The Metropolitan MDC
water supply · environmental services · geographic information

Memorandum

To: Graham Stevens, CT DEEP
Co-Chair Senator Rick Lopes, CT Legislature Committee on the Environment
Co-Chair Representative Joseph P. Gresko, CT Legislature Committee on the Environment
Co-Chair Representative Eleni Kavros DeGraw, CT Legislature Committee on Planning & Development
Co-Chair Senator MD Rahman, CT Legislature Committee on Planning & Development

From: Scott W. Jellison, P.E., MDC
Michael T. Looney, COH

Date: December 26, 2023

Re: **MDC/COH HB 6941 Annual Report**

cc: Chris Levesque, P.E., MDC
Susan Negrelli, P.E., MDC
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The purpose of this memorandum is to provide a report to CT DEEP and the State General Assembly's Environment Committee and Planning and Development Committee on 1) the status of any planned or underway long-term MDC or City of Hartford (COH) projects in the city of Hartford that are intended to improve the city's sewerage or stormwater infrastructure, and 2) the COH and MDC's plan to mitigate or prevent future flooding issues, which shall include, but not be limited to, an analysis of the feasibility of investing in green infrastructure.

Background:

In accordance with Consent Order (CO) WC0005434, executed in November 2006, the MDC submitted an update to its Combined Sewer Overflow (CSO) Long-Term Control Plan (LTCP) in December 2018 via

the document entitled CSO LTCP Update/Integrated Plan (IP). This document sets forth projects to be completed over a period of approximately 40 years to comply with the CSO elimination/mitigation requirements of the CO while taking in account the affordability and impact to MDC ratepayers.

Over the subsequent three plus years, the MDC and CT DEEP reviewed and revised this document, ultimately determining projects which would be completed between the years of 2022 and 2029. These projects became known as Phase 1 of the IP, and were formally approved via CO COWRMU2202 (2022 Consent Order), which was executed in September 2022. **This plan was focused solely on compliance with the Clean Water Act Consent Order mandates - CSO reduction and/or elimination through a combination of mainline sewer rehabilitation projects and capacity improvement projects. The plan did not address private property and street flooding, as this was not a requirement in any version of the Consent Order as amended.** Additionally, as part of the 2022 Consent Order, private property separation was to be completed at the end of the 40-year plan, and only if needed to achieve the mandated CSO reduction and/or elimination to the North Branch of the Park River (NBPR).

Subsequently, in response to public comments and concerns expressed in late 2022 and early 2023 regarding street flooding and sewer backups, particularly in North Hartford, Phase 1 of the IP was revised at the recommendations of the MDC to provide an immediate community benefit rather than compliance with the CWP mandated CSO reduction as the sole priority. This revision shifted the approach by deferring a group of projects (costing approximately $300 million dollars) and creating a new Phase 1, which included more sewer separation, as well as private property improvements such as sewer lateral lining and plumbing improvements to help achieve the Consent Order mandates of CSO reduction, all of which being considered the "Community Benefit" sought by all stakeholders. This revised plan, although taking longer to achieve the CSO reduction, was ultimately approved via a modification to CO COWRMU2202 in July 2023. As part of this revision, the MDC recommended to spend approximately 170 million dollars in North Hartford over the 10-year period of Phase 1, versus 47 million dollars previously approved by DEEP in September 22, 2022. In addition, the MDC made a commitment to begin construction by July 2023, which was successfully achieved.

As CT DEEP is aware, the aforementioned public concerns were centered primarily on street flooding. Separation work will have some benefits to reducing street flooding, primarily in storms up to and including storms of 10-years in return frequency (CT DOT Design Standard), Depending on whether a particular street is a local public right-of-way or a State roadway, street maintenance and cleaning responsibility falls on either the COH or the State of Connecticut.

Recently, in October, 2023, US EPA recognized the deficiencies in the overall compliance of the MS4 General Permit by letters to the COH and the MDC setting forth each entity's responsibilities in the MS4 General Permit. In response, the MDC and the COH are presently working together to finalize a previous Memorandum of Understanding (MOU) and specifically delineating MS4 roles and responsibilities. Fulfilling our respective obligations is critical. For example, as evidenced by a July 4, 2023 150-year storm rain event, there were no reports of street flooding in North Hartford. ***Further, in some cases, there may be street flooding with no private property basement sewage backups, an indication that the MDC collection system is not surcharged.***

Given the fact that there are portions of the MDC's combined sewer system that may not be able to convey system inflows during a 10-year storm, the function of the CSO regulators is to provide the necessary relief where the collection system is overwhelmed. Additionally, as part of the recently

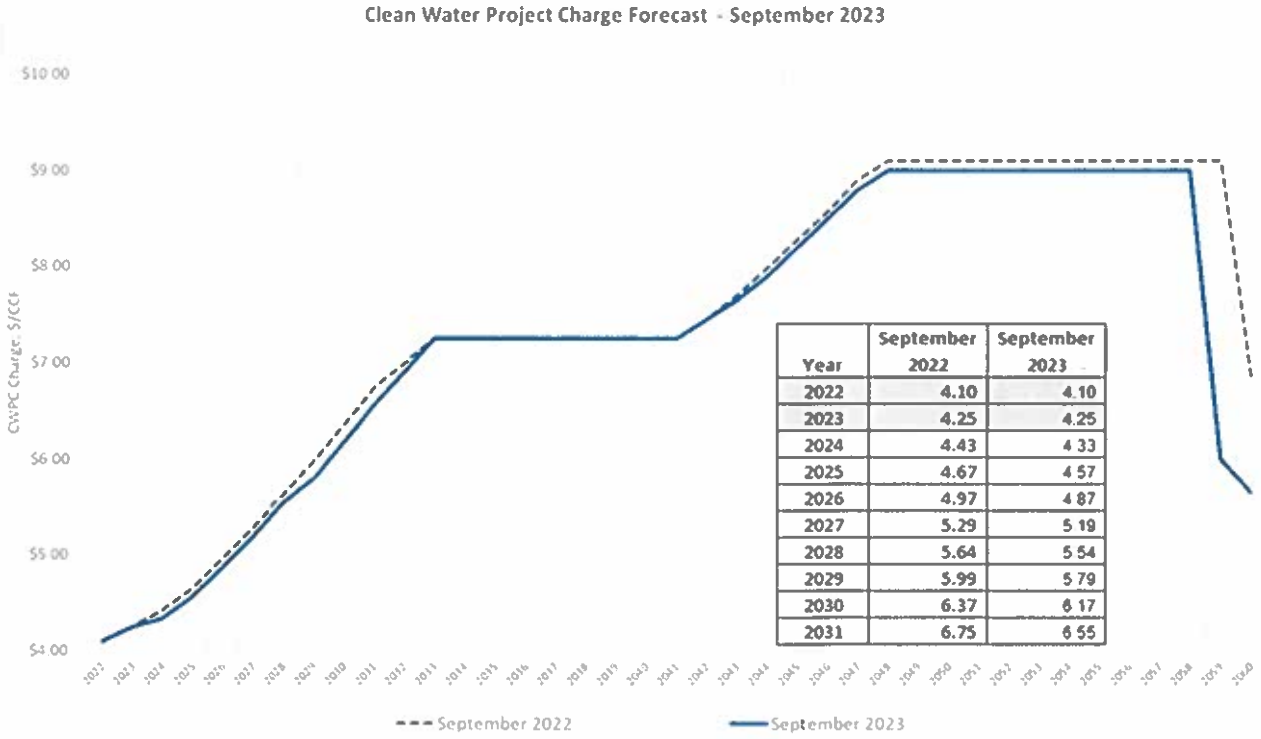
revised and approved LTCP/IP approach, particularly the general concept to proceed with sewer separation throughout the COH, any such separation project will be designed to a 10-year storm level of service (LOS). Moving forward, this approach will provide assurances that all COH streets with drainage are provided with this LOS.

With the number of extreme rain events that have occurred over the past few years, one could argue that greater than a 10-year LOS should be required in flood prone areas. ***For comparison, it is estimated that this would cost up to $5B for the required upgrades to the collection system to achieve a 50-year storm LOS. These upgrades would only include the MDC's collection system.***

Proposed Plan:

In accordance with this approach, the MDC and the COH are proceeding with the following short-term and long-term improvements to the sewer infrastructure and developing an MOU outlining roles and responsibilities addressing cleaning of streets and storm catch basins within the COH. These improvements are intended to reduce basement backups as well as localized street flooding. Additionally, where sewer separation projects are noted, the storm drainage system will be designed to convey a 10-year storm, which is the CT DOT design standard criteria.

Of note, through the increase in grant funding from the State for North Hartford "Community Benefit" projects referenced above as well as the deferral of both the $1billion dollar Downtown Hartford CSO tunnel and $300 million dollars of projects originally proposed under the Consent Order approved in September 2022, the MDC has been able to maintain the funding of its Consent Order and Consent Decree projects within the rates paid by customers that were originally forecast (See below graph). In fact, the FY 2024 rate is actually lower than projected.



Year	September 2022	September 2023
2022	4.10	4.10
2023	4.25	4.25
2024	4.43	4.33
2025	4.67	4.57
2026	4.97	4.87
2027	5.29	5.19
2028	5.64	5.54
2029	5.99	5.79
2030	6.37	6.17
2031	6.75	6.55

MDC Short-Term Improvements to Improve Sewer Infrastructure:

- Hartford Expedited Sewer Separation Contracts
  - Scope:
    - Installation of Approximately 17,000 LF, compared to 8,000 LF in Consent Order Modification, of new storm drains and associated new storm laterals. This work is subject to completion of survey and designs and property owner permission and assumes no significant constructability issues will be found.
    - Installation of approximately 7,500 LF of CIPP lining sewer rehabilitation
    - Installation of CIPP lateral (house connection) lining at up to 250 properties
    - Subsequent separation of up to 252 properties (compared to 160 properties in Consent Order Modification), which includes dedicated storm laterals, rain leader disconnections and interior plumbing modifications.
  - Project Benefit: This project was advanced in the overall IP schedule as part of the North Hartford Pilot Program (NHPP) with CT DEEP. The completion of this project will improve drainage in the project areas, by removing storm drainage from the combined sewers. Additionally, it will allow for subsequent separation of private properties, thereby significantly reducing the possibility of sewer backups in these properties.
  - Cost: Approximately $25M
  - Schedule:
    - The survey and design work began the week of May 1, 2023.
    - Design of the first three Work Areas (Durham, Woodstock/Branford, and Westland/Garden/Risely) has been completed. The final Work Area design (Windsor Street) will be completed in 1st Qtr. 2024.
    - Construction schedules:
      - Durham Street – Completion: 1st Qtr. 2024
      - Woodstock/Branford – Completion: 1st Qtr. 2024
      - Westland Street Area – Completion: 4th Qtr. 2025
      - Windsor Street Area – Completion: 4th Qtr. 2025
    - The subsequent private property work, to connect to the dedicated storm drains will begin in 2024 and be completed in late 2025. This work also includes Martin Street in the Westland Street area, where previous projects had installed storm laterals to the properties, and the completion of the work on Westland street will allow for full separation on Martin Street.
- Sewer Rehabilitation in Bloomfield & NBPR Area (Contract 2022B-07)
  - Scope: Rehabilitation of up to 15,000 LF of sanitary sewers in Bloomfield and Hartford.
  - Project Benefit: This project is being completed in accordance with the CSO LTCP/IP, and is part of overall CSO controls via reduction of inflow & infiltration. This project will reduce potential of sewer backups within the City of Hartford, as the pipes included in this project area upstream of Hartford's Combined Sewer System. Additionally, this project will rehabilitate aging infrastructure via trenchless construction methods in advance of failures and subsequent need for costly excavation repairs.
  - Cost: Approximately $6M
  - Schedule: Project will be completed in early 2024
- Sewer Rehabilitation in Gully Brook Area (2021B-23)
  - Scope: Rehabilitation of up to 15,000 LF of large diameter sewers in Hartford.

- Project Benefit: This project is being completed in accordance with the CSO LTCP/IP, and is part of overall CSO controls via reduction of inflow & infiltration. Additionally, this project will reduce potential of sewer backups and rehabilitate aging infrastructure via trenchless construction methods in advance of failures and subsequent need for costly excavation repairs.
- Cost: Approximately $15M
- Schedule: Project will be completed in early 2024.

- Tower Avenue Area (NM-2/3/4) Sewer Rehabilitation (Hartford)
  - Scope:
    - 10,000 LF of sewer rehabilitation (approx.)
    - Sanitary Sewer Point Repair
    - Rehabilitation/Replacement of approximately 400 Laterals
    - Rehabilitation of Manholes
    - 300 LF of New Storm Drain
  - Project Benefit: This project was advanced in the overall IP schedule as part of the NHPP with CT DEEP. This project is being completed in accordance with the CSO LTCP/IP, and is part of overall CSO controls via reduction of inflow & infiltration. Additionally, this project will reduce potential of sewer backups and rehabilitate aging infrastructure via trenchless construction methods in advance of failures and subsequent need for costly excavation repairs. This project will also significantly reduce the possibility of sewer backups caused by failing sewer house connections (laterals) via the rehabilitation and/or repair of laterals.
  - Cost: Approximately $5.5M
  - Schedule:
    - Notice to Proceed (NTP) Issued 7/24/23
    - Construction Completion – 1st Qtr. 2024
- Backwater Valve/Private Property Inflow Disconnection
  - Scope:
    - Initially, this work would be directed to properties in those areas of North Hartford that have been historically subject to combined sewer surcharges (Initial Phase), and then expanded to other areas in North Hartford.
    - Approximately 1,000-1,500 properties would be contacted as part of the Initial Phase. Goals of this work include:
      - 1) protecting basements from future flooding by addressing plumbing deficiencies and unprotected fixtures;
      - 2) determining the condition of sewer house connection lateral and assigning appropriate corrective work; and
      - 3) completing private property separation plumbing improvements in anticipation of future combined sewer separation.
  - Project Benefit: This project was advanced in the overall IP schedule as part of the NHPP with CT DEEP. The completion of this work will provide full protection from sewer backups for any participating property. This is being completed as a short-term benefit in advance of subsequent sewer separation projects.
  - Cost: Approximately $12.2M
  - Schedule: Assessments began in July 2023. All work expected to be completed by end of 2026 in advance of sewer separation project construction.

- House Connection Program
  - Scope: Beginning in mid-2023, the MDC started replacing and/or rehabilitating failing sewer House Connections (laterals) throughout the MDC. This work may be completed as part on a sewer repair/rehabilitation Construction Contract or via the MDC's House Connection Program (HCP).
    - Under the HCP, laterals in the area designated as North Hartford (by EPA and CT DEEP), any lateral is eligible for a free inspection, and subsequently repaired and/or rehabilitated as recommended by MDC. Repair work completed at no cost to the property owner, as this work is part of CT DEEP NHPP. **MDC is receiving 50% grant for this private property work in north Hartford as a pilot study. If successful in helping achieve the goal of reducing CSO's by removing inflow and inflation on private property, this grant funding approach could possibly be applied throughout the MDC saving rate payers significantly.**

    Under the HCP, laterals throughout the MDC (outside of North Hartford) are eligible for a free inspection/assessment. **Should repairs and/or rehabilitation be recommended by MDC, property owners may complete this work, with reimbursement by MDC (up to $10,000). MDC could have proposed to provide free sewer laterals under this revised IP for just North Harford without providing the same benefit to all MDC towns.**
  - Project Benefit: This project was added to the overall IP plan as part of the North Hartford Pilot Program with CT DEEP. The completion of this work both further protect property owners from sewer backups as well as reduce infiltration into the MDC's collection system.
  - Cost: Target of $7M a year in lateral replacements and/or rehabilitation throughout MDC Member Towns. The MDC will be ramping up to this MDC-Wide target, throughout the years of 2024 through 2028 following the completion of the North Hartford Pilot, as shown below:
    - 2024: $6M in lateral work in North Hartford & $2M in lateral work MDC-wide
    - 2025: $6M in lateral work in North Hartford & $2M in lateral work MDC-wide
    - 2026: $10M in lateral work in North Hartford & $3M in lateral work MDC-wide
    - 2027: $10M in lateral work in North Hartford & $5M in lateral work MDC-wide
    - 2028: $7M in lateral work MDC Wide, escalating annually throughout the IP
  - Schedule: The schedule of this program will be re-evaluated following the completion of the NHPP, with results included in the MDC's 2028 CSO LTCP/IP Update.
- CSO N-30 Sewer Rehabilitation (Hartford)
  - Scope: Rehabilitation of approximately 350 of existing combined sewer, as required to meet CO requirement of 1-year level of control at this CSO.
  - Project Benefit: This project is being completed in accordance with the CSO LTCP/IP, and is part of overall CSO controls via reduction of inflow & infiltration. Additionally, this project will reduce potential of sewer backups and rehabilitate aging infrastructure via trenchless construction methods in advance of failures and subsequent need for costly excavation repairs. This project will also significantly reduce the possibility of sewer backups caused by failing sewer house connections (laterals) via the rehabilitation and/or repair of laterals.
  - Cost: Approximately $200,000
  - Schedule: Work will be completed by the end of 2024 via the MDC's existing On-Call Sewer Contracts

MDC Long-Term Improvements to Improve Sewer Infrastructure:

- 18-in to 21-in brick sewer rehabilitation (Hartford)
  - Scope:
    - Rehabilitation of up to 40,000 LF of 18"-21" Brick Sewers in Hartford.
    - Point repairs and manhole installation, as needed
  - Project Benefit: This project is being completed in accordance with the CSO LTCP/IP, and is part of overall CSO controls via reduction of inflow & infiltration. Additionally, this project will reduce potential of sewer backups and rehabilitate aging infrastructure via trenchless construction methods in advance of failures and subsequent need for costly excavation repairs.
  - Cost: Approximately $15M
  - Schedule: Work will be completed via two separate Construction Contracts. Part 1 will be completed in early 2025 and Part 2 will be completed by the end of 2025.
- West Hartford SSES Implementation
  - Scope:
    - 97,000 LF of sewer rehabilitation (approx.) in West Hartford (Hartford Sewershed)
    - Sanitary Sewer Point Repairs
    - Rehabilitation/Replacement of up to approximately 2,500 Laterals
    - Rehabilitation of Manholes
  - Project Benefit: This project is being completed in accordance with the CSO LTCP/IP, and is part of overall CSO controls via reduction of inflow & infiltration. This project will reduce potential of sewer backups within the City of Hartford, as the pipes included in this project area upstream of Hartford's Combined Sewer System. Additionally, this project will rehabilitate aging infrastructure via trenchless construction methods in advance of failures and subsequent need for costly excavation repairs.
  - Cost: Approximately $38M
  - Schedule: All mainline rehabilitation work will be completed by the end of 2024. Lateral rehabilitation work (not required per CO) will be completed by the end of 2025.
- NBPR Area Sewer and Lateral Rehabilitation (Hartford)
  - Scope:
    - 64,000 LF of CIPP lining sewer rehabilitation (approx.)
    - 173 Sanitary Sewer Point Repairs
    - Rehabilitation/Replacement of approximately 1,975 Laterals or approximately 116,950 LF lateral lining
    - Rehabilitation of Manholes
  - Project Benefit: This project was advanced in the overall IP schedule as part of the NHPP with CT DEEP. This project is being completed in accordance with the CSO LTCP/IP, and is part of overall CSO controls via reduction of inflow & infiltration. Additionally, this project will reduce potential of sewer backups and rehabilitate aging infrastructure via trenchless construction methods in advance of failures and subsequent need for costly excavation repairs. This project will also significantly reduce the possibility of sewer backups caused by failing sewer house connections (laterals) via the rehabilitation and/or repair of laterals.
  - Cost: Approximately $30M
  - Schedule:
    - Bids Opened October 2023
    - Construction anticipated to start Q1 2024

        - Construction Completion –2026
- Gully Brook Area Sewer and Lateral Rehabilitation (Hartford)
    - Scope:
        - 30,120 LF of sewer rehabilitation (approx.)
        - Sanitary Sewer Point Repairs
        - Rehabilitation/Replacement of approximately 1,040 Laterals
        - Rehabilitation of Manholes
    - Project Benefit: This project was advanced in the overall IP schedule as part of the NHPP with CT DEEP. This project is being completed in accordance with the CSO LTCP/IP, and is part of overall CSO controls via reduction of inflow & infiltration. Additionally, this project will reduce potential of sewer backups and rehabilitate aging infrastructure via trenchless construction methods in advance of failures and subsequent need for costly excavation repairs. This project will also significantly reduce the possibility of sewer backups caused by failing sewer house connections (laterals) via the rehabilitation and/or repair of laterals.
    - Cost: Approximately $28M
    - Schedule:
        - Construction anticipated to start Q2 2024
        - Construction Completion – late 2026
- North Meadows Area Sewer and Lateral Rehabilitation (Hartford)
    - Scope:
        - 22,300 LF of CIPP mainline lining sewer rehabilitation (approx.)
        - 54 Sanitary Sewer Point Repairs (approx.)
        - Rehabilitation/Replacement of approximately 900 Laterals or approximately 43,000 LF of lateral lining
        - Rehabilitation of Manholes
    - Project Benefit: This project was advanced in the overall IP schedule as part of the NHPP with CT DEEP. This project is being completed in accordance with the CSO LTCP/IP, and is part of overall CSO controls via reduction of inflow & infiltration. Additionally, this project will reduce potential of sewer backups and rehabilitate aging infrastructure via trenchless construction methods in advance of failures and subsequent need for costly excavation repairs. This project will also significantly reduce the possibility of sewer backups caused by failing sewer house connections (laterals) via the rehabilitation and/or repair of laterals.
    - Cost: Approximately $15M
    - Schedule:
        - Construction anticipated to start Q1 2024
        - Construction Completion – late 2026
- SHCST Contracts 2, 3, & 5
    - Scope: Completion of the South Hartford Conveyance and Storage Tunnel
    - Project Benefit: The completion of this project will eliminate Structural SSOs in Newington & West Hartford, as required by US EPA Consent Decree. This project will also control 10 of the existing South Branch Park River area CSOs to a 1-year level of control as per the CO.
    - Cost: Total cost of the SHCST, including design and construction is approximately $500M
    - Schedule: Project will be completed by the end of 2026
- Granby 7/8/9 Sewer Separation Projects (Hartford)

- Scope: Completion of the first three sewer separation projects, as determined by the NBPR Area Drainage Study/Sewer Separation Preliminary Design (DS/PD). **This study is being completed as a joint project between the MDC and the COH.**
- Project Benefit: Projects 8 & 9 were advanced in the overall IP schedule as part of the NHPP with CT DEEP. The completion of these three projects will improve drainage in the project areas, by removing storm drainage from the combined sewers. Additionally, these projects will include separation of private properties, thereby significantly reducing the possibility of sewer backups in these properties.
- Cost: Including preliminary design, final design and construction costs, these projects are expected to cost approximately $70M in total.
- Schedule:
  - NBPR DS/PD will be completed in April 2024
  - Design of sewer separation projects is expected to begin in July 2024 and be completed in mid-2026.
  - Construction of the three sewer separation projects is expected to begin in late 2026 and will be completed by the end of 2028.
  - Schedule for the construction of any drainage improvements above and beyond the sewer separation work will be determined by the COH (see COH Long-Term Improvements).

- Bloomfield Styrene Sewer Rehabilitation
  - Scope: Rehabilitation of up to 14,000 LF of sewers in Bloomfield (Hartford Sewershed).
  - Project Benefit: This project is being completed in accordance with the CSO LTCP/IP, and is part of overall CSO controls via reduction of inflow & infiltration. This project will reduce potential of sewer backups within the City of Hartford, as the pipes included in this project area upstream of Hartford's Combined Sewer System. Additionally, this project will rehabilitate aging infrastructure via trenchless construction methods in advance of failures and subsequent need for costly excavation repairs.
  - Cost: Approximately $5M
  - Schedule: Project will be completed by the end of 2029

COH Short-Term Improvements to Mitigate/Prevent Flooding:

- Cleaning of 96" Storm Drain off of Granby Street
  - Scope: Removed debris lodged in the 96" culvert which was obstructing flows.
  - Project Benefit: Restored the capacity of the culvert in order to prevent upstream flooding.
  - Cost: $22,500
  - Schedule: Activity completed on 6/28/2023
- Removal of trees and debris from NBPR Conduit entrance at Farmington Avenue
  - Scope: Removed debris lodged on the trash rack of the Park River Conduit. The Park River Conduit is a major element of the federally constructed Park River Flood Risk Management System, Hartford CT.
  - Project Benefit: The removal of the debris improved the flows entering the NBPR Conduit. The activity resulted in a minimal drop in the water surface elevation within the NBPR in the vicinity of the inlet.
  - Cost: $3,500
  - Schedule: Activity completed on 11/6/2023
- Stormwater Retrofit Project (GI)

- Scope: The City is working with the Environmental Protection Agency and the Connecticut Department of Energy and Environmental Protection Agency on the design of a green infrastructure demonstration project which would be constructed on Granby Street.
- Project Benefit: The goals of the project are to improve storm water quality and provide limited storage / infiltration of stormwater runoff. The intent of the project is to determine the feasibility of concept for potential implementation at other locations.
- Cost: To be determined. EPA is covering the cost of the development of the green infrastructure concept. Once the utility coordination process is completed, final design and construction costs will be developed.
- Schedule: To be determined. EPA's consultant is currently working with the MDC to address MDC's concerns.

- Removal of debris and vegetation from Cemetery Brook Conduit
  - Scope: Maintenance activities associated with the Cemetery Brook Conduit inlet and open channel segments. The work includes the cutting of vegetation and the removal of debris from the trash racks as well as the open channel section in the vicinity of Chandler Street. The area in the vicinity of Chandler Street has experienced illegal dumping some of which ends up in the open channel.
  - Project Benefit: The maintenance activities to ensure that the conduit and the open channel section function properly and convey the stormwater runoff to prevent flooding within the area.
  - Cost: The work is conducted by Department of Public Works staff. The debris removed from the system is deposited at the City's transfer station. The woody debris is disposed as part of the overall disposal of the woody debris. The quantities associated with each maintenance effort associated with the conduit are not tracked.
  - Schedule: These activities are on-going. The areas of concern are checked prior to each anticipated large rain event.
- Removal of debris and vegetation from Gully Brook conduit entrance at Westfield Street and the Love Lane culvert
  - Scope: Maintenance activities associated with the Love Lane culvert crossing and the Gully Brook Conduit inlet. The work includes the cutting of vegetation and the removal of debris from the trash racks.
  - Project Benefit: The maintenance activities to ensure that the culvert and the conduit function properly and convey the stormwater runoff to prevent flooding within the area.
  - Cost: The work is conducted by Department of Public Works staff. The debris removed from the system is deposited at the City's transfer station. The woody debris is disposed as part of the overall disposal of the woody debris. The quantities associated with each maintenance effort associated with the conduit are not tracked.
  - Schedule: These activities are on-going. The areas of concern are checked prior to each anticipated large rain event.

COH Long-Term Improvements to Mitigate/Prevent Flooding:

- ACOE Flood Pump Station Improvements
  - Scope: The project involves various repairs to the six stormwater pumping stations which are part of the Connecticut River Right Bank Flood Risk Management System (FRM), Hartford CT and the Park River FRM. The project is currently in the semi-final design phase.

- Project Benefit: The repairs will improve elements of worker safety, pump station reliability and address conditions of the approved USACE System Wide Improvement Framework (SWIF)
- Cost: estimated $14,000,000
- Schedule: Design phase is to be completed in mid-2024. Construction is estimated to be completed by the end of 2026.

- Implementation of NBPR DS Recommendations
  - Scope: The Department of Public Works will evaluate the findings and recommendations developed as part of the Blue Hills Area Drainage Study and the evaluation of the NBPR watershed.
  - Project Benefit: The goal of the effort is to determine potential efforts which could be undertaken to make improvements within the watershed. The potential improvements will be ranked based on the feasibility and cost benefit.
  - Cost: To be determined.
  - Schedule: The NBPR DS is scheduled to be completed at the end of the first quarter in 2024. The evaluation process will commence in mid-2024.
- Burnham Street Culvert Improvements
  - Scope: The project involves the preliminary design phase for improvements to the existing 90" culvert located on the north side of Burnham Street. Efforts include the stabilization of the area surrounding the culvert inlet as well as the installation of a trash rack.
  - Project Benefit: The intent of the project will prevent debris from entering the culvert impacting flows and correct the undermining of the public sidewalk. A maintenance program will be implemented to ensure the trash rack is maintained.
  - Cost: Preliminary Design = $50,000
  - Schedule: Preliminary Design phase is scheduled to be completed by the end of quarter #1 2024.
- Kane Brook Area Drainage Improvements (Joint with West Hartford)
  - Scope: The project addresses drainage concerns within the Town of West Hartford and the City of Hartford. Improvements are anticipated within the watersheds of Kennedy Brook and Kane Brook. The scope of work includes drainage and culvert upgrades.
  - Project Benefit: The project is intended to address areas of existing flooding in the Town of West Hartford and Hartford including thein the area of Prospect Avenue north of Kane Street as well as Prospect Ave in the vicinity of Capital Avenue and other areas located in West Hartford.
  - Cost: Estimated $30,000,000
  - Schedule: To be determined.

Sincerely,

Scott W. Jellison, P.E.
Chief Executive Officer
The Metropolitan District

Michael T. Looney
Director of Public Works
City of Hartford