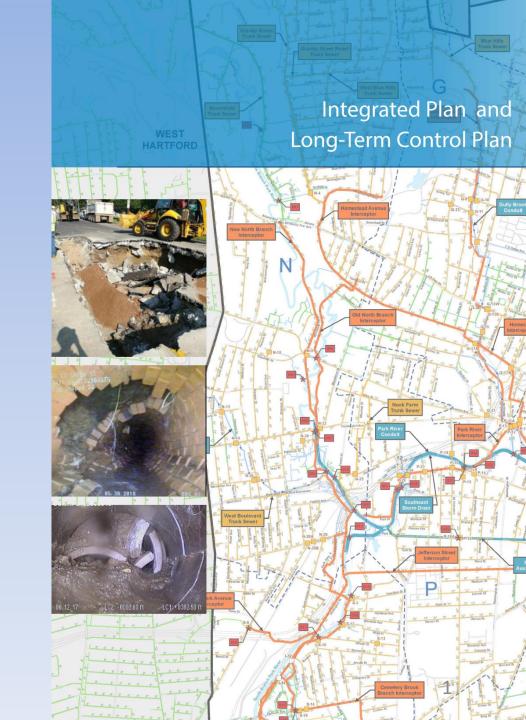


Integrated Plan Implementation Quarterly Report

Q2 2024 (April 1 to June 30) September 12, 2024



Meeting Agenda

- Welcoming Remarks
- Introductions
- Quarterly update on MDC's Integrated Plan, with current focus on North Hartford
 - Quarterly Report from April 1, 2024 to June 30, 2024 (Q2 2024)
 - An update on projects completed and under construction
 - A schedule for projects under construction or yet to start construction
 - A status of use of minority and disadvantaged business enterprises, including efforts and success at recruiting labor and contractors from the area where projects are or will be occurring
 - Next Quarterly Report Meeting = December 12, 2024 (Q3 2024)
- Public Comments and Questions

Presentation Outline

- Background on focus area (North Hartford)
- Quarterly Consent Order (CO) reporting requirements
- Overview of CO projects in:
 - North Hartford
 - Hartford (outside of North Hartford)
 - Outside Hartford
- Update on key performance indicators
- MDC's recruiting efforts for Small, Minority, Women and Disadvantaged Businesses (SBE, MBE, WBE, DBE) and Local Labor
- Closing remarks

The North Hartford Area

MDC listened to the North Hartford Community and responded with an altered program that provides immediate community benefit



Consent Order Modification Reporting Requirements

Quarterly and Annual Reporting Required under Consent Order Modification

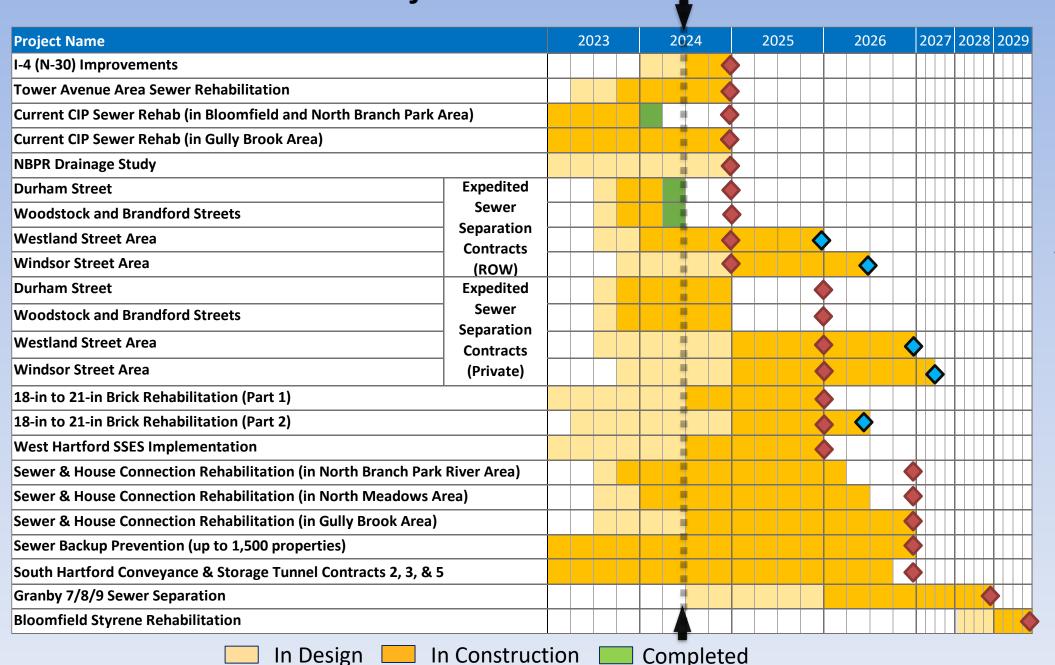
- 1) An update on projects completed and under construction
- 2) A schedule for projects under construction or yet to start construction
- 3) A status of use of minority and disadvantaged business enterprises, including efforts and success at recruiting labor and contractors from the area where projects are or will be occurring
- 4) Other items as requested by Commissioner
 - None received this quarter

Other Items Voluntarily Included by the MDC

- MDC committed to 30% Hartford based workforce for North Hartford work associated with Consent Order modification
 - 30% based on similar City of Hartford goal on municipal projects

Consent Order Projects & Timeline *To view bids, ples

*To view bids, please visit: https://themdc.org/ebid



- Consent Order
 Deadline
- Consent Order Deadline (pending DEEP approval)

Expedited Sewer Separation Program – Schedule Update

- CO Scope:
 - Right-of-Way (ROW) Work = Installation of up to 8,000 LF of new storm drains & associated laterals
 - Private Property Work = Separation work at up to 160 properties
 - Preliminary Plan of Streets:
 - Branford and Woodstock Streets (Blue Hills Avenue to Coventry Street)
 - Durham Street (Granby Street to Palm Street)
 - Westland Street (Love Lane to Clark Street)
 - Windsor Street (Main Street to Sanford Street)
- Proposed CO Milestone Dates:
 - To be updated for multiple projects
- Scope Additions:
 - Westland Street Area Project:
 - Added Garden Street (Capen Street to Charlotte Street) and Risley Street (entire street)
 - Windsor Street Area Project:
 - Added Main Street (Windsor Street to Cleveland Avenue); Value Engineering led to alternatives evaluation
 - Additional 1,320 LF of storm drains and associated laterals; 1,730 LF of new sanitary sewers & associated laterals
 - Additional 112 properties to be included in separation program
 - Additional 9,800 LF of water main work throughout Durham, Woodstock/Branford, Westland, and Windsor areas
 projects

Project Name	Current Consent Order Milestone	Proposed Consent Order Milestone
Expedited Sewer Separation (ROW) - Westland Street Area Project	12/31/2024	12/31/2025
Expedited Sewer Separation (ROW) - Windsor Street Area Project	12/31/2024	7/1/2026
Expedited Sewer Separation (Private) - Westland Street Area Project	12/31/2025	12/31/2026
Expedited Sewer Separation (Private) - Windsor Street Area Project	12/31/2025	7/1/2027
18-in to 21-in Brick Rehabilitation (Part 2)	12/31/2025	7/1/2026

Expedited Sewer Separation Program – Example

Construction Progress Photos



Manhole install (Project: Durham Street Expedited Sewer Separation)

New Water Service (Project: Durham Street Expedited Sewer Separation)

Durham Street Sewer Separation Project



Project Overview

The Durham Street Sewer Separation Project construction began in July 2023, with on-call contracting process and included the installation of new storm drains and stub connections, along with the lining of sewer mains and installing new manholes and catch basins. The project was completed in July 2024 (a year and a half ahead of schedule) and is part of MDC's Integrated Plan with CT DEEP, an effort to improve the efficiency and reliability of the sewer system in the area.

\$1.9M in sewer improvements

\$276K additional water main improvements

38% of workforce hours were Hartford residents



Private Property Work

Sewer Backup Prevention: Installation of backwater valves, check valves, and sump pump

Sewer Inflow Separation: Lining sewer laterals and adding gutters and yard drains to manage water flow and prevent sewer system overload.

Project Outreach

Project outreach by MDC staff and contractors was key to keeping residents informed throughout the construction process for both public right of way and private property improvements. This constant communication was important not just for the construction improvements but also the restoration of the road, sidewalks, lawns and tree planting.



- 1234 feet of main line sewer lined
- 21 sewer laterals/private house connections lined
- · 1401 feet of main line storm installed
- · 730 feet of new water main installed

- 16 new water services installed
- 21 basement assessments completed
- 18 backwater valves installed
- 16 private property storm laterals installed



Expedited Sewer Separation Program - Example Construction Progress Photos

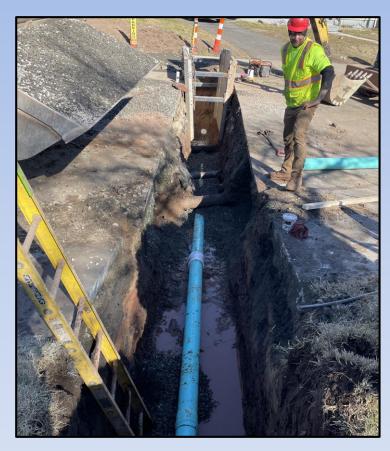




Sewer Mainline Cured-in-placed pipe (CIPP) rehabilitation (Project: Sewer & House Connection Rehabilitation in North Branch Park River Area)



Sewer Repair (Project: Woodstock and Branford Streets Expedited Sewer Separation)



New Storm Lateral (Project: Woodstock and Branford Streets Expedited Sewer Separation)

Consent Order Projects: NRZ Impact and CSO Reduction

Project Name		Neighborhood Revitalization Zone and/or Neighborhood	1 Yr CSO Reduction (MG)	Typical Year CSO Reduction (MG)
Current CIP Sewer Rehab (in Bloomfield and North Branch Park A	rea)	Blue Hills, Clay Arsenal, South Downtown, South Behind the Rocks	0.2	2.4
NBPR Drainage Study		Blue Hills, West End, Asylum Hill	*	*
Sewer & House Connection Rehabilitation (in North Branch Park	River Area)	Blue Hills	0.9	11.5
Granby 7 Sewer Separation		Blue Hills	0.4	3.8
Granby 8 Sewer Separation		Blue Hills	0.3	3.4
Granby 9 Sewer Separation		Blue Hills	0.4	3.6
Durham Street	Expedited	Blue Hills	0.1	1.2
Woodstock and Brandford Streets	Sewer	Blue Hills	0.1	1.4
Westland Street Area	Separation Contracts	Northeast	0.4***	4.5***
Windsor Street Area	(ROW)	North Meadows	1.1	14.3
Expedited Sewer Separation Contracts (Private Property Work)		Blue Hills, Northeast, North Meadows	**	**
Sewer & House Connection Rehabilitation (in Gully Brook Area)		Northeast	0.9	11.0
Tower Avenue Area Sewer Rehabilitation		Northeast	0.2	3.0
Sewer & House Connection Rehabilitation (in North Meadows Ar	rea)	North Meadows	1.0	28.4
Current CIP Sewer Rehab (in Gully Brook Area)		Asylum Hill, Clay Arsenal, South Behind the Rocks	1.3	10.0
18-in to 21-in Brick Rehabilitation (Part 1 and Part 2)		Asylum Hill, Clay Arsenal, South End, Marg	0.8	7.0
I-4 (N-30) Improvements		West End	<0.1	<0.1
Sewer Backup Prevention (up to 1,500 properties)		All North Hartford NRZs/Neighborhoods	**	**
South Hartford Conveyance & Storage Tunnel Contracts 2, 3, & 5		South End, Marg, South Behind the Rocks	3.8	21.9
West Hartford SSES Implementation		N/A	0.2	1.2
Bloomfield Styrene Rehabilitation		N/A	<0.1	<0.1

^{*}CSO Reductions for the NBPR Drainage Study included in individual Granby Separation Contracts

Completed

*** Values were updated based on revised runs to include additional separation

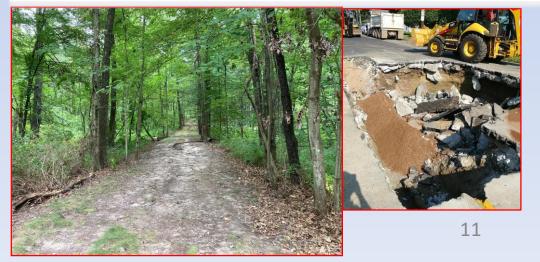
^{**} CSO Reductions associated with Private Property Improvements included in associated ROW Project Reduction Estimates

Additional Sewer Improvement Projects

Non-Consent Order (2019 through Q2 2024)

- Clearing Sewer Easements on Private Property
 - Completed = Bloomfield, Rocky Hill, East Hartford,
 Windsor
 - In progress = Newington
 - Other Member Towns to follow
- Easement Sewer Rehabilitation
 - Bloomfield Phase 1 completed, subsequent phases in design
 - Other Member Towns to be evaluated/scheduled
- On-Call Sewer Rehabilitation/Repair
 - 230,000 feet sewer main rehabilitated from 2019 to 2023; 11,500 feet of sewer main through Q2 2024
 - Sewer main and laterals rehabilitated in Member Towns
 - In 2024 Q2: work performed in Bloomfield, East Hartford, Hartford, Newington, West Hartford, Wethersfield, and Windsor
 - Asset management/paving program coordination

Town	Easement Clearing Length (feet)
Bloomfield	98,000 (completed)
Rocky Hill	59,100 (completed)
East Hartford	66,200 (completed)
Windsor	132,300 (completed)
Newington	51,300 (in progress)
Hartford	55,800 (2025-2027)
West Hartford	54,300 (2025-2027)
Wethersfield	59,200 (2025)
Total (feet)	576,000
Total (miles)	109



Consent Order Projects (as of 6/30/24): North Hartford

Sewer & House Connection Rehabilitation (in North Branch Park River Area):

Rehabilitation of sewer mains and house connections upstream of CSOs N-2 and N-4

Expedited Sewer Separation Contracts (ROW):

Construction of storm drains in streets
(Additional separation added per MDC review)

Expedited Sewer Separation Contracts (Private):

orth Branch Par

Orainage Distri

Private property storm separation (to follow ROW Separation Contracts)

North Branch Park River <u>Drainage Study:</u>

Evaluating the North Branch Park River and surrounding sewer and drainage infrastructure in support of future river improvements and sewer separation

Granby 7/8/9 Sewer Separation:

Sewer separation with new storm drains and private property disconnections (final location based on North Branch Park River Study)

Tower Avenue Area Sewer Rehabilitation:

Rehabilitation of sewer mains and house connections upstream of CSOs NM-2, NM-3, and NM-4

Sewer & House Connection Rehabilitation (in North Meadows Area)

Rehabilitation of sewer mains and house connections upstream of CSOs NM-5, NM-6, and NM-7

Sewer & House Connection Rehabilitation (in Gully Brook Area):

Rehabilitation of sewer mains and house connections upstream of CSO G-13W

- Not Yet Started
- In Design

North Mead

Drainage Di

In Construction

Consent Order Projects: Private Property Benefit

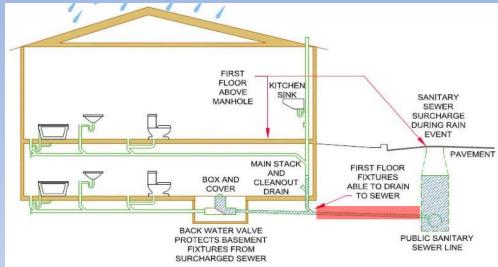
Sewer Backup Prevention Program ("Backwater Valve Program")

- Separates homes' foundation drains (via installing sump pumps) and gutters from the sewer system, reducing surcharging during wet weather
- Install backwater valves to prevent basement backups
- \$12.2 million (up to 1,500 homes) for North Hartford properties (Consent Order project)
- https://themdc.org/utility-services/backwater- valve-program/
- To schedule a free assessment of your property, contact MDC Utility Services at (860) 278-7850, ext. 3123

Sewer House Connection Program – voluntarily included by MDC

- MDC Board initiative to provide same benefit District-wide that was being offered to North Hartford residents
- Emergency and non-emergency maintenance and inspection services at no cost to the property owner
- Provides funding for renewal of the house connection, if needed
- https://themdc.org/utility-services/sewer-house-connection-program/

Contractors for both programs are anticipated to be <u>all SBE</u> (Small Business Enterprise)





Town	Permits Pending Approval (as of the end of Q2)	
Hartford	101	
West Hartford	20	
Windsor	1	

Consent Order Projects (as of 6/30/24): Outside of North Hartford

Gully Brook Area Sewer Rehabilitation:

Rehabilitation of sewer mains and house connections



Bloomfield and North Branch Park
River Area Sewer Rehabilitation:

Rehabilitation of sewer mains and house connections

I-4 (N-30) Improvements:

Rehabilitation of sewer mains downstream of CSO I-4 (N-30)

18-in to 21-in Brick Rehabilitation (Part 1)

Rehabilitation of brick sewer mains

18-in to 21-in Brick Rehabilitation (Part 2)

Rehabilitation of brick sewer mains

South Hartford Conveyance & Storage Tunnel (SHCST) Contracts 2, 3, & 5:

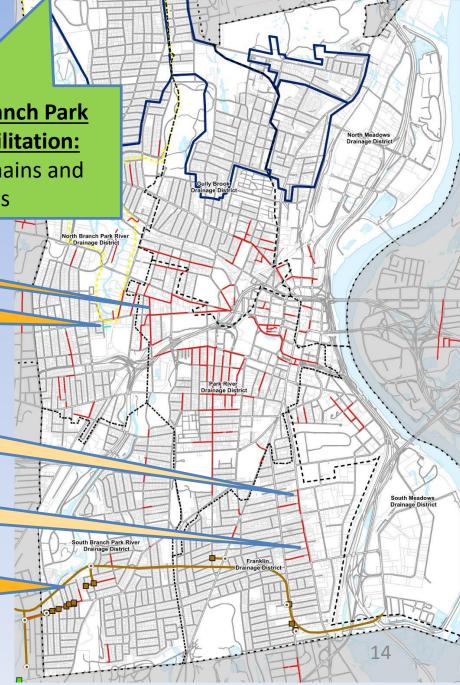
Construction of the SHCST, drop shafts, consolidation conduits and dewatering PS

In Design

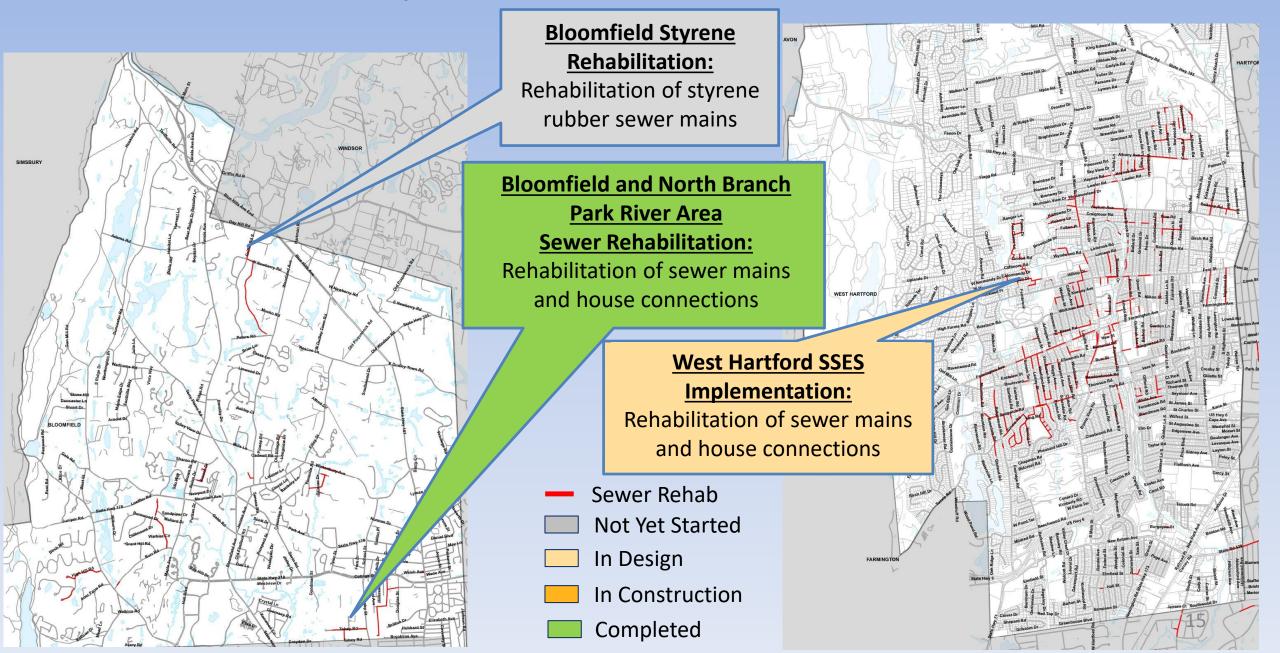
Completed

Not Yet Started In Construction

Sewer Rehab



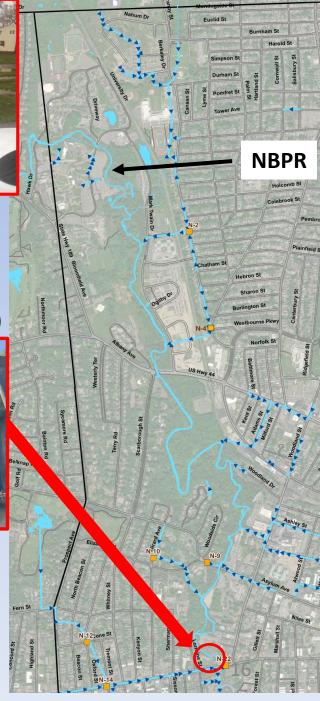
Consent Order Projects (as of 6/30/24): Outside of Hartford



North Branch Park River Drainage Study Update

- Importance of Study
 - NBPR has sediment buildup (i.e., from streets) and blockages (i.e., from downed trees); needs attention as these contribute to street and localized flooding and backups
- Study needed to determine
 - Required flood control and stream improvements (COH priority)
 - Approach to remove stormwater from sewers; eliminate CSOs (MDC priority)
- River assessment complete
- Short term improvements performed to date
 - City cleaned Park River Conduit inlet
- Durham Street sewer separation in ROW complete, private property separation to be completed by July 2024
- Conceptual sewer separation design underway
- CDM Smith presented preliminary findings to MDC, City of Hartford (COH), and Greater Hartford Flood Commission (GHFC) in 2024 Q2
- Draft reports to be submitted to MDC and COH in Q3 for review
 - CDM Smith will need Decisions from COH on implementation of River Improvement Recommendations in Late Q3/ Early Q4





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

Key Performance Indicators	Q2 2024 (Apr 1 through June 30)	2024 Annual (Jan 1 through Dec 31)	Total To Date (since 2019)
Storm drains or sanitary sewers installed (feet)	0'	101′	31,732′
Sewer mains rehabilitated (feet) (miles)	12,082' (2.3)	25,358' (4.8)	349,131' (66.1)
Sewer laterals inspected (# of properties)	1,631	2,507	5,699

613 (19,657')

181

42

0

16

1,069 (33,408')

275

53

95

16

1,450 (45,647')

1,292

164

95

16

17

(# of properties)

Sewer laterals renewed (# of properties) (feet)

Backwater valve/surcharge protection (# of properties)

Private property internal disconnects (# of properties)

Private property separation completed (# of properties)

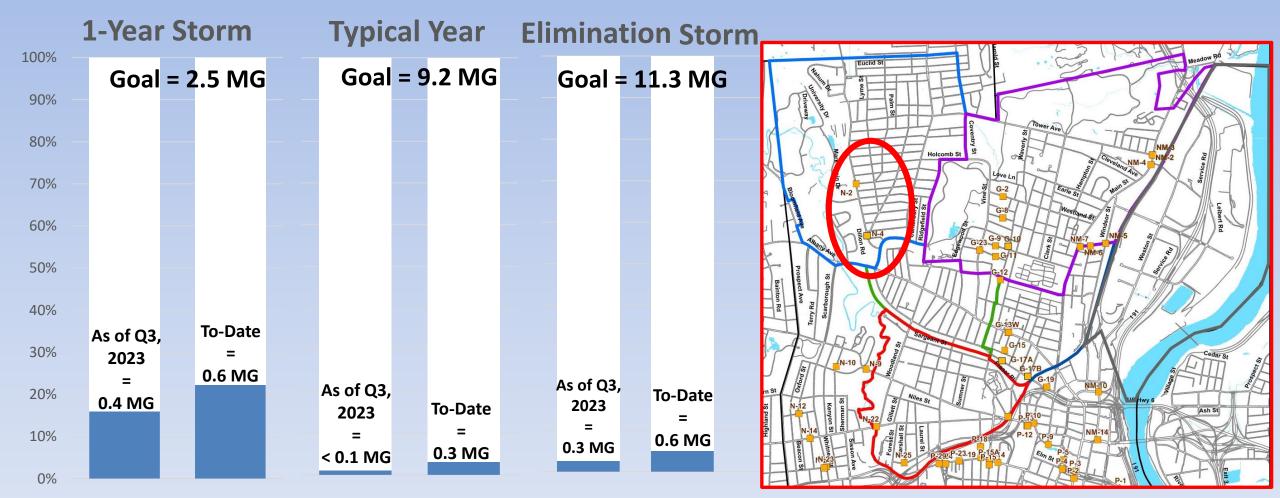
*Work in all Member Towns, including North Hartford

Sewer or storm laterals installed via separation (to property line)

Status of Projects: Key Performance Indicators (North Hartford)

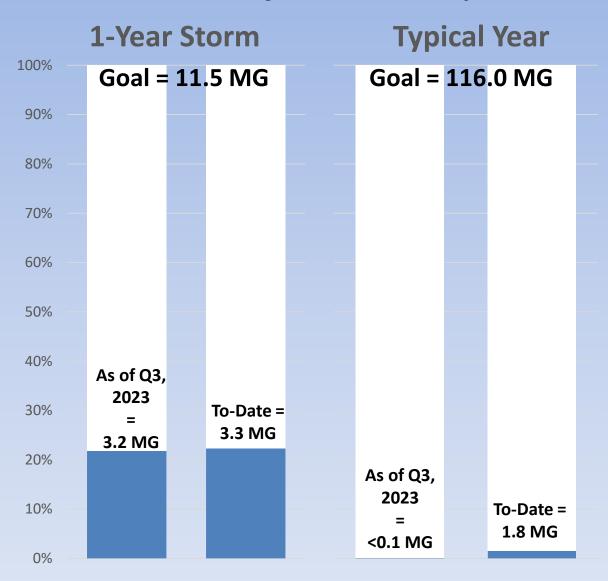
Key Performance Indicators	Q2 2024 (Apr 1 through June 30)	2024 Annual (Jan 1 through Dec 31)	Total To Date (since 2019)
Storm drains or sanitary sewers installed (feet)	0'	101′	9,232′
Sewer mains rehabilitated (feet) (miles)	9,470′ (1.8)	10,174' (1.9)	48,043' (9.1)
Sewer laterals inspected (# of properties)	368	618	1,041
Sewer laterals renewed (# of properties) (feet)	164 (5,815')	248 (9,035')	349 (13,600')
Backwater valve/surcharge protection (# of properties)	96	121	467
Private property internal disconnects (# of properties)	18	20	77
Sewer or storm laterals installed via separation (to property line) (# of properties)	0	95	95
Private property separation completed (# of properties)	16	16	16

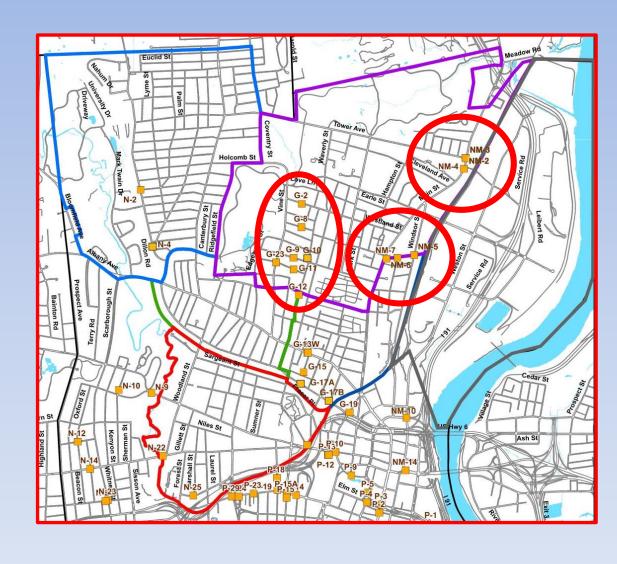
Status of Projects: N-2 and N-4 CSO Reduction



Notes: Per the Consent Order, combined sewer overflows (CSOs) from N-2 and N-4 must be eliminated. Million gallon (MG) goals are per 2018 Integrated Plan.

Status of Projects: Gully Brook & North Meadows CSO Reduction





Notes: Per the Consent Order, CSOs from Gully Brook and North Meadows must be controlled to the 1-year storm. Goal represents the total million gallon (MG) of CSO that occurs in a 1-year storm and typical year.

Community Outreach

Keeping people informed who live and work in the communities where construction is taking place is a critical component to the success of our projects.

Communication and Project Outreach

- Outreach is primarily conducted through mailings, door to door notifications and meetings throughout the duration of each project.
- Regularly attend local NRZ and Community Group Meetings
- View north Hartford projects and status: <u>www.themdc.org</u>

Outreach Office: 179 Barbour Street, Hartford

- Ribbon Cutting was held May 15, 2024
- The office has been very well received in the community
- We provide project information including: schedules, activities and improvements.
- Those interested in training and employment are either directed to our Contractor Career Development and Compliance team or to our website to view current MDC Job Openings www.themdc.org



May 15, 2024 Ribbon Cutting

MDC's Ongoing Support for Small, Minority, Women and Disadvantaged Businesses (SBE, MBE, WBE, DBE)

- CT Department of Administrative Services (DAS) SBE/MBE/WBE and SAM.gov Registration Clinic • Collaboration with CT Apex Accelerator, National Association of Women in Construction (NAWIC), and University of Hartford
 - Continued support and guidance for contractors
 - Assisted with recertification applications and SAM.gov ID process
- Vendor and Contractor Relationship Building for Backwater Valve and House Connection Programs
 - SBA Match Making Seminar (online, May 15th, 2024): Aimed to connect small businesses with project opportunities
 - Ongoing efforts to support local DBE contractors: Improving buying power/credit with suppliers (FW Webb) and access to loans/credit through community banking (HEDCO)
 - Additional MDC training on Back Water Valve and House Connection
 Programs: Ensuring contractor adherence to installation standards



Pre-Registration is Required to Attend.

EMAIL: Kevin Nodwell at: kevin.nodwell@ct.gov.

Register to attend one clinic, or more, as needed. If you

register and cannot make it, please cancel in advance.

September 18

October 16November 20

April 17

LUNCH IS PROVIDED NO COST TO ATTEND SPACE IS LIMITED.

MDC's Seeds of Partnership: Transforming Local Labor

Recruitment

- Provided updates on MDC bidding and match making opportunities at:
 - Greater Hartford African American Alliance (GHAAA) Meetings
 - EGT Pathway Mini Career EXPO READY CT at Hartford Public High School on April 3, 2024
 - Capital Community College Job Fair Collaboration with CCC CEO on Workforce Development Plan for Water and Wastewater Treatment Certification on April 25, 2024
 - North and South Campus Community Day –Bulkeley High School
 E&M on May 7, 2024
 - Maker Space Job Fair Skilled Trades on June 7, 2024
 - Hartford Job Corps Career Fair & Trade Expo on June 26 2024



MDC's Seeds of Partnership: Transforming Local Labor Recruitment

- Try a Trade Highlights:
 - MDC, CT Pre-Apprenticeship and CT DOT event
 - 11 High School students graduated in April with Flagger Certification
 - Partnership with CT Pre-Apprenticeship, Laborers, Operators, Iron Workers, Electrical and Carpenter Unions
 - Promotion of Try-A-Trade success at Partnership Award Ceremony for MCC Program (May 7, 2024)
- Workforce Development Initiatives:
 - CTECS Work-Based Learning Portal for undergraduate and graduate students
 - Handshake Portal collaboration with Co-Op Colleges in Tri-state area
- Additional Partnership Programs
 - Capital Workforce Partners, Veteran and Second Chance sponsorships
 - Hartford County Residents: Water and Wastewater Treatment Operator Online Training (Sacramento University Program)

TRADE

Now OFFERING FULL SCHOLARSHIPS FOR HIGH SCHOOL SENIORS

PROGRAM DETAILS

DATES: April 8th - 12th, 2024 Тіме: 8:00 ат - 2:30 рт LOCATION: MDC Training Center 125 Maxim Road, Hartford, CT COST: FULL Scholarship for those that are accepted into the program. Transportation may be included. pace is limited - Apply Now! Scan the



The best way to find out if you like something is to give it try!

Try a TRADE is a one week hands on program to do just that! Join us as we explore several different and profitable career paths through hands on learning! Students will have the opportunity to earn several certificates as well as gain knowledge and a better understanding of each trade and how to apply. Instruction may include Fall Protection, Ladder Safety, Flagger Certification, Work Zone Safety, Fire Extinguisher Safety, Silica Awareness, Concrete Work, OSHA-10 Certification, CPR/AED/First Aid Certification, Hoisting and Rigging, etc. Participants will receive Personal Protective Equipment including a Hard Hat, Safety Glasses, Work Gloves and





- · Electricians Union
- · Operating Engineers Union
- · Iron Workers Union
- · Carpenters Union







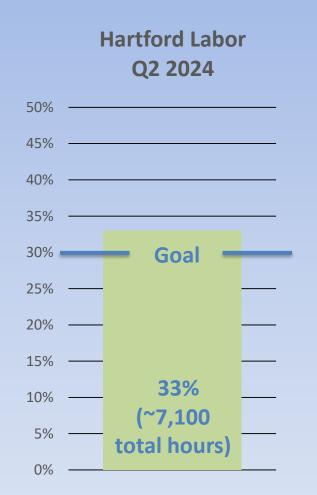


MDC's Partnership Metrics from Transforming Local Labor Recruitment

- 30% Hartford resident workforce goal
- Local Workforce and Contractor Development in the North End
 - 4 Hartford residents hired by MDC Contractors
 - Total To-Date: 11 Hartford residents
 - 1 Hartford contractor (MBE) awarded Backwater Valve Program contract
 - Total To-Date: 2 Hartford contractors
 - 2 Hartford residents long-term employment under new training/award initiative
 - Total To-Date: 5 Hartford residents
- Workforce Development Initiatives:
 - Established annual Try-a-Trade Program
 - Work-based Learning Program
- Workforce Development and Educational Partnerships:
 - Collaboration with Community Colleges, CTEC Schools, and Public High Schools across Hartford County
 - Partnership with CT Pre-Apprenticeship, Laborers, Operators, Iron Workers, Electrical and Carpenter Unions – Future Training Programs
 - Co-op programs and workshops with local educational institutions
 - Outreach Program via construction tours, site visits, and job fairs
 - Key partners: CT Pre-apprenticeship, Ready CT, DOT, Capital Workforce Partners, and EGT Pathway Schools



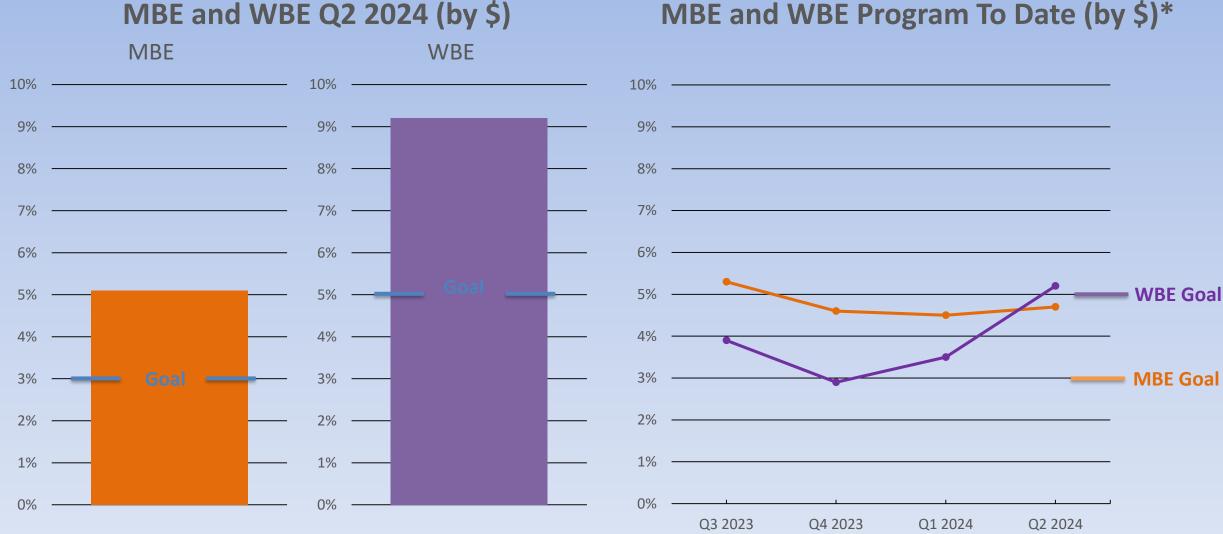
Hartford Labor Status





Note*: Statistics are based on all Hartford Consent Order projects started after July 2023 under construction. 30% target based on similar City of Hartford goal on municipal projects.

Minority/Women Business Enterprises Status



Note*: Statistics are based on all Consent Order related projects under construction, **beginning in July 2023**. MBE and WBE targets based on CT DEEP Clean Water Fund (CWF) goals

Closing Remarks

- Many ongoing initiatives and projects
- Many ways to stay informed
 - Visit https://themdc.org/north-hartford-sewer-improvement-projects/
 - Via your local NRZ
- Quarterly Consent Order Meetings
 - Second Thursday of the months of March, June, September, and December
 - Each meeting will also be virtual
- Comments and Questions

List of Acronyms

- AFSCME = American Federation of State, County and Municipal Employees
- AHNA = Asylum Hill Neighborhood Association
- BWV = Backwater Valve
- COH = City of Hartford
- CSO = Combined Sewer Overflow
- CT DEEP = Connecticut Department of Energy and Environmental Protection
- CWF = Clean Water Fund
- CWPC = Clean Water Project Charge
- DAS = Department of Administrative Services
- DBE = Disadvantaged Business Enterprise
- EPA = Environmental Protection Agency
- GHAAA = Greater Hartford African American Alliance
- GHFC = Greater Hartford Flood Commission
- IP/CSO LTCP = Integrated Plan/CSO Long-Term Control Plan
- MBE = Minority-Owned Business Enterprise

- MCC = Minority Construction Council
- MG = Million Gallons
- NAWIC = National Association of Women in Construction
- NBPR = North Branch Park River
- NGOs = Non-Government Organizations
- NRZs = Neighborhood Revitalization Zones
- PPID = Private Property Inflow Disconnect
- Q3 = Quarter 3 (ex. period from July 1, 2023 to September 30, 2023)
- RFP = Request for Proposal
- RFQ = Request for Qualifications
- ROW = right-of-way
- SBE = Small Business Enterprise
- SHCST = South Hartford Conveyance & Storage Tunnel
- SSES = Sanitary Sewer Evaluation Survey
- SSO = Sanitary Sewer Overflow
- WBE = Women-Owned Business Enterprise

29

Common Terms & Definitions

Separate/sanitary sewer

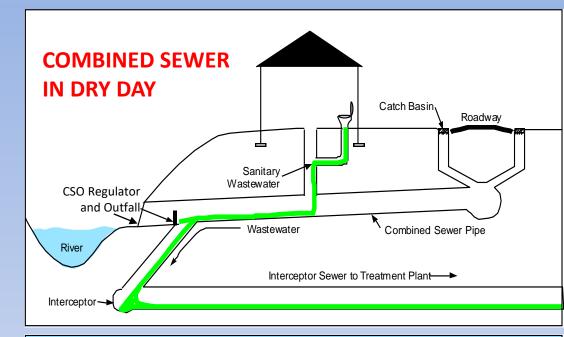
- pipe designed to only convey wastewater
- how sewers are built now, all member towns except Hartford

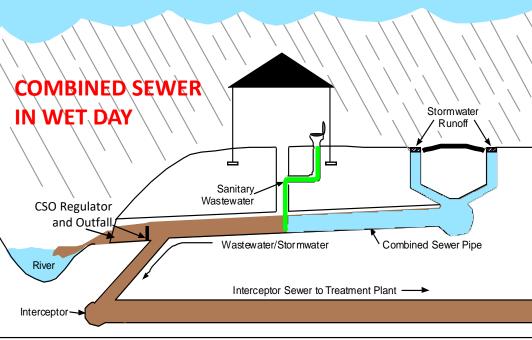
Storm drain

pipe designed to convey only stormwater

Combined sewer

- pipe designed to convey **both** sanitary and stormwater (including catch basins)
- How sewers were built 100 years ago
- Issues with Combined Sewers:
 - Dry Day: No issues, enough capacity for household sewage (toilet, showers, etc)
 - Wet Day: Stormwater enters sewer (example: through catch basins). The combined sewer becomes too full, causing overflows (CSOs) into streams/rivers





Common Terms & Definitions

Lateral/House Connections

 Pipe (shown in red) connecting the wastewater from homes to the District's sewer main

Combined Sewer Overflow (CSO)

- condition that occurs when wet weather flows in a combined sewer system exceed the treatment capacity at the plant and/or in the pipes, causing it to discharge flow into typically a storm drain or river (via a CSO regulator and outfall)
 - Example: "N-2" and "N-4"

Sanitary Sewer Overflow (SSO)

 a condition that may occur due to blockage/clog in a pipe, broken infrastructure, or due to significant rainfall



Common Terms & Definitions

1-Year Design Storm

• The historic event from October 1951 with a 24-hour depth of 2.4 inches and an average recurrence interval (ARI) of 1 year. This design storm has been used to control all CSO regulators except those that discharge to the North Branch Park River or Wethersfield Cove.

Typical Year

• The typical year evaluated had 42-inches of rain. The selection was agreed to by CT DEEP and followed the approach described by the USEPA's "Combined Sewer Overflows Guidance for Monitoring and Modeling" (USEPA, 1999), which includes analyzing individual storm event return periods, annual precipitation, and simulated CSO volume for each year in the historic record to find a representative typical year.

Elimination Storm

Tropical Storm Tammy was adopted for CSO elimination alternatives analysis through correspondence with CT DEEP during the 2012/2014 LTCP Update. The event referred to in the LTCP as Tammy was a combination of the remnants of that storm in combination with Subtropical Depression Twenty-Two. From October 7 to 15, 2005, 13 inches of rain fell at Bradley Airport. The heaviest rain fell on the 8th and the 9th and from the 14th to the 15th, with 5.0 and 5.8 inches falling over respective 24-hour periods