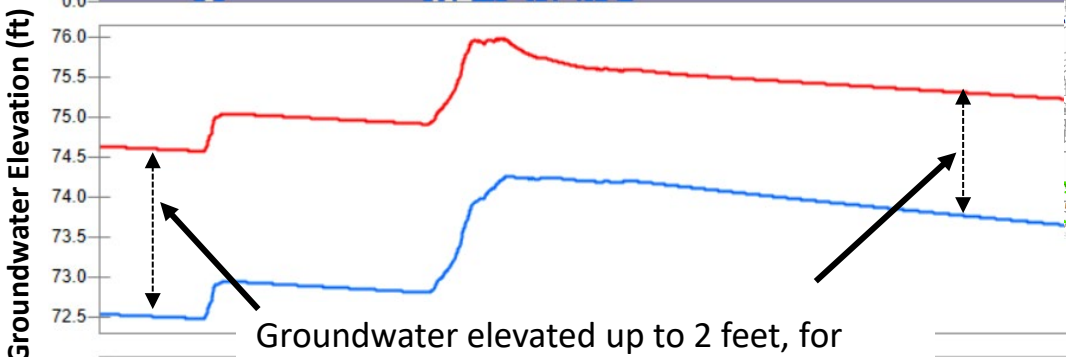
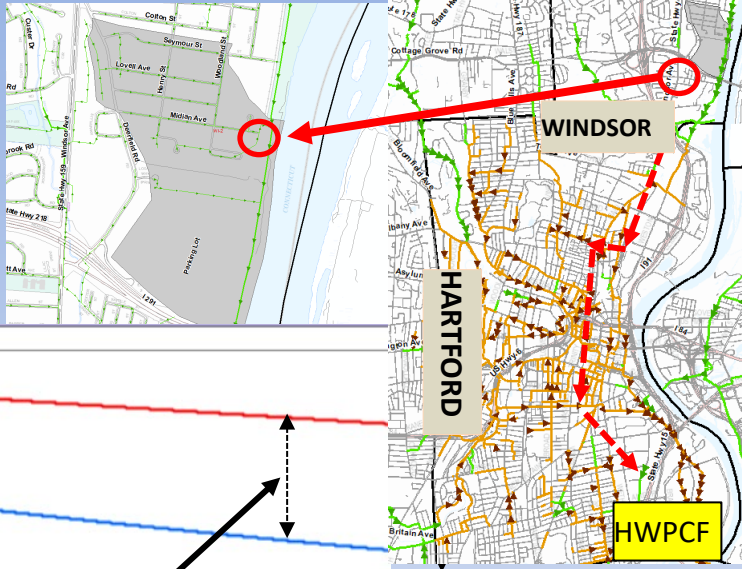


Groundwater elevated 2 to 3 inches, for hours (and potentially, days,) after event

Flow in sewer system has been reduced (50%) due to lining

# Windsor Infiltration & Inflow Removal Example (25-yr storm)

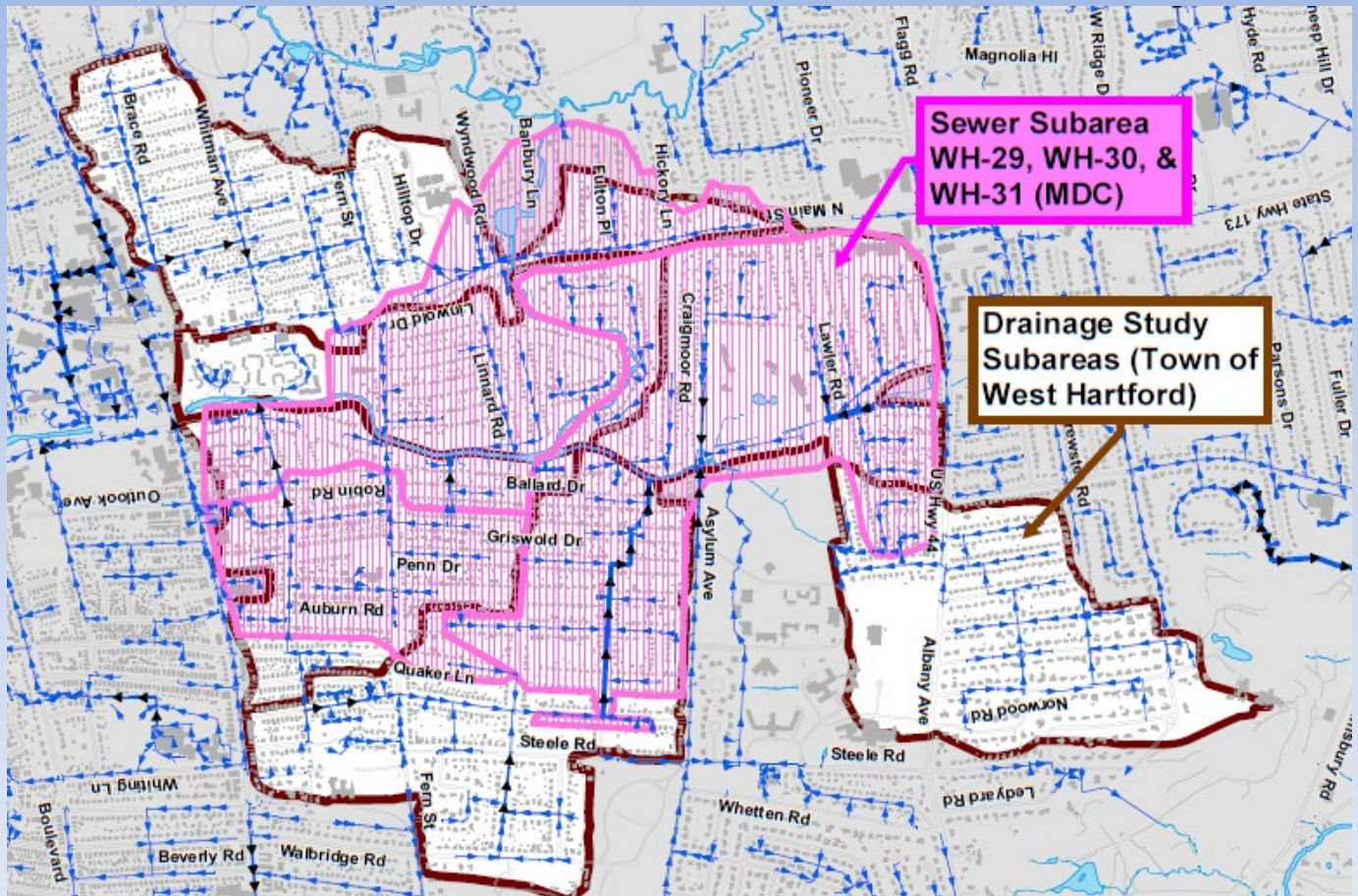
--Sewers Not Lined  
--Sewers Lined



Apr 2007

Date/Time

# Member Town/MDC Priority Area Overlap Example



# Potential MOU with Responsibilities

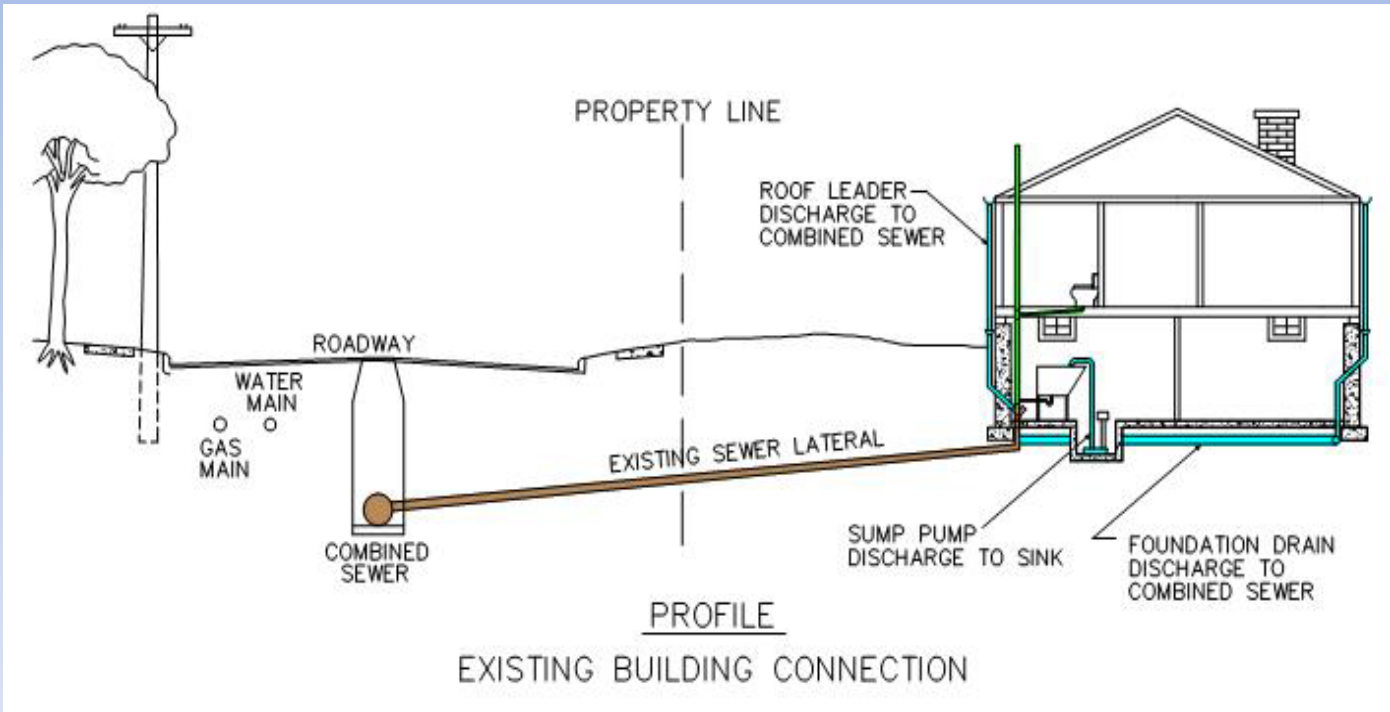
- **Responsibilities of The Metropolitan District**

- Identification and prioritization of areas of Member Town where private property separation/disconnection work is required for either CO or CD compliance.
  - Coordination of schedule of MDC work with Member Town stormwater program.
- All aspects of the preparation of Contract Documents for Construction for executing the private property work. This shall include:
  - Contracting with an Engineering Consultant for the Design of the work
  - Public Outreach
  - Inspections & preparation of sketches/drawings
  - Management of all necessary private property agreements, including those required by both the MDC and Member Town
  - Preparation of as-built documents for Member Town
- Execution and administration of Construction phase

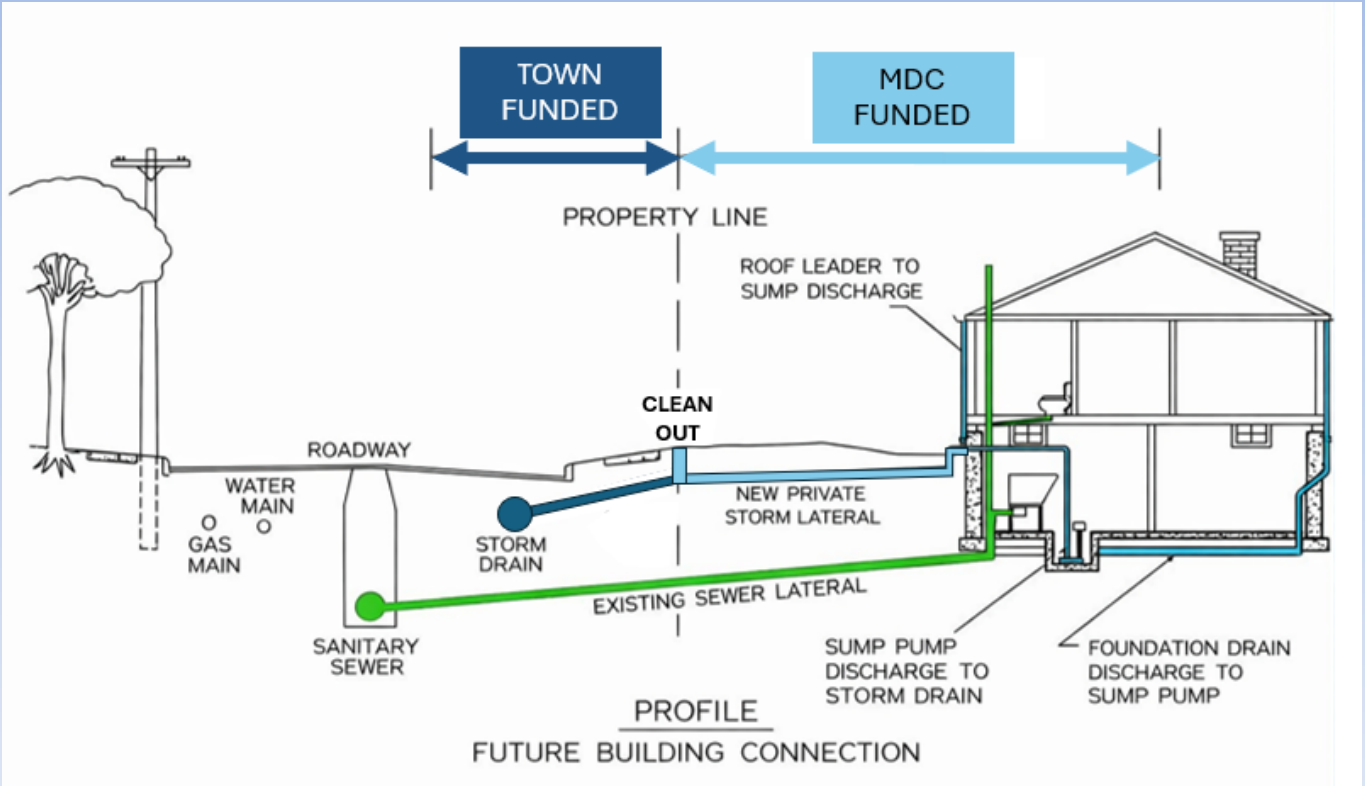
- **Responsibilities of Member Town:**

- Design and Installation of storm drainage infrastructure, as required for future private property separation/disconnection work by the MDC.
- Restoration of all areas disturbed by the installation of the Work within the ROW.
- Approval of private storm drain connections and timely issuance of permits for MDC and its Contractors at time of private property disconnection work.
- Provide the MDC with immediate written notice of its discovery of any violation of the Applicable Town of Code Sections.

# MDC Sewer System – Existing Conditions



# MDC Sewer System – Future Conditions



MDC EIRR

# Town & MDC Ordinances

## Example Town Ordinances

### □ Sec. 9-22 Discharge into sewer system.

[Code 1961, § 9.03.01]

- (a) All discharge to the public sanitary sewage disposal system or to any private sewage disposal system from any habitable building shall consist of sanitary sewage only.

### □ § 147-1 Use of sanitary sewer connection; exceptions.

- A. In any building connected to the sanitary sewer, such connection shall be used only for the conveyance and disposal of sanitary sewage.
- B. The area covered by the East Ridge System and the Elizabeth Park System is excepted from the provisions of this section.

### □ § 147-2 Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

#### SANITARY SEWAGE

For the purpose of § 147-1, the common wastewater and water-carried waste from human buildings and from toilets and lavatory fixtures, kitchens, laundries and similar facilities of business and industrial buildings. In general, sanitary sewage shall not include stormwater from roofs, yards, streets or open spaces; water from land surfaces or brooks; clean waste or overflow from springs, wells or subsoil drainage; large volumes of clean water from air-conditioning or other cooling or condensing facilities; or clean wastewater from hydraulically operated contrivances and industrial waste.

## MDC Use of Sanitary Sewers Ordinance

### SEC. 521 USE OF SANITARY SEWERS

Except as specifically provided with reference to some particular sewer, sanitary sewers shall be used only for the conveyance and disposal of sanitary sewage as defined in Section 51b(2) of this ordinance and for diluted, water-carried industrial wastes which are not objectionable as provided hereinafter. Except as specifically provided for some particular sewer or location, no sanitary sewer shall be used to receive and convey or dispose of any storm or surface water, subsoil drainage, any flow of water seeping into buildings or excavations from soils or other underground sources, flows of natural springs, or ground waters, surplus from flowing wells, the discharge from roofs, roof conductors, yard drains, street or highway drains.

(Adopted December 16, 2019)

(Effective January 1, 2020)

## MDC EIRR Ordinance

- (c) The District Board shall establish an Equivalent Inflow Removal Rate ("EIRR") based on the calculated cost for removal of the average volume per day of inflow from a typical single-family property. The EIRR shall be a fixed rate per number of gallons which rate and volume in gallons may be modified from time to time by the District Board. A property owner or developer required to remove an equivalent volume per day of inflow from the sewershed shall pay the EIRR based on the equivalent volume per day of inflow required to be removed. The minimum EIRR due shall be 1 and additional EIRR's will be rounded up to the nearest whole number. Proceeds from the EIRR will be used for improvements, or removal of inflow, to the District's sewer system within the same sewershed in order to improve capacity within the sewershed.

(Adopted December 8, 2025)

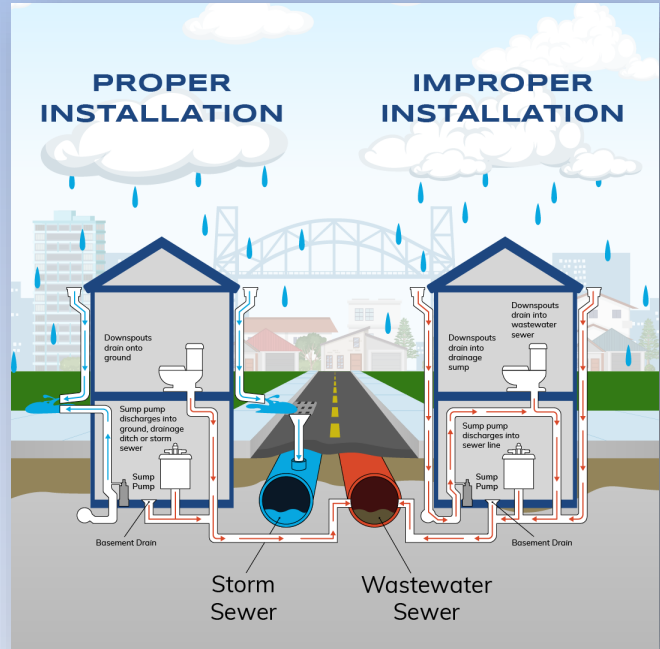
(Effective January 1, 2026)

# Equivalent Inflow Removal Rate (EIRR)

- Problem:
  - During rain events, areas in the system exceed capacity due in large part to illicit stormwater connections
  - Sewer capacity is therefore limited for new developments proposing additional sanitary discharges into the system

# Equivalent Inflow Removal Rate (EIRR)

- Solution:
  - Ensure sufficient capacity by eliminating illicit stormwater connections
  - The EIRR allows us to approve new developments while partnering with the Developers to remove inflow within the system



# Equivalent Inflow Removal Rate (EIRR)

- MDC Sewer Ordinance S2I(c) *Adopted December 8, 2025, Effective January 1, 2026*
  - Cost for removal of the average volume per day of inflow from a typical single-family property
  - Used for improvements, or removal of inflow, to the District's sewer system within the same sewershed
- Current Rate
  - EIRR = \$11,100 per equivalent unit

# Equivalent Inflow Removal Rate (EIRR)

How is it calculated?

- Estimated Discharges (gallons per day)
  - Determined by the Developer's engineer.
  - Existing discharges are averaged and removed from the calculation
- Equivalent Unit (single-family property to be disconnected)
  - The proposed gallons per day are divided by the average volume per day of inflow from a typical single-family property (currently determined to be 1,996 GPD)
- $EIRR = \text{Equivalent Unit} \times \text{Current Rate}$

# Equivalent Inflow Removal Rate (EIRR)

- Example:

- Previous use of property – Commercial/Retail

- Averaged 243 gallons per day

- Proposed use of property – 6 residential units + Commercial space

- Proposed 10,200 gallons per day

$$10,200 \text{ GPD} - 243 \text{ GPD} = 9,957 \text{ GPD}$$

$$9,957 \text{ GPD} \div 1,996 \text{ GPD/equivalent unit} = 4.98$$

→ 5 equivalent units

$$5 \times \$11,100 = \mathbf{\$55,500}$$

# Equivalent Inflow Removal Rate (EIRR)

Pre-ordinance:

- (3) West Hartford & (1) Newington development contributed to EIRR funds via special agreement
  - Example: 1700 Asylum Ave, WH avoided the fees by making improvements on-site which decreased the system's stormwater inflow

# Equivalent Inflow Removal Rate (EIRR)

Post-ordinance:

Town	Anticipated Projects	Anticipated EIRR Funds
Bloomfield	6	\$399,600
Newington	2	\$155,400
Rocky Hill	1	\$22,200
West Hartford	6	\$344,100
Wethersfield	2	\$233,100
Windsor	5	\$1,143,300
<b>Total</b>	<b>22</b>	<b>\$2,297,700</b>

\* \$421,800 invoiced to date (4 projects)