ATTACHMENT 1
TO
MWRA ANNUAL I/I REDUCTION REPORT FOR FY25
Reporting Period – July 2024 Through June 2025

OVERVIEW OF MWRA REGIONAL I/I REDUCTION PLAN

The MWRA Board of Directors approved the Regional Infiltration/Inflow (I/I) Reduction Plan on May 23, 2001 and authorized staff to submit the Plan to EPA and MassDEP as required under MWRA's NPDES Permit. The plan was submitted to EPA and MassDEP in June 2001 and MassDEP approved the plan in a letter dated November 19, 2002. A full copy of the Regional I/I Reduction Plan (dated September 2002) was included as Attachment 2 to the August 29, 2003 MWRA Annual I/I Reduction Report for FY03. The Regional I/I Reduction Plan is available at https://www.mwra.com/projects-programs/major-programs/local-ii-community-financial-assistance .

The Regional I/I Reduction Plan combines recommendations from the I/I Task Force Report (March 2001) with ongoing MWRA I/I reduction initiatives. The updated plan replaces the Authority's 1990 I/I Reduction Policy. Implementation of the Regional I/I Reduction Plan focuses on the cooperative efforts of member communities, MassDEP, EPA and MWRA to develop and implement I/I reduction and sewer system rehabilitation projects.

Under the plan, MWRA has full legal and fiscal responsibility for implementation of operation, maintenance and I/I reduction programs for the MWRA-owned interceptor system. Each member community retains full legal and fiscal responsibility for implementation of operation, maintenance and I/I reduction programs for community-owned sewers. MWRA will provide technical and financial assistance to member communities and work cooperatively with MassDEP, EPA and other stakeholders to help solve local and regional sewer problems. MWRA's Regional I/I Reduction Plan is organized into five major goals:

1. MWRA will continue its current operation and maintenance program for the MWRA-owned interceptor system leading to the identification, prioritization and rehabilitation of structural and I/I problems.

2. MWRA will work cooperatively with member communities, MassDEP and EPA to eliminate sewer system backups into homes and other buildings and to minimize health and environmental impacts of SSOs related to I/I.

3. MWRA will work cooperatively with member communities, MassDEP and EPA to reduce I/I in the regional collection system with emphasis on the following: (1) inflow reduction in areas tributary to sewer backups and SSOs; (2) private source inflow reduction; (3) infiltration that may impact groundwater or surface water resources; and (4) excessive infiltration as defined in MassDEP regulations or guidance documents.

4. MWRA will work cooperatively with member communities, MassDEP and EPA to expand existing efforts to educate and involve the public regarding regional sewer backup, SSO and I/I reduction issues.

5. MWRA will provide technical assistance and work cooperatively with member communities, MassDEP and EPA regarding guidance on local operation and maintenance and capital improvement programs intended to provide a reasonable level of sewer service to local sewer users/ratepayers.

ATTACHMENT 2
TO
MWRA ANNUAL I/I REDUCTION REPORT FOR FY25
Reporting Period – July 2024 Through June 2025

MWRA REGIONAL I/I REDUCTION PLAN - FY25 PROGRESS UPDATE AND DETAILED IMPLEMENTATION SCHEDULE FOR FY26 ACTIVITIES

This document provides a progress update for FY25 accomplishments and a description of the activities to be accomplished during FY26 for each of the I/I reduction strategies in the MWRA Regional I/I Reduction Plan. The update appears in bold type directly below each I/I reduction strategy. This document is intended to satisfy Condition 5 of DEP's November 19, 2002 letter approving the MWRA Regional I/I Reduction Plan.

Goal 1 under MWRA's Regional I/I Reduction Plan is:

> *MWRA will continue its current operation and maintenance program for the MWRA-owned interceptor system leading to the identification, prioritization, and rehabilitation of structural and I/I problems.*

Strategy A: Utilize MWRA's internal TV inspection equipment that currently includes one fully outfitted internal TV inspection vehicles equipped with 6000 feet of multi-conductor cable. MWRA also utilizes an OZ-camera that has a 200X zoom capability. Annual inspection schedules are outlined in MWRA's Collection System O&M Manual. This strategy has an ongoing schedule that has been initiated.

Strategy B: Utilize MWRA's sonar camera to inspect siphons and force mains. Annual inspection schedules are outlined in MWRA's Collection System O&M Manual. This strategy has an ongoing schedule that has been initiated.

Strategy C: Physical inspection of collection system manholes and structures by Operations Division field crews. Annual inspection schedules are outlined in MWRA's Collection System O&M Manual. This strategy has an ongoing schedule that has been initiated.

Work by MWRA under these three Strategies is ongoing.

During FY25, MWRA properly operated and maintained the MWRA-owned interceptor system. Annual performance targets and ongoing accomplishments are tracked as part of the Authority's MAXIMO maintenance database and are reported monthly to MWRA senior management. Specific activities undertaken by MWRA for FY25 are detailed in Attachment 3. Additional information on MWRA's FY25 maintenance activities is provided under separate submittal - NPDES Part I.18.g Annual Maintenance Status Sheets.

During FY26, MWRA will continue to properly operate and maintain the MWRA-owned interceptor system.

Goal 2 under MWRA's Regional I/I Reduction Plan is:

> *MWRA will work cooperatively with member communities, DEP, and EPA to eliminate sewer system backups into homes and other buildings and to minimize health and environmental impacts of SSOs related to I/I.*

Strategy A: MWRA will provide technical assistance to DEP to develop a uniform format for use by communities for reporting wastewater backup and sewer system overflow information. A representative group of communities should be consulted for review. MWRA will provide technical assistance to DEP to develop a system to record the information reported by communities into a usable database format. This database may have the capability to be linked to GIS mapping and the information may be made available to communities, MWRA, DEP, EPA, watershed groups, the general public, etc. upon appropriate request. This strategy has an ongoing schedule that should be initiated in the short-term. Completion of this strategy requires a significant resource commitment by DEP. Collection and recording of sewer backup and SSO information from member community sewer systems is the responsibility of DEP. DEP will be responsible for management of collection and distribution of these records. (Cross-reference this strategy to the I/I Task Force Report recommendations 4.1 Strategy A-2 and 5.2 Strategy B-2)

Work by MWRA under this Strategy is ongoing.

During spring 2001, MWRA provided MassDEP a draft SSO reporting/record keeping electronic database format that was developed by Malcolm-Pirnie, Inc. under contract to MWRA. This work was completed by MWRA as technical assistance to MassDEP. A follow-up letter dated June 20, 2001 requested MassDEP identify the format for finalizing the SSO reporting/record keeping electronic database.

During FY04, MassDEP (in conjunction with staff in the Massachusetts Information Technology Division), developed a revised format SSO electronic database package. This project was part of statewide efforts to upgrade computerized resources and electronic access. The system was demonstrated at an April 8, 2004 MassDEP/MWRA joint community workshop.

In May 2005, MassDEP developed a revised Reporting Form "Sanitary Sewer Overflow/Bypass/Backup Notification Form (rev 05/2005)." This form was made available on the MassDEP web site and reporting was via FAX or by mail. Following development of the web based reporting form by MassDEP, rollout of the SSO reporting/record keeping electronic database was not completed.

As requested by MassDEP, on August 22, 2011 MWRA provided MassDEP specific SSO site location information for SSO's on MWRA-owned northern system sewers (for events during the period January 2000 through June 2011), including street location, longitude and latitude location, and GIS site maps.

In January 2013, MassDEP developed the most recent revised Reporting Form "Sanitary Sewer Overflow (SSO)/Bypass Notification Form" (pdf version - rev 01/2013). As of July 2020, this pdf form is available on the MassDEP web site (a Word version of the form is also available – rev 1/2018) and reporting using the form is via FAX or by mail.

During FY16, MWRA added more specific information on SSOs on the MWRA web site at: https://www.mwra.com/your-sewer-system/sanitary-sewer-overflows-ssos. This information includes information on what an SSO is, public health impacts, how SSOs can be prevented, and what MWRA does when an SSO occurs. The web site also includes an interactive GIS site map for SSOs that have been reported by MWRA for the following SSO event display selections: currently active, past 2 days, past 30 days, and past 12 months.

In January 2021, Governor Baker signed *An Act Promoting Awareness of Sewage in Public Waters* into law: https://malegislature.gov/Laws/SessionLaws/Acts/2020/Chapter322. This law ensures that the public knows when untreated sewage flows into Massachusetts waters. The regulations apply to owners of outfalls from which there are sewage discharges that either directly or indirectly discharge to a receiving water. MassDEP had twelve (12) months to develop regulations to support the implementation of the law (January 2022). Communities had six (6) months thereafter to comply with the regulations (July 2022). MWRA was part of the stakeholder group providing input to MassDEP's development of the regulations.

In FY22, MWRA enhanced its existing CSO public notification program to add notifications of SSOs (in compliance with the new sewage notification regulation 314 CMR 16.00). Additionally, MWRA updated its SSO notification website. In response to a request from MassDEP, MWRA assisted in notifying member communities of their responsibilities under the new regulation. MWRA also provided comment on the draft regulation.

In FY23, MWRA began sending notifications to media outlets (as required by 314 CMR 16.00). Along with Cambridge and Somerville, MWRA held a public meeting on CSO control in the Charles River and Mystic River/Alewife Brook watersheds that included discussion of flooding, system capacity and I/I reduction requirements. This was the second meeting in a series that would continue over the next year and a half. MWRA also continued outreach and education efforts with local Boards of Health in preparation for the new sewage notification regulation.

In FY24, MWRA continued its existing sewage notification program which includes notifications of SSOs (in compliance with the sewage notification regulation 314 CMR 16.00). MWRA also completed its Final Sewage Notification Plan, submitted it to MassDEP, and published it for public comment as required by 314 CMR 16.00. Beginning July 6, 2022, MWRA also enters notifications into the MassDEP database within 18 hours of the start of each discharge, so information can be made available in MassDEP's public portal. MWRA believes the database and portal developed by MassDEP to comply with the Sewage Notification Regulation 314 CMR 16.00 meets the intent of this strategy.

In FY25, MWRA continued to implement its sewage notification program. MWRA, along with Cambridge and Somerville, also began an enhanced notification feasibility study in accordance with the requirements of the 2024 Charles River and Mystic River/Alewife Brook Water Quality Standards Variances. The feasibility study includes evaluating the installation of a real time CSO warning light system in each waterbody.

Strategy B: Once a central information database is established (see Strategy A), MWRA will periodically delineate areas which may be "at risk" for backups and SSOs that may be impacted by the MWRA-owned collection system. MWRA will evaluate potential improvements to the MWRA-owned collection system that may reduce the risk of sewer backups and SSOs. This strategy should be completed in the mid to long-term. (Cross-reference this strategy to the I/I Task Force Report recommendations 4.3 Strategy C-2 and 5.5 Strategy E-2)

Work by MWRA under this Strategy is complete as noted below. Some ongoing work performed by MWRA that is associated with this Strategy is also noted.

MWRA utilizes MassDEP's Sanitary Sewer Overflow (SSO)/Bypass Notification Form to report SSOs from MWRA's collection system.

MWRA does not have SSOs related to dry weather sewer system capacity issues. MWRA does not have SSOs related to wet weather sewer capacity issues for rainfall events at or below the MassDEP recommended standard design storm for inflow having a one-year recurrence interval and a duration of six hours (see MassDEP's Guidelines for Performing I/I Analyses and Sewer System Evaluation Surveys – Revised May 2017). The one-year, six-hour storm produces approximately 1.72 inches of rainfall in the Boston area. During extreme storm events that exceed the MassDEP recommended design storm, I/I entering the upstream community-owned collection systems may cause an occasional SSO in the MWRA regional interceptor system.

During FY25, MWRA continued its ongoing priority program to clean and inspect inverted siphons in the MWRA-owned collection system. This program is intended to minimize potential SSOs upstream of siphons and reduce the risk of hydraulic limitations and/or blockage from debris buildup in siphon barrels. The cleaning and inspection program will continue in FY26.

Strategy C: Once a central information database is established (see Strategy A) and member communities have delineated areas which may be "at risk" for backups and SSOs, MWRA - jointly with DEP - will provide technical assistance to member communities to evaluate potential improvements to local infrastructure that may reduce the risk of sewer backups and SSOs. MWRA will assist communities to determine if impacts from the regional collection system are an issue. The schedule for this strategy is dependent on prior actions by DEP and member communities. (Cross-reference this strategy to the I/I Task Force Report recommendations 4.3 Strategy C-1 and 5.5 Strategy E-1)

MassDEP's roll-out of the SSO reporting/record keeping electronic database was not completed (see Strategy A above). However, the database and portal developed by MassDEP to comply with the Sewage Notification Regulation 314 CMR 16.00 may meet the intent of this strategy.

As part of its ongoing program to support member community I/I reduction and sewer system rehabilitation programs, MWRA offers technical assistance to communities to review local I/I reduction plans and local/regional SSO problems. MWRA also offers member communities financial assistance for I/I reduction projects. During FY25, at the request of member communities, MWRA will continue to provide technical and financial assistance on local sewer system projects.

Strategy D: For the MWRA-owned interceptor system, MWRA will review and analyze the health and environmental impacts of existing SSO sites. SSO sites will be prioritized based on the frequency and duration of activations and the resulting health and environmental impacts, including: potential for human contact, impact to water supply, impact to shellfish beds or other economic resources, impact to animal or aquatic habitat, etc. This strategy will be completed in the short-term. (Cross-reference this strategy to the I/I Task Force Report recommendation 5.3 Strategy C-1)

Work by MWRA under this Strategy is complete. As previously stated, MWRA does not have SSOs related to dry weather sewer system capacity issues. MWRA also does not have SSOs related to wet weather sewer capacity issues for rainfall events at or below the MassDEP recommended standard design storm for inflow having a one-year recurrence interval and a duration of six hours (see MassDEP's Guidelines for Performing I/I Analyses and Sewer System Evaluation Surveys – Revised May 2017). Since prior SSOs have been eliminated for sewer capacity issues at or below the collection system design standard for inflow, additional work under this strategy is not necessary.

Strategy E: Utilizing the priority ranking to be completed in Strategy D above, as well as system hydraulic analyses, MWRA (for the MWRA-owned interceptor system) - in conjunction with DEP and EPA - will evaluate the potential to eliminate each overflow. Appropriate I/I reduction and/or relief sewer projects that may eliminate (or minimize) SSOs from MWRA-owned interceptors will be evaluated. This strategy will be initiated in the short to mid-term; however, implementation of projects developed from the evaluation may span beyond the long-term time frame as defined within the Regional I/I Reduction Plan. (Cross-reference this strategy to the I/I Task Force Report recommendation 5.3 Strategy C-2)

Work by MWRA under this Strategy is complete as noted below. Some ongoing work that is associated with this Strategy is also noted.

As previously stated, MWRA does not have SSOs related to dry weather sewer system capacity issues. MWRA also does not have SSOs related to wet weather sewer capacity issues for rainfall events at or below the MassDEP recommended standard design storm for inflow having a one-year recurrence interval and a duration of six hours (see MassDEP's Guidelines for Performing I/I Analyses and Sewer System Evaluation Surveys – Revised May 2017). Since prior SSOs have been eliminated for sewer capacity issues at or below the collection system design standard for inflow, additional work under this strategy is not necessary.

During FY14, MassDEP revised its Regulation 314 CMR 12.00 *Operation, Maintenance and Pretreatment Standards for Wastewater Treatment Works and Indirect Dischargers*. The revisions include a requirement for all public entities that own a sewer system to complete an I/I analysis by December 31, 2017 and submit it to MassDEP for review. The analysis also must include an assessment of the risk of SSOs. In FY18, MWRA submitted the required I/I analysis as a chapter in the MWRA Wastewater Collection System Operation & Maintenance Plan (December 2017).

As part of its ongoing program to support member community I/I reduction and sewer system rehabilitation programs, MWRA offers technical assistance to communities to review local I/I reduction plans and local/regional SSO problems. MWRA also offers member communities financial assistance for I/I reduction projects.

During FY26, at the request of member communities, MWRA will continue to provide technical and financial assistance on local sewer system projects. MWRA will also continue to work on projects in the MWRA Capital Improvement Program, as summarized in Attachment 3.

Strategy F: For those overflows that are unlikely to be eliminated in the short to mid-term (based on the evaluation from Strategy E, above), MWRA (for the MWRA-owned interceptor system) will consider developing interim measures to relocate or otherwise mitigate the impact of existing overflows on human and natural resources. The priority ranking (from Strategy D, above) will be utilized in development of interim mitigation measures. This strategy has an ongoing schedule that should be initiated in the short-term. (Cross-reference this strategy to the I/I Task Force Report recommendation 5.3 Strategy C-3)

Work by MWRA under this Strategy is ongoing.

As previously stated, MWRA does not have SSOs related to dry weather sewer system capacity issues. MWRA also does not have SSOs related to wet weather sewer capacity issues for rainfall events at or below the MassDEP recommended standard design storm for inflow having a one-year recurrence interval and a duration of six hours (see MassDEP's Guidelines for Performing I/I Analyses and Sewer System Evaluation Surveys – Revised May 2017). The one-year, six-hour storm produces approximately 1.72 inches of rainfall in the Boston area.

During FY5, MWRA continued its ongoing priority program to clean and inspect inverted siphons in the MWRA-owned collection system. This program is intended to minimize potential SSOs upstream of siphons and reduce the risk of hydraulic limitations and/or blockage from debris buildup in siphon barrels. The cleaning and inspection program will continue in FY26. Please see Attachment 3 for more specific details.

During extreme storm events that exceed the MassDEP recommended standard design storm for inflow, I/I entering the upstream community-owned collection systems may cause an occasional SSO in the MWRA regional interceptor system. Continued coordination with member communities to reduce I/I from local collection systems will help to minimize SSOs that may occur during extreme storm events. In September 2022, an additional $100 million in 75% grants and 25% interest-free loans was added as Phase 14 of the I/I Local Financial Assistance Program to help fund community I/I reduction projects.

In June 2024, the MWRA Board of Directors approved two additional phases of the I/I Local Financial Assistance Program to be added in the coming years. Phase 15 was added as an additional $100 million 10-year interest-free loan only phase to be utilized by communities if their grant/loan funds have all been distributed (prior to the initiation of the next grant/loan funding phase), and became available in FY25. Phase 16 will be included as an additional $125 million in 75% grants and in 25% interest-free 10 year loans), and will become available in FY26. With the addition of Phase 16, the program total has been increased to $1.086 billion. Through FY25, $586 million in grants and interest-free loans has been distributed to 43 member sewer communities to fund 702 local projects (see details in Attachment 4).

Strategy G: MWRA will assist DEP, member communities, and other regional stakeholders to inform local plumbing inspectors of the regional priority of eliminating sewer system backups. Plumbing inspectors will be requested to work more closely with local DPW staff to identify sewer system backup problem areas and locations where backflow prevention devices may be required. MWRA expects to meet this strategy by distributing a letter to the plumbing inspector in each member community that discusses sewer backups, potential public health impacts, backflow prevention, and coordination with the local DPW to identify problem areas. This strategy will be completed in the short-term. (Cross-reference this strategy to the I/I Task Force Report recommendation 4.2 Strategy B-4)

Work by MWRA under this Strategy is complete as noted below.

On September 26, 2005, MWRA distributed an informational package on Sewer Backups and Sanitary Sewer Overflows to all service area community plumbing inspectors, Health Departments (Boards of Health), DPW Directors, Engineering Departments, and collection system operators. The package included information from fourteen separate sources and provided many web links for additional information. On September 29, 2005, MWRA sent a copy of the informational package to EPA, MassDEP, all MWRA water-only member communities, and local watershed associations. Currently this type of information is widely available via the internet.

Specific information on SSOs and backups into homes is provided on the MWRA web site at: https://www.mwra.com/your-sewer-system/sanitary-sewer-overflows-ssos**. This site includes information on what an SSO is, public health impacts, how SSOs can be prevented, and what MWRA does when an SSO occurs. Links on the site include:**

- **DEP's Home Care Guide on Flooding and Sewage Backups;**
- **Cleanup Procedures After a Sewer Backup, from the Boston Water and Sewer Commission; and,**
- **FEMA and Red Cross Guide on Flooded Property Hazards and Repair.**

Goal 3 under MWRA's Regional I/I Reduction Plan is:

> *MWRA will work cooperatively with member communities, DEP, and EPA to reduce I/I in the regional collection system with emphasis on the following: (1) inflow reduction in areas tributary to sewer backups and SSOs, (2) private source inflow reduction, (3) infiltration that may impact groundwater or surface water resources, and (4) excessive infiltration as defined in DEP regulations or guidance documents.*

Strategy A: MWRA will continue to analyze available MWRA wastewater metering data to estimate community infiltration and inflow rates. MWRA will provide this information along with technical assistance to help interpret the information to member communities. This strategy has an ongoing schedule that has been initiated. (Cross-reference this strategy to the I/I Task Force Report recommendations 6.1 Strategy A-1 and 7.1 Strategy A-1).

Work by MWRA under this Strategy is ongoing.

The second MWRA Wastewater Meter Replacement project was completed in March 2023. The metering system upgrade project was completed at a design cost of $3.2 million and an installation cost of $3.6 million. Installation was completed at the end of 2021.

An additional $9.1 million for future meter equipment asset protection is included within the MWRA CIP after FY28.

During FY25, MWRA continued to estimate community infiltration and inflow rates on a bimonthly basis. CY24 community wastewater flow data is included as Attachment 6. These flow data tables are available to all users on MWRA's website (https://www.mwra.com/our-environment/water-quality-reports/regulatory-reports-0) Community wastewater flow rate basis data is distributed to member communities throughout the year on a bimonthly basis.

During FY26, MWRA will continue to estimate community infiltration and inflow rates and make this information available to MWRA member communities. MWRA will provide the information to EPA and MassDEP as part of the annual summary report on actions taken to reduce I/I (submitted annually by September 1 per the Deer Island Treatment Plant NPDES Permit).

Strategy B: MWRA, in cooperation with member communities, will evaluate the feasibility of developing and operating an expanded emergency notification system (ENS). Currently, the MWRA remotely monitors wastewater flow at key locations within the regional collection system before and during wet weather events. Interested communities are notified when sewer system depths reach critical levels. The Authority and member communities use this information to forecast problem areas, predict potential sewer system overflows and deploy work crews. The MWRA's wastewater metering system will be upgraded over the next few years. This upgrade may impact the ENS. MWRA is also investigating, over the next three to five years, the benefits of adding SCADA-type meters at some key locations in the collection system. After completion of the two ongoing projects, MWRA will evaluate whether an ENS system can be used efficiently to provide information at the local level. This strategy will be completed in the long-term or more extended time frame subject to the schedule of the ongoing projects noted above. (Cross-reference this strategy to the I/I Task Force Report recommendation 5.4 Strategy D-1)

Work by MWRA under this Strategy is complete as noted below.

MWRA's first Wastewater Meter Replacement project was completed in FY06. The system was used to monitor wastewater flow at key locations within the regional collection system before and during wet weather events. Interested communities are notified when sewer system depths reach critical levels.

The second MWRA Wastewater Meter Replacement project was completed March 2023. The metering system upgrade project was completed at a design cost of $3.2 million and an installation cost of $3.6 million. Installation was completed at the end of 2021. Project work included a complete review of metering equipment and software technologies, review of MWRA's community metering methodologies and subsequent design and construction of upgrades. An additional $9.1 million for future meter equipment asset protection is included within the MWRA CIP after FY28.

Strategy C: MWRA will provide technical assistance to member communities to establish written infiltration and inflow identification and removal programs as outlined in the I/I Task Force Report. This strategy has an ongoing schedule that will be initiated in the short to mid-term. (Cross-reference this strategy to the I/I Task Force Report recommendations 6.1 Strategy A-1 and 7.1 Strategy A-1)

Work by MWRA under this Strategy is ongoing.

During FY14 (as of April 25, 2014), MassDEP revised its Regulation 314 CMR 12.00 *Operation, Maintenance and Pretreatment Standards for Wastewater Treatment Works and Indirect Dischargers*. The revisions include a requirement for all public entities that own a sewer system to complete an I/I analysis by December 31, 2017 and submit it to MassDEP for review. The analysis also must include an assessment of the risk of SSOs. In FY18, MWRA submitted the required I/I analysis as a chapter in the MWRA Wastewater Collection System Operation & Maintenance Plan (December 2017).

During FY25, MWRA staff continued to meet with community representatives to provide technical assistance and discuss local programs. Communities are often interested in utilizing MWRA wastewater meter data and flow component analyses for local I/I and SSES studies. Communities also discuss what sewer system rehabilitation actions other communities are pursuing. MWRA's Advisory Board Operation Committee meetings, as well as Wastewater Advisory Committee (WAC) meetings, are used as platforms for member communities to share information on projects and lessons learned. All member sewer communities are actively participating in MWRA's I/I Local Financial Assistance Program (see Attachment 4). Community I/I reduction programs are generally being conducted by local engineering consultants under contract to the communities. These projects generally utilize standards established in MassDEP's May 2017 I/I Guidelines. This work will continue in FY26.

Strategy D: MWRA will provide technical assistance to member communities that seek to emphasize infiltration removal that may impact groundwater and surface water resource areas. MWRA will provide GIS mapping information to member communities that identifies water resource areas, provides an overlay of local and regional sewers, and delineates watersheds. The I/I Task Force Report recommends communities target areas where infiltration reduction will provide the most meaningful benefit for aquifer recharge, stream flow, wetlands and water levels in lakes and ponds. The Task Force also recommends communities coordinate their infiltration reduction efforts with appropriate EOEA Watershed Teams, local watershed groups and the local conservation commission. Distribution of MWRA mapping information is intended to assist member communities in fulfilling this I/I Task Force recommendation. This strategy has an ongoing schedule that will be initiated in the short to mid-term. (Cross-reference this strategy to the I/I Task Force Report recommendation 7.1 Strategy A-5)

Work by MWRA under this Strategy is complete as noted below. Some ongoing work performed by MWRA that is associated with this Strategy is also noted. Additional community technical assistance is provided upon request as noted under Strategy C, above.

During FY05, MWRA completed a major upgrade to its electronic sewer database and GIS mapping system. Also during FY05, MWRA completed coordination with local communities to more accurately map connection points of local sewers to the MWRA interceptor system and GPS located all wastewater meter sites. Significant GIS mapping upgrades were rolled-out in FY06. In July 2006, MWRA provided GIS maps with detailed water resource information overlaid with the local sewer system to each MWRA member sewer community. In addition, land use mapping was also distributed to the

communities. The distribution of this GIS mapping information fulfilled MWRA's work under Strategy D.

Beginning in FY14 and continuing through FY25, MWRA updated prior (or developed new) GIS mapping information partnership agreements with most MWRA member water and sewer communities to share MWRA/community GIS mapping data. Under the partnership agreements, MWRA and member communities have signed nondisclosure agreements that detail security protocols necessary to safeguard water and sewer system data. MWRA continues to coordinate with member communities to add GIS partners and update existing data. This work will continue in FY26.

Strategy E: MWRA, in coordination with the MWRA Advisory Board, will continue to fund the I/I Local Financial Assistance Program to provide grants and loans to member sewer communities to fund local I/I reduction projects. Through September 2002, MWRA has authorized a total budget of $140.75 million to fund this program. Financial assistance is provided through 45 percent grants and 55 percent interest-free loans for eligible projects. The MWRA Board of Directors has approved the program through FY2010. The I/I Local Financial Assistance Program is fully detailed in the "Program Guidelines" document available from the MWRA Community Support Program. This strategy has an ongoing schedule that has been initiated. (Cross-reference this strategy to the I/I Task Force Report recommendation 10.2 Strategy B-1)

Work by MWRA under this Strategy is ongoing.

In June 2004, the MWRA Board of Directors approved an additional $40 million ($18 million in grants and $22 million in interest-free loans) to increase the total I/I Local Financial Assistance Program budget to $180.75 million and extended program distribution through FY13. The additional $40 million (Phase 5) in financial assistance funds became available to the communities in FY05.

In June 2006, the MWRA Board of Directors approved an additional $40 million ($18 million in grants and $22 million in interest-free loans) to increase the total I/I Local Financial Assistance Program budget to $220.75 million and extended program distributions through FY15. The additional $40 million (Phase 6) in financial assistance funds became available to the communities in FY07.

In June 2009, the MWRA Board of Directors approved an additional $40 million ($18 million in grants and $22 million in interest-free loans) to increase the total I/I Local Financial Assistance Program budget to $260.75 million and extended program distributions through FY18. The additional $40 million (Phase 7) in financial assistance funds became available to the communities in FY10.

In June 2012, the MWRA Board of Directors approved an additional $40 million ($18 million in grants and $22 million in interest-free loans) to increase the total I/I Local Financial Assistance Program budget to $300.75 million and extended program distributions through FY21. The additional $40 million (Phase 8) in financial assistance funds became available to the communities in FY13.

In June 2014, the MWRA Board of Directors approved an additional $160 million ($120 million in 75% grants and $40 million in 25% interest-free 10-year loans) to increase the total I/I Local Financial Assistance Program budget to $460.75 million and

extended program distributions through FY25. The additional $160 million ($80 million each for Phases 9 and 10) in financial assistance funds became available to the communities in FY15. Note that MWRA enhanced Phase 9 and 10 of its grant/loan community funding program by increasing the grant portion from 45% to 75%. Also, the loan portion repayment period was extended from 5 to 10 years.

In June 2018, the MWRA Board of Directors approved an additional $200 million ($150 million in 75% grants and $50 million in 25% interest-free 10-year loans). The additional $200 million ($100 million each for Phases 11 and 12) in financial assistance funds became available to the communities in FY19. Also in June 2018, the MWRA Board of Directors approved an additional $100 million 10-year interest-free loan only Phase 13 to be used by communities if their grant/loan funds have all been distributed (prior to the initiation of the next grant/loan funding phase). These approved funding phases increased the total I/I Local Financial Assistance Program budget to $760.75 million and extended program distributions through FY30.

In September 2022, the MWRA Board of Directors approved an additional $100 million ($75 million in 75% grants and $25 million in 25% interest-free 10-year loans). This funding phase (Phase 14) increased the total I/I Local Financial Assistance Program budget to $860.75 million. The additional $100 million in financial assistance funds became available to the communities on September 30, 2022.

In June 2024, the MWRA Board of Directors approved two additional phases of the I/I Local Financial Assistance Program to be added in the coming years. Phase 15 was added as an additional $100 million 10-year interest-free loan only phase to be utilized by communities if their grant/loan funds have all been distributed (prior to the initiation of the next grant/loan funding phase), and became available in FY25. Phase 16 will be included as an additional $125 million in 75% grants and in 25% interest-free 10 year loans), and will become available in FY26. With the addition of Phase 16, the program total will be increased to $1.086 billion.

During FY25, MWRA continued to provide grants and loans to member sewer communities to fund local I/I reduction and sewer system rehabilitation projects. A total of $25.1 million was distributed during FY25. Since program inception in May 1993, $586 million has been distributed to fund 702 local projects. The Program Guidelines, Financial Assistance Application and summary of available funds by community are posted on MWRA's website at https://www.mwra.com/projects-programs/major-programs/local-ii-community-financial-assistance**. A status update on MWRA's I/I Local Financial Assistance Program is included as Attachment 4.**

During FY26, MWRA will continue to distribute funds and assist communities in the management of projects under the I/I Local Financial Assistance Program. MWRA's remaining financial assistance funds are authorized for distribution through FY34.

Strategy F: MWRA, in coordination with the MWRA Advisory Board, will continue to provide emergency assistance to member communities for sewer services on local collection systems that are routinely performed by MWRA staff for the MWRA-owned interceptor system. Examples of past community assistance provided by MWRA staff include: emergency response assistance, bypass pumping, internal TV inspection, sewer cleaning, flow metering, engineering technical

assistance, etc. This strategy has an ongoing schedule that has been initiated. (Cross-reference this strategy to the I/I Task Force Report recommendations 9.6 Strategy F-2 and 10.2 Strategy B-2)

Work by MWRA under this Strategy is ongoing.

During FY25, MWRA continued to provide emergency assistance to member communities, as requested. These efforts typically included internal CCTV inspection of local sewers and associated sewer cleaning, as well as other emergency assistance. During FY26, MWRA will continue to provide emergency assistance to member communities.

Goal 4 under MWRA's Regional I/I Reduction Plan is:

> *MWRA will work cooperatively with member communities, DEP, and EPA to expand existing efforts to educate and involve the public regarding regional sewer backup, SSO, and I/I reduction issues.*

Strategy A: MWRA will act as a "clearinghouse" to collect and distribute information on I/I and SSO issues. Other groups, agencies, associations, community representatives, and local citizens wishing to disseminate information on I/I and SSO issues within the region can provide a copy to MWRA that will be copied and distributed. MWRA staff will maintain a database of contacts with Federal, State and community officials, as well as, local associations and individuals that wish to stay informed on I/I and SSO issues. Summary mailings will be made periodically. MWRA, in coordination with the MWRA Advisory Board, will also act as a clearinghouse to inform regional stakeholders about the progress of efforts to increase state and federal funding for I/I reduction and SSO projects. Regional stakeholders will be advised on the most appropriate time to provide input and lobbying efforts. This strategy has an ongoing schedule that will be initiated in the short-term. (Cross-reference this strategy to the I/I Task Force Report recommendations 8.1 Strategy A-1, 10.4 Strategy C-5, and 10.4 Strategy D-2)

Work by MWRA under this Strategy is ongoing including information on both the wastewater and water systems.

During FY25, MWRA distributed technical information to member community Public Works Directors, City/Town Engineers, local wastewater/water system operators, community consultants and local watershed groups, including:

- **MWRA continued to estimate community infiltration and inflow rates on a bimonthly basis. These flow data tables are available to all users on MWRA's web site (www.mwra.com). CY24 community wastewater flow data is included as Attachment 6. Community wastewater flow rate basis data is distributed to member communities throughout the year on a bimonthly basis.**
- **April 16, 2025: MWRA staff provided an update presentation on the I/I Local Financial Assistance Program to the MWRA Board of Directors. All Staff Summaries to the MWRA Board of Directors are posted on MWRA web site at www.mwra.com.**
- **April 16, 2025: MWRA staff provided an update presentation on the Local Water System Assistance Program and the Lead Service Line Replacement Program to**

the MWRA Board of Directors. All Staff Summaries to the MWRA Board of Directors are posted on MWRA web site at www.mwra.com.

- **April 2025: Annual community I/I surveys were distributed to member sewer communities to develop a projected three (3) year spending plan for the I/I Local Financial Assistance Program.**

- **May 2025: MWRA developed and presented a workshop on Private Inflow Removal during the May 16, 2025 MWRA Advisory Board meeting. Over 100 attendees from 35 communities, as well as MassDEP and MWRA staff, participated in the workshop.**

- **June 2025: Annual community I/I questionnaires were distributed to member sewer communities to acquire information on FY25 local I/I reduction programs for development of MWRA's Annual I/I Reduction Report (see Attachment 5).**

- **June 2025: MWRA developed a new brochure, Every Drop Counts: Best Water Practices, that addresses multiple issues, including water conservation, lead service lines, fats oil and grease, and I/I. The new brochure will be available to communities for distribution during FY26.**

During FY26, MWRA will continue to distribute information on I/I and SSO issues, as appropriate.

Strategy B: MWRA will develop and distribute a summary of previous information/technology distributions regarding I/I reduction and SSOs. The summary will be organized by topic and distributed to all regional stakeholders in MWRA's database of contacts. This summary can be used as a tool to help reference previously distributed information. This strategy will be completed in the short-term. (Cross-reference this strategy to the I/I Task Force Report recommendation 8.1 Strategy A-2)

Work by MWRA under this Strategy is complete as noted below.

On August 8, 2007, MWRA distributed a Technical Transfer Summary package that included lists of previously distributed information under five separate topic headings: (1) Reports, Handbooks, and Guidelines; (2) Sewer Back-ups, SSOs, and Flooding; (3) Public Source I/I Reduction; (4) Private Source I/I Reduction; and (5) Brochures and Bill Stuffers. Additional information/technology distributions will continue under Strategy A, above.

Strategy C: MWRA, jointly with DEP (and possibly other regional organizations), will organize periodic demonstration projects and/or workshops to bring together regulators, community representatives, vendors, environmental groups, consultants, contractors, etc. Workshops may cover topics such as: new or revised regulations, I/I reduction technologies, updates/progress on Task Force Report recommendations, etc. MWRA and DEP conducted a joint workshop on private source inflow reduction during November 2001. Lessons learned from this workshop will help shape future efforts under this strategy. Completion of this strategy requires a significant resource commitment by DEP. This strategy has an ongoing schedule that will be initiated in the short-term. (Cross-reference this strategy to the I/I Task Force Report recommendations 8.1 Strategy A-3 and 8.2 Strategy B-6)

Work by MWRA under this Strategy is ongoing. Following-up on the 2001 joint private inflow reduction workshop, additional joint workshops were held in 2002 and 2004.

On April 27, 2011, representatives from MassDEP, EPA, and MWRA met to discuss I/I reduction in the region. The potential for future workshops was noted, but no specific plans have been developed for organizing additional joint workshops.

During FY14 (as of April 25, 2014), MassDEP revised its Regulation 314 CMR 12.00 *Operation, Maintenance and Pretreatment Standards for Wastewater Treatment Works and Indirect Dischargers*. The revisions included a requirement for all public entities that own a sewer system to complete an I/I analysis by December 31, 2017 and submit it to MassDEP for review. The analysis also must include an assessment of the risk of SSOs. In FY18, MWRA submitted the required I/I analysis as a chapter in the MWRA Wastewater Collection System Operation & Maintenance Plan (December 2017).

During FY17, MassDEP revised its *Guidelines for Performing Infiltration/Inflow Analyses and Sewer System Evaluation Surveys*.

On October 6, 2017, both MassDEP and MWRA staff provided an update presentation and had discussions with the MWRA Wastewater Advisory Committee.

On November 29, 2017, staff from USEPA, MassDEP, and MWRA met to discuss mutual areas of interest regarding wastewater metering and I/I reduction programs.

On an annual basis, MWRA staff provide an update presentation to the MWRA Board of Directors on the I/I Local Financial Assistance Program, the Local Water System Assistance Program and the Lead Service Line Replacement Program.

Periodically, MWRA staff provide update presentations to the MWRA Advisory Board and member community representatives, as well as the Wastewater Advisory Committee and Water Supply Citizens Advisory Committee, on a variety of related topics including: I/I Local Financial Assistance Program, Local Water System Assistance Program, Lead Service Line Replacement Loan Program, water and wastewater metering, water and wastewater flow data, rate assessment methodologies, water and wastewater permitting and regulations, etc.

During FY25 MWRA developed and presented a workshop on Private Inflow Removal during the May 16, 2025 MWRA Advisory Board meeting. Over 100 attendees from 35 communities, as well as MassDEP and MWRA staff participated in the workshop.

During FY26, MWRA will continue to work cooperatively with MassDEP on this strategy.

Strategy D: MWRA will develop a summary of available public education material such as local/regional billing inserts, Water Environment Federation (WEF) brochures, "How-To" pamphlets, etc. The summary will provide information on where to obtain the material. A listing of available public education materials will be posted on the MWRA Internet site. MWRA will also make copies of public education material available to communities and local associations. MWRA will pilot this strategy by distributing to member communities sample copies of the

"Fat-Free Sewers" brochure developed cooperatively by the Water Environment Federation (WEF) and EPA. MWRA will recommend use of the brochures for public education. This strategy has an ongoing schedule that will be initiated in the short-term. (Cross-reference this strategy to the I/I Task Force Report recommendations 8.2 Strategy B-1 and 8.2 Strategy B-4)

Work by MWRA under this Strategy is ongoing.

MWRA distributed the Fat-Free Sewers brochure to wastewater system operators in July 2003. In conjunction with the Technical Transfer Summary package distributed on August 8, 2007 (see Strategy B, above), MWRA included a separate topic heading for "Brochures and Bill Stuffers" that can be used by local communities as educational materials. Links to educational materials are provided on www.mwra.com.

In FY25, the MWRA School Education Program distributed "It's a Toilet, Not a Trash Can" brochures and "What To Flush – the 3 Ps Only (Pee, Poop, Paper)" window clings to schools and community groups. The brochure can be downloaded from the School Program page on www.mwra.com and the window clings can be ordered. The MWRA School Program developed a new classroom activity involving reading and designing wet wipe labels to establish which materials are dispersible vs. flushable. The activity has been well received by both teachers and students.

In FY25, MWRA developed a new comprehensive brochure called Every Drop Counts: Best Water Practices that covers topics including water conservation, lead service lines, sump pumps and private inflow, and fats oil and grease in the sewers. The new brochure will be available to communities in FY26.

Strategy E: Depending on the outcome of the summary of available information being developed under Strategy D, MWRA (jointly with DEP and possibly other regional organizations) may develop informational materials that will educate the public on I/I and SSO issues. This effort may include "how-to" pamphlets that detail a step-by-step process for disconnecting private inflow sources or similar information. The development of new materials under this strategy will be targeted to fill gaps that are not covered by existing/available public education material. This strategy will be completed in the mid-term. (Cross-reference this strategy to the I/I Task Force Report recommendation 8.2 Strategy B-2)

Work by MWRA under this Strategy is complete as noted below.

As part of the Technical Transfer Summary package distributed on August 8, 2007 (see Strategy B, above), MWRA included a separate topic heading specifically for "Brochures and Bill Stuffers" that can be used by local communities as educational materials. There are sufficient example brochures available so that no additional work is needed under this strategy. Communities actively involved with private inflow removal programs have generally been using available sample brochures and other public education materials to develop public education information related to their specific project. Information already available via local engineering consultants is also utilized.

Strategy F: Upon request from member communities, MWRA will assist member communities in providing a link from the local DPW or community internet site to the MWRA internet site. The possibility of a link or reference to other regional bodies that are involved in sewer system issues (such as DEP, EPA, New England Water Environment Association, New England Interstate

Water Pollution Control Commission, watershed associations, etc.) will also be investigated. This strategy will be completed in the mid-term. (Cross-reference this strategy to the I/I Task Force Report recommendation 8.2 Strategy B-3)

Work by MWRA under this Strategy is complete as noted below.

Local communities, state agencies, regional associations, etc. all maintain their own web pages with numerous information links. MWRA's website contains links to the communities' websites and links to other organizations. Based on current broad use of the web, additional work under this strategy is not needed. MWRA continues to revise and upgrade its website www.mwra.com and the MWRA Community Support Program page: https://www.mwra.com/projects-programs/major-programs/local-ii-community-financial-assistance .

Strategy G: MWRA will integrate information on I/I and SSO issues into existing MWRA school education materials. MWRA's School Education staff will identify what types of materials are appropriate for their programs. This strategy has an ongoing schedule that will be initiated in the mid-term. (Cross-reference this strategy to the I/I Task Force Report recommendation 8.3 Strategy C-1)

Work by MWRA under this Strategy is ongoing. The focus of MWRA's School Education Program is to provide a general understanding of water and wastewater transport and treatment systems with emphasis on water conservation and environmental awareness issues. Educational materials are designed for students spanning elementary to high school levels.

Strategy H: Upon request from DEP, MWRA will provide technical assistance to DEP to develop and issue DEP press releases prior to and during extreme wet weather events to notify the public of possible sewer system backups and overflow problems. The I/I Task Force Report recommends DEP develop a standardized format that includes a request that system users minimize non-essential water consumption activities and includes a standardized high sewer flow warning. Completion of this strategy is dependent on DEP actions. This strategy has an ongoing schedule that should be initiated in the short to mid-term. (Cross-reference this strategy to the I/I Task Force Report recommendation 5.4 Strategy D-2)

Work by MWRA under this Strategy is ongoing. In FY25, MWRA continued its existing sewage notification program which includes notifications of SSOs (in compliance with the new sewage notification regulation 314 CMR 16.00). MWRA also completed its Final Sewage Notification Plan, submitted it to MassDEP, and published it for public comment as required by 314 CMR 16.00. Beginning July 6, 2022, MWRA also enters notifications into the MassDEP database within the prescribed timeframe after the start of each discharge, so information can be made available in MassDEP's portal. MWRA believes the database and public portal developed by MassDEP to comply with the Sewage Notification Regulation 314 CMR 16.00 meets the intent of this strategy.

Strategy I: Upon request from member communities, MWRA will provide technical assistance to communities to provide residents with information on I/I reduction, SSOs and backups using local cable stations or other media outlets. This strategy has an ongoing schedule that will be initiated in the mid to long-term. (Cross-reference this strategy to the I/I Task Force Report recommendation 8.2 Strategy B-7)

Work by MWRA under this Strategy is ongoing. Starting July 6, 2022, MWRA sends notifications to media outlets (as required by 314 CMR 16.00). Along with Cambridge and Somerville, MWRA has held a number of meetings regarding CSO control in the Charles River and Mystic River/Alewife Brook watersheds that included discussion of flooding, system capacity and I/I reduction requirements. MWRA continues outreach and education efforts with local Boards of Health as needed.

Goal 5 under MWRA's Regional I/I Reduction Plan is:

> *MWRA will provide technical assistance and work cooperatively with member communities, DEP, and EPA regarding guidance on local operation and maintenance and capital improvement programs intended to provide a reasonable level of sewer service to local sewer users/ratepayers.*

Strategy A: MWRA will provide all member communities a copy of the I/I Task Force Report (which includes recommendations for sewer system operation and maintenance). MWRA will maintain a supply of I/I Task Force Reports and will provide additional copies to MWRA member communities and regional stakeholders, as requested. This strategy has an ongoing schedule that has been initiated.

Work by MWRA under this Strategy is complete as noted below.

MWRA provided all member communities and all interested parties copies of the I/I Task Force Report in April 2001, shortly after the Report was completed. MWRA continues to maintain a supply of I/I Task Force Reports and provides additional copies to MWRA member communities and regional stakeholders, as requested. In July 2003, all member communities were provided a copy of the MWRA Regional I/I Reduction Plan. Both the I/I Task Force Report and MWRA Regional I/I Reduction plan are posted on MWRA's Community Support Program web page at:
https://www.mwra.com/projects-programs/major-programs/local-ii-community-financial-assistance **.**

Strategy B: MWRA will request member communities provide a copy of their existing local Sewer Use Regulations to MWRA, will review those local Regulations that are submitted, and will make recommendations for improvements. MWRA may utilize a committee representing a cross-section of sewer system stakeholders to assist in accomplishing this strategy. This strategy will be completed in the mid-term. (Cross-reference this strategy to the I/I Task Force Report recommendation 9.1 Strategy A-2)

Work by MWRA under this Strategy is complete as noted below.

MWRA did not proceed with work under this strategy pending issuance of EPA's SSO Rule, including CMOM Regulations that were likely to impact local sewer use regulations. EPA's draft SSO Rule was not promulgated. During FY04, MassDEP distributed a new guideline document – *"Optimizing Operation, Maintenance and Rehabilitation of Sanitary Sewer Collection Systems"* dated August 2003. This manual was developed by New England Interstate Water Pollution Control Commission (NEIWPCC) under a grant from EPA. The Guideline Document was written by a committee consisting

of NEIWPCC member state environmental agencies, EPA, and wastewater consultants. The manual is available at www.neiwpcc.org. Chapter 4 of the manual "Optimizing Legal Authority" includes sections on Sewer Use Ordinances; therefore, additional work by MWRA under this strategy is not necessary. Web links to information provided by MassDEP, USEPA, and NEIWPCC are posted on MWRA's Community Support Program web page at: https://www.mwra.com/projects-programs/major-programs/local-ii-community-financial-assistance .

Strategy C: MWRA will develop a Member Community Collection System Operation and Maintenance Manual Guidance Document and Overflow Response Plan. This guidance document will be provided to all member communities. This strategy will be completed in the short-term.

Work by MWRA under this Strategy is complete as noted below.

A Member Community Collection System Operation and Maintenance Manual Guidance Document and Overflow Response Plan was developed and submitted to EPA and MassDEP for review in June 2001. This guidance document was made available to member communities. During FY04, MassDEP distributed a new guideline document – "*Optimizing Operation, Maintenance and Rehabilitation of Sanitary Sewer Collection Systems*" dated August 2003. This manual was developed by New England Interstate Water Pollution Control Commission (NEIWPCC) under a grant from EPA. It was written by a committee consisting of NEIWPCC member state environmental agencies, EPA, and wastewater consultants. The manual is available at www.neiwpcc.org. MWRA provided its collection system O&M manual and the community collection system guidance document to the NEIWPCC committee for review. With the publication of the NEIWPCC manual, further efforts on the Member Community Collection System Operation and Maintenance Manual Guidance Document are not required.

During FY14, MassDEP revised its Regulation 314 CMR 12.00 *Operation, Maintenance and Pretreatment Standards for Wastewater Treatment Works and Indirect Dischargers*.

During FY17, MassDEP revised its *Guidelines for Performing Infiltration/Inflow Analyses and Sewer System Evaluation Surveys*.

ATTACHMENT 3
TO
MWRA ANNUAL I/I REDUCTION REPORT FOR FY25
Reporting Period – July 2024 Through June 2025

MWRA ACTIONS TAKEN TO REDUCE I/I DURING FY25

During FY25, the MWRA Field Operations Department's Technical Inspection program staff have internally inspected approximately 29 miles of Authority-owned interceptors, internally inspected 42 inverted siphon barrels with sonar inspection equipment, and physically inspected 661 sewer manholes and other structures (diversion chambers, siphon headhouses, tide gates, etc.). Throughout the internal inspection process, problems such as physical defects, manhole frame and cover defects, infiltration/inflow sources, sediment, grease deposits, etc. are noted and stored in MWRA's electronic maintenance (MAXIMO) database. Maintenance work is then scheduled based on the identified problem.

Through FY25, MWRA's maintenance work included hydraulic/mechanical cleaning of 43 miles of Authority-owned sewers, cleaning of 71 siphon barrels and replacement of 45 sewer manhole frames and covers. In addition, 40 sewer manholes were rehabilitated via cement mortar lining under MWRA's annual sewer manhole rehabilitation contract (MWRA's FY26 annual sewer manhole rehabilitation contract is scheduled to rehabilitate 44 sewer manholes). Potential structural problems and infiltration sources identified during the inspection process are referred to engineering staff for follow-up review and analysis of cost-effective repairs.

MWRA is undertaking a number of significant capital projects to rehabilitate portions of Authority-owned interceptors and provide additional hydraulic capacity. During FY24, MWRA continued rehabilitation of sewer interceptors under the Interceptor Renewal/Asset Protection Program. Evaluation and design of interceptor rehabilitation began in FY09. The program includes a series of twelve interceptor renewal projects to be phased over multiple years at a cost of over $150 million. Each of these projects will provide structural repairs for existing pipelines and reduce I/I entering the MWRA interceptor system. MWRA's Interceptor Renewal/Asset Protection Projects #1 through #7 for rehabilitation construction of a variety of Sewer Sections are programmed in the Final FY25 CIP at a cost of nearly $70 million. Interceptor Renewal/Asset Protection Projects #1 through #7 include:

1. Interceptor Renewal/Asset Protection Project #1: Rehabilitation design and construction of 12,240 linear feet of the Reading Extension Sewer Sections 75, 74 and 73 primarily in Stoneham, with short reaches in Wakefield and Woburn. Also, included was rehabilitation of 2,280 linear feet of Metropolitan Sewer Section 46 in Stoneham, as well as, rehabilitation of 62 sewer manholes and structures along the pipeline route. Construction began in FY17 and was completed during FY19. Total design, construction and construction services costs were approximately $3.1 million.

2. Interceptor Renewal/Asset Protection Project #2 (Now included with Belle Island Sandcatcher/Headhouses and Interceptor Renewal Project #4 under North Collection Sewer System Rehabilitation): Rehabilitation design and construction of Sections 4, 5, 6 and 186 on the North Metropolitan Trunk Sewer in Winthrop (just upstream of the Deer Island Treatment Plant). Work will include rehabilitation of approximately 3,800 linear feet of 102 to 104-inch brick sewer. Portions of this sewer were previously rehabilitated using a shotcrete process in the 1990s. A preliminary design study for the North Metropolitan Trunk Sewer was completed in April 2018. The design contract phase under Contract 7513 is scheduled to begin in mid FY26 as CP2 with a design/construction budget of $19.2 million. Interceptor Renewal Projects # 2 and #4 combined as North Collection System Rehabilitation with a total design/construction budget of $37.2 million.

3. Interceptor Renewal/Asset Protection Project #3: Rehabilitation design and construction of Dorchester Interceptor Sewer Sections 240, 241 and 242. Design for this project began in FY18. Construction/construction services phases were completed December 2021. The overall design, construction and construction services costs were approximately $5.3 million.

4. Interceptor Renewal/Asset Protection Project #4 (Now included with DeLauri Pump Station Force Main Repair and with Interceptor Renewal Project #2 under North Collection Sewer System Rehabilitation): Rehabilitation design and construction of Cambridge Branch Sewer Sections 23, 24, 26 and 27 in Charlestown, Everett, Somerville and Cambridge. A preliminary design study for Cambridge Branch Sewer Sections 23 - 24 and 26 - 27 was completed in FY18. The design contract phase is scheduled to begin in mid FY26 as CP1 with a design/construction budget of $18 million. Interceptor Renewal Projects # 2 and #4 combined as North Collection System Rehabilitation with a total design/construction budget of $37.2 million.

5. Interceptor Renewal/Asset Protection Project #5: Rehabilitation design and construction of portions of New Neponset Valley Sewer Sections 607, 609 and 610 in Milton. The design contract phase is scheduled to begin in FY28 with a design/ construction budget of $16.2 million.

6. Interceptor Renewal/Asset Protection Project #6: Rehabilitation design and construction of portions of Sections 12, 14, 15 and 62 in Chelsea. The design contract phase is scheduled to begin in FY30 with a design/construction budget of $15.4 million.

7. Interceptor Renewal/Asset Protection Project #7: Rehabilitation design and construction of portions of Sections 41, 42, 49, 54 and 65 in Malden and Melrose. Design Notice To Proceed issued August 2020 with a design cost of $2.6 million. Construction budget estimated at $9.4 million. Anticipated Construction Notice To Proceed date is April 2026.

ATTACHMENT 4
TO
MWRA ANNUAL I/I REDUCTION REPORT FOR FY25
Reporting Period: July 2024 Through June 2025

STATUS UPDATE ON MWRA's I/I LOCAL FINANCIAL ASSISTANCE PROGRAM

Financial Assistance Update

All 43-member sewer communities are participating in MWRA's $960.75 million Infiltration/Inflow (I/I) Local Financial Assistance (grant/loan) Program. The program began in May 1993 and, through FY25, $586 million has been distributed to fund 702 local I/I reduction and sewer system rehabilitation projects. The current program budget of $960.75 million includes the addition of $100 million (Phase 15) approved by the MWRA Board of Directors for distribution beginning on July 1, 2024. In September 2022, Phase 14 was added with the grant component remaining as 75% of the eligible project cost. In June 2018, the MWRA Board of Directors approved the addition of $300 million for distribution beginning in FY19, including: Phase 11 ($100 million in grant/loan funds), Phase 12 ($100 million in grant/loan funds) and Phase 13 ($100 million in loan only funds). For Phases 11 and 12, the grant component remained as 75% of the eligible project cost. The table on page 2 provides a summary of funding allocations, distributions, and funds remaining for each MWRA sewer community. Distribution of grant and loan financial assistance to member communities has been approved through FY30. The table on page 3 provides a summary of funding distributions by fiscal quarter since Program inception.

In June 2024, the MWRA Board of Directors also approved Phase 16 of the program, which will be included as an additional $125 million in grant/loan funds beginning in FY26. The current program total of $960.75 million will be increased to $1.086 billion with the addition of this funding phases.

Program Background

MWRA's I/I Local Financial Assistance Program was initiated to provide funding to member sewer communities to perform I/I reduction and sewer system rehabilitation projects within their locally-owned collection systems. Following recommendations from the MWRA Advisory Board, the MWRA Board of Directors has approved a total program budget of $1.086 billion. The funds have been allocated among the 43 MWRA sewer communities based on respective share of MWRA's wholesale sewer charge. Financial assistance for Phases 1 and 2 (total of $63.75 million) was distributed for approved projects as a 25 percent grant and a 75 percent interest-free loan. The grant/loan split was revised for distribution of the Phase 3 through 8 funds (total of $237 million) to a 45 percent grant and a 55 percent interest-free loan. The interest-free loan portion for Program Phases 1 through 8 has been repaid to MWRA over a five-year period beginning one year after the date the funds are distributed.

The grant/loan split was again enhanced for distribution of Phases 9 through 12 funds (total of $360 million) to a 75 percent grant and a 25 percent interest-free loan. The interest-free loan repayment period for Program Phases 9 through 12 was extended to ten years from the previous five (again beginning one year after the date the funds are distributed). Phase 13 is a $100 million loan-only phase also with a ten-year repayment. Phase 13 loan funds are to be used by communities if their grant/loan funds have all been distributed (prior to the initiation of the next grant/loan funding phase). The grant/loan split for distribution of Program Phase 14 funds (total of $100 million) remains at a 75 percent grant and a 25 percent interest-free loan. The interest-free loan repayment period for Program Phase 14 funds also remains at a ten years.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
COMMUNITY FUNDING SUMMARY AS OF JULY 2025

Community	Total Allocations (Phases 1 - 16)	Total Distributions (Phases 1 - 16)	Percent Distributed	Funds Remaining
Arlington	$19,408,000	$13,713,000	71%	$5,695,000
Ashland	$5,579,500	$2,928,860	52%	$2,650,640
Bedford	$7,955,600	$3,109,158	39%	$4,846,442
Belmont	$11,690,100	$5,135,100	44%	$6,555,000
Boston	$309,135,200	$131,029,337	42%	$178,105,863
Braintree	$20,901,000	$13,290,357	64%	$7,610,643
Brookline	$29,698,200	$21,275,200	72%	$8,423,000
Burlington	$12,215,800	$8,522,800	70%	$3,693,000
Cambridge	$57,507,100	$28,830,100	50%	$28,677,000
Canton	$9,701,900	$4,464,250	46%	$5,237,650
Chelsea	$17,586,100	$13,510,100	77%	$4,076,000
Dedham	$13,051,000	$9,240,000	71%	$3,811,000
Everett	$19,511,500	$11,611,500	60%	$7,900,000
Framingham	$29,111,000	$13,671,000	47%	$15,440,000
Hingham	$4,105,500	$2,812,500	69%	$1,293,000
Holbrook	$4,016,600	$1,349,600	34%	$2,667,000
Lexington	$17,476,300	$12,155,300	70%	$5,321,000
Malden	$29,486,900	$9,802,870	33%	$19,684,030
Medford	$27,868,600	$7,961,600	29%	$19,907,000
Melrose	$14,357,300	$10,106,300	70%	$4,251,000
Milton	$12,904,500	$10,164,500	79%	$2,740,000
Natick	$13,248,600	$6,832,600	52%	$6,416,000
Needham	$14,302,600	$4,018,600	28%	$10,284,000
Newton	$49,302,400	$39,277,400	80%	$10,025,000
Norwood	$17,124,400	$8,449,400	49%	$8,675,000
Quincy	$46,608,000	$32,325,000	69%	$14,283,000
Randolph	$14,423,800	$4,971,058	34%	$9,452,742
Reading	$10,964,100	$7,749,100	71%	$3,215,000
Revere	$24,325,900	$6,802,900	28%	$17,523,000
Somerville	$36,621,800	$18,995,800	52%	$17,626,000
Stoneham	$11,422,900	$7,829,900	69%	$3,593,000
Stoughton	$11,353,900	$8,962,900	79%	$2,391,000
Wakefield	$13,953,900	$9,836,900	70%	$4,117,000
Walpole	$8,876,000	$5,473,210	62%	$3,402,790
Waltham	$31,278,400	$19,214,560	61%	$12,063,840
Watertown	$14,457,800	$10,185,800	70%	$4,272,000
Wellesley	$13,282,700	$6,889,700	52%	$6,393,000
Westwood	$6,268,300	$3,091,300	49%	$3,177,000
Weymouth	$27,667,900	$16,560,900	60%	$11,107,000
Wilmington	$6,184,000	$2,462,000	40%	$3,722,000
Winchester	$9,822,000	$7,673,000	78%	$2,149,000
Winthrop	$7,963,400	$5,083,400	64%	$2,880,000
Woburn	$23,029,500	$18,505,500	80%	$4,524,000
Totals	$1,085,750,000	$585,874,360	54%	$499,875,640

MWRA I/I Local Financial Assistance Program - Fiscal Year Breakdown

FY	Distribution Cycle	Distribution Amount	Distribution Cycle	Distribution Amount	Distribution Cycle	Distribution Amount	Distribution Cycle	Distribution Amount	FY Total
FY93	Aug 1992	$0	Nov 1992	$0	Feb 1993	$0	May 1993	$2,714,883	$2,714,883
FY94	Aug 1993	$3,096,468	Nov 1993	$4,096,133	Feb 1994	$3,191,032	May 1994	$251,494	$10,635,127
FY95	Aug 1994	$354,126	Nov 1994	$976,700	Feb 1995	$1,894,030	May 1995	$6,489,891	$9,714,747
FY96	Aug 1995	$0	Nov 1995	$504,100	Feb 1996	$2,921,600	May 1996	$3,902,426	$7,328,126
FY97	Aug 1996	$1,682,061	Nov 1996	$1,581,266	Feb 1997	$395,100	May 1997	$3,530,758	$7,189,185
FY98	Aug 1997	$1,066,300	Nov 1997	$1,157,260	Feb 1998	$909,350	May 1998	$2,001,608	$5,134,518
FY99	Aug 1998	$1,521,100	Nov 1998	$2,464,263	Feb 1999	$1,481,700	May 1999	$5,758,077	$11,225,140
FY00	Aug 1999	$1,315,767	Nov 1999	$1,847,900	Feb 2000	$1,679,000	May 2000	$1,070,100	$5,912,767
FY01	Aug 2000	$1,148,400	Nov 2000	$388,000	Feb 2001	$1,640,931	May 2001	$804,800	$3,982,131
FY02	Aug 2001	$4,480,735	Nov 2001	$704,040	Feb 2002	$1,804,200	May 2002	$5,002,691	$11,991,666
FY03	Aug 2002	$1,962,600	Nov 2002	$4,461,768	Feb 2003	$7,955,752	May 2003	$1,836,600	$16,216,720
FY04	Aug 2003	$2,021,940	Nov 2003	$1,306,200	Feb 2004	$1,770,760	May 2004	$3,295,400	$8,394,300
FY05	Aug 2004	$2,756,659	Nov 2004	$6,013,436	Feb 2005	$4,054,060	May 2005	$2,636,700	$15,460,855
FY06	Aug 2005	$5,377,487	Nov 2005	$4,589,600	Feb 2006	$1,519,463	May 2006	$6,489,676	$17,976,226
FY07	Aug 2006	$0	Nov 2006	$4,947,414	Feb 2007	$8,789,300	May 2007	$8,121,023	$21,857,737
FY08	Aug 2007	$3,915,500	Nov 2007	$4,355,750	Feb 2008	$1,392,400	May 2008	$4,436,600	$14,100,250
FY09	Aug 2008	$4,196,399	Nov 2008	$352,000	Feb 2009	$1,990,300	May 2009	$4,872,400	$11,411,099
FY10	Aug 2009	$5,462,736	Nov 2009	$616,600	Feb 2010	$2,679,600	May 2010	$4,845,000	$13,603,936
FY11	Aug 2010	$723,700	Nov 2010	$3,183,250	Feb 2011	$4,123,100	May 2011	$4,258,900	$12,288,950
FY12	Aug 2011	$3,695,100	Nov 2011	$2,417,378	Feb 2012	$848,300	May 2012	$7,010,324	$13,971,102
FY13	Aug 2012	$21,299,965	Nov 2012	$1,004,610	Feb 2013	$2,460,000	May 2013	$2,675,000	$27,439,575
FY14	Aug 2013	$7,550,310	Nov 2013	$0	Feb 2014	$2,929,700	May 2014	$2,271,852	$12,751,862
FY15	Aug 2014	$4,053,000	Nov 2014	$7,647,400	Feb 2015	$10,128,648	May 2015	$4,803,450	$26,632,498
FY16	Aug 2015	$3,983,100	Nov 2015	$5,783,000	Feb 2016	$7,195,116	May 2016	$5,483,000	$22,444,216
FY17	Aug 2016	$2,352,100	Nov 2016	$6,553,210	Feb 2017	$2,918,900	May 2017	$10,434,030	$22,258,240
FY18	Aug 2017	$8,085,900	Nov 2017	$10,311,545	Feb 2018	$1,377,800	May 2018	$1,909,730	$21,684,975
FY19	Aug 2018	$4,107,370	Nov 2018	$12,150,449	Feb 2019	$19,027,200	May 2019	$11,067,748	$46,352,767
FY20	Aug 2019	$14,287,100	Nov 2019	$10,990,840	Feb 2020	$9,635,048	May 2020	$5,454,250	$40,367,238
FY21	Aug 2020	$6,087,196	Nov 2020	$9,789,250	Feb 2021	$9,642,573	May 2021	$11,878,316	$37,397,335
FY22	Aug 2021	$5,582,842	Nov 2021	$7,692,520	Feb 2022	$4,149,000	May 2022	$13,903,765	$31,328,127
FY23	Aug 2022	$4,897,221	Nov 2022	$4,024,558	Feb 2023	$4,076,134	May 2023	$8,736,800	$21,734,713
FY24	Aug 2023	$4,761,170	Nov 2023	$15,133,250	Feb 2024	$5,718,977	May 2024	$3,612,630	$29,226,027
FY25	Aug 2024	$5,467,390	Nov 2024	$0	Feb 2025	$8,777,956	May 2025	$10,890,858	$25,136,204
Total		$137,291,742		$137,043,690		$139,077,030		$172,451,080	$585,874,360

MWRA funding is provided to a community following execution of a standard financial assistance agreement that stipulates the project scope, schedule and loan repayment requirements. Communities are required to provide periodic schedule and expenditure progress reports to MWRA. For planning and design projects, the work products (reports, plans, specifications, and bidding documents) are reviewed and approved by MWRA. During project construction, MWRA staff perform site visits to document sewer rehabilitation progress.

Program Goals

The I/I Local Financial Assistance Program is a critical component of MWRA's Regional I/I Reduction Plan. Specifically, local sewer system rehabilitation projects are intended to at least offset ongoing collection system deterioration to prevent a net increase in regional I/I. In the long-term, system rehabilitation should result in lower I/I, which will allow for future increases in sanitary (residential, commercial, industrial, and institutional) flow without a net increase in total wastewater flow to the Deer Island Treatment Plant.

A second goal of the program is to assist member communities in implementing effective annual local collection system maintenance programs to assure efficient operation and ongoing collection system repair/replacement.

Type of Local Projects Receiving Funding

Funding has been provided to local communities for eligible I/I reduction projects including planning, design, construction, and engineering services during construction. These projects generally take one to three years to complete. Seventy-eight percent of funds distributed to date have financed local construction projects. The table below details funds distributed by project phase for both completed and ongoing projects.

PROJECT PHASE	COMPLETE PROJECTS ($ millions)	ONGOING PROJECTS ($ millions)	TOTAL ($ millions)
Planning/Study:	$ 53.3	$ 18.7	$ 72.0 (12%)
Design:	19.3	10.2	29.5 (5%)
Construction:	334.4	124.4	458.8 (78%)
Eng. Services During Const.:	21.1	4.5	25.6 (5%)
TOTAL	$ 428.1 (73%)	$ 157.8 (27%)	$ 585.9 (100%)

Program Results

The I/I Local Financial Assistance Program began in May 1993. Through FY25, a total of 702 local I/I reduction and sewer system rehabilitation projects have been funded through the MWRA's grant/loan program. During FY25, MWRA distributed a total of $25.1 million in grants and loans to member communities to help fund 17 local I/I reduction projects (see Section Pages 4-9 to 4-44 for community project details). Cumulative results for the program are summarized below.

Results for all projects (FY93 through FY25) for planning/inspection include the following:

- 2,706 miles of sewer TV inspected
- 1,871 miles of sewer flow isolated
- 1,577 miles of sewer smoke tested
- 74,584 sewer manholes inspected
- 84,252 buildings inspected.

Results for all projects (FY93 through FY25) targeting infiltration reduction include the following:

- 85 miles sewer replaced
- 384 miles sewer CIPP lined
- 195 miles sewer tested/chemically sealed
- 3,427 sewer spot repairs
- 20,756 service connection repairs
- 5.0 miles underdrains sealed.

Results for all projects (FY93 through FY25) targeting inflow reduction include the following:

- 1,208 catch basins disconnected
- 49 miles of new or replaced storm drains
- 25,359 manholes rehabilitated/sealed
- 4,148 manhole covers replaced or inflow seals installed
- 551 sump pumps redirected
- 5,839 downspouts/area drains disconnected.

Stormwater and Infiltration/Inflow Impacts to the Collection System

Wastewater discharged by member sewer communities to MWRA is influenced by seasonal and wet-weather conditions related to stormwater in combined sewer systems, groundwater infiltration, and stormwater and tidal inflow. Infiltration/Inflow (I/I) is extraneous water that enters all wastewater collection systems through a variety of sources.

Infiltration into a Sanitary Sewer

Infiltration is groundwater that enters the collection system through physical defects such as cracked pipes/manholes or deteriorated joints. Typically, many sewer pipes and sewer service laterals are below the surrounding groundwater table. Therefore, leakage into the sewer (infiltration) is a broad problem that is difficult and expensive to identify and reduce.

Inflow is extraneous flow entering the collection system through point sources and may be directly related to storm water run-off from sources such as roof leaders, yard and area drains, basement sump pumps, ponded manhole covers, cross connections from storm drains or catch basins, leaking tide gates, etc. Inflow causes a rapid increase in wastewater flow that occurs during and continuing after storms and extreme high tides. The volume of inflow entering a collection system typically depends on the magnitude and duration of rainfall, as well as related impacts from snowmelt, flooding, and storm surge.

Inflow into a Sewer Manhole

Stormwater in Combined Sewers is, by design, collected in the combined sewer system to be transported to a downstream treatment facility. Additional system capacity is available via combined sewer overflow (CSO) storage facilities and outfalls that may be active during rainfall events.

Regional Wastewater Flow Trends

Wastewater Flow Graph 1 (page 4-7) provides long-term regional flow data for the Deer Island Treatment Plant collection system and annual rainfall. The long-term average daily flow for the total system is about 349 mgd (last 36 years from 1989-2024) and the average annual rainfall is 43.5 inches (Boston Logan Airport Data). Wastewater Flow Graph 2 (page 4-8) shows the five-year running averages (flow and rainfall) as a means of smoothing the annual variability in the long-term data displayed in Wastewater Flow Graph 1. The five-year running average daily flow has declined from approximately 391 mgd (in the five year period beginning in 1989) to approximately 324 mgd (in the most recent 5-year period), a reduction of 67 mgd or 17% of wastewater flow tributary to the Deer Island Treatment Plant.

During dry summer months, total system minimum flows drop to as low as 220 mgd. Few problems exist within local and regional sewer systems during dry weather or as a result of small and medium storm events. In contrast, peak wet-weather flow, during occasional periods of significant rainfall, exceeds the 1,270 mgd plant capacity, more than 3.5 times the average flow due to the influence of combined sewer flow, as well as, infiltration and inflow. The collection system has additional capacity available at combined sewer overflow (CSO) storage facilities and outfalls. Extreme storm events that occur during periods of high groundwater, may cause sewer system surcharging and sanitary sewer overflows (SSOs).

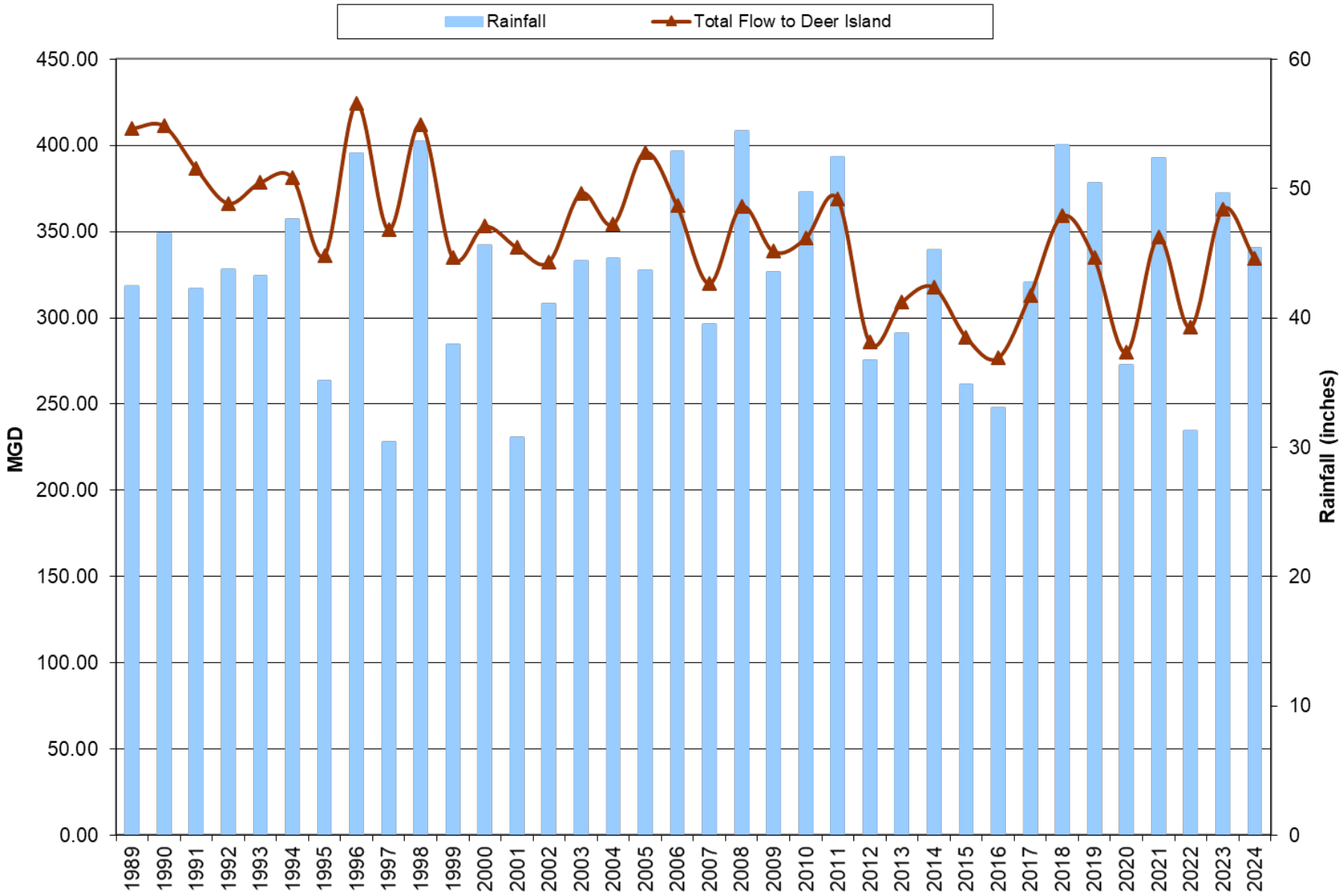
Over the last five years (2020-2024), MWRA's average daily flow of 324 mgd has been about 7% below the long-term average of 349 mgd. The five-year average rainfall of 43.0 inches is consistent with the long-term average of 43.5 inches.

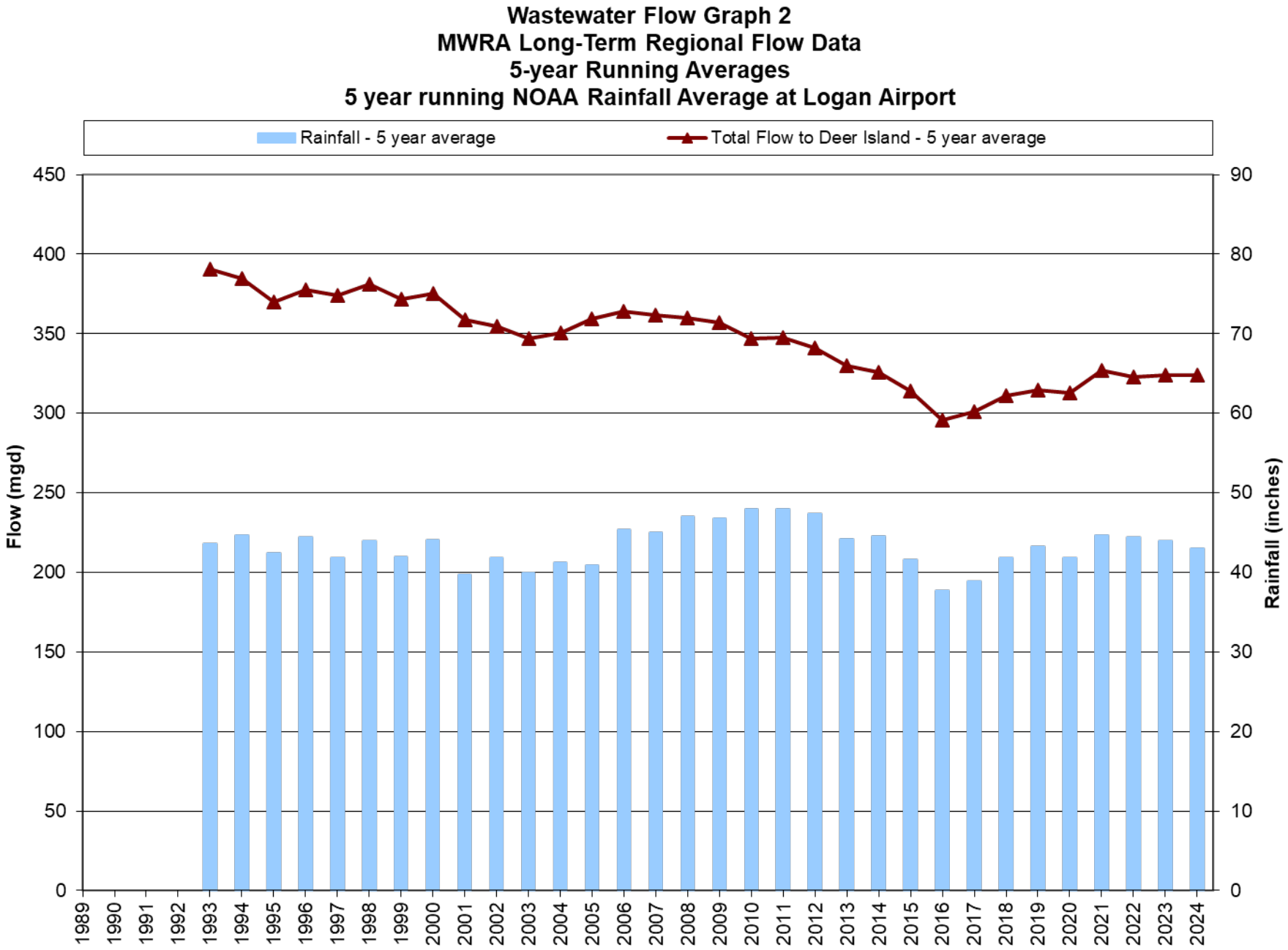
The estimated average daily flow reduction associated with completed local I/I reduction projects that have received MWRA financial assistance is about 103 million gallons per day (mgd). This flow reduction "ballpark" figure is based on the communities' (or their consultants') peak I/I reduction estimates, which have been prorated by MWRA staff to estimate an annual average I/I reduction. The estimated I/I reduction represents groundwater and stormwater that no longer enter the collection system at the point of sewer repair.

Regional wastewater flow trends are influenced by many factors, including:

- MWRA's financial assistance for local I/I reduction and sewer rehabilitation projects provide gradual improvements to the regional collection system by reducing I/I and stormwater sources. However, each year the regional collection system gets older and continues to deteriorate, which increases I/I;
- Sewer capacity gained by elimination of I/I in one subsystem may allow additional I/I to enter the collection system at a different location (known as infiltration migration), resulting in less net flow reduction at the end of the collection system;
- CSO separation projects reduce stormwater tributary to the combined sewer system leading to decreased flows. However, MWRA's pumping and interceptor relief upgrades, as well as CSO optimization projects, are intended to maximize sewer flow to the treatment plant leading to increased flows;
- Wastewater flows within the collection system vary dramatically due to changes in precipitation. For example, annual average daily flow for MWRA's system varies up to 100 mgd from year to year (from a low of less than 300 mgd to a high of more than 400 mgd). Small flow reductions for individual projects are dwarfed by regional flow fluctuations; and,
- Over the last 20 years, the decline in per capita indoor water use within the MWRA service area could account for about 20 mgd in wastewater flow reduction after the increase in wastewater flow from increased sewered population is accounted for.

Wastewater Flow Graph 1
MWRA Long-Term Regional Flow Data
NOAA Annual Rainfall at Logan Airport




Wastewater Flow Graph 2
MWRA Long-Term Regional Flow Data
5-year Running Averages
5 year running NOAA Rainfall Average at Logan Airport
Rainfall - 5 year average
Total Flow to Deer Island - 5 year average
Flow (mgd)
Rainfall (inches)
450
400
350
300
250
200
150
100
50
0
90
80
70
60
50
40
30
20
10
0
1989
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2023
2024

Community Projects Funded During FY25

During FY25, MWRA distributed a total of $25.1 million in grants and loans to member communities to help fund 17 local I/I reduction projects. Community projects are funded quarterly under the MWRA I/I Local Financial Assistance Program. Attached (following this page) are funding summaries for the four quarterly funding distributions during FY25:

- First Quarter FY25 - August 2024 Funding Cycle with $5,467,390 distributed to two communities: Boston and Stoughton (see Section Pages 4-10 to 4-15);

- Second Quarter FY25 - November 2024 Funding Cycle did not have any I/I distributions (see Section Page 4-16) ;

- Third Quarter FY25 - February 2025 Funding Cycle with $8,777,956 distributed to eight communities: Arlington, Braintree, Brookline, Reading, Walpole, Watertown, Weymouth, and Winchester (see Section Pages 4-17 to 4-35); and

- Fourth Quarter FY25 - May 2025 Funding Cycle with $10,890,858 distributed to five communities: Boston, Malden, Norwood, Revere and Woburn (see Section Pages 4-36 to 4-44).

MWRA I/I Local Financial Assistance Program Funding Summary

August 2024 Funding Cycle

Community	Funding Allocation
Boston	$ 1,496,250
Boston	$ 2,911,140
Stoughton	$ 1,060,000
Total	$ 5,467,390

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT A
MWRA PROJECT NO. WRA-P14-05-2-1437

BWSC CHARLESTOWN SSES AND DESIGN

BWSC CONTRACT NO. 23-206-001

SCOPE OF SERVICES

The objective of this project is to conduct a Sewer System Evaluation Survey (SSES) to identify and locate undocumented sources of I/I in the wastewater collection system and create design documents for sewer rehabilitation and I/I removal within the Charlestown section of Boston.

Project work will include the review of existing documents provided by BWSC and obtained from other sources; preparation of a detailed SSES plan to identify specific sources of unidentified I/I in the wastewater collection system; implementation of the approved investigation plan and preparation of a comprehensive report stating the specific I/I sources. The final report will describe the investigation undertaken, present the conclusions of the investigation and make recommendations for the appropriate methods for I/I removal (with associated removal costs). The data collected and supporting documents, including maps and tables, will be included in the final report. The SSES sources identified will also be used as a basis to produce Design Drawings and Contract Specifications for Bid.

Project Phases and Tasks (and associated Task cost) include:

1. Project Administration ($41,682);
2. Review of Existing Information ($7,947);
3. SSES Investigation Plan Development ($41,314);
4. SSES Plan Implementation ($790,990);
5. Data Analysis ($49,731);
6. Final Report ($42,196);
7. Expenses ($5,435);
8. Design Project Administration ($70,834); and
9. Design Contract Plans & Specs ($446,121).

The above work will be performed pursuant to the terms and conditions detailed within the Contract For Professional Services Agreement By and Between the Boston Water And Sewer Commission and CDM-Smith (Contract No. 23-206-001) dated January 24, 2024 and the approved MWRA I/I Local Financial Assistance Project Application received May 15, 2024.

Total project cost is estimated at $1,496,250. Eligible MWRA I/I Local Financial Assistance is $1,496,250.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT B
MWRA PROJECT NO. WRA-P14-05-2-1437

BWSC CHARLESTOWN SEWER SYSTEM EVALUATION SURVEY AND DESIGN

BWSC CONTRACT NO. 23-206-001

PROJECT SCHEDULE

Item	Start Date	Completion Date
Project Administration	January 2024	September 2025
Review of Existing Data / Plan Development	January 2024	April 2024
Plan Implementation / Data Analysis	April 2024	September 2024
Final Report	September 2024	April 2025
Rehabilitation Design	April 2025	September 2025

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT A
MWRA PROJECT NO. WRA-P14-05-2-1438

BWSC WEST ROXBURY & HYDE PARK SSES AND DESIGN

BWSC CONTRACT NO. 23-206-005

SCOPE OF SERVICES

The objective of this project is to conduct a Sewer System Evaluation Survey (SSES) to identify and locate undocumented sources of I/I in the wastewater collection system and produce design documents for sewer rehabilitation and I/I removal within the West Roxbury and Hyde Park sections of Boston.

Project work will include the review of existing documents provided by BWSC and obtained from other sources; preparation of a detailed SSES plan to identify specific sources of unidentified I/I in the wastewater collection system; implementation of the approved investigation plan and preparation of a comprehensive report stating the specific I/I sources. The final report will describe the investigation undertaken, present the conclusions of the investigation and make recommendations for the appropriate methods for I/I removal (with associated removal costs). The data collected and supporting documents, including maps and tables, will be included in the final report. The SSES sources identified will also be used as a basis to produce Design Drawings and Contract Specifications for Bid.

Project Phases and Tasks (and associated Task cost) include:

1. Project Administration ($190,163);
2. Review of Existing Information ($62,885);
3. SSES Investigation Plan Development ($40,701);
4. SSES Plan Implementation ($1,643,318);
5. Data Analysis ($211,009);
6. Final SSES Report ($146,621); and
7. Design Services ($616,443).

The above work will be performed pursuant to the terms and conditions detailed within the Contract For Professional Services Agreement By and Between the Boston Water And Sewer Commission and Weston & Sampson (Contract No. 23-206-005) and the approved MWRA I/I Local Financial Assistance Project Application received July 12, 2024.

Total project cost is estimated at $2,911,140. Eligible MWRA I/I Local Financial Assistance is $2,911,140.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT B
MWRA PROJECT NO. WRA-P14-05-2-1438

BWSC WEST ROXBURY & HYDE PARK SSES AND DESIGN

BWSC CONTRACT NO. 23-206-005

PROJECT SCHEDULE

Item	Start Date	Completion Date
Project Administration	June 2024	September 2026
Review of Existing Data / Plan Development	June 2024	September 2024
Plan Implementation / Data Analysis	January 2025	June 2025
Final Report	July 2025	December 2025
Rehabilitation Design	July 2025	September 2026

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT A
FINANCIAL ASSISTANCE AGREEMENT

TOWN OF STOUGHTON, MASSACHUSETTS
YEARS 8 / 9 / 10 I/I REHABILITATION - CONSTRUCTION
MWRA PROJECT NO. WRA-P14-32-3-1436

SCOPE OF SERVICES

MWRA Project No. WRA-P14-32-3-1436 provides additional funds ($1,060,000) for MWRA Project No. WRA-P14-32-3-1410: The purpose of these projects is to identify and rehabilitate community subareas that contribute excessive I/I, evaluate rehabilitation options, and rehabilitate the sewer system on a continuous set schedule. Project work will include, but not be limited to, the following:

Years 8 / 9 / 10 I/I Rehabilitation - Construction: Construction of cost-effective / value-effective / recommended sewer rehabilitations and the performance of construction resident project representative services. Sewer rehabilitation work includes approximately: installing structural CIPP in 26,000 LF of sewer, CCTV inspection of 10,000 LF of sewer; cleaning, inspecting, testing & sealing joints in 4000 LF of sewer; installing 12 LF of structural short liners; performing open cut repairs at 11 locations; installing lateral liners at six (6) locations; replacement of 3 wye connections; inspecting 90 sewer manholes; performing 575 vertical feet of sewer manhole cementitious lining; installing 25 sewer manhole inflow dishes; replacing 82 sewer manhole frames & covers; raising 11 sewer manhole frames & covers to grade; rehabilitating 46 sewer manholes; testing/grouting of service connections; and cutting intruding service connections. (Estimated Design and Construction Services Cost: $225,000 / Estimated Construction Cost: $2,080,792.03). The second round of the Town's ten-year Annual Sewer Program concludes with this rehabilitation project.

The above work will be performed pursuant to the terms and conditions detailed within the Engineering Services Agreement By and Between the Town of Stoughton and Weston & Sampson Engineers, Inc. and the approved MWRA I/I Local Financial Assistance Project Application received June 7, 2024. Total project cost is estimated at 2,305,792.03. Eligible MWRA I/I Local Financial Assistance is $1,060,000 (MWRA I/I Financial Assistance Phase 13 Allocation Limit). As a result of the above rehabilitation work, an estimated 0.0745 MGD of peak I/I will be removed from the collection system upon contract completion.

TOWN OF STOUGHTON, MASSACHUSETTS
YEARS 8 / 9 / 10 I/I REHABILITATION - CONSTRUCTION
MWRA PROJECT NO. WRA-P14-32-3-1436

PROJECT SCHEDULE

Item	Start Date	Completion Date
Rehabilitation Construction	Summer 2024	Fall 2024
Warranty Retesting	Spring 2025	Spring 2025

MWRA I/I Local Financial Assistance Program Funding Summary

November 2024 Funding Cycle

In the November 2024 funding cycle MWRA did not receive any applications.

Community	Funding Allocation
Total	$ 0

MWRA I/I Local Financial Assistance Program Funding Summary

February 2025 Funding Cycle

Community	Funding Allocation
Arlington	$ 697,100
Braintree	$ 1,017,380
Brookline	$ 1,609,000
Reading	$ 1,040,000
Walpole	$ 332,160
Watertown	$ 1,320,000
Weymouth	$ 1,012,316
Winchester	$ 1,750,000
Total	$ 8,777,956

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT A
FINANCIAL ASSISTANCE AGREEMENT

MWRA PROJECT NO. WRA-P14-01-3-1443

TOWN OF ARLINGTON

PHASE #17 SANITARY SEWER REHABILITATION DESIGN & CONSTRUCTION / PHASE #15 POST-CONSTRUCTION FLOW EVALUATION

SCOPE OF SERVICES

The Town of Arlington requests funding for the following projects which are part of the Town's Sewer System Capital Improvement Program. The Sewer System CIP is designed to reduce Inflow and Infiltration. Each phase of the Program includes the most cost-effective repairs remaining within the Town. The work included in the Phase #17 Design and Rehabilitation Construction projects (Task 1 & 2) will be located in various portions of Investigation Area #1 through Area #11.

Task 1 - Phase #17 Design, Bid & Award:
The goal of the Phase #17 Design, Bid & Award project is to design the removal of cost-effective sources of infiltration and inflow (I/I) and produce contract documents suitable for public bidding within the investigation areas named above.

Task 2 - Phase #17 Rehabilitation Construction & Construction Services:
The goal of the Phase #17 Construction project is to rehabilitate and repair sewer infrastructure and remove sources of I/I identified during previous Sewer System Investigation Projects and included in the Phase #17 Design, Bid & Award project, within the investigation areas stated above.

Task 3 - Phase #15 Post Construction Flow Evaluation:
The Phase #15 Post-Construction Flow Evaluation will compare pre- and post-rehabilitation ground water levels and flow isolation data to estimate the quantity of peak infiltration removed from the sewer system as a result of the Phase #15 Construction project. A Draft & Final Report will be prepared evaluating the pre- and post-construction flows.

The above work will be performed pursuant to the terms and conditions detailed within the Agreement For Engineering Services By and Between the Town of Arlington and Weston & Sampson Engineers, Inc. and the approved MWRA I/I Local Financial Assistance Project Application received January 14, 2025. Total project cost is estimated at $697,100. Eligible MWRA I/I Local Financial Assistance is $697,100 (Eligible Phase #17 Design, Bid, & Award Cost = $110,000 / Eligible Phase #17 Construction Cost = $430,000 / Eligible Phase #17 Construction Services Cost = $142,100 / Eligible Phase #15 Post Construction Flow Evaluation Cost =$15,000). Upon contract completion, this work will result in an estimated removal of 0.03 MGD of peak I/I flow from the sanitary sewer system.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT B
FINANCIAL ASSISTANCE AGREEMENT

MWRA PROJECT NO. WRA-P14-01-3-1443

TOWN OF ARLINGTON

PHASE #17 SANITARY SEWER REHABILITATION DESIGN & CONSTRUCTION / PHASE #15 POST-CONSTRUCTION FLOW EVALUATION

PROJECT SCHEDULE

Description of Work	Start Date	Completion Date
Phase #17 Design, Bid & Award	February 2025	July 2025
Phase #17 Construction Rehabilitations	August 2025	November 2025
Phase #17 Construction Warranty Retest	May 2026	June 2026
Phase #15 Post-Construction Flow Evaluation	June 2025	July 2025

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
FINANCIAL ASSISTANCE AGREEMENT

ATTACHMENT A1

MWRA PROJECT NO. WRA-P14-06-3-1444

TOWN OF BRAINTREE

YEAR 12 (FY24) I/I REHABILITATION PROGRAM

SCOPE OF SERVICES

The purpose of this project is to rehabilitate identified community subareas that contribute excessive I/I in the sewer system and evaluate rehabilitation options on a continuous set schedule. This project includes design, construction, and construction services. Project work will be conducted in Braintree's sewer subareas L1 and R2.

Year 12 (FY24) I/I Rehabilitation – Design / Construction / Construction Services:
Construction plans and specifications (to remove excessive I/I identified in sewer pipelines and manholes during year 12 investigation.) will be developed and submitted, followed by rehabilitation construction. A draft copy of the construction plans, specifications and bidding documents will be submitted to the MWRA for review and comment during the design phase. The estimated quantity of I/I to be reduced will be determined as part of the final design. Upon contract completion, an estimated quantity of I/I will be removed from the collection system.

Total project cost estimated at $757,000 (Design/Construction Service=$207,000 & Construction =$550,000). Eligible MWRA I/I Local Financial Assistance is $757,000.

Project work will be performed pursuant to the terms and conditions detailed within the approved MWRA I/I Local Financial Assistance Project Application (received January 17, 2025) and the draft Design & Construction Services Proposal by and between the Town of Braintree, MA and Weston & Sampson Engineers, Inc.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
FINANCIAL ASSISTANCE AGREEMENT

ATTACHMENT B1

MWRA PROJECT NO. WRA-P14-06-3-1444

TOWN OF BRAINTREE

YEAR 12 (FY24) I/I REHABILITATION PROGRAM

PROJECT SCHEDULE

General Description of Work Performed	Start Date	Completion Date
Construction Planning and Design	March 2025	May 2025
Town/MWRA Review	June 2025	
Advertise in Central Register	July 2025	
Open Bids	August 2025	
Award Contract	September 2025	
Construction and Construction Services	October 2025	December 2025
Retesting	May 2026	

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
FINANCIAL ASSISTANCE AGREEMENT

ATTACHMENT A2

MWRA PROJECT NO. WRA-P14-06-1-1445

TOWN OF BRAINTREE

YEAR 13 (FY25) I/I INVESTIGATION

SCOPE OF SERVICES

The purpose of this project is to identify community sewer subareas that contribute excessive I/I and evaluate rehabilitation options on a continuous set schedule.

Investigation work will include, but not be limited to, the following: light cleaning, CCTV inspection, and recording of up to 51,000 linear feet of sewer main in Braintree's sewer subareas CP1, DH1, M2, P1, and TA1. CCTV footage will be reviewed to identify problem areas and sources of I/I within the manhole-to-manhole segments of the sewer main. Flow isolation will also be performed over the same 51,000 linear feet of sewer main in these subareas. Additionally, up to 325 topside sewer manhole inspections will be conducted, and a report will be submitted summarizing the findings. The report will highlight areas contributing to excessive I/I, provide detailed conclusions and recommendations, including a cost-effectiveness analysis for addressing identified I/I sources, and include calculations for transportation and treatment costs.

Total project cost estimated at $260,380, including police and fire details ($16,500.00 CPFF). Eligible MWRA I/I Local Financial Assistance is $260,380.

Project work will be performed pursuant to the terms and conditions detailed within the approved MWRA I/I Local Financial Assistance Project Application (received January 17, 2025) and the draft Investigation proposal by and between The Town of Braintree, MA And Weston & Sampson Engineers, Inc.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
FINANCIAL ASSISTANCE AGREEMENT

ATTACHMENT B2

MWRA PROJECT NO. WRA-P14-06-1-1445

TOWN OF BRAINTREE

YEAR 13 (FY25) I/I INVESTIGATION

PROJECT SCHEDULE

General Description of Work Performed	Start Date	Completion Date
Investigation	March 2025	May 2025
Review	September 2025	October 2025
Reporting	December 2025	February 2026

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT A
FINANCIAL ASSISTANCE AGREEMENT

MWRA PROJECT NO. WRA-P14-07-3-1441
TOWN OF BROOKLINE

DESIGN & CONSTRUCTION OF RECOMMENDED SEWER REHABILITATIONS IN SEWER SUBAREA NI-6 EAST & LARZ PARK

SCOPE OF SERVICES

The purpose of this project is to identify and rehabilitate community subareas that contribute excessive I/I, evaluate rehabilitation options and rehabilitate the sewer system on a continuous set schedule. This project includes a combination of planning, investigation, design and construction. In 2018, Brookline initiated a sewer system capital improvement program with the goal of rehabilitating all non-CIPP lined sanitary sewer mains and their associated manholes throughout Town.

The planning and investigation work includes, but is not limited to, the following: field inspections of all sewer manholes within Sewer Subarea NI-6 East and Larz Park; field investigations of locations that smoke tested positive during the 2024 final phase of smoke testing and any locations found during CCTV operations for current and previous CIPP contracts.

The design component of the project involves the preparation of biddable construction documents based on the planning and investigation work completed. Separate construction contracts will be administered for the CIPP lining of sewers in Sewer Subarea NI-6 East and Larz Park, sewer manhole rehabilitation in NI-6 East and Larz Park, and preliminary finding plans for a future dig and replace point repair contract.

The construction component of the project involves the construction of measures outlined in the biddable construction documents and construction administration. An estimate of the recommended sewer rehabilitations will include, but is not limited to:

- Installing approximately 23,350 LF of cured-in-place pipe (CIPP) lining;
- Performing heavy cleaning of approximately 3,700 LF of sewer main;
- Performing cleaning and CCTV inspection of 3,700 LF of sewer main;
- Installing epoxy lining on approximately 2,300 VF of sewer manholes;
- Installing approximately 150 gallons of injection grouting;
- Reconstruction of approximately 15 sewer manhole benches/inverts;
- Reconstruction of approximately 10 VF of grading course/corbel/wall; and
- Adjusting and/or replacing 10 sewer manhole frame and covers.

The above work will be performed pursuant to the terms and conditions detailed within the Agreement For Engineering Services By and Between the Town of Brookline and BETA Group, Inc. and the approved MWRA I/I Local Financial Assistance Project Application received December 24, 2024. The total project cost is estimated at $3,031,960. Eligible MWRA I/I Local Financial Assistance is $3,031,960 (Planning/Design = $244,960; Construction Rehabilitations = $2,580,000; Police Detail = $207,000). The MWRA will provide financial assistance in the amount of $1,609,000. At the completion of this project, it is estimated that 0.03 mgd of annual average infiltration will be removed from the collection system.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT B
FINANCIAL ASSISTANCE AGREEMENT

MWRA PROJECT NO. WRA-P14-07-3-1441

TOWN OF BROOKLINE

DESIGN & CONSTRUCTION OF RECOMMENDED SEWER REHABILITATIONS IN SEWER SUBAREA NI-6 EAST & LARZ PARK

PROJECT SCHEDULE

General Description of Work Performed	Start Date	Completion Date
I/I Planning & Investigation	March 2025	May 2025
Design & Bid of Recommended Sewer Rehabilitations	April 2025	June 2025
Construction of Sewer Rehabilitations	July 2025	October 2026

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
FINANCIAL ASSISTANCE AGREEMENT
ATTACHMENT A

MWRA PROJECT NO. WRA-P14-28-3-1449

TOWN OF READING

SEWER SYSTEM REHABILITATION:
PLANNING / DESIGN / CONSTRUCTION IN SUBAREAS 4B AND 3C

SCOPE OF SERVICES

The purpose of this project is to reduce I/I through rehabilitating manholes and sewer pipes throughout the Town of Reading.
For the Phase12 MWRA funding cycle, Reading completed cured-in-place pipe lining (CIPPL) based on previous I/I inspection work performed in the Town. For Phase14, Reading will continue to assess their system to identify additional sewer segments that may need I/I rehabilitation. Data collected in the most recent update to the towns flow model will be used in this phase to refocus I/I assessments in specific basins.

The project work involves identifying and addressing I/I issues in basins 4B and 3C under the following Tasks 1-3:

1. **Planning Phase (estimated $128,000)**
    - Engineers' planning, oversight of subcontractor inspections, review of findings, and development of rehabilitation recommendations. It also covers project administration and management. Subcontractor tasks include:
        a) Conduct flow isolation in basins 4B and 3C to identify I/I sources.
        b) Perform CCTV inspections of areas with high I/I to locate sources.
        c) Inspect manholes in areas with high I/I or located in easements to assess potential contributions to I/I.

2. **Design Phase (estimated $90,000)**
    - Develop a design for sewer rehabilitation, including (CIPPL) of 11,000 linear feet of sewer, rehab of 20 manholes, and lateral grouting.
    - Prepare specifications and assist with the public bidding process.

3. **Construction Phase (estimated $822,000)**
    - Oversee the construction process, including reviewing contractor submissions, managing project documentation, and ensuring compliance with the design. The final construction project will be based on available funds.

Total project cost is estimated at $1,040,000. Eligible MWRA I/I Local Financial Assistance is $1,040,000 (MWRA Phase 14 Total Funding Allocation). Project work will be performed pursuant to the terms and conditions detailed within the Agreement for Engineering Services By and Between the Town of Reading and CDM Smith and the MWRA I/I Local Financial Assistance Program Project Application received January 24, 2025. An estimated quantity of I/I removal will be determined upon contract completion.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
FINANCIAL ASSISTANCE AGREEMENT

ATTACHMENT B

MWRA PROJECT NO. WRA-P14-28-3-1449

TOWN OF READING

SEWER SYSTEM REHABILITATION: PLANNING / DESIGN / CONSTRUCTION IN SUBAREAS 4B AND 3C

PROJECT SCHEDULE

General Description of Work Performed	Start Date	Completion Date
Planning / Investigation	Summer 2025	Fall 2025
Design/Bid/Award	Aug 2025	Nov 2025
Construction/Construction Services	Dec 2025	Mar 2026

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT A
FINANCIAL ASSISTANCE AGREEMENT

TOWN OF WALPOLE, MASSACHUSETTS

WASTEWATER CIP 3 INVESTIGATION & CY2025 SEWER SYSTEM IMPROVEMENTS DESIGN

MWRA PROJECT NO. WRA-P14-34-2-1446

SCOPE OF SERVICES

The purpose of this project is to identify and rehabilitate community subareas that contribute excessive I/I, evaluate rehabilitation options, and rehabilitate the sewer system on a continuous set schedule. Project work will include, but not be limited to, the following:

Wastewater CIP 3 Investigation - Study and Reporting (Estimated Cost = $233,160):

The work proposed is part of a wastewater capital improvement plan. The project includes investigation and reporting. The CIP 3 Investigation will identify I/I within the Town's sewer system through CCTV sewer main inspection, flow isolation, and topside sewer manhole inspection. The investigation will be performed in Walpole Sewer Subareas 2 and 7.

Investigation work will include the following: light cleaning, CCTV inspecting and recording up to 48,00 linear feet (LF) of 6 to 21-inch sewer main; review of CCTV inspection videos to locate problem areas and I/I sources within manhole-to-manhole segments of the sewer main; flow isolation of up to 46,000 LF of sewer main; perform up to 250 topside sewer manhole inspections; and submission of a letter report summarizing the results of this work, identifying those areas which appear to contribute excessive I/I, and provide detailed conclusions and recommendations (including a cost-effectiveness analysis for identified I/I sources and a transportation & treatment cost calculation).

CY2025 Sewer System Improvements Design, Bid, & Award (Estimated Cost = $99,000):

Project work will include the design of public sewer rehabilitations and replacements based on the results of the Town Annual I/I Program (Round 2, Year 6) and the Wastewater Capital Improvement Plans (Year 1 & 2 Investigations). The design work includes Walpole Sewer Subareas 1, 3, 11, 12, and 14. The engineer will also produce contract documents suitable for public bidding within the investigation areas named above.

Project work will be performed pursuant to the terms and conditions detailed within the approved MWRA I/I Local Financial Assistance Project Application and the Agreement For Engineering Services By And Between The Town of Walpole, MA And Weston & Sampson Engineers, Inc. Total project cost is estimated at $332,160. Eligible MWRA I/I Local Financial Assistance is $332,160.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT B
FINANCIAL ASSISTANCE AGREEMENT

TOWN OF WALPOLE, MASSACHUSETTS

WASTEWATER CIP 3 INVESTIGATION & CY2025 SEWER SYSTEM IMPROVEMENTS DESIGN

MWRA PROJECT NO. WRA-P14-34-2-1446

PROJECT SCHEDULE

Item	Start Date	Completion Date
Wastewater CIP 3 Investigation - Study and Reporting		
Investigation	March 2025	August 2025
Review	September 2025	October 2025
Reporting	December 2025	February 2026

Item	Start Date	Completion Date
CY2025 Sewer System Improvements		
Design	March 2025	May 2025
Town/MWRA Review	June 2025	July 2025
Advertise/Bid	July 2025	August 2025
Award	September 2025	

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT A
FINANCIAL ASSISTANCE AGREEMENT

MWRA PROJECT NO. WRA-P14-36-3-1440

CITY OF WATERTOWN

CIP PROJECTS 3 / 4 / 5 - SEWER REHABILITATION CONSTRUCTION & INVESTIGATION

SCOPE OF SERVICES

CIP Project 3/4 Rehabilitations – Construction: The purpose of this project is to construct rehabilitations identified during sanitary sewer evaluation surveys completed in the CIP Project Areas 2, 3 and 4. The CIP Project 3/4 construction will reduce infiltration and inflow to the sanitary sewer system within the project area, and also eliminate cross connections between sanitary and stormwater systems.

This project is part of the city's sanitary sewer capital improvement plan. The construction project will be the fifth phase of rehabilitation construction. Using the information collected in the CIP Projects 2, 3 and 4 investigations, cost-effective rehabilitation design will be performed.

CIP Project 5 Investigation: The purpose of this project is to identify sources of inflow and infiltration entering Watertown's sanitary sewer system in the CIP Project 5 Areas. Work includes investigating 30,000 linear feet of 6 to 18-inch sewer and approximately 221 manholes.

The total project cost is estimated at $3,635,000 (Rehabilitation Construction = $3,300,000 and Investigation = $335,000). Eligible MWRA I/I Local Financial Assistance is $1,320,000.

Project work will be performed pursuant to the terms and conditions detailed within the approved MWRA I/I Local Financial Assistance Project Application (received December 12, 2024) and the Agreement For Engineering Services By and Between the City of Watertown, MA and Weston & Sampson Engineers, Inc.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT B
FINANCIAL ASSISTANCE AGREEMENT

MWRA PROJECT NO. WRA-P14-36-3-1440

CITY OF WATERTOWN

CIP PROJECTS 3 / 4 / 5 - SEWER REHABILITATION CONSTRUCTION & INVESTIGATION

PROJECT SCHEDULE

Description of Work	Start Date	Completion Date
CIP Project 3/4 Construction	Spring 2025	Spring 2026
CIP Project 5 Investigation	Spring 2025	Spring 2025

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
FINANCIAL ASSISTANCE AGREEMENT
ATTACHMENT A

MWRA PROJECT NO. WRA-P14-39-2-1448

TOWN OF WEYMOUTH

YEAR 12 I/I REHABILITATION-DESIGN/CONSTRUCTION SERVICES
YEAR 14 I/I INVESTIGATION- STUDY AND REPORTING

SCOPE OF SERVICES

The purpose of this project is to identify and rehabilitate community subareas that contribute excessive I/I, evaluate rehabilitation options and rehabilitate the sewer system on a continuous set schedule. The location of this work will take place in sewer subareas B-2, C-12, C-13, C-15, D-12, N-8, and N-12-2. Project work will include, but not be limited to, the following:

Year 12 I/I Rehabilitation – Design/Bid and Award/Construction/Construction Services (Estimated Cost = $270,000)
The design Work will be based of the year 12-investigation report and shall include approximately 4,500 linear feet of cleaning, inspecting, testing, and sealing of sewers; 6,500 linear feet of light cleaning and television inspection; 600 linear feet of heavy cleaning and television inspection; 7,500 linear feet of cured-in-place pipe and structural cure-in-place pipe; root treatment of 300 linear feet of sewer and 3 manholes; installation of short liners and structural short liners at eight locations; testing and grouting of seven service laterals; installing lateral liners at 14 locations; open cut point repair at six locations; manhole cementitious lining at 25 locations; installing two manhole inflow dishes; replacing four manhole frame and cover.

Year 14 I/I Investigation - Study and Reporting (Estimated Cost = $745,000)

1. Isolate flow up to 133,950 LF of 6 to 12-inch sewer in subareas to quantify infiltration amounts within manhole-to-manhole segments of sewer. The inspection will occur between the hours of 12AM and 6AM during a high groundwater and dry weather period.

2. Perform light cleaning, TV inspection and documentation of up to 148,150 LF of 6 to 18-inch sewer in subareas. The TV inspection will focus on identifying problem areas and I/I sources within manhole-to-manhole segments of sewer. The inspection will take place in the spring when groundwater levels are typically at their highest.
3. Conduct a topside physical survey of up to 840 sewer manholes in subareas to identify defects and I/I sources. A detailed written log will be provided for each manhole inspected.

4. Prepare a letter report outlining the areas where work was performed, summarizing completed tasks and offering recommendations. The report will include a cost-effectiveness analysis, prioritization analysis for rehabilitation of pipeline and manhole defects, and I/I sources identified during investigation, along with estimated construction costs.

Total project cost is estimated at $1,015,000. Eligible MWRA I/I Local Financial Assistance is 1,012,316. Project work will be performed pursuant to the terms, conditions detailed within the approved MWRA I/I Local Financial Assistance Project Application (received January 17, 2025), and the Agreements for Engineering Services by and

between the Town of Weymouth, MA and Weston & Sampson Engineers, Inc. Infiltration will not be removed through this phase of the project. Infiltration will be removed during the construction phase of the project, tentatively scheduled for Fall 2025. Additional infiltration will be identified during this investigation.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
FINANCIAL ASSISTANCE AGREEMENT

ATTACHMENT B

MWRA PROJECT NO. WRA-P14-39-2-1448

TOWN OF WEYMOUTH

YEAR 12 I/I REHABILITATION-DESIGN/CONSTRUCTION SERVICES
YEAR 14 I/I INVESTIGATION- STUDY AND REPORTING

PROJECT SCHEDULE

General Description of Work Performed	Start Date	Completion Date
YEAR 12 SEWER SYSTEM INFILTRATION REHABILITATION		
Design	February 2025	May 2025
Bid and Award	June 2025	
Construction Services	July 2025	December 2025
YEAR 14 INVESTIGATION		
Flow Isolation	March 2025	May 2025
Television Inspection	March 2025	May 2025
Manhole Inspections	March 2025	May 2025
Engineering Review/Update Database	June 2025	September 2025
Letter Report	October 2025	November 2025

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT A - FINANCIAL ASSISTANCE AGREEMENT
PROJECT NO. WRA-P14-41-3-1442
TOWN OF WINCHESTER
CIP PROJECT 1 SEWER REHABILITATIONS AND CIP PROJECT 2 SSES
SCOPE OF SERVICES

This work includes a combination of planning, investigation, design and construction projects. The purpose of this work is to identify and rehabilitate community sewers that contribute excessive I/I, evaluate rehabilitation options and rehabilitate the sewer system on a continuous set schedule. These projects are part of the Town's East Side Sanitary Sewer Capital Improvement Program.

The objective of CIP Project 1 Design and Construction is to construct rehabilitations identified during the CIP Project 1 sanitary sewer evaluation surveys (completed in 2024). The CIP Project 1 Construction is anticipated to eliminate infiltration and inflow from the sanitary sewer system and repair structural defects. The project will be bid with two alternates to allow the town to perform as many rehabilitations as possible within the proposed budget.

The scope of work for the Base Bid will include, but is not limited to, the installation of approximately:
20 LF of open cut point repairs of 6" and 8" sanitary sewers at two (2) locations; 12,297 LF of cured-in-place pipe; grouting 144 service connections in cured-in-place pipe; cutting of two (2) protruding service connections; exterior grouting and interior sealing of 494 VF of sewer manholes; grouting and patching 14 sewer manholes; installation of four (4) manhole inflow dishes; building of eight (8) manhole benches and inverts; replacement of one (1) manhole frame and cover; 12,297 LF of post-construction flow isolation; and other related tasks in the Town of Winchester.

The scope of work for Alternate Bid No. 1 will include, but is not limited to, the installation of approximately: 2,251 LF of cured-in-place pipe; grouting 32 service connections in cured-in-place pipe; cutting of one (1) protruding service connection; exterior grouting and interior sealing of 96 VF of sewer manholes; installation of two (2) manhole inflow dishes; 2,251 LF of post-construction flow isolation; and other related tasks.

The scope of work for Alternate Bid No. 2 will include, but is not limited to, the installation of approximately: 20 LF of open cut point repairs of 6" sanitary sewers at two (2) locations; 1,384 LF of cured-in-place pipe; grouting 22 service connections in cured-in-place pipe; exterior grouting and interior sealing of 52 VF of sewer manholes; 1,384 LF of post-construction flow isolation; and other related tasks.

The objective of the CIP Project 2 SSES project is to identify sources of I/I entering Winchester's sanitary sewer system in the CIP Project 2 Area. CIP Project 2 Investigations will include the investigation of approximately 99,200 LF of sewer ranging in diameter from 6-inch to 12-inch and 503 manholes. I/I will be quantified during evaluation of the data collected.

The above work will be performed pursuant to the terms and conditions detailed within the Agreement For Engineering Services By and Between the Town of Winchester and Weston & Sampson, Inc. and the approved MWRA I/I Local Financial Assistance Project Application received January 13, 2025. The total project cost is estimated at $1,750,000. Eligible MWRA I/I Local Financial Assistance is $1,750,000 (Construction Rehabilitations = $1,200,000; SSES = $550,000). At the completion of this project, it is estimated that 0.03 mgd of annual average infiltration and inflow will be removed from the collection system.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT B
FINANCIAL ASSISTANCE AGREEMENT

PROJECT NO. WRA-P14-41-3-1442

TOWN OF WINCHESTER

CIP PROJECT 1 SEWER REHABILITATIONS AND CIP PROJECT 2 SSES

PROJECT SCHEDULE

Description of Work	Start Date	Completion Date
CIP Project 1		
Design	January 2025	March 2025
Bid / Award	April 2025	May 2025
Construction	July 2025	November 2025
Warranty Retest	Fall 2026	Fall 2026
CIP Project 2		
SSES	March 2025	July 2025

MWRA I/I Local Financial Assistance Program Funding Summary

May 2025 Funding Cycle

Community	Funding Allocation
Boston	$ 3,753,888
Malden	$ 3,076,970
Norwood	$ 1,570,000
Revere	$ 500,000
Woburn	$ 1,990,000
Total	$ 10,890,858

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT A
MWRA PROJECT NO. WRA-P14-05-3-1447

BWSC CITY-WIDE SEWER REHABILITATIONS

BWSC CONTRACT NO. 20-309-004

SCOPE OF SERVICES

Project work under this contract includes the replacement of approximately 40 LF of sewer pipe and the rehabilitation of approximately 23,435 LF of sewer pipes (including structural lining and pipe bursting), 12 point repairs, and repair or rehabilitation of 49 manholes; and the performance of all other work pursuant to the terms and conditions detailed within the plans and specifications of BWSC Contract No. 20-309-004 and the approved MWRA I/I Local Financial Assistance Project Application received February 28, 2025.

Project work will take place on various streets in Dorchester, Fenway/Kenmore, Hyde Park, Jamaica Plain, Mattapan, Roslindale, Roxbury and West Roxbury.

Total project cost is estimated at $3,753,888. Eligible MWRA I/I Local Financial Assistance is $3,753,888. The average annual infiltration reduction at contract completion is estimated to be 0.195 mgd.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT B
MWRA PROJECT NO. WRA-P14-05-3-1447

BWSC CITY-WIDE SEWER REHABILITATIONS

BWSC CONTRACT NO. 20-309-004

PROJECT SCHEDULE

Item	Start Date	Completion Date
Rehabilitation Design	March 2022	August 2023
Construction Rehabilitation	February 2025	June 2025

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT A
FINANCIAL ASSISTANCE AGREEMENT

CITY OF MALDEN, MASSACHUSETTS

SSES & SEWER IMPROVEMENTS – YEARS 3/4/5

MWRA PROJECT NO. WRA-P14-18-3-1452

SCOPE OF SERVICES

The scope of work for this project includes but will not be limited to: Sewer System Evaluation Study (SSES); and design / rehabilitation construction of sewer main/manholes with known I/I contributions or suspected water quality impacts.

Sanitary Sewer Evaluation Survey (SSES): The study will focus on the next 5-year I&I Assessment Plan for the City of Malden for years 2027-2031. The intention is that the recommendations of this SSES will lead to a City of Malden Sewer Rehabilitation Contract. The study will employ flow meters, TV inspections, smoke testing, and other means typical of a SSES.
An SSES Report will summarize details in which the above work was performed, and include recommendations, a cost-effectiveness analysis and prioritization analysis for rehabilitation of sewer main/manhole defects and I/I sources identified during the investigation. Estimated rehabilitation construction costs will also be provided. (Estimated SSES Cost = $365,692).

Sewer Improvements – Design & Construction:

Sewer Improvements include: Developing construction plans and specifications to remove excessive I/I identified based on the 2021 Malden 5-year I&I Assessment Plan in Sewershed areas 3C-C, 14B, and 3C-A (years 3, 4, and 5). Sewer rehabilitation construction will include but not be limited to the following: installation of approximately 10,300 LF of CIPPL; reinstating 224 sewer service connections; rehabilitation of approximately 104 manholes; CCTV inspection of 9,025 LF of sewers. (Estimate Construction Costs = $2,711,278).

The above work will be performed pursuant to the terms and conditions detailed within the approved MWRA I/I Local Financial Assistance Project Application received April 10, 2025. An estimated peak I/I removal total will be determined upon project completion.

This project is being funded through two Financial Assistance Agreements for a total MWRA I/I Local Financial Assistance of $3,076,970. This Agreement represents the Phase 8 portion of the project funding in the amount of $1,100,000.
(This Agreement represents the Phase 9 portion of the project funding in the amount of $1,976,970.)

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT B
FINANCIAL ASSISTANCE AGREEMENT

CITY OF MALDEN, MASSACHUSETTS

SSES & SEWER IMPROVEMENTS – YEARS 3/4/5

MWRA PROJECT NO. WRA-P14-18-3-1452

PROJECT SCHEDULE

Item	Start Date	Completion Date
Sanitary Sewer Evaluation Survey	March 2026	September 2026
Rehabilitation Design	June 2025	August 2025
Rehabilitation Construction	September 2025	September 2026
Warranty Retesting	June 2027	July 2027

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT A

MWRA PROJECT NO. WRA-P14-25-3-1451

TOWN OF NORWOOD

MEADOWBROOK UNDERDRAIN REHABILITATION:
INVESTIGATION / DESIGN / CONSTRUCTION

SCOPE OF SERVICES

The Town of Norwood is continuing its efforts to reduce I/I and identify/eliminate sources of sewage contamination in its collection system and improve conveyance of wastewater. Prior investigations in the Meadowbrook area have identified both infiltration and inflow sources and deficiencies in the collection system affecting capacity. E. Coli sampling in the brook can be traced to the underdrain system that was constructed beneath the sanitary sewer in much of the downtown area of Norwood. Comprehensive rehabilitation of the sewers, manholes and service connections has been successful in eliminating this problem and groundwater infiltration into the sanitary system.

The project work involves identifying and addressing (I/I) issues under the following Phases:

4. **Investigation Phase at Cross, East Hoyle & Washington Streets (estimated $345,000)**
    - Conduct a comprehensive review of sewer system records to identify unrehabilitated areas with underdrains.
    - Inspect and dye test approximately 210 buildings to locate improperly connected sewer service laterals, sump pumps, and sources of infiltration/inflow.
    - Develop a structured plan for efficient inspections, coordinating with ongoing contract work and implementing a public notification strategy.
    - Follow-up inspections will assess plumbing connections and confirm system connectivity through dye testing.
    - Summarize findings in a memorandum and review to determine necessary next steps.

5. **Design/Bid Phase (estimated $45,000)**
    - Sewer lining and re-establishment of the underdrain along Adams Street of approximately 1,200 linear feet of sewer, 7 manholes, and 25 service laterals.
    - Full rehabilitation of approximately 1,750 linear feet of sewer and 40 service laterals at Fulton/Lydon Street. Possible options include lateral lining from an excavation at the main or from the basement, and full sewer main and lateral replacement.
    - Prepare specifications and assist with the public bidding process.

6. **Construction Phase at Adams and Fulton/Lydon Streets (estimated $1,179,000)**
    - Oversee the construction process by reviewing contractor submissions, managing project documentation, and ensuring compliance with the design specifications. Additionally, provide a total of 80 eight hour man days of Resident Project Representative Services to support the projects that are being implemented simultaneously.

Total project cost is estimated at $1,570, 000. Eligible MWRA I/I Local Financial Assistance is $1,570,000 (Phase 11). Project work will be performed pursuant to the terms and conditions detailed within the Agreement for Engineering Services By and Between the Town of Norwood and CDM Smith and the MWRA I/I Local Financial Assistance Project Application received March 10, 2025. The expected I/I removal for this project cannot be determined currently.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT B

MWRA PROJECT NO. WRA-P14-25-3-1451

TOWN OF NORWOOD

MEADOWBROOK UNDERDRAIN REHABILITATION: INVESTIGATION / DESIGN / CONSTRUCTION

PROJECT SCHEDULE

General Description of Work Performed	Start Date	Completion Date
Study/Investigation	May 2025	October 2025
Design/Bid/Award	January 2025	July 2025
Construction/Construction Services	August 2025	December 2025

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT A
MWRA PROJECT NO. WRA-P14-29-2-1453

CITY OF REVERE
PHASE 15 DESIGN OF RECOMMENDED SEWER REHABILTIAITONS

SCOPE OF SERVICES

The City of Revere has been taking corrective actions to comply with its regulatory obligations under the 2010 Consent Decree. As part of its ongoing efforts, annual projects have been implemented to identify and reduce inflow and infiltration in the wastewater system, aiming to eliminate sanitary sewer overflows. The city is now in the 15th year of its phased construction program. The designs for this project are part of the Consent Decree Program Management Contracts for 2025 and 2026. Some activities will be eligible for funding through the MWRA I/I Program, while ineligible items will be covered by the City's Water and Sewer Enterprise Fund.

The eligible MWRA I/I portions of the project will include the following activities:

Design of Public and Private Inflow Removal:

Approximately 100 public (catch basins and storm-drain cross connections) and private (roof drains, yard drains, driveway drains, sump pumps, flat roofs etc.) inflow sources will be redirected from the sewer system to the storm drain, requiring additional drainage piping, manholes, and catch basins to be constructed. The construction for these I/I reduction projects will be funded through the Massachusetts State Revolving Funds (SRF) Loan Program.

Total project cost is estimated at $650,000. Eligible MWRA I/I Local Financial Assistance is $500,000 (Phase 8/9). Project work will be performed pursuant to the terms and conditions detailed within the Agreement for Engineering Services By and Between the City of Revere and CDM Smith and the MWRA I/I Local Financial Assistance Project Application received May 02, 2025. Estimated quantity for I/I removal will be 0.86 mgd of annual inflow.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT B

MWRA PROJECT NO. WRA-P14-29-2-1453
CITY OF REVERE
PHASE 15 DESIGN OF RECOMMENDED SEWER REAHABILTIAITONS

PROJECT SCHEDULE

General Description of Work Performed	Start Date	Completion Date
Design	December 2024	June 2026

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT A
FINANCIAL ASSISTANCE AGREEMENT

MWRA PROJECT NO. WRA-P14-43-3-1450

CITY OF WOBURN

CIP PROJECT 5 DESIGN & CONSTRUCTION; AND
CIP PROJECT 6 INVESTIGATIONS

SCOPE OF SERVICES

The purpose of this project is to identify and rehabilitate community subareas that contribute excessive I/I, evaluate rehabilitation options and rehabilitate the sewer system on a continuous set schedule. The city is requesting money for design, planning and construction projects. These projects are part of the City of Woburn's East Woburn Sewer Capital Improvement (CIP) Plan. A summary of the projects is detailed below:

CIP Project 5 Post Construction Flow Evaluations will evaluate pre-rehabilitation and post-rehabilitation flow isolation values to estimate peak infiltration removed through rehabilitations.

CIP Project 5 Rehabilitations will include design and rehabilitation construction. Construction plans and specifications (to remove excessive I/I) will be developed and submitted, followed by rehabilitation construction. Construction will include 'Trenchless' and 'Excavate and Replace' rehabilitations to eliminate infiltration and inflow from the sanitary sewer system.

CIP Project 6 Investigations will identify and quantify sources of infiltration and inflow through inspections, survey, and assessment. This work will include, but not be limited to, the following: field investigations, manhole inspections, flow isolation and television inspection, project mapping, data analysis, preliminary design, cost effective analyses, and reporting.

The total project cost is estimated at $1,990,000. Eligible MWRA I/I Local Financial Assistance is $1,990,000 (CIP 5 Post Flow Evaluations = $30,000; CIP 5 Design = $150,000; CIP 5 Rehabilitations = $1,440,000; CIP 6 Investigations = $370,000).

Project work will be performed pursuant to the terms and conditions detailed within the approved MWRA I/I Local Financial Assistance Project Application (received February 7, 2025) and the Agreement For Engineering Services By and Between the City of Woburn, MA and Weston & Sampson Engineers, Inc. Estimated quantity of I/I to be reduced will be calculated following completion of project design.

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
ATTACHMENT B
FINANCIAL ASSISTANCE AGREEMENT

MWRA PROJECT NO. WRA-P14-43-3-1450

CITY OF WOBURN

CIP PROJECT 5 DESIGN & CONSTRUCTION; AND
CIP PROJECT 6 INVESTIGATIONS

PROJECT SCHEDULE

Description of Task	Start Date	Completion Date
Planning:		
CIP Project 6 Investigations	February 2025	September 2025
CIP Project 5 Post Construction Flow Evaluation	July 2026	September 2026
Design:		
CIP Project 5 Design	February 2025	April 2025
CIP Project 5 Bid and Award	May 2025	June 2025
Construction:		
CIP Project 5 Rehabilitation Construction	July 2025	December 2025
CIP Project 5 Re-test Warranty Inspection	April 2026	June 2026

ATTACHMENT 5
TO
MWRA ANNUAL I/I REDUCTION REPORT FOR FY25
Reporting Period: July 2024 Through June 2025

I/I REDUCTION STATUS UPDATE FOR MEMBER COMMUNITIES

The MWRA is working cooperatively with member communities to develop phased I/I reduction programs throughout the service area. The Authority will encourage continuing community efforts in I/I reduction as detailed in the MWRA Regional I/I Reduction Plan. Many community I/I projects are funded through MWRA's I/I Local Financial Assistance Program. This $960.75 million grant/loan program was established to provide funding to member sewer communities to perform I/I reduction and sewer system rehabilitation projects within their locally-owned collection systems. Through FY25, MWRA has distributed $586 million to fund local projects. A detailed update on MWRA's I/I Local Financial Assistance Program is included as Attachment 4 to this report.

The Authority has instituted a computer-based questionnaire format for communities to submit annual status reports on their I/I reduction programs. All 43 member sewer communities have submitted information to MWRA for FY25. Community information is summarized below:

1. ARLINGTON: North System

Background Information:
- Miles of Sewer: 117
- Sewered Population: 46,271
- Three Year (CY22 - CY24) Annual Average I/I: 2.25 mgd
- MassDEP Administrative Actions Since 2010: ACOP-NE-10-1N006 (August 2010)

Latest I/I or SSES Reports:
Phase #11 Sanitary Sewer Rehabilitation - Post Rehabilitation Flow Evaluation (July 2021)
Phase #12 Sanitary Sewer Rehabilitation - Post Rehabilitation Flow Evaluation (July 2022)
Phase #13 Sanitary Sewer Rehabilitation - Post Rehabilitation Flow Evaluation (July 2023)
Phase #14 Sanitary Sewer Rehabilitation - Post Rehabilitation Flow Evaluation (July 2024)
Phase #15 Sanitary Sewer Rehabilitation - Post Rehabilitation Flow Evaluation (July 2025)

Private Source Inflow Removal Program: The Town is working with DEP to develop a new schedule to complete this Private Inflow Abatement task, including the remaining building inspections. Work completed through 6/28/23 includes: 2308 of the planned 3420 buildings (67% for this project phase) have been internally inspected for illicit connections to the sanitary sewer. Forty-one (41) positive inflow sources (sump pumps / basement drains / open sewer cleanouts) at 38 locations have been identified. One hundred forty-five (145) suspect inflow sources (sump pumps / basement drains / open sewer cleanouts) at 141 locations have been identified. The Town paired the remaining building inspections with a Water Meter Replacement Program to obtain a higher percentage of building entries. Building inspections are in progress. Dye testing investigation of the private inflow sources was performed in Spring 2024. Dye testing is ongoing, pending additional building inspections for properties that still need to be accessed.

I/I Rehabilitation Projects in Design or Construction:
The warranty inspections for the Phase #14 Sanitary Sewer Rehabilitations - Bid No. 22-34 were completed in May 2024. The Phase #14 Post Construction Flow Evaluation Report will be completed in July 2024.
The Phase #15 Sanitary Sewer Rehabilitations - Bid No. 23-50 was substantially completed in July 2024.
The Phase #16 Sanitary Sewer Rehabilitations - Bid No. 24-39 was substantially completed in June 2025. The following work was completed: 55 linear feet of open cut point repairs of sanitary sewers; replacement of one (1) service chimney; root treatment of 2,955 lf of sewer; installed 6,583 lf of cured-in-place pipe (CIPP) lining; grouted 168 service connections in cured-in-place pipe; cut 16 protruding service connections; cementitious lining of 172 vertical feet of manholes; grouted and patched one (1) manhole; installation of three (3) manhole inflow dishes; and rebuilt two (2) manhole benches and inverts. The warranty inspections will be completed in the upcoming Spring 2026, pending groundwater conditions.

Reporting Period Activity: The warranty inspections for the Phase #15 Sanitary Sewer Rehabilitations - Bid No. 23-50 were completed in June 2025.The Phase #15 Post Construction Flow Evaluation Report will be completed in July 2025.
The Phase #16 Sanitary Sewer Rehabilitations - Bid No. 23-50 was substantially completed in July 2025. In March 2025, funds ($697,100) were distributed for the Phase #17 Sanitary Sewer Rehabilitation Design & Construction Project and Phase #15 Post-Construction Flow Evaluation (MWRA Project No. WRA-P14-01-3-1443). In March 2024, funds ($800,000) were distributed for the Phase 16 Sewer System Rehabilitation Construction Project and Phase #14 Post Construction Flow Evaluation (MWRA Project No. WRA-P11-01-3-1428).

MWRA I/I Local Financial Assistance Program: The community has financed thirty (30) I/I reduction projects through the Authority's funding assistance program. Of the $19,408,000 allotted through the Program's Phases 1 - 16, the community has $5,695,000 remaining in funding assistance.

2. ASHLAND: South System

Background Information:

- Miles of Sewer: 78
- Sewered Population: 14,717
- Three Year (CY22- CY24) Annual Average I/I: 0.51 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: I/I Analysis Report: July 2020
SSES Initial Phase Report: July 2020
Smoke & Dye Testing Report: August - October 2020
Inflow Removal Recommendations Report: July 2023

Private Source Inflow Removal Program: The Town is performing sump pump inspection in basements during meter change outs. Through this process they have done 233 sump pump inspections in 2025. In addition, a sump pump inspection line item was added to the ongoing Sewer Rehabilitation (I/I) program that began May 2025. The town is in the process of sending out letters to the homeowners of the locations identified to remove private inflow sources.

I/I Rehabilitation Projects in Design or Construction: In May 2024, MWRA funds were distributed for I/I Identification & Rehabilitation Project in Ashland Sub-Basins 1/2/3/4 (MWRA Project No. WRA-P14-02-3-1432). Project work is ongoing.

Reporting Period Activity: In February 2025, the Town completed the installation of 10 sewer flow meters. Since then, the SmartCover system has been monitoring for signs of I/I. So far, no significant signs of I/I have been detected in the areas where the flow meters have been placed. In May of 2025 the Town kicked-off its Sewer Rehabilitation Project by beginning to CCTV areas of suspected I/I in Sub-Basin 1. We anticipate that by the end of July 2025 approximately 40,000 ft of sewer main will be CCTV-ed. The new Chestnut Pump Station pumps will be installed in July of 2025.

In March 2021, MWRA funds were distributed for an I/I Identification & Rehabilitation Project (MWRA Project No. WRA-P11-02-3-1168). Project work is complete. Dye testing was performed in September 2022. An Inflow Removal Recommendations Report was completed July 2023 including recommendations to remove private inflow sources identified by smoke and dye testing. The Town also purchased a portable mainline sewer camera crawler featuring a 10-inch touchscreen on the 600 foot motorized reel and a pan-tilt camera head. The crawler only takes two Town operators to run this system and is transportable using a pickup truck or all-terrain vehicle.

MWRA I/I Local Financial Assistance Program: The community has financed nine (10) I/I reduction projects through the Authority's funding assistance program. Of the $5,579,500 allotted through the Program's Phases 1 - 16, the community has $2,650,640 remaining in funding assistance.

3. BEDFORD: North System

Background Information:
- Miles of Sewer: 77
- Sewered Population: 13,947
- Three Year (CY22 - CY24) Annual Average I/I: 1.20 mgd
- MassDEP Administrative Actions: None

Latest I/I or SSES Report: Phase #5 Sewer System Investigation (May 2018)
Phase #6 Sewer System Investigation (May 2022)

Private Source Inflow Removal Program: The Town identified 50 sump pumps during their Phase #5 Sewer System Investigation and plans on designing a project for removing the sump pumps connected to the sewer system. Sump pump connections in nine (9) apartment buildings were disconnected from the Town's sewer and rerouted to overland flow.

I/I Rehabilitation Projects in Design or Construction: Phase #6 SSES design was completed in September 2022 and construction is anticipated to begin Spring 2024 (MWRA Project Nos. WRA-P14-03-3-1176 / 1402).

Reporting Period Activity: The East Side CIP Project 1 Metering & SSES began in April 2025 and will be completed in December 2025. Townwide metering and SSES are now complete. Review of the data will be performed in the fall and final report issued in December. Metering data will be used in conjunction with the Phase #7 Flow Isolation data to create a town-wide Sewer System Capital Improvement Program.
Phase #7 flow isolation performed late Winter of 2024, January and February, and early Spring, March and April, for a large portion of the town's sewer system. Phase #6 Sewer System Investigation work is complete. Data evaluation and reporting to be complete.

The Middlesex Turnpike Pump Station Improvements Project was completed in June 2025. The Middlesex Turnpike Force Main Extension Project began in Fall 2024 and will be completed in September 2025.

MWRA I/I Local Financial Assistance Program: The community has financed ten (10) I/I reduction projects through the Authority's funding assistance program. Of the $7,955,600 allotted through the Program's Phases 1 - 16, the community has $4,846,442 remaining in funding assistance.

4. BELMONT: North System

Background Information:
- Miles of Sewer: 76
- Sewered Population: 26,932
- Three Year (CY22 - CY24) Annual Average I/I: 1.44 mgd
- MassDEP Administrative Actions: None

Latest I/I or SSES Report: Manhole Cover Insert Pilot Study (March 2020)
Sewer System Rehabilitation Inflow/Infiltration Removal (May 2020)
Private Sector Sump Pump Removal & Sewer System Rehabilitation (March 2021)

Private Source Inflow Removal Program: As part of the on-going IDDE Program catchment investigations, 35 properties were identified for investigation using dye testing. As a result, seven (7) locations were identified as the source of either direct inflow and/or infiltration from house fixtures. Contact with the homeowners is underway to require removal of direct inflow and replacement of sewer service conditions to address infiltration to adjacent storm drain infrastructure. Once the required disconnection and improvements are made and confirmed an IDDE Report will issued.
The Private Sector Sump Pump Removal & Sewer System Rehabilitation Project is complete. 24 of 28 identified sump pumps connected to the sewer system were removed and redirected to a separate drain service to the storm drain. The 4 remaining sump pumps were inspected and were confirmed to have no sump pump connected to the sewer system.

I/I Rehabilitation Projects in Design or Construction: The Private Sector Inflow Removal Project and The Mainline CIPP Lining Project have been completed (MWRA Project Nos. WRA-P11-04-3-1116 / 1124). Approximately 16,500 LF of sewer main was CIPP lined. An estimated 30,200 gpd of infiltration was removed.

Reporting Period Activity: The Town inititated the 2025 Sewer Investigation Project, being performed by Weston & Sampson to inspect and evaluate 52,000 lf of sewer main and 260 sewer manhole structures in five (5) sewer tributary zones.

The 2024 Town wide Flow Monitoring Report-draft was issued which identified areas to address Inflow and infiltration within the Town's sewer system.
The Town has also inspected approximately 17,000 LF of sewer and storm drain associated with the Town's 2024 Pavement Management Program (PMP). Point repairs, service replacements and new manholes will be conducted on structural defects within the PMP limits in the Summer of 2024. Additional future trenchless repairs will be conducted to complete the recommended repairs.

MWRA I/I Local Financial Assistance Program: The community has financed eight (8) I/I reduction projects through the Authority's funding assistance program. Of the $11,690,100 allotted through the Program's Phases 1 - 16, the community will have $6,555,000 remaining in funding assistance.

5. BOSTON: North and South Systems

Background Information:
- Miles of Sewer: 854
- Sewered Population: 673,957
- Three Year (CY22 - CY24) Annual Average I/I: 30.00 mgd
- MassDEP Administrative Actions: None (Cooperative Agreement Exists)

Boston North is one of MWRA's five combined sewer service communities (Boston North, Brookline, Cambridge, Chelsea and Somerville). Portions of Boston North are impacted by projects under MWRA's CSO Control Plan.

Latest I/I or SSES Reports: Charlestown SSES; West Roxbury/Hyde Park SSES; Jamaica Plain SSES; Allston-Brighton SSES; Mattapan SSES; City-Wide I/I Analysis; Roslindale SSES; Dorchester SSES; West Roxbury Low Level Sewer I/I Study; Roxbury Canal Sewer Separation Study; Upper Neponset Valley Sewer Inflow Survey; Granite Avenue I/I Survey; Dorchester High Level Sewer I/I Survey; Lower Dorchester Brook Sewer Study; and Longwood Medical Area I/I Survey.

Private Source Inflow Removal Program: Since the Downspout Disconnection Program began in 1994, approximately 38,000 building surveys have been conducted, approximately 10,520 dye tests have been performed and approximately 26,466 downspouts have been disconnected City-wide. From CY05 - CY23, a total of seventy-five (75) large impervious areas were surveyed to identify inflow sources. All seventy-five (75) areas have been dye tested.

I/I Rehabilitation Projects in Design or Construction: BWSC has both completed and is currently working on a wide variety of separation and I/I identification/rehabilitation projects. To date, ninety-one (91) I/I identification/rehabilitation projects have received funding through the MWRA I/I Local Financial Assistance Program [Projects include fifty (50) sewer separation projects, five (5) downspout disconnection projects, sixteen (16) sewer system rehabilitation projects and twenty (20) Sewer System Evaluation Surveys / Planning Studies.]

From FY07 - FY25, BWSC completed the following MWRA-financed I/I rehabilitation projects: South Boston Sewer Separation - Phase I, East Boston Sewer Separation Phase I; Upper Roxbury Area Sewer Separation Phase 2; Dudley Square Sewer Separation; Fairfield Street Sewer Rehabilitation; Rehabilitation of Sewers in the Fenway (Audubon Circle / St. Mary's Street Area); A Street Area Sewer Separation (South Boston Gillette Headquarters); Mass Ave - Dorchester Separation (New Market Square Area); East Boston (Border/ Meridian Street Area) Sewer Separation; Sewer Rehabilitation in Back Bay/Kenmore/Hyde Park/Mattapan; Albany Street Sewer Separation; Sewer Rehabilitation in Dorchester/Mattapan/West Roxbury/Brighton; Talbot Avenue High Level Sewer Area Sewer Replacement/Manhole Rehabilitation; South End Sewer Rehabilitation; Marginal Street Sewer Separation; St. Botolph Street Sewer Separation; Maverick Street Sewer Separation; West Side Interceptor and Public Garden Lining; Back Street Sewer Separation and Chester Park Area Sewer Separation.

Ongoing I/I rehabilitation projects (funded through the MWRA I/I Local Financial Assistance Program) include: City-Wide Sewer Rehab (BWSC Contract No. 20-309-004 / MWRA Project No. WRA-P14-05-3-1447); South End Sewer Rehabilitation (WRA-P14-05-3-1419), Upper Roxbury Area Sewer Separation Phase III (MWRA Project No. WRA-P11-05-3-1189), South Boston Sewer Separation Phase I (MWRA Project No. WRA-P11-05-3-1171), East Boston Sewer Separation Phase II (MWRA Project No. WRA-P11-05-3-1121) and East Boston Sewer Separation Phase III (MWRA Project No. WRA-P9-05-3-1180).

BWSC entered into an I/I reduction agreement with the MassDEP in January 1986. As provided in the agreement, BWSC has performed a Phase II SSES on separated sewer areas within the City. BWSC also has an ongoing tide gate/regulator inspection and repair program and performs separation projects on pockets of combined sewers tributary to separated sewer areas.

Reporting Period Activity: BWSC is required to report to the EPA on I/I reduction measures under their NPDES permit. This reporting requirement coincides with the MWRA's required submittal dates; therefore, please refer to the BWSC NPDES report for a summary of activities during this period.

MWRA I/I Local Financial Assistance Program: The Commission has financed ninety-one (91) I/I identification/reduction projects through the Authority's funding assistance program. Of the $309,135,200 allotted through the Program's Phases 1 - 16, the Commission has $178,105,863 remaining in funding assistance.

6. BRAINTREE: South System

Background Information:

- Miles of Sewer: 140
- Sewered Population: 39,049
- Three Year (CY22 - CY24) Annual Average I/I: 3.31 mgd
- MassDEP Administrative Actions: ACO Docket No. CWA-AO-R01-FY21-16 (July 2021)

Latest I/I or SSES Report: Smoke Testing 2021 (April 2022)
Interceptor Modeling 2022 (March 2023)
Annual I/I Removal Program - Year 10 I/I Investigation (January 2023)
Smoke Testing 2022 (June 2023)
Annual I/I Removal Program - Year 11 (December 2023)
Smoke Testing 2023 (April 2024)
Collection System Modeling (February 2025)
Annual I/I Removal Program, Year 12 (February 2025)
Pump Station Evaluations (September 2025)
Annual I/I Removal Program, Year 13 (Ongoing)

Private Source Inflow Removal Program: The Town continues to perform building inspections in conjunction with water meter changeouts. The Town has performed multiple building inspections over the past two years. One (1) private inflow source was removed from the sewer system and redirected.

Sump pump removal program is ongoing. Ten (10) private source sump pump removal contracts have redirected 296 sump pumps to date. The Developer Flow Reduction Program is now 6 to 1 per MassDEP ACO. During CY13/14, a sump pump amnesty letter was sent out with the Town's annual water report to all users. The letter resulted in 31 customer calls to have their sump pump connections checked. To date, 27 inspections have taken place and nine (9) sump pumps have been identified for removal. Actual removal/rerouting of the sump pumps has not yet taken place.

I/I Rehabilitation Projects in Design or Construction: Year 12 I/I Rehabilitation and Year 13 I/I Investigation - Study (MWRA Project Nos. WRA-P14-06-3-1444 & WRA-P14-06-1-1445) were funded March 2025. Year 12 (FY24) I/I Investigation - Study (MWRA Project No. WRA-P14-06-1-1430) was funded in March 2024. The Year 11 (FY23) I/I Rehabilitation (Study/Design/Construction) Project is ongoing (MWRA Project No. WRA-P14-06-3-1407). Investigation work will include: clean, CCTV inspect and record as many as 41,700 LF of sewer main in Braintree Sewer Subareas M1 / S2 / S3; review CCTV inspection videos (as many as 41,700 LF) to locate problem areas and I/I sources within manhole-to-manhole segments of the sewer main; flow isolate as many as 34,600 LF of sewer main in Subareas M1 / S2 / S3; perform as many as 450 topside sewer manhole inspections in Subareas HC1 / HC2 / HC3 / M1 / S2 / S3; and submit a letter report summarizing the results of this work, identifying those areas which appear to contribute excessive I/I, and provide detailed conclusions and recommendations (including a cost-effectiveness analysis for identified I/I sources and a transportation & treatment cost calculation).

Construction plans and specifications (to remove cost-effective and value-effective I/I identified during the above Year 11 I/I Investigation) will be developed and submitted, followed by rehabilitation construction. Project work will be undertaken within Braintree Sewer Subareas HC1 / HC2 / HC3 / M1 / S2 / S3 and will include: cleaning, inspection, testing and sealing of joints in approximately 3500 LF of sewers; installing CIPP in approximately 7200 LF of sewers; installing short liners in sections of sewer at six (6) locations; installing lateral liners at seven (7) locations; cutting five (5) intruding laterals at the connection to the main line; testing and grouting 15 laterals at the connection to the main line; performing an open cut point repair at one (1) location; manhole cementitious lining in 40 sewer manholes; installing six (6) sewer manhole inflow dishes; replacing two (2) sewer manhole frame and covers; raising four (4) manhole frame and covers 2-feet above grade; cleaning and television inspection of 375 LF of sewers not previously television inspected; and performing top-side visual inspection of 20 sewer manholes. As a result of the above work, an estimated 0.40 mgd of peak I/I will be removed from the collection system upon contract completion.

The Year 10 (FY22) I/I Rehabilitation (Design/Construction) Project is substantially complete (MWRA Project No. WRA-P14-06-3-1406). Project work has been undertaken within Braintree Sewer Subareas C1 / C2 / C4 / E1 / E2 and will remove an estimated 0.40 mgd of peak I/I will be removed from the collection system upon contract completion.

Reporting Period Activity: The Sewer System Rehabilitation – Year 10 project has reached substantial completion. The Year 10 project is estimated to have removed 22,976 gpd of peak infiltration from the Town's sewer system.
The Sewer System Rehabilitation – Year 11 project is ongoing. An I/I reduction will be estimated when the project reaches substantial completion.
The Annual I/I Removal Program, Year 12 Investigation was completed in Spring 2024. Approximately 106,272 gpd of peak infiltration was observed during television inspections and 125,627 gpd of peak infiltration was measured through flow isolation. In addition, approximately 20,016 gpd of peak infiltration was identified during manhole inspections.
Field work for the Annual I/I Removal Program, Year 13 Investigation was completed in Spring 2025. Evaluation of the data is ongoing.
The Annual I/I Removal Program, Year 11 investigation is complete. The Annual I/I Removal Program, Year 10 was completed January 2023. Approximately 0.06 mgd of peak infiltration was observed during television inspections and 0.02 mgd of peak infiltration and 6000 gpd of peak inflow was identified during manhole inspections. The Interceptor Modeling 2022 project was completed March 2023. The Smoke Testing 2022 project was completed June 2023. The Smoke Testing 2021 project was completed April 2022 (MWRA Project No. WRA-P11-06-3-1142).

MWRA I/I Local Financial Assistance Program: The community has financed twenty-two (22) I/I reduction projects through the Authority's funding assistance program. Of the $20,901,000 allotted through the Program's Phases 1 - 16, the community has $7,610,643 remaining in funding assistance.

7. BROOKLINE: North and South Systems

Background Information:
- Miles of Sewer: 110
- Sewered Population: 63,084
- Three Year (CY22 - CY24) Annual Average I/I: 2.54 mgd
- Mass DEP Administrative Actions: None

Brookline is one of MWRA's five combined sewer service communities (Boston North, Brookline, Cambridge, Chelsea and Somerville). Portions of Brookline are impacted by projects under MWRA's CSO Control Plan.

Latest I/I or SSES Report:

Wastewater Master Plan Update (December 2013)
Sewer Condition Survey in Subareas NI-9, NI-10 & NI-11 Technical Memo (September 2014)
2018 Smoke Testing Phase 1 Summary Report (Subareas NI-4, NI-5, NI-7, NI-8 & NI-9)
2020 Smoke Testing Phase 2 Summary Report (Subareas NI-7 & NI-12)
2024 Smoke Testing Phase 3 Summary Report (complete)

Private Source Inflow Removal Program: The Town is in the process of developing a Private Flow Source Identification and Removal Program. A 4:1 Flow Reduction is enforced for large residential and commercial projects. The community is continuing its public outreach for private inflow identification/removal. Engineering Division personnel check for illicit sump pumps during inspections.

The Town is working on the policy for removal of private inflow sources in their sewer use regulations that still needs Town meeting approval. The Town's long term plan is to CIPP all the public sewer mains and epoxy line all public sewer manholes. After the Town has completely rehabilitated its sewer system in a particular basin, it will then address suspected private inflow sources.

I/I Rehabilitation Projects in Design or Construction: The Town reached 95% completion of PW/23-21, Sewer System Rehab. (CIPP), with contract closed out in the next couple of months.
National Water Main is 80% completed with contract PW/23-22 Epoxy Lining. They expect to close this contract in the next 2 months.
The Town awarded and executed PW/24-18 Sewer System Rehab (CIPP) to National Water Main in the amount of $894,053.00. This contract is 75% complete and encompasses CIPP 28,400 LF of 6-12" sanitary sewer.

The Town awarded and executed PW/24-19 Epoxy Lining of Sewer Manholes to National Water Main in the amount of $1,084670.00. This contract is 70% completed and will Epoxy Line 28,400 VF of SMH.

Contract PW/22-17: Epoxy Lining of Sewer Manholes is complete. Project work included epoxy lining 2,550 VF of sanitary sewer manholes. Manhole epoxy lining work began after the completion of Contract PW/22-16: CIPP lining work to ensure a tight seal at inlets/outlets. Contract PW/22-16: Sewer System Rehabilitation is complete. Project work included CIPP lining of 35,400 LF of 8 to 18-inch sanitary sewer pipe. (WRA-P11-07-3-1184)

Reporting Period Activity: The Town is reviewing an approved large development at the intersection Pleasant Street and John Street. Initial calculations show this project will trigger a 2 for 1 type I/I reduction. The Town is also reviewing the development's sewer capacity analysis.
In February 2025, funds ($1,609,000) were distributed for the following project: Design & Construction of Recommended Sewer Rehabilitations in Sewer Subarea NI-6 East & Larz Park. (MWRA Project #WRA-P14-07-3-1441). Details of this project are included in Attachment 4.

In December 2023, funds ($3,771,000) were distributed for the following project: Design & Construction of Recommended Sewer Rehabilitations in Sewer Subareas NI-6 (MWRA Project #WRA-P14-07-3-1420). Project Work is ongoing.

MWRA I/I Local Financial Assistance Program: The community has financed thirteen (13) I/I reduction projects through the Authority's funding assistance program. Of the $29,698,200 allotted through the Program's Phases 1 - 16, the community has $8,423,000 remaining in funding assistance.

8. BURLINGTON: North System

Background Information:
- Miles of Sewer: 117
- Sewered Population: 25,790
- Three Year (CY22 - CY24) Annual Average I/I: 1.73 mgd
- MassDEP Administrative Actions Since 2010: ACO-NE-15-1N001 (October 2015)

Latest I/I or SSES Reports: Project 8 Sewer System Evaluation Survey (January 2019)
Project 9 SSES (September 2019)
Project 10 SSES (February 2021)
Project 11 SSES (December 2021)
Project 12 SSES (January 2025)

Private Source Inflow Removal Program: The Town attempted to inspect 38 Amnesty List properties to identify improper connections to the sanitary sewer system. Twenty (20) of the 38 house-to-house inspections were performed. A work summary memorandum (dated December 2, 2021) details the results of the inspections.

I/I Rehabilitation Projects in Design or Construction: Middlesex Turnpike Sewer Replacement Project is in the design phase and is planned to be bid Summer 2025. The project will remove an estimated 40,000 gpd of peak infiltration.
Project 10 and 11 Sewer Rehabilitations warranty retest inspections were completed Spring 2024. The project removed an estimated 37,904 gpd of cost effective, value effective and non-excessive recommended peak infiltration.

Project 11 SSES was completed December 2021 and identified 21,309 gpd of cost effective, value effective, and non-excessive recommended removable peak infiltration. Project 10 SSES was completed February 2021 and identified 16,818 gpd of cost effective, value effective, and non-excessive recommended removable peak infiltration.

Project 8 and 9 Rehabilitations were completed Fall 2021. The project removed an estimated 64,188 gpd of cost effective, value effective and non-excessive recommended peak infiltration.

Reporting Period Activity: The Town is in the process of applying for funding through the MWRA I/I Program, for CIP Project 12 and 13 Sewer Rehabilitations: Design & Construction and the Middlesex Turnpike Sewer Replacement Project.
In June 2023, funds were distributed for the design and construction of sanitary sewer rehabilitations in the Project 10 & 11 Areas and a Project 12 Area SSES Report (MWRA Project No. WRA-P14-08-3-1415).
The Town's sewer connection fund balance (5 for 1 sewer connection fee), excluding encumbrances, is $2,206,868.82.

MWRA I/I Local Financial Assistance Program: The community has financed fifteen (15) I/I reduction projects through the Authority's funding assistance program. Of the $12,215,800 allotted through the Program's Phases 1 - 16, the community has $3,693,000 remaining in funding assistance.

9. CAMBRIDGE: North System

Background Information:
- Miles of Sewer: 147
- Sewered Population: 118,379
- Three Year (CY22 - CY24) Annual Average I/I: 9.60 mgd
- Mass DEP Administrative Actions Since 2010: None

Cambridge is one of MWRA's five combined sewer service communities (Boston North, Brookline, Cambridge, Chelsea and Somerville). Portions of Cambridge are impacted by projects under MWRA's CSO Control Plan.

Latest I/I or SSES Reports: Inman Square IDDE & Sewer Separation (November 2021)
Port Phase II Infrastructure Improvements (In Progress)
I/I Development Program Alewife (In Progress)
Partial Sewer Separation Model Calibration Report (March 2022)
Ten-Year Sewer and Drain Infrastructure Plan (April 2022)
Hampshire Street Area Flow Metering (November 2022)
CSO Long-Term Control Plan (In Progress)

Private Source Inflow Removal Program: The City conducted 318 house inspections over the past year. The illicit connection at 64 Highland Ave was corrected in 2024 and confirmed by post correction dye test. An illicit connection was identified at 55 Broadway in August 2021 and the building was demolished during this fiscal year. The City is awaiting confirmation from the developer that the leaking lateral was cut and capped as part of demolition. Sewer lateral at 3 Gray Gardens West was lined in June 2025. The illicit connection was not correct however as internal plumbing under the basement slab connecting to the new lateral is in poor shape and needs to be repaired as well. Sewer lateral at 42 Sunset Road was lined in March 2025.
Healy Street test pits and Hemlock St infrastructure repairs noted above are to be completed in 2025. Repair/rehabilitation of leaking laterals for 18 and 27 Fainwood Circle, 18 Corcoran Lane, are outstanding. Sanitary lateral defects were identified at 27 Normandy Terrace and 1/3 Normandy Ave. Repairs will be coordinated with homeowners in 2025/2026. Internal plumbing repairs were made at 7/9 Normandy Ave.

The City continues to work with developers on I/I removal projects triggered by increased sewer flows greater than 15,000 gpd on new development projects. I/I removal projects and project planning are currently in progress for developments at: CambridgeSide 2.0 (Mall Redevelopment, 60-110 First Street); Volpe Center Redevelopment (55 Broadway); 55 Wheeler Street; Walden Square 2, CHA Jackson Place, Blanchard Road Senior Housing, 28-30 Wendall Street (affordable housing), 745 Concord Avenue, 330 Third Street (formerly 585 3rd Street), and HealthPeaks Properties (Mooney Street).

I/I Rehabilitation Projects in Design or Construction:
- CambridgeSide redevelopment (600-110 First Street): Land Boulevard/First Street Sewer Separation in design. Estimated construction completion by December 2025 (Estimated I/I removal: 373,450 gpd)
- Rindge/Haskell/Yerxa infiltration and Peabody School private inflow removal. In design, estimated construction start Summer 2026 and estimated construction completion 2027 (estimated I/I removal 269,256 gal)
- Willard Street Sewer Separation and reestablishment of stormwater outfall: construction completed including storm drains and outfall in 2024. (Estimated I/I removal: TBD);
- River Street Infrastructure Project: sewer replacement on Blackstone and River Streets and Blackstone Street separation completed in 2025: Estimated construction completion Spring 2027 (Estimated I/I removal: 0.28 MG);
- Port Phase 2 Infrastructure Improvements: under design; sewer rehabilitation/replacement, inflow removal, and green infrastructure. Estimated construction start in Fall 2025. Estimated construction completion in 2028 (Estimated I/I removal: 0.57 MG);
- Chapter 90 Contract 24 (Elm Street common manhole separation and infiltration, Callender Street common manhole separation, Elm Street, Park Avenue, Webster Street and Chestnut Street infiltration): Completed. (Estimated I/I removal: TBD)
- Chapter 90 Contract 25 (Maple Street common manhole separation): Completed. (Estimated I/I removal: TBD)
- Chapter 90 Contract 26A (Gray Street, Haskell Street, and Kirkland Road infiltration, Norfolk Street common manhole separation); estimated construction start Winter 2026. (Estimated I/I removal: TBD)
- Chapter 90 Contract 26B (Avon Hill and Shepard Street infiltration); estimated construction start Spring 2026.(Estimated I/I removal: TBD)
- Inman Street Common Manhole Separation: under design, estimated construction start 2026 (Estimated I/I removal: TBD)
- Kirkland Street Area Common Manhole Separation: under design, estimated construction start 2026 (Estimated I/I removal: TBD).

Reporting Period Activity: In FY 2025, the City cleaned and CCTV'd approximately 47,712 LF of sanitary and combined sewers. In FY 2025, the City lined approximately 3,980 LF of sanitary and combined sewers and 110 LF of storm drains.
Remedial Repair – In FY2025, the City's Remedial Repair Contractor has made various repairs to the City's sewer and drain system at 195 locations. Theses repairs consist primarily of spot repairs on mainline pipes, replacing manhole frames and covers and replacement of catch basins.

Port Sanitary Sewer Storage Tank and Pumping Station design is currently on hold. A new sanitary sewer force main will also be constructed on Windsor Street, discharging to Portland Street. Estimated construction completion in 2033.
The Tobin Montessori Vassal Lane Upper School - Stormwater Storage Tank project consists of the construction of a stormwater storage tank, with an estimated completion in late 2025. The proposed tank is intended to improve storm level of service for the most upstream portion of the former CAM004 catchment (approximately 200 acres), especially at the Standish Street/Vassal Lane intersection and low-lying areas near Concord Avenue. There is no I/I removal requirement for this project.
As part of the River Street reconstruction a new drain extension will be constructed on River Street between Massachusetts Avenue and Cottage Street. Estimated construction completion in 2027.
City of Cambridge Cemetery sanitary sewer pump station and force main construction is expected to be completed in late 2025.

MWRA I/I Local Financial Assistance Program: The community has financed eleven (11) I/I reduction projects through the Authority's funding assistance program. Of the $57,507,100 allotted through the Program's Phases 1 - 16, the community has $28,677,000 remaining in funding assistance.

10. CANTON: South System

Background Information:
- Miles of Sewer: 87
- Sewered Population: 17,201
- Three Year (CY22 - CY24) Annual Average I/I: 1.85 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: I/I Management Plan (MassDEP) (June 2018)
I/I Study (June 2022)
Flow Isolation and CCTV Inspection Program (December 2022)

Private Source Inflow Removal Program: No additional inspections were reported during this period. Town has established an I/I Mitigation Fee for all new connections. Fee is paid based upon MassDEP flow rates at a 4 to 1 ratio.

I/I Rehabilitation Projects in Design or Construction: In March 2024, funds ($1,337,400) were distributed for Subarea 27 Infiltration Rehabilitation – Study / Design / Construction (Cont. 23-009S) (MWRA Project No. WRA-P14-10-3-1427).
Sewer System Rehabilitation was performed within Sewer Subsections 1-12 / 17 and included sewer manhole sealing/restoration, sewer pipe testing and sealing, CIPP lining and joint testing/sealing. Project work is complete.

Reporting Period Activity: I/I Study project work is complete (MWRA Project No. WRA-P11-10-1-1163). Project work included: (1) development of the flow metering program, including meter and gauge placement; (2) flow meters being placed into the community system in March/April 2021 (flow meters were removed in June 2021); (3) sewer manhole inspections; and (4) flow meter data analysis. I/I Report / Recommendations completed June 2022.

Flow Isolation and CCTV Inspection Program work complete (MWRA Project No. WRA-P11-10-2-1188). Field work was completed in June 2022 and included flow isolation of approximately 112,000 LF of gravity sewer within priority Canton sewer Sub-areas 7 / 16 / 18 / 22 / 24 / 27 and CCTV inspection of approximately 23,000 LF of gravity sewer. Summary Report recommendations completed December 2022. In March 2023, Town completed audit/review of 2020-2021 CCTV video (performed by Town CCTV vehicle) to determine condition assessment and PACP rating of pipe segments viewed. The results of the work will be incorporated into the FY21 Asset Management project work and will be evaluated further for potential I/I rehabilitation work.

Extension of the existing collection system made over the past year: 4250LF of 8-inch sewer at Stillwater Estates.

MWRA I/I Local Financial Assistance Program: The community has financed nine (9) I/I reduction projects through the Authority's funding assistance program. Of the $9,701,900 allotted through the Program's Phases 1 - 16, the community has $5,237,650 remaining in funding assistance.

11. CHELSEA: North System

Background Information:

- Miles of Sewer: 42
- Sewered Population: 40,787
- Three Year (CY22 - CY24) Annual Average I/I: 3.48 mgd
- MassDEP Administrative Actions since 2010: NON #00004520 – May 10, 2018 Failed to submit I/I Analysis due 12/31/17.
- EPA Clean Water Act Administrative Order: EPA Docket No. 09-008 (March 2009)

Chelsea is one of MWRA's five combined sewer service communities (Boston North, Brookline, Cambridge, Chelsea and Somerville). Portions of Chelsea are impacted by projects under MWRA's CSO Control Plan.

Latest I/I or SSES Report: City-Wide Sewer Separation Master Plan (April 2020)
Broadway Sewer Separation [Preliminary Design Report] (December 2020)
Stormwater Management Plan (SWMP) 2021 (June 2021)
Chelsea Stormwater Outfall Monitoring Report (January 2023)

Private Source Inflow Removal Program: The City began collecting Sewer Bank fees for redevelopment projects in CY13. Local I/I Mitigation Fees are assessed for new developments and redevelopment projects at a rate of $10.30/gpd. The City has also undertaken a move toward the implementation of Green vs. Gray infrastructure to reduce the amount of stormwater discharged to its combined sewers. Efforts to date have included requiring all redevelopment projects to utilize Low Impact Development and retain/infiltrate stormwater onsite, along with incorporating green infrastructure into municipal projects (e.g., the Rain Garden at the Mace Housing Complex).

I/I Rehabilitation Projects in Design or Construction: Final design of utility and road improvements for Downtown Broadway Utilities Project (CHE-004 Sewer Separation) was completed and construction began June 2024. This project includes comprehensive sewer and drain reconstruction, including sewer separation. This would result in an estimated annual average inflow removal of 0.02 mgd. Construction completion is estimated for Spring 2026.

Final design of utility and road improvements for Central Avenue, Willow Street and Watts Street is complete (Contract No. 2022-303 / MWRA Project No. WRA-P11-11-3-1175). Project work includes sewer improvements to remove inflow and drain construction that will reduce localized flooding. Central Avenue work included installation of 729 LF of new 30-inch storm drain with new affiliated manholes and laterals for catch basin connectivity (30-inch reinforced concrete pipe installation is nearing completion). Additional installation of 299 LF of new 12-inch PVC storm drain from Willow Street to Highland Street with two new catch basins and new drain manhole. Willow Street work included installation of 182 LF of new 18-inch storm drain, 101 LF of new 10-inch storm drain, 129 LF of new 12-inch storm drain, and 26 LF of new 12-inch sanitary main, with connections to existing and new catch basins/manholes. Watts Street work included installation of 311 LF of new 12-inch storm drain and 33 LF of new 10-inch storm drain with affiliated connections to new manholes and catch basins. This would result in an estimated annual average inflow removal of 0.012 mgd. Construction on this project began in June 2022 and is scheduled to be completed in 2025.

In March 2024, funds ($1,750,000) were distributed for the following project: Downtown Broadway Utility Improvements Project. (MWRA Project # WRA-P14-11-3-1429). Project is ongoing. In August 2021, funds ($1,630,000) were distributed to support the Central Avenue, Willow Street and Watts Street Utility Improvement Project (MWRA Project No. WRA-P11-11-3-1175).

Reporting Period Activity: The Willow Street/Watts Street/Central Avenue Utility, Road, And Traffic Improvements project is nearing completion and entering final punch list items. This will remove significant inflow volumes and peaks, estimated at

(1) Design Storm peak hour inflow rate reduction:	2.43 MGD
(2) Design storm inflow volume reduction:	0.39 MG
(3) Average Annual inflow reduction:	4.30 MG
(4) Average Annual inflow reduction:	0.012 MGD

MWRA I/I Local Financial Assistance Program: The community has financed eighteen (18) I/I reduction projects through the Authority's funding assistance program. Of the $17,586,100 allotted through the Program's Phases 1 - 16, the community has $4,076,000 remaining in funding assistance.

12. DEDHAM: South System

Background Information:
- Miles of Sewer: 89
- Sewered Population: 24,507
- Three Year (CY22 - CY24) Annual Average I/I: 1.98 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report:
2021 Sewer Manhole Investigations (August 2021)
2022 Sewer Manhole Investigations (October 2023)
2023 Sewer Manhole Investigations (Ongoing)
2022 Town-Wide Flow Monitoring (November 2022)
2023 Sewer Manhole Investigations (August 2023)
2024 Sewer Manhole Investigations (November 2024)
2025 Sewer Manhole Investigations (Ongoing)

Private Source Inflow Removal Program: The Town has finalized a Private Infiltration Removal Policy that will allow the community to use its Sewer Enterprise Fund to locate and eliminate infiltration observed in private property sewer laterals. The Town adopted a Sewer System Enterprise Fund at its May 2009 Town Meeting.
The Town began a House-To-House Inspection program to identify prohibited connections. The program includes about 1,600 properties of which approximately 1,400 have participated to date. Our consultants are currently working on a report to provide the Town with recommendations on how best to redirect any prohibited connections observed during the inspection program.
A Municipal Buildings Inspection Program was undertaken to identify inflow sources. Inspections identified approximately 78,231 gpd of peak inflow. The Town removed the 78,231 gpd of peak inflow during CY15-23.

I/I Rehabilitation Projects in Design or Construction: The Town, as part of our 2024 Sewer On-Call Services Contract (from 1/31/24 to 12/31/24), has completed the installation of approximately 3,200 linear feet of CIPP long liners, approximately 28 linear feet of CIPP short liners, approximately 260 vertical feet of sewer manholes cementitiously lined and exterior grouted and approximately 370 vertical feet of sewer manholes exterior grouted with interior patching. The work also consisted of completing the chemical root treatment of approximately 8,900 linear feet of sewer main. The cost associated with all the sewer rehabilitation performed in 2024 was approximately $360,000. This project was designed to remove an estimated 73,500 GPD of infiltration.
The Town is also nearing completion of its annual sewer system inspection program under its 2024 Sewer On-Call Services Contract. The Town also retained the service of Weston & Sampson to conduct top-side manhole inspection for several of our sewer sub-basins. The Town plans to utilize this data, along with our previous year's backlog work to perform additional rehabilitation on the most cost-effective sewer lines/manholes in 2025 utilizing our on-call rehabilitation contract.

Reporting Period Activity: Approximately 64 LF of sewer main extensions were installed throughout the Town by private developers. Upon completion of the private projects, the Town took ownership of the sewer mains. In November 2023, funds ($1,180,000) were distributed for the I/I Identification & Rehabilitation project (MWRA Project No. WRA-P14-12-3-1421). Project work is ongoing.

MWRA I/I Local Financial Assistance Program: The community has financed nineteen (19) I/I reduction projects through the Authority's funding assistance program. Of the $13,051,000 allotted through the Program's Phases 1 - 16, the community has $3,811,000 remaining in funding assistance.

13. EVERETT: North System

Background Information:
- Miles of Sewer: 72
- Sewered Population: 49,075
- Three Year (CY22 - CY24) Annual Average I/I: 2.30 mgd
- MassDEP Administrative Actions Since 2010: None
- EPA Clean Water Act Administrative Order: EPA Docket No. 09-026 (August 2009)

Latest I/I or SSES Report:
EPA Administrative Order Compliance Report (January 2017)
Lower Broadway I/I Investigation (November 2018)
2018 Sewer I/I Investigation (December 2018)
2021 1/1 sewer rehabilitation (February 2021)
2022 Paris Street sewer separation (June 2022)
2025 Paris Street sewer separation (December 2025)

Private Source Inflow Removal Program: A Sewer and Drain Ordinance was adopted in Fall 2018. To date, the city has collected fees from developments totaling approximately $2.65 million. Fees are used to fund future I/I identification/removal projects.

I/I Rehabilitation Projects in Design or Construction: In June 2022, funds ($2,550,200) were distributed for the Paris Street Sewer Separation Project (MWRA Project No. WRA-P11-13-3-1192). The objective of this project is to disconnect catch basins connected to the sewer system and install new drain infrastructure in the Paris Street area, in order to remove sewer system inflow. The construction design is based the 'Draft Evaluation Memo - Inflow/Infiltration Project Approach' report (dated October 2015). Construction work was delayed but began January 2024.

Reporting Period Activity: The Village I/I Rehabilitation Project (MWRA Project No. WRA-P11-13-3-1162) covers I/I rehabilitation in the Village and Main Street areas in order to reduce I/I sources and repair sewer defects. Construction rehabilitation work includes: CIPP lining, lateral grouting, dig and replace sewer rehabilitation, manhole rehabilitation and point repairs. Approximately 0.14 mgd of peak infiltration and 0.11 mgd of peak inflow is anticipated to be removed.

MWRA I/I Local Financial Assistance Program: The community has financed eleven (11) I/I reduction projects through the Authority's funding assistance program. Of the $19,511,500 allotted through the Program's Phases 1-16, the community has $7,900,000 remaining in funding assistance.

14. FRAMINGHAM: South System

Background Information:

- Miles of Sewer: 231
- Sewered Population: 69,727
- Three Year (CY22 - CY24) Annual Average I/I: 3.77 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: Citywide I/I Study / SSES Phase 1 / CWMP (December 2005); SSES Phase 2 (March 2006); SSES Phase III (November 2006); SSES Phase IV / V (2010); Blackberry Lane SSES (Complete); SSES Phase VI (September 2021); SSES Phase VII (Spring 2024); SSES Phase VIII (ongoing)

Private Source Inflow Removal Program: The City's capital improvements plan now includes multiple phases of inflow removal projects. The first phase was financed in the FY17 budget cycle. The City is currently developing capital projects that will incorporate the removal of the illicit connections identified during the field reconnaissance efforts of the SSES programs. The capital project program will include the redirection of illicit flows as well as the extension of storm drain systems to remove flow from the sewer system. During this year's capital project development cycle, the City will determine the proposed rehabilitation areas and improvements required in order to further refine the costs and timing of the actual inflow removal projects.

The City has submitted an updated inflow removal scope of work and schedule to MassDEP for their review and approval. The plan includes working with City government to develop and initiate a program for sump pump and other inflow source (i.e., roof and area drains) removal. This work was included as part of the FY20 capital budget request for the City's Phase 6 SSES project. The Phase 6 SSES FY20 appropriation was approved by the City Council in June 2019.

The Phase 6 SSES (MWRA Project No. WRA-P11-14-1-1149) began in July 2019. Initial study work included performing 58 dye tests of suspect inflow sources and undertaking flow/rainfall/groundwater monitoring from March 16, 2020 to June 8, 2020 within fifteen (15) subcatchments of the Phase 6 SSES tributary area. Phase 6 manhole inspections (700 total) were completed in April 2021. Flow isolation and CCTV inspection work (20,000 LF) was completed in May 2021. Smoke testing (49,700 LF) was completed September 2021. A project summary memorandum has been completed.

From the Phase 6 SSES findings, design contract documents were developed for the Private Inflow Removal Pilot Project. The project is currently awaiting approval for bidding from the City's administration This Pilot Project calls for the removal of sump pumps at six (6) locations. These locations have been visually observed to be connected to the sewer.

Phase 7 SSES smoke testing and any necessary dye testing took place in the fall of 2023. Phase 7 is now complete and a report was submitted to the city during the spring of 2024.
Phase 8 SSES has been funded for FY26.

I/I Rehabilitation Projects in Design or Construction: The Union Avenue & Pearl Street Sewer System Rehabilitation Project (Contract PW-407 / MWRA Project No. WRA-P11-14-3-1148) is complete. Project work included replacement of 650 LF of 8-inch sewer main; replacement of 250 LF of 10-inch sewer main; installation of 575 LF of 10-inch CIP sewer main liner; installation of 575 LF of 12-inch CIP sewer main liner; replacement of 800 LF of sewer service laterals; and replacement of

11 sewer manholes. The limits of the project area were Union Avenue (between Proctor Street and Beech Street) and Pearl Street (between Lincoln Street and Franklin Street).

The Worcester Road Wastewater Infrastructure Improvements Project: Phase II Design - Westbound (MWRA Project No. WRA-P11-14-3-1113) is ongoing. Phase II of the project is located along the westbound side of Worcester Road (adjacent to the Natick border). The Phase II final design phase involves the installation of approximately 1950 LF of new gravity sewer piping along Concord Street and Worcester Road.

The Worcester Road Wastewater Infrastructure Improvements Project: Phase III Design - North-South Sewer Connector (MWRA Project No. WRA-P11-14-3-1113) is ongoing. Phase III of the project is located along a cross-country alignment off Worcester Road, adjacent to the Natick border, from the Burr Street Extension to Cochituate Road. The Phase III final design phase involves the installation of approximately 4200 LF of new gravity sewer piping along this cross-country alignment.

The Worcester Road Wastewater Infrastructure Improvements Project: Phase I - Eastbound (Contract PW-402 / MWRA Project Nos. WRA-P11-14-3-1112/1113) is complete. Project work included contracted wastewater infrastructure replacement along Worcester Road. Phase I work was located along the eastbound side of Worcester Road (Concord Street to Natick Town Line) and included residential work along Pierce Street and Dinsmore Avenue. Project work included installation of 600 LF of 8-inch PVC and DI gravity sewer piping; installation of 930 LF of 10-inch PVC gravity sewer piping; installation of 710 LF of 12-inch PVC gravity sewer piping; installation of 6-inch PVC gravity sewer piping for sewer service connections; installation of 12 sewer manholes; and cleaning and CCTV inspection of 5820 LF of storm drain.

The Sewer Defects Repairs (Phase 2) Project (Contracts PW-375 & 379 / MWRA Project No. WRA-P11-14-3-1102) is complete. Project work included contracted sewer main/manhole rehabilitation and replacement throughout the City. Phase 1 repairs (implemented in late 2017) corrected defects at and south of Waverly Street. Phase 2 addressed repairs between Worcester Road (Route 9) and Waverly Street to the southerly City limits and in the vicinity of Concord Street to the City limits in East Framingham. Project work included cleaning and CCTV inspection of 55,000 LF of sewer main; root treatment of 3000 LF of sewer main; testing and sealing of 140 sewer main joints; CIPP spot repairs within 150 LF of sewer main; CIP lining of 18,621 LF of sewer main; lining 90 LF of sewer service connections; lining 976 VF of sewer manholes; performing 50 spot sewer manhole repairs; rebuilding 10 sewer manhole inverts; and flow isolating 6175 LF of sewer main.

The Union Avenue Area Sewer Improvements (Contract 2) Evergreen Street Sewer Rehabilitation Project (Contract PW-369 / MWRA Project No. WRA-P11-14-3-1101) is complete. Project work included contracted sewer main/manhole rehabilitation and replacement in the Union Avenue area. Project work included replacement of approximately 1550 LF of 8-inch VC sewer main; replacement of approximately 375 LF of sewer service laterals; CIP lining of approximately 475 LF of 8-inch VC sewer main; and replacement of approximately 11 sewer manholes. The project's work area included: Evergreen Street / Learned Street / Myrtle Street / Thurber Street / Lincoln Street.

Reporting Period Activity: City Operations staff performed 3,050 LF of sewer main replacements at eleven (11) locations. City Operations staff / on-call service providers also installed 13,221 LF of CIPP linings (at 17 locations) and rehabilitated 26 sewer manholes.
MWRA I/I Local Financial Assistance Program: The community has financed nineteen (19) I/I reduction projects through the Authority's funding assistance program. Of the $29,111,000 allotted through the Program's Phases 1 - 16, the community has $15,440,000 remaining in funding assistance.

15. HINGHAM: South System

Background Information:

- Miles of Sewer: 33
- Sewered Population: 8,128
- Three Year (CY22 - CY24) Annual Average I/I: 0.83 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: Annual I/I Program (FY18) Year 2 Evaluation (December 2018)
Annual I/I Program (FY19) Year 3 Evaluation (August 2019)
Annual I/I Program (FY23) Year 2&3 Evaluation (2022)
Annual I/I Program Year 4 Evaluation (Ongoing)

Private Source Inflow Removal Program: The house-to-house sump pump inspection and roof leader disconnection programs were limited due to ongoing COVID-19 restrictions. Through CY17-21, approximately 500 homes were inspected for sump pumps. During FY23, two (2) sump pumps on Shute Avenue were identified as being connected to the sanitary system. These sump pumps have been removed.

I/I Rehabilitation Projects in Design or Construction: FY23 On Call Sewer Services Contract 2, Work Order 1 included the following: 1,417 linear feet of CIPP, one lateral liner, 1,117 linear feet of mainline grouting, grouting of six laterals, two short liners, and cementitious lining of 12 manholes. Approximately 8,064 gpd of peak removable infiltration.
FY23 On-Call Sewer Services Contract 2, Work Order 2 included the following: 2,194 linear feet of CIPP and three lateral liners. Approximately 9,288 gpd of peak removable infiltration.
Year 4 of the Annual I/I investigation program began in May 2024. Field investigation is complete, and reporting is currently ongoing. The project area included sewer subarea 2.
Investigation of Subareas 1 and 3 began June 2025. Work is ongoing.
Sewer manhole 844 in the Beals Cove Easement was identified to have a dislodged frame and contributing approximately 5,500 gpd of peak design storm inflow.
Repaired the Malcolm Street Pump Station wet well where a source of infiltration was identified. Approximately 7,200 gpd of peak removable infiltration.

Reporting Period Activity: Began replacement of the Broad Cove Pump Station force main. Construction is ongoing.
In June 2024, funds ($218,830) were distributed for the FY23-S1 I/I Investigation & Rehabilitation Program (Contract 2 – Work Order No. 2) (MWRA Project No. WRA-P14-15-3-1435). Project work is ongoing.

MWRA I/I Local Financial Assistance Program: The community has financed twelve (12) I/I reduction projects through the Authority's funding assistance program. Of the $4,105,500 allotted through the Program's Phases 1 - 16, the community has $1,293,000 remaining in funding assistance.

16. HOLBROOK: South System

Background Information:
- Miles of Sewer: 49
- Sewered Population: 10,359
- Three Year (CY22 - CY24) Annual Average I/I: 0.54 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: CWSRF No. 2919 Contract No. 1 (October 2009)
Annual I/I Program – Year 1 Investigation (March 2025)
Annual I/I Program – Year 2 Investigation (Ongoing)

Private Source Inflow Removal Program: Smoke testing of Subarea I is scheduled for August 2025. (MWRA Project No. WRA-P11-16-3-1193).
House-to-House inspections continue. All new home construction is inspected by DPW personnel and the Town Plumbing Inspector. New development requires a $12 per gallon mitigation payment on all flow added. The mitigation funds collected are used to finance the Town's I/I identification & rehabilitation program.

I/I Rehabilitation Projects in Design or Construction: The Annual I/I Control Plan (Year 1) (MWRA Project No. WRA-P11-16-3-1193) is ongoing. Project work includes I/I identification planning, investigation and reporting: (1) Designing and developing a work plan that outlines the I/I metering program to collect wastewater flow, rainfall and groundwater data; (2) Installing, calibrating, maintaining and monitoring field instrumentation equipment. The quantity of the instrumentation and duration of their installation shall be based upon the MassDEP I/I Analysis Guidelines. The field program was installed for ten (10) weeks and was implemented Town-wide in approximately eleven (11) sewer subareas. A field investigation data summary was provided by the subcontractor. Project work will also include a Town-wide groundwater analysis to identify high groundwater/low elevation areas that may contribute private inflow and a limited sewer manhole inspection program (approximately 200 manhole inspections); (3) Quantitative analysis of data collected from the flow metering and field investigation program and included quantifying the rate of infiltration and volume of inflow into each of the metered sewer subareas; and (4) Developing a report and recommendations from the results of the overall I/I study. The report will include recommendations for further field investigations to isolate and identify specific I/I sources. Project work to date: Manhole Inspections (200 total): Complete March 2023; Town-wide Groundwater Analysis: Complete June 2023; Town-wide Flow Monitoring (10 weeks): April-June 2023; Analysis and Reporting: Complete by September 2023.

The Annual I/I Control Plan (Year 2) (MWRA Project No. WRA-P11-16-3-1193) is scheduled to be performed February 2024 - December 2024. Spring 2024 project work includes: Manhole Inspections (750 total), CCTV Inspection (22,000 LF), Flow Isolation (22,000 LF), Smoke Testing (22,000 LF) and Dyed Water Testing with CCTV Inspection.

Reporting Period Activity: 750 sewer manholes were inspected as part of the Annual I/I Program – Year 2. Approximately 22,000 LF of sewers were CCTV inspected in Subarea I in June 2025. Review of inspection data is underway. Smoke testing and dye testing/dye floods are planned for Subarea I in August 2025. (MWRA Project No. WRA-P11-16-3-1193).
7 new sewer services installed and no sewer main extensions.

MWRA I/I Local Financial Assistance Program: The community has financed four (4) I/I reduction projects through the Authority's funding assistance program. Of the $4,016,600 allotted through the Program's Phases 1 - 16, the community has $2,667,000 remaining in funding assistance.

17. LEXINGTON: North System

Background Information:
- Miles of Sewer: 171
- Sewered Population: 33,856
- Three Year (CY22 - CY24) Annual Average I/I: 3.65 mgd
- MassDEP Administrative Actions since 2010: ACO-NE-11-015 (July 2011)
- EPA Clean Water Act Administrative Order: EPA Docket No. 11-015 (July 2011)

Latest I/I or SSES Reports: Town-Wide Flow Metering (November 2019)
SSES Phase 10: Sewer Basin 10 (January 2020)
SSES Phase 11: Sewer Basin 09 (March 2021)
SSES Phase 12: Sewer Basin 02 (November 2021)
SSES Phase 13: Sewer Basins 04 & 14 (March 2023)
SSES Phase 14: Sewer Basin 03 (February 2024)
SSES Phase 15: Sewer Basin 08 (May 2025)
SSES Phase 16: Sewer Basin 05 (Ongoing)

Private Source Inflow Removal Program: The Town is using the February 2012 *Lexington Sewer Use Code Review* to update their current regulations to incorporate a sewer bank or other funding options. A private inflow identification program based on the February 2012 Private Inflow Removal Program Letter Report is currently on hold.

I/I Rehabilitation Projects in Design or Construction: The Phase 9 Sewer System Improvements project was substantially complete in November 2023. Warranty and re-test inspection should be complete by the end of June 2025. This project's goal was to remove I/I primarily in Sewer Basin 13 (approx. 80,000 gpd).
The Phase 10 Sewer System Improvements project went out to bid in May 2025, and a notice of Intent to award was issued in June 2025. This project's goal is to remove I/I primarily in Sewer Basin 10 (approx. 64,000 gpd). It is anticipated that construction of this project will start in July 2025.
The Phase 8 Sewer System Improvements construction began March 2022. Project work, including Warranty Inspection, was complete May 2023. The project's goal was to remove I/I sources primarily within Sewer Basin 11. The Sewer System Evaluation Survey for Sewer Basin 09 (Phase 11) was completed in March 2021. The project identified approximately 35,000 gpd of cost-effective removable peak I/I within 55,000 LF of sewer main.

Reporting Period Activity: The Sewer System Evaluation Survey for Sewer Basin 08 (Phase 15) was completed May 2025. The Sewer System Evaluation Survey for Sewer Basins 03 (Phase 14) was completed in February 2024. New sewer services were installed at 18 locations during FY25.

MWRA I/I Local Financial Assistance Program: The community has financed fourteen (14) I/I reduction projects through the Authority's funding assistance program. Of the $17,476,300 allotted through the Program's Phases 1 - 16, the community has $5,321,000 remaining in funding assistance.

18. MALDEN: North System

Background Information:
- Miles of Sewer: 100
- Sewered Population: 65,969
- Three Year (CY22 - CY24) Annual Average I/I: 3.08 mgd
- MassDEP Administrative Actions: NON #00004556 - May 9, 2018 (Failed to submit I/I Analysis due 12/31/17)

- EPA Clean Water Act Administrative Order: EPA Docket No. 09-002 (January 2009)

Latest I/I or SSES Report: Hydraulic Model and Capacity Assessment Final Report (December 2012)
Phase IV I/I Assessment Program (April 2020)

Private Source Inflow Removal Program: The City is planning to perform a community-wide smoke testing program to identify roof runoff connections and other illicit discharges. The City's DPW Commission voted to approve a revised Water & Sewer Fee Schedule on October 9, 2018. This revised schedule includes a new sewer connection fee of $500 plus an I/I fee of $8.50/gpd for new connections with a design flow over 15,000 gpd.

I/I Rehabilitation Projects in Design or Construction: Finalizing plans and specs for years 3, 4, and 5 of the 5 year I/I removal plan. Contract 2022-S-1 was bid August 2022, as part of the City's 2022 Sewer Lining Program. The City has compiled a list of approximately 28,000 LF of sewer lines that will be initially cleaned and CCTV inspected. As the CCTV tapes are completed, the City will review the tapes and select the sewer mains to be CIPP lined. For bidding purposes, the City anticipates approximately 19,000 LF of sewer main will be CIPP lined. The City has completed a five-year plan of sewer collection system rehabilitation contracts based on study results and recommendations.

Reporting Period Activity: In May 2025, funds ($3,076,970) were distributed to continue City wide SSES & Sewer Improvements - Design / Construction projects (Years 3, 4, & 5) (MWRA Project No. WRA-P14-18-3-1452).

MWRA I/I Local Financial Assistance Program: The community has financed eight (8) I/I reduction projects through the Authority's funding assistance program. Of the $29,486,900 allotted through the Program's Phases 1 - 16, the community has $19,684,030 remaining in funding assistance.

19. MEDFORD: North System

Background Information:
- Miles of Sewer: 120
- Sewered Population: 59,624
- Three Year (CY22 - CY24) Annual Average I/I: 3.45 mgd
- MassDEP Administrative Actions Since 2010: None
- EPA Clean Water Act Administrative Order: EPA Docket No. 09-027 (August 2009)

Latest I/I or SSES Report: James Street & Swan Street SSES (February 2022)
Mini-System A & G SSES Phase II (May 2023)
Mini-System P Lining Construction (April 2024)
Mini-System A SSES Construction (April 2025)
Sub-Areas O2 and K1 SSES study (May 2025)

Private Source Inflow Removal Program: Suspected inflow locations were found during Phase 1 inspections. Two (2) additional locations found in FY22/23. Removal plans are to be developed.

I/I Rehabilitation Projects in Design or Construction: The Mini-System P Sewer Rehabilitation project is substantially complete. Mini-System P Sewer Rehabilitation CIPP lining work is approximately 50% complete. A City-wide sewer rehabilitation design contract started June 2024 and is ongoing. The Mini-System A SSES Construction is 20% Complete.

Reporting Period Activity: The sewer relay and lining project completed in July 2025 covered Boston Avenue, St. Clements Road, Bristol Road, Warner Street, Wareham Street, Morton Avenue, and Newbern Avenue, with work totaling 3,480 linear feet of cured-in-place pipe (CIPP) lining for 8 and 10 inch diameters, and 24 open cut point repairs for 12 inch diameter pipes.

MWRA I/I Local Financial Assistance Program: The community has financed nine (9) I/I reduction projects through the Authority's funding assistance program. Of the $27,868,600 allotted through the Program's Phases 1-16, the community has $19,907,000 remaining in funding assistance.

20. MELROSE: North System

Background Information:

- Miles of Sewer: 75
- Sewered Population: 29,784
- Three Year (CY22 – CY24) Annual Average I/I: 1.85 mgd
- MassDEP Administrative Actions: None

Latest I/I or SSES Report: 2022 Sewer Manhole Frame and Cover Replacement Project (Spring 2022)
2023 Sewer Rehabilitation Project – Sewer Manhole Lining (Spring 2023)
2024 Sewer Rehabilitation Project – CIPP Lining Design & Bidding (Summer/Fall 2023)
2024 Sewer Rehabilitation Project – CIPP Lining Construction (Summer 2024)

Private Source Inflow Removal Program: Smoke testing was performed in the six (6) subareas where investigations were done as part of the 2020 SSES - Phase 3 (MWRA Project No. WRA-P11-20-3-1137). All findings from SSES Phases 1-3 will be investigated in the near term. The City, as part of its water main replacement projects, continued performing basement inspections for illicit connections.

I/I Rehabilitation Projects in Design or Construction: Sewer Rehabilitation Design Project (MWRA Project No: WRA-P14-20-3-1414) began Spring 2023. The city is about to complete the 2024 CIPP Lining project, which was awarded to Green Mountain Pipeline in 2024 for $1,365,250. Post-construction flow isolation has recently been completed as part of the project. Estimated I/I removal to be determined at the completion of project. The project is partially funded through the MWRA I/I LFAP, Phases 12 and 14. Additional funds (as needed) will be paid from the City's I/I mitigation fee fund.

The 2023 Sewer Replacement Project (Sewer Manhole Lining) was completed June 2023. The project included the grouting of leaks and cementitious lining of forty-four (44) sewer manholes. The average I/I removal for the project was approximately 0.03 mgd.

The 2020 Sewer Rehabilitation Project (CIPP Lining) was completed in May 2021. Post-construction flow isolation was completed in Spring 2022. The I/I removal was approximately 0.07 mgd or an approximate 84% infiltration reduction based on the pre-construction flow isolation estimates. Approximately 6100 LF of 6 to 12-inch sewer main received root treatment. Approximately 21,000 LF of CIPP liners were installed in 6 to 20-inch sewer mains.

The City also commenced with the removal and replacement of sewer manhole frames and covers that were identified with multiple holes in their manhole covers during the SSES Phases 1-3 projects (2022 Sewer Manhole Frame and Covers Replacement Project). To date, eighty (80) manhole frames and covers have been replaced.

Reporting Period Activity: During FY25, the city collected $52,295 in I/I mitigation fees. The fees are stored in a dedicated fund and are only used for work related to I/I reduction. The sewer enterprise fund fully covered the costs of sewer system operations, maintenance, debt service and other expenses. The City maintains reserves equal to at least 10% of the operating budget.

Extensions of the Collection System: The following private developments have either recently tied into the City's of MWRA's sewer system, or have been approved to do so, as summarized below:

a) 453-463 Franklin St (Mixed Use), estimated to add 4,290 gpd
b) 12-16 Essex St (Mixed Use), estimated to add 3,958 gpd
c) 12-14 Sylvan St (4-unit Townhomes), estimated to add 2,640 gpd

MWRA I/I Local Financial Assistance Program: The community has financed eleven (11) I/I reduction projects through the Authority's funding assistance program. Of the $14,357,300 allotted through the Program's Phases 1-16, the community has $4,251,000 remaining in funding assistance.

21. MILTON: South System (Small Portion Tributary to the North System)

Background Information:

- Miles of Sewer: 98
- Sewered Population: 27,963
- Three Year (CY22 – CY24) Annual Average I/I: 2.81 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: CIP Program 1 Investigation (January 2020)
CIP Project 2 Investigation (January 2021)
CIP Project 3 Investigation (December 2021)
CY2022 Sewer Investigation (September 2022)
2022 Pump Station Evaluations (March 2023)
Post-Construction Flow Evaluation (ongoing)

Private Source Inflow Removal Program: The Town is continuing to pursue the removal of sump pumps and other private inflow sources identified through a previously completed building inspection program. All new connections to the municipal sanitary sewer system will be charged a one-time I/I mitigation fee. Connection applicants must remove four gallons of I/I from the sewer system for each one gallon of new wastewater flow requested in the connection permit. If there are not sources of I/I that, at the discretion of the DPW Director, are appropriate for removal at the time of the permit, a monetary fee may be required (at a cost of $3.00 per gallon of flow per day to be removed).

Also, a building inspection is performed during the final water meter reading when a house is being sold. If the building inspection identifies an illegally connected sump pump, a fine is issued and the residence cannot be sold until the sump pump has been rerouted and inspected. Additionally, during the water meter replacement program, Town inspectors have been trained to identify sump pumps and note whether they are: (a) connected to the sewer, (b) daylighted to the outside, or (c) unknown. The Town's Engineering Department then performs follow-up inspections as needed.

I/I Rehabilitation Projects in Design or Construction:

The CY2024 Sewer Rehabilitations project reached substantial completion on August 19, 2024. The project rehabilitations included cured-in-place pipe, cured-in-place lateral liners, lateral grouting, and manhole cementitious lining. Warranty retest work was completed in April 2025. Pre-construction flow isolation was completed in Spring 2024 and post-construction flow isolation was completed in Spring 2025. It is estimated this project removed 85,769 gpd of peak I/I based on comparison of flow isolation values and visual manhole inspections.

The CY2024 Sewer Rehabilitations project is ongoing. This design incorporated three years of investigations (CIP 2 Investigation, CIP 3 Investigation, and CY2022 Sewer Investigation). The project rehabilitations are focused on CIPP and manhole cementitious lining. Pre-construction flow isolation was completed in Spring 2024. I/I removal will be estimated once post-construction flow isolation is completed.

The CY2022 Sewer Investigation was completed Spring 2022 (MWRA Project No. WRA-P11-21-3-1178).Data review/reporting complete September 2022. The 2022 Pump Station Evaluations were complete March 2023.

Approximately 1150 LF of 2-inch HDPE low-pressure sewer was installed on Randolph Avenue as part of a sewer betterment plan to the area. Approximately 70 LF of 8-inch sewer was extended on Highland Street as part of a private property endeavor. The Highland Street extension was accepted by the Town in May 2022.

The Drain and Sewer Improvements Project (Milton Contract No. DS21-1) began in November 2021 and reached substantial completion in April 2022 (MWRA Project No. WRA-P11-21-3-1178). It is estimated this project removed 3168 gpd of infiltration through comprehensive sewer pipeline and manhole repairs.

CIP Project 3 Investigation was completed Spring 2021 (MWRA Project No. WRA-P11-21-3-1178). Data review and reporting complete December 2021. Approximately 34,128 gpd of peak infiltration was observed during television inspections and 10,224 gpd of peak infiltration and 7700 gpd of peak inflow was identified during manhole inspections.

Reporting Period Activity: In September 2023, funds ($1,150,000) were distributed for the CY2023 Sewer & Storm Drain Rehabilitations – Design and Construction (MWRA Project No. WRA-P14-21-3-1417). This project was renamed to CY2024

Sewer Rehabilitations. Project work is substantially complete. It is estimated this project removed 85,769 gpd of peak I/I based on comparison of flow isolation values and visual manhole inspections.

MWRA I/I Local Financial Assistance Program: The community has financed twenty-one (21) I/I reduction projects through the Authority's funding assistance program. Of the $12,904,500 allotted through the Program's Phases 1-16, the community has $2,740,000 remaining in funding assistance.

22. NATICK: South System

Background Information:

- Miles of Sewer: 129
- Sewered Population: 32,803
- Three Year (CY22 - CY24) Annual Average I/I: 1.50 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: Town-Wide SSES (Ongoing)
I/I Study (Ongoing)

Private Source Inflow Removal Program: The Town-Wide SSES included a house-to-house inspection component. Home inspections are also conducted in conjunction with the water meter replacement program. The Town has prepared an informational handout on eliminating sump pump connections to the wastewater system, which is distributed to targeted/suspect areas of the community.

I/I Rehabilitation Projects in Design or Construction: Work on Contract No. S-162 was completed in December 2024. Between July 1, 2024 and June 30, 2025 the following additional rehab work items have been completed: manhole rehabilitation in 67 MH's including chemical grout sealing, structural defect repairs, corbel/riser/lining, and frame inserts; post-construction CCTV inspection, and final paving. The final Contract amount was $4,076,984.15; $3,584,299.78 under the original Contract items, and $492,684.37 in Change Orders. Peak infiltration removal at 100% contract completion is expected to be ±215,000 gpd, estimated based on review of the inspection reports for the structures being worked on. Inflow removal, using MassDEP's design storm characteristics (0.29 in/hr average rainfall intensity for 6-hr period) is conservatively estimated to be 48,000 gpd. This project was approved with planned MWRA funding from Phase 10 ($969,000), Phase 11 ($1,250,000), and Phase 12 ($1,250,000). Money from Phases 10 and 11 has been distributed to the Town. The Town is currently evaluating whether the available Phase 12 funds should be requested to cover these project costs or apply the Phase 12 funds towards other on-going I/I investigations.

Reporting Period Activity: The Town has completed the purchase of the CCTV inspection vehicle (MWRA Project No. WRA-P9-22-1-966). Training on the equipment has been completed. The vehicle (with Town personnel) performed a portion of the above Natick Contract No. S-162 CCTV inspection work.

Extensions of the Collection System: (1) Fox Hill Drive (1386 LF of 8-inch sewer, 1 pump station, and 732 LF of 4-inch force main installed in previous years): In the past year, there were no additional connections made. 16 sewer stubs remain for future connection. (2) Windy Lo (1246 LF of 8-inch sewer installed in previous years): In the past year, an additional 3 sewer connections were made. (3) 69 East Central Street: Not an extension or modification to the collection system. There is one sewer connection for this building. As of June 30, 2025, the connection has been installed; however, occupancy has not been granted to this building as of this date so no associated flow at this point. (4) St. Benedict's School (89 Union Street): In the past year, 432 LF of 8-inch PVC sewer and three manholes have been installed. Additionally, all sewer connections and associated work have been completed, and occupancy has been granted. This has added an approximate 1,730 gallons per day (using 310 CMR). Future projects will include additional buildings as well as additional sewer manholes and pipe on-site.
(5) Old St. Patrick's School Site (45 East Central Street): As of this report, all nine service connections have been made; however, occupancy has not been granted to this building as of this date so no associated flow at this point. (6) 7-11 Washington Street: During this reporting period, the connection to the sewer has been made; however, occupancy has not yet been granted to this building as of this date and there is no associated flow. (7) Mathworks Lakeside Campus addition (1 Lakeside Campus Drive): The site was previously a parking lot for the existing Mathworks facility and will be a 260,000 square foot addition which includes a 4-story office building, two Mathworks data centers and a reception building. The project will consist of 790 LF of 6-inch PVC sewer and seven manholes for the office building and data centers. An additional 80 LF of 4-inch PVC sewer will be installed for the smaller reception building. Each building will have a sewer connection. This will add an approximate 19,500 gallons per day (using 310 CMR). As of this report, the sewer connections have not been installed, and no occupancy has been granted as the buildings are still under construction. (8) 32 Union Street (Assisted Living Facility): Not an extension

or modification to the collection system, however this is a conversion of three single family homes to a 47-unit assisted living facility. This will add an approximate 6,390 gallons per day (using 310 CMR). There is one sewer connection for the building. As of this report, the sewer connections have not been installed, and no occupancy has been granted as the buildings are still under construction.

MWRA I/I Local Financial Assistance Program: The community has financed eleven (11) I/I reduction projects through the Authority's funding assistance program. Of the $13,248,600 allotted through the Program's Phases 1 - 16, the community has $6,416,000 remaining in funding assistance.

23. NEEDHAM: South System

Background Information:

- Miles of Sewer: 130
- Sewered Population: 30,757
- Three Year (CY22 - CY24) Annual Average I/I: 2.50 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: CCTV Inspection (2018)
Continuous Flow Monitoring (12 subareas) (Ongoing)

Private Source Inflow Removal Program: A private source identification program, using Town-owned CCTV inspection equipment, is ongoing. The Town continues to enforce 4:1 I/I removal prior to issuing occupancy permits. I/I mitigation funds forthcoming from the Muzi Ford property redevelopment (redevelopment of the site is delayed by the proponent pending project funds). Boston Children's Hospital development under construction with sewer bank funds being deposited prior to Certificate of Occupancy.

I/I Rehabilitation Projects in Design or Construction: Nearing the completion of Phase I of 128 Sewer Interceptor upgrades which includes approximately lining 5,500 LF of 18-inch sewer and 4,000 LF of 21-inch sewer. No estimates are ready for I/I removal. Phase II of the Sewer Interceptor Design to be completed this Fall which will consist of constructing replacement sewer under the MBTA tracks a Valley Road likely for construction in 2025.
The proposed rehabilitation/replacement work will be undertaken in three phases. Phase 1a: Lining from Kendrick Street to the last manhole on I-95 (7300 LF); Phase 1b: Replacement from the last manhole on I-95 to Valley Road @ Norwich Road (2900 LF); Phase 1c: Lining from Valley Road @ Norwich Road to the Siphon (3400 LF); Future Phase 2: Replacement of the I-95 Shoulder Sewer (5400 LF); and Future Phase 3: Replacement from Kendrick Street to I-95 (2000 LF). Sewer rehabilitation designs are ongoing. Bid Documents for the sewer lining are being prepared.

The Town has performed an evaluation of the I-95 interceptor to assess influent flows and the condition of the interceptor. Site access improvements to the MWRA Sewer Interceptor at Route 128 were made. As part of this project, a large rock obstruction was removed from the sewer system. This obstruction was preventing CCTV inspection work from being performed. The remaining CCTV inspection work was subsequently completed and the interceptor sewer evaluation report was submitted in December 2021. The remaining portion of the sewer site access project involves rehabilitating a sewer manhole in the breakdown lane of Route 128 with a new frame and cover. Sewer manhole work in now complete.

2019 I/I Removal Construction Contract design completed Summer 2019. Project bid August 2019. Rehabilitation construction (Needham Contract No. 20DPW022C / MWRA Project No. WRA-P11-23-3-1128) was substantially complete in March 2020. Additional defects/infiltration areas were noted during the post-CCTV inspection and warranty inspection of the contract work. Three (3) additional sewer manholes were rehabilitated in August/September 2021. An estimated 0.47 mgd of peak infiltration was removed from the sanitary system upon contract completion.

Reporting Period Activity: Twelve meters (ten permanent and two portable area velocity flow modules) have been installed for continued I/I monitoring. The Lake Drive Sewer Pump Station Replacement Design & Construction Project bid process has been completed. Pump Station reconstruction work started this past Spring and is near completion (after substantial delays in deliveries of equipment and supplies).

MWRA I/I Local Financial Assistance Program: The community has financed eleven (11) I/I reduction projects through the Authority's funding assistance program. Of the $14,302,600 allotted through the Program's Phases 1 - 16, the community has $10,284,000 remaining in funding assistance.

24. NEWTON: North and South Systems

Background Information:

- Miles of Sewer: 284
- Sewered Population: 88,190
- Three Year (CY22 - CY24) Annual Average I/I: 8.48 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Reports: CIP - Project 9 Inspection and Assessment (April 2020)
CIP Project 6 Flow Evaluation (November 2021)
CIP - Project 10 Inspection and Assessment (January 2022)
CIP - Project 11 Inspection and Assessment (December 2022)
CIP Project 7 Flow Evaluation (Ongoing)

Private Source Inflow Removal Program: No work undertaken during this reporting period.

I/I Rehabilitation Projects in Design or Construction: The CIP Project 7 post construction flow evaluation is being drafted. The estimated I/I removal is 165,051 gpd of peak infiltration, 71,784 gpd of peak rain-induced infiltration and 102,112 gpd of peak inflow.
The CIP Project 8 Rehabilitations are substantially complete (MWRA Project Nos. WRA-P11-24-3-1126 / 1158). Warranty inspections are complete and repairs are ongoing. The estimated I/I removal is 658,788 gpd of peak infiltration and 92,967 gpd of peak inflow.
CIP Project 9 – Phase I Rehabilitations are ongoing. I/I identified in the CIP Project 9 investigation area is planned for rehabilitation as part of a three (3) phased construction project. Phase II and Phase III Rehabilitations will begin upon completion of Phase I construction. The estimated I/I removal is 329,145 gpd of peak infiltration and 38,192 gpd of removable inflow.

CIP Project 11 Inspection and Assessment is complete and included investigating 106,266 LF of sewer and 740 manholes. CIP Project 10 Inspection and Assessment is complete and included investigating 121,166 LF of sewer and 714 manholes. CIP Project 9 Inspection and Assessment is complete and included investigating 132,489 LF of sewer and 852 sewer manholes. The estimated I/I removal is 329,145 gpd of peak infiltration and 38,192 gpd of peak inflow. CIP Project 8 Inspection and Assessment is complete and included investigating 138,354 LF of sewer and 854 sewer manholes. The estimated I/I removal is 658,788 gpd of peak infiltration and 92,967 gpd of peak inflow.

CIP Project 7 Rehabilitations are complete (MWRA Project No. WRA-P11-24-3-1126). The estimated I/I removal is 165,051 gpd of peak infiltration, 71,784 gpd of peak rain-induced infiltration and 102,112 gpd of peak inflow. CIP Project 6 Rehabilitations are complete. The estimated I/I removal is 299,399 gpd of peak infiltration, 64,224 gpd of peak rain-induced infiltration and 501,408 gpd of peak inflow.

Reporting Period Activity: The CIP Project 9 Sewer Rehabilitations and Oak Hill Park Area Sewer Replacement (MWRA Project No: WRA-P14-24-3-1408) is ongoing. CIP Project 9 is part of the City's 11 Year Sewer Capital Improvement Plan. The project area for CIP Project 9 includes Newton Subareas A001/ A002 / A003 / A010 / A011 / A013 / A015. The project area for the Oak Hill Park Area Sewer Replacement Project includes Newton Subarea A001. The objective is to design 'dig and replace' rehabilitations that will eliminate infiltration and inflow. Total project work will include: installing CIPP liners in approximately 35,000 LF of sewers; cementitious lining approximately 200 sewer manholes; installing structural CIPP liners in 11,175 LF of 6 to 12-inch diameter sewer main; sealing approximately 20 underdrain access ports; installing approximately 300 LF of short liners; and performing open cut point repairs on sewer lines at approximately 45 locations.

MWRA I/I Local Financial Assistance Program: The community has financed thirty-one (31) I/I reduction projects through the Authority's funding assistance program. Of the $49,302,400 allotted through the Program's Phases 1 - 16, the community has $10,025,000 remaining in funding assistance.

25. NORWOOD: South System

Background Information:
- Miles of Sewer: 108
- Sewered Population: 31,458
- Three Year (CY22 – CY24) Annual Average I/I: 3.80 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: I/I Assessment and GIS Tracking Program (2019)

Private Source Inflow Removal Program: As part of the Meadowbrook Area Sewer Inspection, ten (10) buildings were identified with various illicit connections and eleven (11) sources have been removed to date. Within the Hawes Brook sewer tributary area, eight (8) property owners have been notified to redirect sump pumps. Work is scheduled to begin shortly that will include building inspections for identifying illicit connections and sump pumps in portions of the Meadowbrook area.

I/I Rehabilitation Projects in Design or Construction: Sewer rehabilitation project design is nearing completion. Project scheduled to be advertised for bid in August with a likely construction start in September 2025. Work includes comprehensive rehabilitation in the Adams Street area and completion of sewer rehabilitation in other portions of the Meadowbrook area. The Airport Interceptor Sewer Manhole Replacement Project (Town of Norwood Contract No. NPW-23-01) was bid in August 2022 and is substantially complete. Project work included the full demolition and replacement of 16 sewer manholes situated along a cross-country right-of-way adjacent to the Norwood Memorial Airport. All manholes were raised above the 100 year flood elevation. Several connections to existing manholes from inactive pipes were eliminated. Project work also included additional CIPP lining of sewer main from Meadow Street and Fortune Drive.

Meadowbrook Priority Area 5 Rehabilitation Construction (MWRA Project No. WRA-P9-25-3-974 / Town Bid No. NPW-19-03) bid September 2018. Rehabilitation work is complete. Project work included CIPP lining of 7515 LF of sewer main, installation of 600 LF of 8-inch PVC sewer main, lining 38 sewer manholes and CIPP lining of 123 house service connections.

Area 3 and Area 4 Sewer Rehabilitation Project is complete. Rehabilitation work included CIPP lining 8245 LF of sewer main, CIPP lining of 217 service connections, manhole rehabilitation and installation of 605 LF of 8-inch PVC sewer main.

Reporting Period Activity: Design and permitting of the Airport Interceptor Sewer Manhole Replacement Project (Town of Norwood Contract No. NPW-23-01) is complete. Sewer manhole replacement project was bid August 2022 and completed Fall 2023.

MWRA I/I Local Financial Assistance Program: The community has financed twenty-two (22) I/I reduction projects through the Authority's funding assistance program. Of the $17,124,400 allotted through the Program's Phases 1-16, the community has $8,675,000 remaining in funding assistance.

26. QUINCY: South System

Background Information:
- Miles of Sewer: 209
- Sewered Population: 101,636
- Three Year (CY22 - CY24) Annual Average I/I: 5.01 mgd
- MassDEP Administrative Actions Since 2010: None
- EPA Administrative Actions: Consent Decree (June 2021)

Latest I/I or SSES Report: Fall 2018 Sewer Investigation (April 2019)
CMOM Self-Assessment Program (April 2019)
2020 SSES and Update Project (February 2020)
Supplemental SSES Report (November 2022)
Area 3 SSES (Ongoing)

Private Source Inflow Removal Program: A smoke testing program was conducted in Fall 2024 to investigate potential infiltration and inflow (I/I), specifically through direct and indirect inflow sources, in the City's wastewater collection system within the SSES Area 3. The City's subcontractor, Flow Assessment Services, Inc., performed smoke testing for 216,345 LF of sewer pipe to identify deficiencies and illicit connections into the City's sewer system. The results indicate that there are

34 confirmed defects where smoke was found emanating from; 1 storm drain manhole, 21 storm drain catch basins, 2 sewer manholes, 8 sewer laterals, and 2 private property drains. The 1 storm drain manhole and 21 storm drain catch basins are scheduled for further investigations and subsequent corrective actions under the FY25 Sewer and Drain Improvements Project (refer to section 5 above), which is anticipated to start in July 2025 and complete in April 2026. The 2 sewer manholes, 8 sewer laterals, and 2 private property drains will be addressed through the City's ongoing infrastructure investigations and rehabilitation program.

The City has partnered with the Plumbing Inspector on its FOG Program. As part of this program, the inspector visits CV License Holders for Grease Trap Inspections. While inspecting for grease traps, the inspector also observes the property for illegal inflow connections. Although this program directly addresses FOG discharges, it has been successful in identifying direct private inflow sources for removal.

The City continues its opportunistic residential and business inspections to identify sump pumps and private drain infrastructure connected to the sewer system. The City's Storm Water Discharge Ordinance forbids non-sanitary connections. A new fee structure was made effective July 1, 2013. Part II, Chapter 270, Article II 270-5 of the City's Ordinance outlines penalties for illegal connections and discharges to the sanitary sewer system: https://ecode360.com/29090773. The fee structure remains in effect and has resulted in improvements to the system.

Developers contribute one percent of total project value to the City of Quincy Sewer and Drain Rehabilitation Fund (QSDRF). Additionally, as part of site plan review, the City is engaged in mitigation negotiations and requires I/I removal by applicants whose flow exceeds 15,000 gpd up to 4:1. Through June 30, 2025, the QSDRF had a balance of $2,250,272.12.

The City owns a CCTV sewer inspection vehicle. The vehicle provided significant input towards the development of the Coastal Structures I/I Evaluation & Identification Study. Also, many of the open cut and rehabilitation repairs on the Phase IIB Coastal Structures I/I Reduction Project were identified via the City's CCTV vehicle during I/I investigative efforts in the Houghs Neck area.

I/I Rehabilitation Projects in Design or Construction: The FY25 Sewer CIPP Project was awarded in July 2025. Work includes 55,875 LF of CIPP lining for 8-inch, 10-inch, 12-inch, 15-inch, 18-inch, and 20-inch sewer pipe on 148 different streets throughout the City of Quincy. Work also includes manhole restoration, lining of various existing sewer laterals, and open cut spot repairs. The awarded price was $5,066,861.60. Project is anticipated to be substantially complete by February 2026.

The FY2024 Sewer & Drain Improvement Design Project (MWRA Project No. WRA-P14-26-2-1413) began Summer 2023. Project work is ongoing.

FY24 Sewer CIPP Project Contract 1 awarded in July 2023. Work includes 25,600 LF of CIPP lining for 8-inch, 10-inch, 12-inch, and 15-inch sewer pipe. Work also includes manhole restoration, lining of various existing sewer laterals, and open cut spot repairs. The awarded price was $3,034,775.00. Project is anticipated to be substantially complete by January 2025.

FY24 Sewer CIPP Project Contract 2 awarded in July 2024. Work includes 43,450 LF of CIPP lining for 8-inch, 10-inch, and 12-inch sewer pipe on throughout the City. Work also includes manhole restoration, lining of various existing sewer laterals, and open cut spot repairs. The awarded price was $2,818,295.00. Project work substantially complete.

The FY22 Sewer CIPP Project Contract 1 Design Project (MWRA Project No. WRA-P11-26-3-1159) was complete March 2022. The FY22 Sewer CIPP Project Contract 1 construction began June 2022. Work included approximately 24,500 LF of CIPP lining for 6-inch, 8-inch, 10-inch and 12-inch sewer pipe. Work also included improvements at 156 manholes and three (3) sewer main spot repairs on Holbrook Road, Wendell Avenue and West Squantum Street. Project work was substantially complete in May 2023. Warranty Inspections are scheduled for completion Fall 2023.

The FY22 Sewer CIPP Project Contract 2 Design Project (MWRA Project No. WRA-P11-26-3-1159) was complete March 2022. The FY22 Sewer CIPP Project Contract 2 construction began in June 2022. Work included approximately 24,500 LF of CIPP lining for 8-inch, 10-inch, 12-inch, 15-inch and 18-inch sewer pipe. Work also included improvements at 146 manholes. Project work was complete in May 2023.

Reporting Period Activity: The City is currently performing field investigations as part of their Area 3 SSES, which is scheduled to be completed in November 2025. Field work includes sewer CCTV, flow monitoring, manhole inspections, and smoke testing. This work is currently being performed by the City's vendor TetraTech and is ongoing.

In addition to sewer work that directly reduced I/I levels in the system, the City has also continued their city-wide sewer flow metering and hydraulic modeling efforts. The City is updating the existing InfoWorks Wastewater Collection System Hydraulic Model through new calibration and expanding the limits of the model to better assess hydraulic conditions within the existing separated wastewater collection system. 640 sewer manholes were MACP Level 1 inspected from June 10, 2024 to August 29, 2024 for Sewer Gravity Mains sized 10" and above to recalibrate the model.

MWRA I/I Local Financial Assistance Program: The community has financed twenty (20) I/I reduction projects through the Authority's funding assistance program. Of the $46,608,000 allotted through the Program's Phases 1 - 16, the community has $14,283,000 remaining in funding assistance.

27. RANDOLPH: South System

Background Information:
- Miles of Sewer: 113
- Sewered Population: 34,920
- Three Year (CY22 - CY24) Annual Average I/I: 1.97 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: Wastewater System Metering Program (June 2017)
I/I Removal and Martindale Pump Station Rehabilitation (January 2020)
Sanitary Sewer System Investigation (November 2022)

Private Source Inflow Removal Program: The Town developed a sump pump inspection and amnesty program. As a result of the program, the Town was contacted by 202 homeowners having sump pumps. Internal inspections were completed to determine sump pump locations. One hundred twenty-one homes (121) were determined to have sump pumps connected to the sewer system. Ninety-four (94) of these homes have drainage directly adjacent to the homes. Each of the 94 homes was inspected. Design was completed to redirect these sump pumps to the drainage system. Sump pump redirection construction is complete (Randolph Contract Nos. 08-SP1/2/3) (MWRA Project No. WRA-P6-27-3-655). Total peak flow inflow removed is estimated to be 0.61 mgd.

I/I Rehabilitation Projects in Design or Construction: The Martindale Pump Station wet well lining work is complete (Randolph Contract 20-S1 / MWRA Project No. WRA-P11-27-3-1139).

An I/I Investigation Report (July 2013) was drafted for the community areas affected by the March 2010 storm events. As a result of that report, a rehabilitation contract (Randolph Contract 15-S1/ MWRA Project No. WRA-P8-27-3-820) was designed (March 2015) and bid (April 2015). Rehabilitation construction is complete and included lining of the Vine Street Pump Station wet well, CIPP lining 1600 LF of sewer main, installing seven (7) short liners, grouting of 24 service connections, installing nine (9) manhole liners, digging and replacing two (2) sewer mains, testing and sealing of 5500 LF of sewer main and root removal within 500 LF of sewer main.

A Town-Wide wastewater flow metering program was performed during Spring 2017. Data review/report preparation completed Summer 2018.

Reporting Period Activity: The Town conducted CCTV inspection of approximately 50,000 LF of sewer mains between November 2021 and March 2022. This is part of a larger I/I Design / Rehabilitation Project (MWRA Project No. WRA-P11-27-3-1139). There have been no modifications and/or extensions of the collection over the last year. A small number of family homes were connected to the system in 2022 / 2023.
Randolph requires either a one-time connection fee of $7.50/gallon for new flow into the sewer system or 4 to 1 removal of I/I for each gallon of flow into the sewer system.

MWRA I/I Local Financial Assistance Program: The community has financed eleven (11) I/I reduction projects through the Authority's funding assistance program. Of the $14,423,800 allotted through the program's Phases 1 - 16, the community has $9,452,742 remaining in funding assistance.

28. READING: North System

Background Information:
- Miles of Sewer: 100
- Sewered Population: 25,334
- Three Year (CY22 - CY24) Annual Average I/I: 1.18 mgd
- MassDEP Administrative Actions: None

Latest I/I or SSES Report: Infiltration and Inflow (I/I) Investigations Final Report (November 2012)
I/I Investigations Report - Section 2 Supplement (November 2014)

Private Source Inflow Removal Program: The Town is continuing to work with property owners where illicit connections were found during the Building Inspection Program. The Town is working to establish a private inflow removal program, which will utilize funds collected under development fees. In FY25, the Town repaired a cross connection eliminating an underdrain from the sewer. In FY24, four (4) sewer manholes were raised out of the flood elevation in a cross-country sewer main, eliminating inflow.
I/I Rehabilitation Projects in Design or Construction: In March 2025, funds ($1,040,000) were distributed for the Sewer System Rehabilitation: Planning / Design / Construction in Subareas 4b and 3c (MWRA Project No.WRA-P14-28-3-1449). Project work is ongoing. Details of this project are included in Attachment 4.
The Collection System Lining Project that began Summer 2022 and is now complete. Project work consisted of approximately 15,500 LF of CIPP lining, 6000 LF of CCTV inspection and testing & sealing of laterals at 130 locations (MWRA Project No. WRA-P11-28-3-1164).

Reporting Period Activity: The Town performed Town-wide sewer flow monitoring this Summer. The Town is in the process of putting out a bid late Summer for the next round of CIPPL. The Town installed/replaced approximately 1370 LF of service laterals to 44 residences. In FY22, the Town received $23,295 in sewer I/I connection fees from various developments. In FY23/24/25, the Town received $0 in sewer I/I connection fees from various developments.

MWRA I/I Local Financial Assistance Program: The community has financed twelve (12) I/I reduction projects through the Authority's funding assistance program. Of the $10,964,100 allotted through the Program's Phases 1 - 16, the community has $3,215,000 remaining in funding assistance.

29. REVERE: North System

Background Information:
- Miles of Sewer: 98
- Sewered Population: 61,944
- Three Year (CY22 - CY24) Annual Average I/I: 3.17 mgd
- MassDEP Administrative Actions since 2010: None
- EPA Clean Water Act Administrative Order: CD 1:10-cv-11460 (November 16, 2010)

Latest I/I or SSES Reports:

Illicit Connection Detection (Phase 5) (CWSRF 4386) (April 2020)
SSES - Phase XI Field Investigations (CWSRF 6648) (April 2021)
SSES - Phase XII Field Investigations (CWSRF 6800) (April 2022)
SSES - Phase XIII Field Investigations (CWSRF 6805) (August 2023)
SSES – Phase XIV Field Investigations (CWSRF 7123) (August 2024)
SSES – Phase XV Field Investigations (CWSRF 19150) (ongoing)

Private Source Inflow Removal Program: Contract 11 was awarded to Niezgoda & Murray Excavating LLC., work to commence Summer 2025; includes: Redirection of 27 private property inflow sources, and 985 lf. of drain extensions.

Contract 9A project work to begin Summer/Fall 2023. Work includes redirection of 55 sump pumps and installation of 1325 LF of drain extensions. Contract 8A project work began Fall 2022. Work includes redirection of 25 sump pumps and installation of 530 LF of drain extensions. The City continues to maintain a 10:1 I/I removal fee based on development size. The City continues to maintain a 10:1 I/I removal fee based on development size.

I/I Rehabilitation Projects in Design or Construction: In June 2025, funds ($500,000) were distributed for Phase 15 Designs of Recommended Sewer Rehabilitations (MWRA Project No.WRA-P14-29-2-1453). Project work is ongoing.
In FY23, rehabilitation work included: CIPP lining of 13,380 LF of 8-inch sewer; CIPP lining of 2200 LF of 10-inch sewer; CIPP lining of 300 LF of 12-inch sewer; installing service lateral connection liners at 355 locations; installing full length service lateral connection liners at 20 locations; performing 799 VF cement/epoxy manhole lining; sealing 88 manhole corbels; and performing 18 sewer spot repairs. Sewer extensions added: Approximately 210 LF (8-inch PVC) on Walnut Street, 150 LF (8-inch PVC) on Winthrop Place and 150 LF (8-inch PVC) on Campbell Court.

Reporting Period Activity: In June 2025, funds ($500,000) were distributed for Phase 15 Designs of Recommended Sewer Rehabilitations (MWRA Project No.WRA-P14-29-2-1453). Details of this project are included in Attachment 4.
In August 2022, $500,000 in funds were distributed for Phase 13 Designs of Recommended Sewer Rehabilitations Project (MWRA Project No. WRA-P11-29-2-1196). Project work included drainage and stormwater design in support of inflow redirection. Phase 12 and 13 Designs are now complete.

MWRA I/I Local Financial Assistance Program: The community has financed nine (9) I/I reduction projects through the Authority's funding assistance program. Of the $24,325,900 allotted through the Program's Phases 1 - 16, the community has $17,523,000 remaining in funding assistance.

30. SOMERVILLE: North System

Background Information:

- Miles of Sewer: 165
- Sewered Population: 81,045
- Three Year (CY22 - CY24) Annual Average I/I: 4.89 mgd
- MassDEP Administrative Actions: Unilateral Order (September 2010)

Somerville is one of MWRA's five combined sewer service communities (Boston North, Brookline, Cambridge, Chelsea and Somerville). Portions of Somerville are impacted by projects under MWRA's CSO Control Plan.

Latest I/I or SSES Report:

CIP Project 1 - Manhole Inspection, Assessment and Design (March 2021)
CIP Project 2 - Pipeline Inspection, Assessment, and Design (March 2022)
Citywide Drainage and Water Quality Master Plan (November 2022)
Ward 2 - Pipeline Inspection, Assessment, Design and Construction (June 2023)
FY22-23 Pipeline Inspection, Assessment, Design and Construction (Ongoing)
CSO Control Program - Joint Efforts by Cambridge, MWRA & Somerville (Ongoing)
Winter Hill & East Somerville (FY22-23) Pipeline Inspection, Assessment, Design (Ongoing)
West Somerville & Ten Hills (FY23-FY24) Pipeline Inspection, Assessment, Design (Ongoing)

Private Source Inflow Removal Program: The Engineering Division reviewed 88 site construction permits. Each permit enforced the Engineering Site Permit Rules and Regulations. Most involved some amount of redirection of stormwater from the combined sewer system and/or reduced stormwater runoff through groundwater recharge.

I/I Rehabilitation Projects in Design or Construction:
East Somerville & Winter Hill Sewer Rehabilitation: The East Somerville & Winter Hill Sewer Rehabilitation project was substantially complete. The East Somerville & Winter Hill Sewer Rehabilitation has completed approximately 13 Excavated Point Repairs (EPRs) on the gravity sewer, replacement of 8 manhole-to-manhole pipe segments of gravity sewer totaling 800 linear feet, Cured-in-Place Pipe (CIPP) rehabilitation of 47 manhole-to-manhole pipe segments of gravity sewer totaling 12,300 linear feet, 11 new 4-foot diameter sewer manholes, replacement of 10
sewer manholes, and the rehabilitation and lining of 69 sewer manholes as of June 30, 2024. An additional 2 EPRs, 500 linear feet of gravity sewer replacement, and 1,500 linear feet of CIPP remain and are expected to be completed by August 2024. It is estimated that 0.9MGD of I/I has been removed as a result of completed work.
Poplar Street Pump Station: The Poplar Street Pump Station has progressed, including the slab for the 4- million-gallon storage tank. Approximately ¼ of the total 42" force main has been installed. The remainder of the project, including the influent box culvert and pump house, is bid and will be progressing according to critical path of the storage tank construction. The bid contract drawings for the station includes a 4 million-gallon storage tank and 50 MGD pumping capacity. The Pump Station is expected to be online in late 2026.
Spring Hill Sewer Separation: The construction of this project started in February 2022. To date, the contractor has lined approximately 7,600 LF of (combined) sewer main, and installed approximately 10,200 LF of separated storm sewer line and approximately 2,900 LF of separated sanitary sewer line. Estimated I/I removal is 2.5 MGD (inflow) that will be realized once the Poplar Street Pump Station is completed. In addition, there is an estimated I/I removal of 30,000 GPD (inflow) due to the proposed Green Stormwater Infrastructure that will be realized once construction of this project is complete. Substantial completion of new utility installation is currently anticipated in November 2024.
West Somerville and Ten Hills Sewer Rehabilitation: The contract for the West Somerville & Ten Hills Sewer Rehabilitation project was executed in May 2024 and mobilization occurred in late June 2024. The project consists of general underground utility repair and specialty trenchless pipe rehabilitation on gravity sanitary and storm sewer ranging from 8-in to 20-in diameter. Work includes 13 Excavated Point Repairs (EPRs) on the gravity sewer, replacement of manhole-to-manhole pipe segments of gravity sewer totaling 1,100 linear feet, Cured-in-Place Pipe rehabilitation of manhole-to-manhole pipe segments of gravity sewer totaling 12,500 linear feet, installation or replacement of 12 sewer manholes, and the rehabilitation and lining of 310 vertical feet of sewer manholes. Additional rehabilitation of approximately 7,100LF of separated storm sewer is included in this project. Substantial completion is scheduled for November 2024. This project accounts for approximately 0.4 MGD of I/I removal, based on flow isolation measurements which were taken prior to the beginning of construction.

Reporting Period Activity: West Somerville & Ten Hills (FY23-FY24) Pipeline Inspection, Assessment and Design work ongoing. Winter Hill & East Somerville (FY22-23) construction complete.

MWRA I/I Local Financial Assistance Program: The community has financed twelve (12) I/I reduction projects through the Authority's funding assistance program. Of the $36,621,800 allotted through the Program's Phases 1 - 16, the community has $17,626,000 remaining in funding assistance.

31. STONEHAM: North System

Background Information:
- Miles of Sewer: 75
- Sewered Population: 23,001
- Three Year (CY22 - CY24) Annual Average I/I: 2.38 mgd
- MassDEP Administrative Actions: None
- EPA Clean Water Act Administrative Order: EPA Docket No. 09-028 (August 2009)

Latest I/I or SSES Report: Infiltration/Inflow Analysis Summary Report (December 2017)
Fallon Road Sanitary Sewer Investigations (December 2022)

Private Source Inflow Removal Program: The Town conducted an inflow analysis of the Fallon Road Pump Station tributary area and is evaluating options for removal of identified private inflow sources. The Town is continuing to investigate and eliminate illicit cross-connections between the sanitary sewer and storm water systems as part of its NPDES Phase 3 & 4 MS4 Permit Investigations and Illicit Discharge Detection and Elimination Program (IDDE).

I/I Rehabilitation Projects in Design or Construction: Construction commenced for Phase 9 Sanitary Sewer System Rehabilitation (MWRA I/I Local Financial Assistance Program Project #WRA-P14-31-3-1423) in September 2024 and is anticipated to be completed July 2025.
Phase 8 Sanitary Sewer System Rehabilitation (MWRA Project No. WRA-P11-31-3-1182) contract awarded March 2023. Project work was completed October 2023.
Phase 7 Sanitary Sewer System Rehabilitation (MWRA Project No. WRA-P11-31-3-1107) contract awarded June 2021. Work included: pre- and post-rehabilitation CCTV inspection, CIPP lining, lateral connection rehabilitation by grout injection, replacement of gravity sewer and lateral connections, manhole bench reconstruction, manhole frame and cover replacement and warranty inspections of rehabilitated sanitary sewers. Project work is complete. Fallon Road / Park Street System Rehabilitation (Phase 1) Project work complete.

Reporting Period Activity: Town is continuing to investigate and eliminate illicit cross-connections between the sanitary sewer and storm water systems as part of its MS4 Permit Compliance. The Town is continuing to evaluate options for establishing a 4:1 I/I removal program in accordance with MassDEP Regulations 314 CMR 12.

MWRA I/I Local Financial Assistance Program: The community has financed thirteen (13) I/I reduction projects through the Authority's funding assistance program. Of the 11,422,900 allotted through the Program's Phases 1 - 16, the community has $3,593,000 remaining in funding assistance.

32. STOUGHTON: South System

Background Information:
- Miles of Sewer: 94
- Sewered Population: 21,493
- Three Year (CY22 - CY24) Annual Average I/I: 1.78 mgd
- MassDEP Administrative Actions since 2010: None

Latest I/I or SSES Report: Year 9 (Round 2) I/I Evaluation (March 2022)
Year 10 (Round 2) I/I Evaluation (April 2023)
Year 1 2023 I/I Investigation & Reporting (January 2025)
Year 2 2024 I/I Investigation & Reporting (Ongoing)
2025 Wastewater Flow Metering (Ongoing)

Private Source Inflow Removal Program: The Town has continued to address private inflow removal through jetting and CCTV inspection of service connections.

I/I Rehabilitation Projects in Design or Construction: Years 8 / 9 / 10 I/I Rehabilitation - Design Project (MWRA Project No. WRA-P14-32-3-1410) began Spring 2023. In July 2024, additional funds ($1,060,000) were distributed for the Years 8 / 9 / 10 I/I Rehabilitation - Construction (MWRA Project No. WRA-P14-32-3-1436). Project work has been bid and is expected to be awarded Summer 2024.

Year 10 (Round 2) Spring 2022 I/I Investigation completed Spring 2022. Data review/report completed April 2023. Investigation identified 0.03 mgd of peak removable infiltration and 0.01 mgd of peak removable inflow. The third phase of the privately funded Goddard Highlands Development was also completed in Spring 2022. Approximately 5000 LF of gravity sewer, 2400 LF of force main and a municipal pump station have been installed.

Year 9 Spring 2021 I/I Investigation (MWRA Project No. WRA-P11-32-1-1170) completed Summer 2021. Data review/report preparation completed March 2022. Investigation identified 0.02 mgd of peak removable infiltration and 0.01 mgd of peak removable inflow.

Reporting Period Activity: Year 2 2024 I/I Investigation & Reporting Project is ongoing. Data review/report to be complete Fall 2025. Year 1 2023 I/I Investigation & Reporting Project (MWRA Project No. WRA-P14-32-2-1410) is complete. Work includes smoke testing on approximately 100,000 linear feet of gravity sewer and dye testing/flooding of identified potential sources. The objective of the smoke testing phase of the Year One Investigations project is to identify direct and indirect sources of inflow that are contributing to high wet weather flows.

The 2020 Annual Town Meeting approved $7.5 million for the construction of the South Stoughton Sewer Extension Project. This project will include the installation of 8700 LF of gravity sewer, a sewer pump station and 4300 LF of pressurized force main. The project will service 28 commercial/industrial properties in the Campanelli Business Park and Park Street area as well as 45 residential properties along Park Street, Turnpike Street and Tenth Street. Project work is ongoing.

MWRA I/I Local Financial Assistance Program: The community has financed twenty (20) I/I reduction projects through the Authority's funding assistance program. Of the $11,353,900 allotted through the Program's Phases 1 - 16, the community has $2,391,000 remaining in funding assistance.

33. WAKEFIELD: North System

Background Information:
- Miles of Sewer: 95
- Sewered Population: 27,001
- Three Year (CY22 - CY24) Annual Average I/I: 2.34 mgd
- MassDEP Administrative Actions: None

Latest I/I or SSES Report: Sewer System Evaluation Survey - Year Four (March 2020)
Sewer System Evaluation Survey - Year Five (February 2021)
Sewer System Evaluation Survey - Year Six (March 2023)

Private Source Inflow Removal Program: The Town is developing a plan to notify residents in the Paon Boulevard area of a potential pilot building inspection program to investigate private inflow sources.

I/I Rehabilitation Projects in Design or Construction: The Sewer System Infiltration Rehabilitation – Year 5 project was substantially complete in July 2024. Warranty and retest inspection is scheduled for early Summer 2025. This project was estimated to remove approximately 10,000 gpd of removable infiltration.
Design for the Year 6 Rehabilitation Project is underway. An estimate of infiltration removed can be provided once the design is complete.
The Year Five Sewer System Evaluation Survey was completed in February 2021 and included CCTV and manhole inspections of approximately 16,000 LF of sewer main. This project identified 1600 gpd of recommended removable peak I/I and structural defects in select areas that are scheduled to be paved within the next few calendar years. Some of these repairs were completed within the Sewer System Infiltration Rehabilitation - Year 4 construction project (MWRA Project No. WRA-P11-33-3-1150). The remaining repairs will be incorporated into the Year 5 Sewer System Infiltration Rehabilitation construction contract.
The Sewer System Infiltration Rehabilitation (Year 3 and Year 4) construction contracts were complete February 2023.

Reporting Period Activity: The Town continues to require a 4 to 1 removal of flow from completed subdivisions/ developments. Also, the Town implemented a $500 Sewer Connection Fee in June 2019. In December 2023, funds were distributed for the: Year 6 - Sewer System Infiltration Rehabilitation (Design & Construction). (MWRA Project No. WRA-P14-33-3-1422).

MWRA I/I Local Financial Assistance Program: The community has financed twenty-nine (29) I/I reduction projects through the Authority's funding assistance program. Of the $13,953,900 allotted through the Program's Phases 1 - 16, the community has $4,117,000 remaining in funding assistance.

34. WALPOLE: South System

Background Information:

- Miles of Sewer: 93
- Sewered Population: 19,449
- Three Year (CY22 - CY24) Annual Average I/I: 1.17 mgd
- MassDEP Administrative Actions: None

Latest I/I or SSES Report: I/I Investigation Program (Round 2): Year 5 (January 2021)
2020 Sewer Investigation (July 2021)
I/I Investigation Program (Round 2): Year 6 (April 2023)
2022 Flow Metering Program (May 2023)
CIP Year 1 Investigation (June 2024)
CIP Year 2 Investigation (October 2024)
CIP Year 3 Investigation (Ongoing)

Private Source Inflow Removal Program: The Town includes house-to-house private inflow inspection program as part of its water meter replacement program. Effective July 1, 2025, developers having projects with discharges in excess of 15,000 gpd are required to remove I/I at a ratio of 4:1 as a condition of a sewer connection. For discharges less than 15,000 gpd the I/I removal program remains in place; however, it will now be fully funded by the town. The town no longer charges I/I removal fees however the local Sewer Commission is currently investigating the re-establishment of this fee.

I/I Rehabilitation Projects in Design or Construction: Review and reporting for the CIP Year 2 Investigation was completed October 2024. Approximately 20,448 gpd of peak infiltration was observed during television inspection and 23,829 gpd of peak infiltration was measured through flow isolation. In addition, approximately 14,976 gpd of peak infiltration and 9,160 gpd of peak inflow was identified during manhole inspection.
Field work for the CIP Year 3 Investigation was completed in Spring 2025. Evaluation of the data is ongoing.

Review and reporting for the CIP Year 1 Investigation was completed June 2024. Approximately 12,816 gpd of peak infiltration was observed during television inspection and 4,176 gpd of peak infiltration and 10,946 gpd of peak inflow was identified during manhole inspection.

The 2022 Sewer System Improvements project is completed and retest work has been completed. It is estimated this project reduced approximately 69,288 gpd of peak I/I from the town's municipal sewer system.

Reporting Period Activity: In March 2025, funds ($332,160) were distributed for the Wastewater CIP Year 3 Investigation Project (MWRA Project No. WRA-P14-34-2-1446). Project work is ongoing.
In April 2024, funds ($335,000) were distributed for the Wastewater CIP Year 2 Investigation Project (MWRA Project No. WRA-P14-34-1-1433).
The CIP 1 I/I Investigation (MWRA Project No. WRA-P14-34-1-1405) was completed in Spring 2023. Data review and reporting is ongoing.

MWRA I/I Local Financial Assistance Program: The community has financed twelve (12) I/I reduction projects through the Authority's funding assistance program. Of the $8,876,000 allotted through the Program's Phases 1 - 16, the community has $3,402,790 remaining in funding assistance.

35. WALTHAM: North System

Background Information:
- Miles of Sewer: 137
- Sewered Population: 64,375
- Three Year (CY22 - CY24) Annual Average I/I: 3.01 mgd
- MassDEP Administrative Actions: ACOP-NE-10-1N001 (February 2010 / amended November 2019)

Latest I/I or SSES Report: CMOM Plan and Sewer System Flow Metering (September 2020)
Sewer System Flow Metering and Analysis (February 2022)

Private Source Inflow Removal Program: From July 2024 to December 2024: 14 Sewer laterals were repaired \ replaced mainline to property line by the City of Waltham crews. We have conservatively estimated that the relaying the old sewer laterals has removed 62 GPD of I & I, based upon the length of the sewer laterals, a total of 220.5 feet of pipe was replaced. From January 2025 – June 2025: 27 Sewer laterals were repaired / replaced, main line to property line by the City of Waltham crews. We have conservatively estimated that the relaying the old sewer laterals has removed 133 GPD on I & I, based upon the length of sewer laterals, a total of 520 feet of pipe was replaced.

I/I Rehabilitation Projects in Design or Construction: The Winter Street Utility Improvements began January 2024. Sewer work includes CCTV inspection, CIPP lining, sewer repairs, and service replacements. This would result in an estimated annual average I/I removal of 44,238 gpd.

As part of MWRA's Section 101 Pipeline Extension project in the City, approximately 2,700 LF of sewer main, and sewer laterals are being replaced from Lexington Street to Totten Pond Road. Construction began in April 2023 and expected completion 2025.

The Prospect Hill Road project includes lining approximately 640 LF of sewer main, associated manholes, and sealing of laterals. Several other sewer rehabilitation projects are ongoing throughout the City including sewer lining on Clark Street, Summit Ave Roadway, Glen Circle, and Lincoln Terrace. Removable infiltration and inflow totals to be reported upon completion of these projects.

Reporting Period Activity: Continued sewer repairs, lining, and service replacements as part of Winter St project. Continued replacement of sewer main and services as part of the MWRA Lexington St Project. 1,820 feet of 8-inch Sewer lining and 80 feet of new sewer as part as part of Elson Rd Project. CCTV inspection of approximately 6,000 feet of sewer main and manholes as part of SSES survey in sewer shed Area 8.
Water and Sewer Services Replacement contract was bid which includes replacement of 5635 feet of 6-inch sewer, 568 feet of 8-inch sewer, and 200 feet of 10-inch sewer.
The Wimbledon Circle Pump Station redesign and construction is complete. The Prospect Street Drainage and Sewer Improvements are complete.

MWRA I/I Local Financial Assistance Program: The community has financed ten (10) I/I projects through the Authority's funding assistance program. Of the $31,278,400 allotted through the Program's Phases 1 - 16, the community has $12,063,840 remaining in funding assistance.

36. WATERTOWN: North System

Background Information:
- Miles of Sewer: 75
- Sewered Population: 35,329
- Three Year (CY22 - CY24) Annual Average I/I: 1.93 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: CIP Project 2 Investigation and Evaluation (December 2022)
CIP Projects 3 & 4 Investigation and Evaluation (December 2022)

Private Source Inflow Removal Program: The City of Watertown Department of Public Works continues to work with Weston & Sampson to develop an I/I mitigation fee consistent with neighboring communities. No developments have contributed to fund sewer investigations and rehabilitations at this time. As projects progress to development this will change.

I/I Rehabilitation Projects in Design or Construction: The CIP Project 2 Sewer Rehabilitation project is ongoing. The project started on March 3, 2025. The project area includes an estimated 12,456 gpd of removable infiltration and 4,000 gpd of removable inflow. A portion of the rehabilitations recommended in the CIP Project 2 area were included in Watertown's Mount Auburn Street Water Main Improvement project. CIP Project 2 area open cut point repairs totaling approximately $647,375.00 were completed as part of the Mount Auburn Street Project.

The CIP Projects 3 and 4 Investigation and Evaluation was completed in December 2022. The project identified an estimated 12,816 gpd of removable infiltration and 8,184 gpd of removable inflow. Rehabilitations are currently in the design phase with construction to start following completion of CIP Project 2 Rehabilitations. A portion of the recommended rehabilitations were completed as part of the Greenough Boulevard project referenced in item 6 below. Remaining rehabilitations in CIP Project 3 and 4 project areas is currently in design and scheduled for public bidding following completion of CIP Project 2 construction.

The CIP Project 2 Investigation and Evaluation was completed in December 2022. The project identified an estimated 12,456 gpd of removable infiltration and 4000 gpd of removable inflow.).

CIP Project 1 Rehabilitations (Contract 19-01S) are complete (MWRA Project Nos. WRA-P11-36-3-1109 / 1133). The project included rehabilitations identified during the CIP Project 1 Inspection and Assessment and included 12,302 LF of sewer and drain inspected as part of Contract 18-01S. The project removed of an estimated 16,128 gpd of infiltration and 38,468 gpd of inflow.

CIP Project 1A Rehabilitations (Contract 20-01S) is complete. The project included rehabilitations identified during the CIP Project 1 Inspection and Assessment. The project removed of an estimated 13,392 gpd of infiltration and 38,468 gpd of inflow.

The CIP Project 1B Rehabilitations are complete. The project included rehabilitations identified during the CIP Project 1 Inspection and Assessment project and various Illicit Discharge Detection and Elimination (IDDE) investigation projects. The project includes removal of an estimated 14,885 gpd of infiltration and 38,470 gpd of inflow.

Reporting Period Activity: In February 2025, funds ($1,320,000) were distributed for: CIP Projects 3/4 Rehab Construction & CIP Project 5 Investigation (MWRA Project No. WRA-P14-36-3-1440).
The City of Watertown relocated the sewer main located in the easement between Greenough Boulevard and the Charles River into the right of way on Greenough Boulevard. The project is substantially complete and approximately 2,825 linear feet of sewer was replaced. The rehabilitations were recommended as part of CIP Project 4. Open cut replacements totaling approximately $3,995,000 were completed as part of this project.

MWRA I/I Local Financial Assistance Program: The community has financed thirteen (13) I/I investigation projects through the Authority's funding assistance program. Of the $14,457,800 allotted through the Program's Phases 1 - 16, the community has $4,272,000 remaining in funding assistance.

37. WELLESLEY: South System

Background Information:
- Miles of Sewer: 135
- Sewered Population: 28,978
- Three Year (CY22 - CY24) Annual Average I/I: 2.52 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: I/I Analysis and Flow Metering Program (April 2019)
SSES (Ongoing)

Private Source Inflow Removal Program: The Town will pursue illegal sump pump connections identified through this year's water meter change-out program. The Town still has approximately 80 meters to change out and will continue to use this opportunity to investigate any identified illegal connections. Based upon previous private source inflow studies, DPW is contacting the owners of identified illegal sump pumps. To date, 18 sump pumps have been removed from the sanitary system.

I/I Rehabilitation Projects in Design or Construction: In FY 24 as part of the third year of the contract, National Water main performed CCTV inspections on 243,323 LF of sewer mains. We have contracted with Weston and Sampson to investigate those videos and prepare a summary of deficiencies and problem areas. Both cost-effective and value-effective analyses of various sewer rehabilitation methods will be conducted to assist with recommendation for improvements to the wastewater collection system.

In FY21, the Town hired a utility contractor (NWM) to address the areas of concern based on the analysis report prepared by its sewer consultant. The contract was for two years with an option for a third year. To date, 1444 LF of short liners have been installed and made multiple spot repairs performed. Also, 10,000 LF of sewer main has been CCTV inspected and 114 sewer manholes lined. The Town has just signed the third-year option of that contract and additional rehabilitation work will be undertaken Summer/Fall 2023. In addition, the Town also hired a root control specialty contractor who cleaned and treated 9161 LF of sewer main.

Sewer System Inspection and Rehabilitation (Contract No. 16C-460-1564 / MWRA Project No. WRA-P11-37-3-1152) work consisted of CCTV inspection of 62,800 LF of sewer; chemical root treatment of 7500 LF of sewer; testing 8800 joints and sealing/retesting 3100 joints; installing 24 LF of CIP short liners; testing & sealing six (6) service connections and sealing 400 VF of manholes. Project work is complete.

Cliff Road Sewer Main Lining (MWRA Project No. WRA-P11-37-3-1152) work consisted of CCTV inspection, installation of CIPP lining within 5260 LF of 8-inch VC sewer main and reinstatement of all active house service connections on Cliff Road. Additional project rehabilitation work consisted of CCTV inspection, installation of CIPP lining within 424 LF of 8-inch VC sewer main and reinstatement of all active house service connections along a sewer easement between Kingsbury Street and Donizetti Street. Project work is complete.

Reporting Period Activity: In May 2024, funds ($2,150,000) were distributed for the Sewer System Inspection and Rehabilitation (Contract No. 19S-410-1609 & No. 21C-460-1663); Mica Lane Sewer Rehabilitation Project (Contract No. 21C-460-1664); Grove Street Sewer Rehabilitation Project (Contract No. 19C-460-1629); Open-Cut Sewer Repairs (Contract No. 22C-460-1691) Projects (MWRA Project No. WRA-P14-37-3-1434). Project work is ongoing.

A wastewater flow metering program (conducted April 11 - June 20, 2018) utilizing 38 flow meters was completed. The *Report for the I/I Analysis and Flow Metering Program* provided an overview of the results for the 2018 Flow Metering Program including recommendations for the next phase of investigations. The I/I Analysis identified approximately 3.40 mgd of total peak infiltration in the community system. Peak design storm inflow (for the 5-year, 24-hour storm) was calculated to be approximately 13.5 mgd. As a follow-up to the I/I Analysis, the Town is now conducting an SSES. The purpose of this study is to identify subareas of I/I throughout Wellesley's sanitary sewer system (MWRA Project No. WRA-P11-37-3-1152).

MWRA I/I Local Financial Assistance Program: The community has financed fifteen (15) I/I reduction projects through the Authority's funding assistance program. Of the $13,282,700 allotted through the Program's Phases 1 - 16, the community has $6,393,000 remaining in funding assistance.

38. WESTWOOD: South System

Background Information:

- Miles of Sewer: 89
- Sewered Population: 15,318
- Three Year (CY22 - CY24) Annual Average I/I: 0.57 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: FY21 Infiltration Rehabilitation Program (January 2021)
FY23 Infiltration Rehabilitation Program (September 2023)

Private Source Inflow Removal Program: A house-to-house inspection survey has been completed. The survey included inspection of 1880 residences and identified 135 suspect sump pumps. Sump pump removal notification letters forthcoming. The Town continues to use contracted services to CCTV inspect sewer mains at various locations for evidence of inflow.

I/I Rehabilitation Projects in Design or Construction: FY25 Sewer System Investigations (to be completed by August 2025). The continuation of Westwood's I/I program will include 25,000-feet CCTV inspection, and the inspection of 145-manholes in the vicinity of Canton Street and neighborhoods east and west of Route 1.
FY26 Sewer System Rehabilitation Construction is estimated to begin in Fall 2025 or Spring 2026. The work will include installing cured-in-place pipe (CIPP) liner; leak repairs; heavy cleaning; service lateral connection re-instatement after new CIPP liner installation; service lateral connection repairs; and manhole repairs and lining.
FY24 Sewer System Rehabilitation Construction was substantially completed in June 2024. The Work included installing cured-in-place pipe (CIPP) liner for approximately 3,300 linear feet; leak repairs; heavy cleaning; service lateral connection re-instatement after new CIPP liner installation; service lateral connection repairs; and manhole repairs and lining. 62,000-gpd of I/I was estimated to be reduced in the system based on inspections.
FY23 Sewer System Investigations is complete. Wastewater flow meters were installed in three locations throughout the Town. Smoke testing, manhole inspections and CCTV inspection will occur in the area upstream of the meter with the highest

infiltration and inflow volumes. Smoke testing, manhole inspections and CCTV inspection will performed Summer 2023. Rehabilitation construction rehabilitation is planned for Fall/Winter 2023.

Reporting Period Activity: In December 2023, funds ($500,000) were distributed for the FY23 / FY24 I/I Rehabilitation Project (MWRA Project No. WRA-P14-38-3-1424). Project work is ongoing.

MWRA I/I Local Financial Assistance Program: The community has financed nine (9) I/I reduction projects through the Authority's funding assistance program. Of the $6,268,300 allotted through the Program's Phases 1 - 16, the community has $3,177,000 remaining in funding assistance.

39. WEYMOUTH: South System

Background Information:

- Miles of Sewer: 205
- Sewered Population: 56,061
- Three Year (CY22 - CY24) Annual Average I/I: 4.60 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: Town-Wide Sewer Investigation - Year 9 (March 2021)
Town-Wide Sewer Investigation - Year 10 (November 2021)
Town-Wide Sewer Investigation - Year 11 (January 2023)
Town-Wide Sewer Investigation - Year 12 (April 2024)
Town-Wide Sewer Investigation – Year 13 (July 2025)
Town-Wide Sewer Investigation – Year 14 (Ongoing)

Private Source Inflow Removal Program: The Town continues to pursue the removal of sump pumps and other private inflow sources. The Town has completed the redirection of 330 sump pumps (for an estimated 165,000 gpd of inflow removal).

I/I Rehabilitation Projects in Design or Construction: Construction of rehabilitations recommended from the Year 11 Investigation was completed in November 2024 and is estimated to have removed approximately 0.041 MGD of peak infiltration and 0.011 MGD of peak design storm inflow.
Design of rehabilitations recommended from the Year 12 Investigation is ongoing and will be completed Summer 2025. Construction to begin Fall 2025 and is estimated to remove 0.080 MGD of peak infiltration and 0.002 MGD of peak design storm inflow.
The Year 13 Investigation report was completed in June 2025 and identified approximately 44,250 gpd of infiltration. The Year 14 Investigation is currently ongoing.

The Year 12 Investigation report was completed in April 2024 and identified approximately 80,000 gpd of infiltration and 2,000 gpd of peak design storm inflow.
Design of rehabilitations recommended from the Year 11 Investigation was completed in May 2024 and construction began in July 2024. Construction of these rehabilitations is estimated to remove approximately 0.041 MGD of peak infiltration and 0.011 MGD of peak design storm inflow.
The Year 9 & 10 I/I Rehabilitation Construction (Weymouth Contract No. PW-22-003-S) began Fall 2022 and was substantially complete June 2023 (MWRA Project No. WRA-P11-39-3-1195). Approximately 0.12 mgd of infiltration and 0.009 mgd of peak design storm inflow was removed through construction. The Year 9 & 10 I/I Rehabilitation Construction Design completed Spring 2022 (MWRA Project No. WRA-P11-39-2-1185).

Reporting Period Activity: In March 2025, funds ($1,012,316) were distributed for the Year 12 I/I Rehabilitation Construction and Year 14 I/I Investigation Study/Reporting Projects (MWRA Project No. WRA-P14-39-3-1448). Details of this project are included in Attachment 4.

The Year 11 I/I Rehabilitation Design Project is complete (MWRA Project No. WRA-P14-39-2-1409). The design of the Year 11 I/I Rehabilitations includes approximately: 7400 LF of cleaning, inspecting, testing, and sealing of sewers; 4400 LF of light cleaning and television inspection; 2400 LF of heavy cleaning and television inspection; 7400 LF of cured-in-place pipe and structural cured-in-place pipe; installation of short liners and structural short liners at eight (8) locations; testing and grouting of 34 service laterals; installing lateral liners at five (5) locations; open cut point repair at four (4) locations; manhole cementitious lining at 52 locations; replacing one (1) sewer manhole frame & cover; repairing one (1) sewer manhole bench & invert; and installing 11 manhole inflow dishes.

The Year 12 I/I Investigation is complete (MWRA Project No. WRA-P14-39-2-1409). Field investigations have been completed. The Year 11 I/I Investigation was completed January 2023 (MWRA Project No WRA-P11-39-2-1185). The Year

10 I/I Investigation (MWRA Project No WRA-P11-39-3-1157) was completed November 2021. The Year 9 I/I Investigation was completed in March 2021.

The 2021 Town-Wide Wastewater Flow Metering Project is complete. Flow from the Town's 31 subareas was monitored with 36 flow meters from March 22 to June 16, 2021. Summary Report completed January 2022.

Sewer extensions in FY25 include: Installation of 250 LF of 6-inch PVC sewer at 257-261 Washington St.; installation of 500 LF of 8-inch PVC sewer at 1197 Washington Street; and installation of 1,450 LF of 8-inch PVC sewer at 1350 Washington Street.

MWRA I/I Local Financial Assistance Program: The community has financed twenty-six (26) I/I reduction projects through the Authority's funding assistance program. Of the $27,667,900 allotted through the Program's Phases 1 - 16, the community has $11,107,000 remaining in funding assistance.

40. WILMINGTON: North System

Background Information:
- Miles of Sewer: 31
- Sewered Population: 4,819
- Three Year (CY22 - CY24) Annual Average I/I: 0.87 mgd
- MassDEP Administrative Actions: None

Latest I/I or SSES Report: Infiltration/Inflow Analysis Report (December 2017)
SSES Sub-Areas 5, 6 and 8 Report (November 2018)

Private Source Inflow Removal Program: The Town is continuing private inflow source inspections on an as-needed basis. The Town continues to evaluate options for establishing a 4:1 I/I removal program in accordance with MassDEP Regulations 314 CMR 12.

I/I Rehabilitation Projects in Design or Construction: Sewer System Rehabilitation Construction for I/I rehabilitation in Sub-Areas 5 and 8 (MWRA Project Nos. WRA-P11-40-3-1118 / 1136) was completed September 2021. Project Warranty Inspections were completed Fall 2022. Minor issues had to be corrected after warranty inspections; reparations were completed in Fall 2023. An estimated 60,000 gpd of I/I was removed from the system as a result of the sewer rehabilitation.

Reporting Period Activity: Industrial Way Pump Station upgrades: Arcadis is currently in the design phase. Construction is expected to commence spring of 2026.
Construction has been completed on Main Street (Map/Lot 45/142A) for a new Town of Wilmington Senior Center. Arcadis provided a sewer capacity assessment and peer review for this project.
There is ongoing construction at #146 Middlesex Avenue for a new Town of Wilmington Town Hall and School Administration Building. Arcadis provided a sewer capacity assessment and peer review for this project.
There is ongoing construction at #208 Main Street for the redevelopment of existing commercial space. Arcadis provided a sewer capacity assessment and peer review for this project.
Construction has not yet begun at #271 Main Street for the expansion of an existing car dealership. Arcadis provided a sewer capacity assessment and peer review for this project.
MWRA I/I Local Financial Assistance Program: The community has financed eight (8) I/I reduction projects through the Authority's funding assistance program. Of the $6,184,000 allotted through the Program's Phases 1 - 16, the community has $3,722,000 remaining in funding assistance.

41. WINCHESTER: North System

Background Information:
- Miles of Sewer: 85
- Sewered Population: 22,924
- Three Year (CY22 - CY24) Annual Average I/I: 2.18 mgd
- MassDEP Administrative Actions: None

Latest I/I or SSES Report: Stowell & Marshall Road Sewer System Evaluation (January 2014)
Sewer System Evaluation Survey (SSES) Phase II (November 2016)
East Side CIP Project 1 SSES (March 2024)
East Side CIP Project 2 SSES (May 2025)

Private Source Inflow Removal Program: The Town's Private Inflow Source Removal Program is ongoing. One (1) sump pump was removed from the system in FY22/23.

I/I Rehabilitation Projects in Design or Construction: East Side CIP Project 1 Rehabilitations will be performed in Summer/Fall 2025.
East Side CIP Project 2 Design is currently being performed, Spring 2025. Bid and Award for East Side CIP Project 2 Rehabilitations will be performed in Winter 2025 with construction starting in Spring 2026.
The Phase II Rehabilitations (Part B) Warranty Re-Test Inspection was completed June 2022. The Phase II Sanitary Sewer Rehabilitations (Part B) removed an estimated 62,319 gpd of infiltration and 17,301 gpd of inflow.

Reporting Period Activity: In February 2025, Phases 13 & 14 funds were distributed for CIP Project 1 Sewer Rehabilitations and CIP Project 2 SSES (MWRA Project No. WRA-P14-41-3-1442). Project Details are included in Attachment 4.

The East Side CIP Project 1 SSES began in April 2022. Manhole inspections and flow isolation work is complete. Field investigations for East Side CIP Project 1 SSES, including cleaning and television inspection, were completed in June 2023. Data evaluation and reporting was completed in March 2024.

MWRA I/I Local Financial Assistance Program: The community has financed twelve (12) I/I reduction projects through the Authority's funding assistance program. Of the $9,822,000 allotted through the Program's Phases 1 - 16, the community has $2,149,000 remaining in funding assistance.

42. WINTHROP: North System

Background Information:
- Miles of Sewer: 36
- Sewered Population: 19,316
- Three Year (CY22 - CY24) Annual Average I/I: 1.20 mgd
- MassDEP Administrative Actions: NON - May 2018 Failed to Submit I/I Analysis (Due 12/31/17)

Latest I/I or SSES Report: I/I Analysis Report (October 2019)
Flow Monitoring Program (May 2020)
Phase 2 Sewer System Evaluation Survey (June 2021)
Phase 3 Sewer System Evaluation Survey (Ongoing)

Private Source Inflow Removal Program: In September 2024, work under the Town's MS4 program found a sump pump connection to the sanitary sewer at 430 Revere Street. The Town notified the property owner and the connection was removed from the sanitary sewer. The DPW, in partnership with the Town's Building and Plumbing Inspectors, continues to actively seek out illegal sump pump connections to the Town's sewer system. Smoke testing was postponed due to scheduling conflicts. Smoke testing work will be included within the remaining CCTV inspection work in the next phase of the Town's Sanitary Sewer System Evaluation Survey. Inspection data will be reviewed and recommendations to remove I/I will be summarized in a report.

I/I Rehabilitation Projects in Design or Construction: The Palmyra Street and Crescent Street Sewer Improvements Project was completed in 2021/2022 (MWRA Project No. WRA-P11-42-3-1145). Project work consisted of sewer main replacement construction on Palmyra Street, Wheelock Street, Pauline Street and Crescent Street. Work included replacing approximately 1265 LF feet of 8 and 15-inch vitrified clay (VC) sewer mains with new 8 through 12-inch polyvinyl chloride (PVC) sewer mains.

The replacement of approximately 350 LF of gravity sewer on Jefferson Street was added to the Centre Business District project (MWRA Project No. WRA-P11-42-3-1144) based on unforeseen site conditions observed during construction of drainage improvements on Jefferson Street. The existing 6-inch VC sewer main in Jefferson Street was found to have collapsed in two locations and inspections noted that the remaining section of pipe was deteriorating. A new 8-inch SDR 35 PVC sewer main (including two new precast concrete manholes) was installed to replace the existing 6-inch VC sewer main.

Reporting Period Activity: Approximately 31,500 LF of 8 to 15-inch sewer main was cleaned and CCTV inspected during Fall 2021. The inspections were reviewed and infiltration observed in each subarea inspected was estimated. An analysis was also completed to determine where rehabilitation to remove I/I entering the sanitary sewer system is cost-effective. The Phase 3 SSES report is substantially complete. In December 2021, MWRA funds were distributed for the Phase 3 SSES Project (MWRA Project No. WRA-P11-42-1-1181). Project is ongoing.

MWRA I/I Local Financial Assistance Program: The community has financed fifteen (15) I/I reduction projects through the Authority's funding assistance program. Of the $7,963,400 allotted through the Program's Phases 1 - 16, the community has $2,880,000 remaining in funding assistance.

43. WOBURN: North System

Background Information:

- Miles of Sewer: 164
- Sewered Population: 40,080
- Three Year (CY22 - CY24) Annual Average I/I: 3.79 mgd
- MassDEP Administrative Actions Since 2010: None

Latest I/I or SSES Report: CIP Project 5 - Sewer Investigation and Evaluation (February 2021)
CIP Smoke Testing - Project 2 (September 2021)
North Woburn Trunk Sewer Design - Investigation (ongoing)
CIP Project 6 – Phase 1 – Sewer Investigation and Evaluation (July 2025)
Woburn Center and North Woburn Trunk Sideline Investigation (ongoing)

Private Source Inflow Removal Program: No private inflow removal activity occurred during this reporting period.

I/I Rehabilitation Projects in Design or Construction: In April 2025, funds ($1,990,000) were distributed for CIP Project 5 Design/Construction (MWRA Project No. WRA-P14-43-3-1450). Projects details are included in Attachment 4.
In September 2023, funds ($1,840,000) were distributed for the following projects: North Woburn Trunk Sewer Design & Construction, and CIP 3 & 4 Post Construction Flow Evaluations (MWRA Project No. WRA-P14-43-3-1418).
CIP Project 4 Rehabilitations began Spring 2022 (MWRA Project No. WRA-P11-43-3-1134). Project work completed Fall 2022. Warranty retest inspections were completed Spring 2023. The project removed an estimated 27,606 gpd of peak infiltration and 17,473 gpd of peak inflow.

CIP Project 3 Rehabilitations warranty retest inspections were completed Spring 2022 (MWRA Project No. WRA-P11-43-3-1108). The project removed an estimated 56,981 gpd of peak infiltration and 9602 gpd of peak inflow.

Reporting Period Activity: In April 2025, funds ($1,990,000) were distributed for CIP Project 5 Design/Construction (MWRA Project No. WRA-P14-43-3-1450).
In September 2023, funds ($1,840,000) were distributed for the following projects: North Woburn Trunk Sewer Design & Construction, and CIP 3 & 4 Post Construction Flow Evaluations (MWRA Project No. WRA-P14-43-3-1418).

MWRA I/I Local Financial Assistance Program: The community has financed sixteen (16) I/I reduction projects through the Authority's funding assistance program. Of the $23,029,500 allotted through the Program's Phases 1 - 16, the community has $4,524,000 remaining in funding assistance.

ATTACHMENT 6
TO
MWRA ANNUAL I/I REDUCTION REPORT FOR FY25
Reporting Period – July 2024 Through June 2025

CY24 COMMUNITY WASTEWATER FLOW DATA

This Attachment contains CY24 wastewater flow data for the 43 MWRA member sewer communities. There are four separate data tables detailed below:

TABLE 1 (Section Page 6-2) presents the CY24 MWRA Wastewater Metering System Community Flow Estimates. This data is monthly total wastewater flow estimates for each of the 43-member sewer communities derived from MWRA's wastewater metering system. Each community's percent share average daily flow and percent share maximum month flow are used as components of MWRA's annual wholesale sewer charge.

TABLE 2 (Section Page 6-3) presents the CY24 MWRA Community Wastewater Flow Component Estimates. This data is developed through an engineering analysis by MWRA staff to estimate wastewater flow components, including: dry day average daily flow, average daily infiltration, average daily sanitary flow and average daily inflow. The data in TABLE 2 is annual data. The percent share for each estimated flow component is also presented. The data presented in TABLE 2 is a summary of the more detailed monthly flow component analysis presented in TABLE 4. The estimated average daily sanitary flow (non-I/I flow) includes: residential, commercial, industrial and institutional flows.

TABLE 3 (Section Page 6-4) presents the CY24 Final Community Wastewater Flow Component Estimates with additional information based on estimated community inch-diameter-miles of sewer.

TABLE 4 (Section Pages 6-5 through 6-17) presents the CY24 Estimated Community Wastewater Flow Components by month. This data is developed through an engineering analysis by MWRA staff of each community's monthly wastewater flow (derived from MWRA's wastewater metering system) to estimate flow components, including: dry day average daily flow, average daily infiltration, average daily sanitary flow and average daily inflow. The data listed as MWRA Estimated Infiltration is a calculated estimate of the infiltration entering MWRA-owned sewers that are upstream of wastewater flow meters within a community. The calculation is a weighted allocation of the Raw Estimated Infiltration to the portion of the sewer system that is MWRA-owned versus community-owned. The weighted allocation is based on inch-diameter-miles of MWRA-owned and community-owned sewer. The data presented in TABLE 4 is also presented in TABLE 2 as an annual summary.

TABLE 1 - CY24 MWRA WASTEWATER METERING SYSTEM COMMUNITY FLOW ESTIMATES

05-Feb-25

Community	Total Population	Sewered Population	CY24 Average Daily Flow (ADF) By Calendar Month (MGD)												12 Month Average Daily Flow (MGD)	Percent Average Daily Flow	Max. Month ADF (MGD)	Percent Max. Month ADF
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
Arlington	45,522	45,486	8.10	5.15	7.70	7.65	4.63	4.06	3.27	3.08	2.95	2.91	3.11	4.24	4.74	1.5%	8.10	1.6%
Ashland	18,466	14,466	2.10	1.51	1.95	1.90	1.44	1.30	1.16	1.11	1.10	1.09	1.12	1.27	1.42	0.4%	2.10	0.4%
Bedford	14,161	13,758	4.23	2.93	3.73	3.93	2.55	1.93	1.64	1.61	1.51	1.46	1.48	1.88	2.41	0.7%	4.23	0.8%
Belmont	26,710	26,350	5.64	3.17	5.15	4.91	2.77	2.37	1.78	1.73	1.61	1.59	1.78	2.66	2.93	0.9%	5.64	1.1%
BWSC	650,706	650,310	133.24	90.65	127.05	117.05	90.43	82.04	72.56	74.37	70.09	66.03	72.53	88.79	90.46	27.9%	133.24	25.7%
Braintree	38,567	38,489	10.27	7.36	11.51	10.88	7.02	6.03	4.73	4.37	4.12	4.20	4.41	6.97	6.82	2.1%	11.51	2.2%
Brookline	62,535	62,476	11.05	7.16	10.42	9.58	6.89	6.60	5.71	5.29	4.99	4.79	5.30	6.90	7.06	2.2%	11.05	2.1%
Burlington	25,966	25,668	5.82	4.31	5.29	5.52	3.78	3.20	2.72	2.75	2.56	2.51	2.59	3.25	3.69	1.1%	5.82	1.1%
Cambridge	118,488	118,466	29.44	19.81	30.57	27.21	23.42	21.86	19.21	19.61	17.66	16.83	19.51	24.28	22.47	6.9%	30.57	5.9%
Canton	24,609	17,375	5.52	3.68	5.42	5.04	3.10	3.12	2.67	2.35	2.29	2.13	2.25	3.21	3.40	1.0%	5.52	1.1%
Chelsea	38,637	38,637	9.49	5.81	9.89	8.37	7.10	6.03	4.73	4.96	4.48	4.15	5.99	7.19	6.52	2.0%	9.89	1.9%
Dedham	24,997	24,108	6.70	4.04	5.96	6.31	3.61	3.16	2.52	2.46	2.20	2.17	2.24	3.41	3.73	1.2%	6.70	1.3%
Everett	49,350	49,350	7.96	5.51	7.33	7.20	5.75	5.62	4.98	5.08	4.59	4.32	4.62	5.91	5.74	1.8%	7.96	1.5%
Framingham	70,963	67,951	15.45	9.81	13.68	13.85	8.60	7.39	6.43	6.14	5.74	5.85	5.92	6.76	8.80	2.7%	15.45	3.0%
Hingham	8,405	8,022	2.30	1.48	2.48	2.21	1.39	1.22	0.91	0.84	0.75	0.71	0.75	1.35	1.37	0.4%	2.48	0.5%
Holbrook	11,285	10,271	1.68	1.21	1.76	1.61	1.19	1.09	0.90	0.87	0.86	0.83	0.92	1.22	1.18	0.4%	1.76	0.3%
Lexington	34,074	33,575	10.16	6.92	8.76	9.67	5.88	4.79	3.77	3.39	2.99	2.89	3.06	4.40	5.55	1.7%	10.16	2.0%
Malden	64,712	64,437	12.92	8.59	11.67	11.26	8.15	7.80	6.48	6.16	5.67	5.55	5.95	8.03	8.19	2.5%	12.92	2.5%
Medford	65,399	65,360	12.99	8.07	12.15	11.69	7.78	6.83	5.21	5.42	4.75	4.59	5.28	7.66	7.71	2.4%	12.99	2.5%
Melrose	29,155	29,119	7.54	4.26	6.31	6.50	3.31	2.73	2.06	2.05	1.71	1.67	1.94	3.27	3.61	1.1%	7.54	1.5%
Milton	28,364	27,717	8.97	5.29	7.94	7.77	4.50	3.69	2.70	2.58	2.35	2.21	2.34	4.38	4.56	1.4%	8.97	1.7%
Natick	36,272	32,712	5.68	3.73	5.06	5.07	3.48	2.97	2.56	2.41	2.23	2.26	2.25	2.77	3.37	1.0%	5.68	1.1%
Needham	32,114	30,880	7.67	4.77	6.53	6.73	4.36	3.70	3.11	2.87	2.69	2.70	2.75	3.72	4.30	1.3%	7.67	1.5%
Newton	87,381	86,490	30.01	19.42	26.36	27.65	16.68	14.14	11.41	10.29	9.47	8.95	9.35	13.04	16.39	5.1%	30.01	5.8%
Norwood	31,317	31,135	11.42	6.90	10.70	9.83	6.25	5.76	4.68	4.15	3.67	3.72	3.73	5.96	6.40	2.0%	11.42	2.2%
Quincy	101,727	101,727	21.18	14.28	19.08	18.84	13.10	12.04	10.20	9.94	9.17	8.70	8.90	13.04	13.21	4.1%	21.18	4.1%
Randolph	34,530	34,475	7.14	4.79	6.91	6.69	4.24	3.79	3.22	2.79	2.58	2.47	2.52	3.92	4.26	1.3%	7.14	1.4%
Reading	25,205	24,776	4.45	2.81	3.88	4.18	2.35	1.79	1.44	1.53	1.44	1.43	1.47	2.38	2.43	0.7%	4.45	0.9%
Revere	58,528	58,478	9.31	6.20	9.22	8.48	6.79	6.20	5.60	6.14	5.88	5.64	6.00	8.14	6.97	2.2%	9.31	1.8%
Somerville	79,762	79,762	17.64	8.68	17.31	13.60	10.79	8.94	7.08	6.95	6.11	5.66	8.07	9.96	10.08	3.1%	17.64	3.4%
Stoneham	22,705	22,468	5.35	4.05	5.19	5.10	3.15	2.97	2.39	2.43	2.18	2.15	2.27	3.01	3.35	1.0%	5.35	1.0%
Stoughton	28,969	22,212	5.55	3.95	5.27	5.47	3.52	2.99	2.40	2.37	2.05	2.15	2.05	3.02	3.40	1.0%	5.55	1.1%
Wakefield	27,069	26,994	7.49	4.41	5.94	6.31	4.01	3.02	2.33	2.23	2.05	1.97	2.02	3.21	3.75	1.2%	7.49	1.4%
Walpole	26,277	19,451	3.93	2.87	3.58	3.72	2.64	2.37	2.12	1.91	1.85	1.84	1.87	2.23	2.58	0.8%	3.93	0.8%
Waltham	64,065	63,247	13.81	9.63	12.90	13.22	8.39	7.56	6.39	6.16	5.69	5.45	5.69	7.36	8.52	2.6%	13.81	2.7%
Watertown	35,022	35,022	6.79	4.86	6.36	6.40	4.49	3.80	3.33	3.29	3.22	3.11	3.16	3.85	4.39	1.4%	6.79	1.3%
Wellesley	30,524	29,985	8.04	4.89	6.81	7.02	4.29	3.41	2.65	2.61	2.56	2.36	2.47	3.44	4.21	1.3%	8.04	1.6%
Westwood	16,231	15,332	2.35	1.57	1.95	2.06	1.51	1.28	1.14	1.05	0.91	0.92	0.88	1.10	1.39	0.4%	2.35	0.5%
Weymouth	57,410	56,158	12.75	8.90	12.87	11.91	7.93	7.54	6.01	5.60	5.46	5.62	5.60	8.89	8.26	2.5%	12.87	2.5%
Wilmington	22,904	4,816	2.21	1.75	2.14	2.24	1.72	1.58	1.41	1.46	1.38	1.37	1.36	1.50	1.68	0.5%	2.24	0.4%
Winchester	22,640	22,598	6.11	3.97	5.45	5.76	3.28	2.55	1.99	1.84	1.63	1.56	1.69	2.30	3.18	1.0%	6.11	1.2%
Winthrop	18,510	18,510	3.54	2.83	3.72	3.54	2.73	2.53	2.30	2.31	2.12	1.91	2.10	2.50	2.68	0.8%	3.72	0.7%
Woburn	41,248	40,467	11.15	8.14	9.64	9.84	7.12	5.84	4.95	5.16	4.84	5.11	5.14	6.39	6.94	2.1%	11.15	2.2%
Total/Average	2,351,481	2,289,086	515.14	340.12	483.59	463.77	326.11	289.63	244.85	241.71	224.15	215.53	234.43	308.76	324.12	100%	518.50	100%
Logan Airport Monthly Rainfall (in)			7.64	0.65	8.94	2.96	4.82	4.04	1.39	3.70	1.33	0.91	3.36	5.65	3.78			

TABLE 2 - 2024 MWRA COMMUNITY WASTEWATER FLOW COMPONENT ESTIMATES (CY24 - 12 MONTHS)

02/05/2025

	A	B	C	D	E	2024 Averages (1) F	2024 Averages (1) G	H	Components of Average Daily Flow (Estimated) (2) I	J	K	L	M	N	O	P
COMMUNITY	Community Demographics: Total Population	Community Demographics: Sewered Population	No. of Connects to MWRA System	Miles of Local Sewers (3)	No. of Meters for Permanent System	Average Daily Flow ADF (MGD)	Percent Average Daily Flow (6)	Selected Dry Day ADF (MGD)	Average Daily Infiltration (MGD)	Infiltration As a % of Average Daily Flow	Average Sanitary Flow (MGD)	Sanitary As a % of Average Daily Flow	Average Daily Inflow (4) (MGD)	Inflow As a % of Average Daily Flow	Peak Month ADF (MGD)	Percent Peak Month ADF (6)
Arlington	45,522	45,486	327	117	7	4.74	1.46%	4.20	1.60	33.8%	2.60	54.9%	0.54	11.4%	8.10	1.56%
Ashland	18,466	14,466	2	78	2	1.42	0.44%	1.32	0.42	29.6%	0.90	63.4%	0.10	7.0%	2.10	0.41%
Bedford	14,161	13,758	1	77	4	2.41	0.74%	2.19	0.89	36.9%	1.30	53.9%	0.22	9.1%	4.23	0.82%
Belmont	26,710	26,350	2	76	2	2.93	0.90%	2.46	0.96	32.8%	1.50	51.2%	0.47	16.0%	5.64	1.09%
BWSC (5)	650,706	650,310	255	854	33	90.46	27.91%	76.21	18.75	20.7%	57.46	63.5%	14.24	15.7%	133.24	25.70%
Braintree	38,567	38,489	21	140	8	6.82	2.10%	6.02	2.82	41.3%	3.20	46.9%	0.81	11.9%	11.51	2.22%
Brookline (5)	62,535	62,476	10	110	14	7.06	2.18%	6.07	1.77	25.1%	4.30	60.9%	0.99	14.0%	11.05	2.13%
Burlington	25,966	25,668	1	117	1	3.69	1.14%	3.44	1.44	39.0%	2.00	54.2%	0.25	6.8%	5.82	1.12%
Cambridge (5)	118,488	118,466	127	147	9	22.47	6.93%	18.19	6.19	27.5%	12.00	53.4%	4.29	19.1%	30.57	5.90%
Canton	24,609	17,375	65	87	6	3.40	1.05%	3.05	1.65	48.5%	1.40	41.2%	0.35	10.3%	5.52	1.06%
Chelsea (5)	38,637	38,637	47	42	8	6.52	2.01%	4.90	1.90	29.1%	3.00	46.0%	1.63	25.0%	9.89	1.91%
Dedham	24,997	24,108	30	89	8	3.73	1.15%	3.27	1.47	39.4%	1.80	48.3%	0.46	12.3%	6.70	1.29%
Everett	49,350	49,350	21	72	6	5.74	1.77%	5.14	1.84	32.1%	3.30	57.5%	0.60	10.5%	7.96	1.54%
Framingham	70,963	67,951	2	231	4	8.80	2.72%	7.76	2.96	33.6%	4.80	54.5%	1.04	11.8%	15.45	2.98%
Hingham	8,405	8,022	1	33	1	1.37	0.42%	1.16	0.66	48.2%	0.50	36.5%	0.20	14.6%	2.48	0.48%
Holbrook	11,285	10,271	2	49	2	1.18	0.36%	1.06	0.46	39.0%	0.60	50.8%	0.12	10.2%	1.76	0.34%
Lexington	34,074	33,575	17	171	6	5.55	1.71%	5.07	2.87	51.7%	2.20	39.6%	0.48	8.6%	10.16	1.96%
Malden	64,712	64,437	242	100	6	8.19	2.53%	7.33	2.33	28.4%	5.00	61.1%	0.86	10.5%	12.92	2.49%
Medford	65,399	65,360	74	120	6	7.71	2.38%	6.59	2.29	29.7%	4.30	55.8%	1.12	14.5%	12.99	2.51%
Melrose	29,155	29,119	188	75	5	3.61	1.11%	3.05	1.19	33.0%	1.86	51.5%	0.56	15.5%	7.54	1.45%
Milton	28,364	27,717	56	98	13	4.56	1.41%	3.87	2.37	52.0%	1.50	32.9%	0.69	15.1%	8.97	1.73%
Natick	36,272	32,712	30	129	4	3.37	1.04%	3.06	1.16	34.4%	1.90	56.4%	0.32	9.5%	5.68	1.10%
Needham	32,114	30,880	21	130	2	4.30	1.33%	3.86	1.86	43.3%	2.00	46.5%	0.44	10.2%	7.67	1.48%
Newton	87,381	86,490	52	284	7	16.39	5.06%	14.48	6.68	40.8%	7.80	47.6%	1.92	11.7%	30.01	5.79%
Norwood	31,317	31,135	31	108	6	6.40	1.97%	5.51	3.01	47.0%	2.50	39.1%	0.89	13.9%	11.42	2.20%
Quincy	101,727	101,727	56	209	6	13.21	4.08%	11.74	3.54	26.8%	8.20	62.1%	1.47	11.1%	21.18	4.08%
Randolph	34,530	34,475	2	113	2	4.26	1.31%	3.79	1.69	39.7%	2.10	49.3%	0.46	10.8%	7.14	1.38%
Reading	25,205	24,776	2	100	2	2.43	0.75%	2.23	0.93	38.3%	1.30	53.5%	0.20	8.2%	4.45	0.86%
Revere	58,528	58,478	3	98	2	6.97	2.15%	6.06	2.06	29.6%	4.00	57.4%	0.91	13.1%	9.31	1.80%
Somerville (5)	79,762	79,762	43	165	8	10.08	3.11%	7.22	1.62	16.1%	5.60	55.6%	2.86	28.4%	17.64	3.40%
Stoneham	22,705	22,468	27	75	7	3.35	1.03%	3.02	1.52	45.4%	1.50	44.8%	0.34	10.1%	5.35	1.03%
Stoughton	28,969	22,212	1	94	2	3.40	1.05%	3.03	1.53	45.0%	1.50	44.1%	0.37	10.9%	5.55	1.07%
Wakefield	27,069	26,994	11	95	2	3.75	1.16%	3.33	1.83	48.8%	1.50	40.0%	0.42	11.2%	7.49	1.44%
Walpole	26,277	19,451	1	93	2	2.58	0.80%	2.40	1.10	42.6%	1.30	50.4%	0.18	7.0%	3.93	0.76%
Waltham	64,065	63,247	5	137	4	8.52	2.63%	7.69	2.11	24.8%	5.58	65.5%	0.83	9.7%	13.81	2.66%
Watertown	35,022	35,022	14	75	3	4.39	1.35%	3.97	1.77	40.3%	2.20	50.1%	0.41	9.3%	6.79	1.31%
Wellesley	30,524	29,985	2	135	3	4.21	1.30%	3.72	2.02	48.0%	1.70	40.4%	0.49	11.6%	8.04	1.55%
Westwood	16,231	15,332	3	89	3	1.39	0.43%	1.26	0.37	26.6%	0.90	64.7%	0.13	9.4%	2.35	0.45%
Weymouth	57,410	56,158	19	205	4	8.26	2.55%	7.37	3.57	43.2%	3.80	46.0%	0.89	10.8%	12.87	2.48%
Wilmington	22,904	4,816	2	31	1	1.68	0.52%	1.58	0.78	46.4%	0.80	47.6%	0.10	6.0%	2.24	0.43%
Winchester	22,640	22,598	102	85	7	3.18	0.98%	2.86	1.66	52.2%	1.20	37.7%	0.32	10.1%	6.11	1.18%
Winthrop	18,510	18,510	22	36	4	2.68	0.83%	2.34	1.14	42.5%	1.20	44.8%	0.34	12.7%	3.72	0.72%
Woburn	41,248	40,467	18	164	13	6.94	2.14%	6.35	2.65	38.2%	3.70	53.3%	0.59	8.5%	11.15	2.15%
Totals/Averages	2,351,481	2,289,086	1,958	5,533		324.12	100.00%	279.22	101.43	31.3%	177.80	54.9%	44.90	13.9%	518.50	100.00%

FOOTNOTES:

(1) Figures tabulated using data from the MWRA Wastewater Metering System for Calendar Year 2024.

(2) Wastewater flow components are estimated through engineering analysis by MWRA staff.

(3) Miles of Local Sewers are from MWRA's regional collection system database or as reported by the Community and do not include service laterals.

(4) Average Daily Inflow is calculated as a total inflow over the period of January through December 2024 divided by 366 days. Actual inflow during a specific storm event must be calculated separately.

(5) Community with combined sewers. Inflow figures include combined flow during storm events tributary to MWRA's WWTP.

(6) Percent average Daily Flow and Percent Peak Month ADF are the two flow-based components of MWRA's Wholesale Sewer Rate Methodology.

Column Summations: Average Daily Flow (ADF) Column F = I+K+M Average Dry Day Flow Column H = I+K

TABLE 3 - 2024 Final Community Wastewater Flow Component Estimates

Community	Sewered Population	Miles of Local Sewers	IDM of Local Sewers	Average Daily Flow ADF (MGD)	Average Annual Infiltration (MGD)	Average Annual Inflow (MGD)	Average Sanitary Flow (MGD)	ADF (GPD Per IDM)	I/I (GPD Per IDM)	Infiltration (GPD Per IDM)	Inflow (GPD Per IDM)	Inflow (GPD Per Sewer Mile)	Average Sanitary (GPD Per Sew. Pop.)
Arlington	45,486	117	947	4.74	1.60	0.54	2.60	5,005	2,260	1,690	570	4,615	57
Ashland	14,466	78	682	1.42	0.42	0.10	0.90	2,082	762	616	147	1,282	62
Bedford	13,758	77	738	2.41	0.89	0.22	1.30	3,266	1,504	1,206	298	2,857	94
Belmont	26,350	76	671	2.93	0.96	0.47	1.50	4,367	2,131	1,431	700	6,184	57
BWSC	650,310	854	14,876	90.46	18.75	14.24	57.46	6,081	2,218	1,260	957	16,674	88
Braintree	38,489	140	1,302	6.82	2.82	0.81	3.20	5,238	2,788	2,166	622	5,786	83
Brookline	62,476	110	1,321	7.06	1.77	0.99	4.30	5,344	2,089	1,340	749	9,000	69
Burlington	25,668	117	1,200	3.69	1.44	0.25	2.00	3,075	1,408	1,200	208	2,137	78
Cambridge	118,466	147	2,183	22.47	6.19	4.29	12.00	10,293	4,801	2,836	1,965	29,184	101
Canton	17,375	87	864	3.40	1.65	0.35	1.40	3,935	2,315	1,910	405	4,023	81
Chelsea	38,637	42	609	6.52	1.90	1.63	3.00	10,706	5,796	3,120	2,677	38,810	78
Dedham	24,108	89	861	3.73	1.47	0.46	1.80	4,332	2,242	1,707	534	5,169	75
Everett	49,350	72	622	5.74	1.84	0.60	3.30	9,228	3,923	2,958	965	8,333	67
Framingham	67,951	231	2,352	8.80	2.96	1.04	4.80	3,741	1,701	1,259	442	4,502	71
Hingham	8,022	33	332	1.37	0.66	0.20	0.50	4,127	2,590	1,988	602	6,061	62
Holbrook	10,271	49	408	1.18	0.46	0.12	0.60	2,892	1,422	1,127	294	2,449	58
Lexington	33,575	171	1,777	5.55	2.87	0.48	2.20	3,123	1,885	1,615	270	2,807	66
Malden	64,437	100	926	8.19	2.33	0.86	5.00	8,844	3,445	2,516	929	8,600	78
Medford	65,360	120	1,039	7.71	2.29	1.12	4.30	7,421	3,282	2,204	1,078	9,333	66
Melrose	29,119	75	611	3.61	1.19	0.56	1.86	5,908	2,864	1,948	917	7,467	64
Milton	27,717	98	837	4.56	2.37	0.69	1.50	5,448	3,656	2,832	824	7,041	54
Natick	32,712	129	1,277	3.37	1.16	0.32	1.90	2,639	1,159	908	251	2,481	58
Needham	30,880	130	1,157	4.30	1.86	0.44	2.00	3,717	1,988	1,608	380	3,385	65
Newton	86,490	284	3,081	16.39	6.68	1.92	7.80	5,320	2,791	2,168	623	6,761	90
Norwood	31,135	108	1,091	6.40	3.01	0.89	2.50	5,866	3,575	2,759	816	8,241	80
Quincy	101,727	209	2,014	13.21	3.54	1.47	8.20	6,559	2,488	1,758	730	7,033	81
Randolph	34,475	113	1,153	4.26	1.69	0.46	2.10	3,695	1,865	1,466	399	4,071	61
Reading	24,776	100	897	2.43	0.93	0.20	1.30	2,709	1,260	1,037	223	2,000	52
Revere	58,478	98	950	6.97	2.06	0.91	4.00	7,337	3,126	2,168	958	9,286	68
Somerville	79,762	165	1,862	10.08	1.62	2.86	5.60	5,414	2,406	870	1,536	17,333	70
Stoneham	22,468	75	574	3.35	1.52	0.34	1.50	5,836	3,240	2,648	592	4,533	67
Stoughton	22,212	94	955	3.40	1.53	0.37	1.50	3,560	1,990	1,602	387	3,936	68
Wakefield	26,994	95	1,050	3.75	1.83	0.42	1.50	3,571	2,143	1,743	400	4,421	56
Walpole	19,451	93	904	2.58	1.10	0.18	1.30	2,854	1,416	1,217	199	1,935	67
Waltham	63,247	137	1,694	8.52	2.11	0.83	5.58	5,030	1,736	1,246	490	6,058	88
Watertown	35,022	75	621	4.39	1.77	0.41	2.20	7,069	3,510	2,850	660	5,467	63
Wellesley	29,985	135	1,391	4.21	2.02	0.49	1.70	3,027	1,804	1,452	352	3,630	57
Westwood	15,332	89	784	1.39	0.37	0.13	0.90	1,773	638	472	166	1,461	59
Weymouth	56,158	205	1,911	8.26	3.57	0.89	3.80	4,322	2,334	1,868	466	4,341	68
Wilmington	4,816	31	367	1.68	0.78	0.10	0.80	4,578	2,398	2,125	272	3,226	166
Winchester	22,598	85	699	3.18	1.66	0.32	1.20	4,549	2,833	2,375	458	3,765	53
Winthrop	18,510	36	317	2.68	1.14	0.34	1.20	8,454	4,669	3,596	1,073	9,444	65
Woburn	40,467	164	1,575	6.94	2.65	0.59	3.70	4,406	2,057	1,683	375	3,598	91
Total	2,289,086	5,533	61,482	324.10	101.43	44.90	177.80						
Average	53,235	129	1,430	7.54	2.36	1.04	4.13	5,041	2,477	1,827	650	6,947	72

Table 4 - Estimated Community Wastewater Flow Components for 2024											02/05/2025		PAGE 1	Annual Average
Community	Flow Characteristic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	(MGD)
Ashland	Average Daily Flow	2.10	1.51	1.95	1.90	1.44	1.30	1.16	1.11	1.10	1.09	1.12	1.27	1.42
	Dry Day Average Daily Flow	1.77	1.38	1.65	1.66	1.40	1.27	1.15	1.07	1.08	1.08	1.08	1.25	1.32
	Estimated Infiltration	0.87	0.48	0.75	0.76	0.50	0.37	0.25	0.17	0.18	0.18	0.18	0.35	0.42
	Estimated Sanitary Flow	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
	Estimated Inflow	0.33	0.13	0.30	0.24	0.04	0.03	0.01	0.04	0.02	0.01	0.04	0.02	0.10
Boston (South Only)	Raw Average Daily Flow	48.28	28.32	42.49	41.24	25.03	22.10	18.73	18.22	16.02	15.35	16.70	26.13	26.57
	Raw Dry Day Average Daily Flow	35.70	23.58	32.58	33.17	22.81	21.11	17.84	16.86	15.26	15.31	14.39	21.82	22.55
	Raw Estimated Infiltration	27.50	15.38	24.38	24.97	14.61	12.91	9.64	8.66	7.06	7.11	6.19	13.62	14.35
	MWRA Estimated Infiltration	10.32	5.77	9.15	9.37	5.48	4.85	3.62	3.25	2.65	2.67	2.32	5.11	5.38
	Final Average Daily Flow	37.96	22.55	33.34	31.87	19.55	17.25	15.11	14.97	13.37	12.68	14.38	21.02	21.18
	Final Dry Day Average Daily Flow	25.38	17.81	23.43	23.80	17.33	16.26	14.22	13.61	12.61	12.64	12.07	16.71	17.16
	Final Estimated Infiltration	17.18	9.61	15.23	15.60	9.13	8.06	6.02	5.41	4.41	4.44	3.87	8.51	8.96
	Estimated Sanitary Flow	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20
	Estimated Inflow	12.58	4.74	9.91	8.07	2.22	0.99	0.89	1.36	0.76	0.04	2.31	4.31	4.02
Braintree	Raw Average Daily Flow	11.17	7.91	12.43	11.85	7.63	6.48	4.99	4.54	4.25	4.36	4.55	7.52	7.31
	Raw Dry Day Average Daily Flow	9.33	6.92	9.47	9.83	7.38	6.27	4.98	4.38	4.07	4.29	4.13	6.94	6.50
	Raw Estimated Infiltration	6.13	3.72	6.27	6.63	4.18	3.07	1.78	1.18	0.87	1.09	0.93	3.74	3.30
	MWRA Estimated Infiltration	0.90	0.55	0.92	0.97	0.61	0.45	0.26	0.17	0.13	0.16	0.14	0.55	0.48
	Final Average Daily Flow	10.27	7.36	11.51	10.88	7.02	6.03	4.73	4.37	4.12	4.20	4.41	6.97	6.82
	Final Dry Day Average Daily Flow	8.43	6.37	8.55	8.86	6.77	5.82	4.72	4.21	3.94	4.13	3.99	6.39	6.02
	Final Estimated Infiltration	5.23	3.17	5.35	5.66	3.57	2.62	1.52	1.01	0.74	0.93	0.79	3.19	2.82
	Estimated Sanitary Flow	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
	Estimated Inflow	1.84	0.99	2.96	2.02	0.25	0.21	0.01	0.16	0.18	0.07	0.42	0.58	0.81
Brookline (South Only)	Raw Average Daily Flow	6.72	4.01	6.24	5.72	3.78	3.51	2.80	2.51	2.44	2.38	2.81	4.21	3.93
	Raw Dry Day Average Daily Flow	4.92	3.43	4.42	4.50	3.48	3.38	2.55	2.36	2.33	2.29	2.38	3.56	3.30
	Raw Estimated Infiltration	2.77	1.28	2.27	2.35	1.33	1.23	0.40	0.21	0.18	0.14	0.23	1.41	1.15
	MWRA Estimated Infiltration	0.02	0.01	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	Final Average Daily Flow	6.70	4.00	6.22	5.70	3.77	3.50	2.80	2.51	2.44	2.38	2.81	4.20	3.92
	Final Dry Day Average Daily Flow	4.90	3.42	4.40	4.48	3.47	3.37	2.55	2.36	2.33	2.29	2.38	3.55	3.29
	Final Estimated Infiltration	2.75	1.27	2.25	2.33	1.32	1.22	0.40	0.21	0.18	0.14	0.23	1.40	1.14
	Estimated Sanitary Flow	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
	Estimated Inflow	1.80	0.58	1.82	1.22	0.30	0.13	0.25	0.15	0.11	0.09	0.43	0.65	0.63
Canton	Raw Average Daily Flow	5.83	3.87	5.71	5.32	3.25	3.29	2.79	2.44	2.37	2.20	2.33	3.37	3.57
	Raw Dry Day Average Daily Flow	4.79	3.52	4.59	4.50	3.06	3.23	2.68	2.41	2.31	2.15	2.24	3.14	3.22
	Raw Estimated Infiltration	3.39	2.12	3.19	3.10	1.66	1.83	1.28	1.01	0.91	0.75	0.84	1.74	1.82
	MWRA Estimated Infiltration	0.31	0.19	0.29	0.28	0.15	0.17	0.12	0.09	0.08	0.07	0.08	0.16	0.17
	Final Average Daily Flow	5.52	3.68	5.42	5.04	3.10	3.12	2.67	2.35	2.29	2.13	2.25	3.21	3.40
	Final Dry Day Average Daily Flow	4.48	3.33	4.30	4.22	2.91	3.06	2.56	2.32	2.23	2.08	2.16	2.98	3.05
	Final Estimated Infiltration	3.08	1.93	2.90	2.82	1.51	1.66	1.16	0.92	0.83	0.68	0.76	1.58	1.65
	Estimated Sanitary Flow	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
	Estimated Inflow	1.04	0.35	1.12	0.82	0.19	0.06	0.11	0.03	0.06	0.05	0.09	0.23	0.35
Dedham	Average Daily Flow	6.70	4.04	5.96	6.31	3.61	3.16	2.52	2.46	2.20	2.17	2.24	3.41	3.73
	Dry Day Average Daily Flow	5.11	3.48	4.57	5.10	3.50	3.03	2.44	2.34	2.16	2.15	2.14	3.21	3.27
	Estimated Infiltration	3.31	1.68	2.77	3.30	1.70	1.23	0.64	0.54	0.36	0.35	0.34	1.41	1.47
	Estimated Sanitary Flow	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
	Estimated Inflow	1.59	0.56	1.39	1.21	0.11	0.13	0.08	0.12	0.04	0.02	0.10	0.20	0.46

Table 4 - Estimated Community Wastewater Flow Components for 2024												02/05/2025	PAGE 2	Annual Average
Community	Flow Characteristic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	(MGD)
Framingham	Average Daily Flow	15.45	9.81	13.68	13.85	8.60	7.39	6.43	6.14	5.74	5.85	5.92	6.76	8.80
	Dry Day Average Daily Flow	11.48	8.90	10.55	10.66	8.60	7.23	6.23	5.99	5.65	5.70	5.77	6.38	7.76
	Estimated Infiltration	6.68	4.10	5.75	5.86	3.80	2.43	1.43	1.19	0.85	0.90	0.97	1.58	2.96
	Estimated Sanitary Flow	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80
	Estimated Inflow	3.97	0.91	3.13	3.19	0.00	0.16	0.20	0.15	0.09	0.15	0.15	0.38	1.04
Hingham	Average Daily Flow	2.30	1.48	2.48	2.21	1.39	1.22	0.91	0.84	0.75	0.71	0.75	1.35	1.37
	Dry Day Average Daily Flow	1.79	1.24	1.74	1.75	1.27	1.19	0.86	0.80	0.70	0.70	0.69	1.24	1.16
	Estimated Infiltration	1.29	0.74	1.24	1.25	0.77	0.69	0.36	0.30	0.20	0.20	0.19	0.74	0.66
	Estimated Sanitary Flow	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Estimated Inflow	0.51	0.24	0.74	0.46	0.12	0.03	0.05	0.04	0.05	0.01	0.06	0.11	0.20
Holbrook	Average Daily Flow	1.68	1.21	1.76	1.61	1.19	1.09	0.90	0.87	0.86	0.83	0.92	1.22	1.18
	Dry Day Average Daily Flow	1.38	1.09	1.33	1.36	1.12	1.07	0.87	0.86	0.84	0.80	0.88	1.14	1.06
	Estimated Infiltration	0.78	0.49	0.73	0.76	0.52	0.47	0.27	0.26	0.24	0.20	0.28	0.54	0.46
	Estimated Sanitary Flow	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
	Estimated Inflow	0.30	0.12	0.43	0.25	0.07	0.02	0.03	0.01	0.02	0.03	0.04	0.08	0.12
Milton (South Only)	Average Daily Flow	8.34	4.94	7.43	7.16	4.20	3.44	2.49	2.36	2.13	1.99	2.12	4.11	4.23
	Dry Day Average Daily Flow	6.35	4.16	5.35	5.66	3.98	3.34	2.37	2.23	2.04	1.95	1.93	3.62	3.58
	Estimated Infiltration	5.00	2.81	4.00	4.31	2.63	1.99	1.02	0.88	0.69	0.60	0.58	2.27	2.23
	Estimated Sanitary Flow	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
	Estimated Inflow	1.99	0.78	2.08	1.50	0.22	0.10	0.12	0.13	0.09	0.04	0.19	0.49	0.65
Natick	Average Daily Flow	5.68	3.73	5.06	5.07	3.48	2.97	2.56	2.41	2.23	2.26	2.25	2.77	3.37
	Dry Day Average Daily Flow	4.62	3.31	4.08	4.28	3.43	2.95	2.48	2.27	2.18	2.20	2.18	2.69	3.06
	Estimated Infiltration	2.72	1.41	2.18	2.38	1.53	1.05	0.58	0.37	0.28	0.30	0.28	0.79	1.16
	Estimated Sanitary Flow	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90
	Estimated Inflow	1.06	0.42	0.98	0.79	0.05	0.02	0.08	0.14	0.05	0.06	0.07	0.08	0.32
Needham	Average Daily Flow	7.67	4.77	6.53	6.73	4.36	3.70	3.11	2.87	2.69	2.70	2.75	3.72	4.30
	Dry Day Average Daily Flow	5.97	4.17	5.31	5.70	4.32	3.70	2.92	2.76	2.62	2.67	2.63	3.54	3.86
	Estimated Infiltration	3.97	2.17	3.31	3.70	2.32	1.70	0.92	0.76	0.62	0.67	0.63	1.54	1.86
	Estimated Sanitary Flow	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	Estimated Inflow	1.70	0.60	1.22	1.03	0.04	0.00	0.19	0.11	0.07	0.03	0.12	0.18	0.44
Newton (South Only)	Raw Average Daily Flow	18.43	11.74	16.57	16.83	10.04	8.42	6.86	6.16	4.95	5.21	5.46	8.05	9.89
	Raw Dry Day Average Daily Flow	14.65	9.94	13.13	13.90	9.71	8.25	6.55	5.83	4.13	5.14	4.93	7.34	8.63
	Raw Estimated Infiltration	10.55	5.84	9.03	9.80	5.61	4.15	2.45	1.73	0.03	1.04	0.83	3.24	4.53
	MWRA Estimated Infiltration	0.03	0.02	0.02	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	Final Average Daily Flow	18.40	11.72	16.55	16.80	10.03	8.41	6.85	6.16	4.95	5.21	5.46	8.04	9.88
	Final Dry Day Average Daily Flow	14.62	9.92	13.11	13.87	9.70	8.24	6.54	5.83	4.13	5.14	4.93	7.33	8.62
	Final Estimated Infiltration	10.52	5.82	9.01	9.77	5.60	4.14	2.44	1.73	0.03	1.04	0.83	3.23	4.52
	Estimated Sanitary Flow	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10
	Estimated Inflow	3.78	1.80	3.44	2.93	0.33	0.17	0.31	0.33	0.82	0.07	0.53	0.71	1.27

Table 4 - Estimated Community Wastewater Flow Components for 2024												02/05/2025	PAGE 3	Annual Average
Community	Flow Characteristic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	(MGD)
Norwood	Raw Average Daily Flow	12.12	7.30	11.30	10.42	6.64	6.12	4.90	4.32	3.79	3.84	3.84	6.32	6.75
	Raw Dry Day Average Daily Flow	9.30	6.35	8.29	8.24	6.31	6.02	4.63	4.19	3.67	3.64	3.59	5.97	5.85
	Raw Estimated Infiltration	6.80	3.85	5.79	5.74	3.81	3.52	2.13	1.69	1.17	1.14	1.09	3.47	3.35
	MWRA Estimated Infiltration	0.70	0.40	0.60	0.59	0.39	0.36	0.22	0.17	0.12	0.12	0.11	0.36	0.35
	Final Average Daily Flow	11.42	6.90	10.70	9.83	6.25	5.76	4.68	4.15	3.67	3.72	3.73	5.96	6.40
	Final Dry Day Average Daily Flow	8.60	5.95	7.69	7.65	5.92	5.66	4.41	4.02	3.55	3.52	3.48	5.61	5.51
	Final Estimated Infiltration	6.10	3.45	5.19	5.15	3.42	3.16	1.91	1.52	1.05	1.02	0.98	3.11	3.01
	Estimated Sanitary Flow	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
	Estimated Inflow	2.82	0.95	3.01	2.18	0.33	0.10	0.27	0.13	0.12	0.20	0.25	0.35	0.89
Quincy	Average Daily Flow	21.18	14.28	19.08	18.84	13.10	12.04	10.20	9.94	9.17	8.70	8.90	13.04	13.21
	Dry Day Average Daily Flow	16.63	12.78	14.70	15.80	12.47	11.69	9.87	9.45	8.68	8.54	8.43	11.80	11.74
	Estimated Infiltration	8.43	4.58	6.50	7.60	4.27	3.49	1.67	1.25	0.48	0.34	0.23	3.60	3.54
	Estimated Sanitary Flow	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20	8.20
	Estimated Inflow	4.55	1.50	4.38	3.04	0.63	0.35	0.33	0.49	0.49	0.16	0.47	1.24	1.47
Randolph	Average Daily Flow	7.14	4.79	6.91	6.69	4.24	3.79	3.22	2.79	2.58	2.47	2.52	3.92	4.26
	Dry Day Average Daily Flow	5.76	4.18	5.38	5.52	4.08	3.71	3.03	2.69	2.52	2.45	2.42	3.75	3.79
	Estimated Infiltration	3.66	2.08	3.28	3.42	1.98	1.61	0.93	0.59	0.42	0.35	0.32	1.65	1.69
	Estimated Sanitary Flow	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
	Estimated Inflow	1.38	0.61	1.53	1.17	0.16	0.08	0.19	0.10	0.06	0.02	0.10	0.17	0.46
Stoughton	Average Daily Flow	5.55	3.95	5.27	5.47	3.52	2.99	2.40	2.37	2.05	2.15	2.05	3.02	3.40
	Dry Day Average Daily Flow	4.45	3.48	4.11	4.61	3.37	2.95	2.27	2.25	2.02	2.07	1.92	2.88	3.03
	Estimated Infiltration	2.95	1.98	2.61	3.11	1.87	1.45	0.77	0.75	0.52	0.57	0.42	1.38	1.53
	Estimated Sanitary Flow	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
	Estimated Inflow	1.10	0.47	1.16	0.86	0.15	0.04	0.13	0.12	0.03	0.08	0.13	0.14	0.37
Walpole	Average Daily Flow	3.93	2.87	3.58	3.72	2.64	2.37	2.12	1.91	1.85	1.84	1.87	2.23	2.58
	Dry Day Average Daily Flow	3.33	2.59	3.12	3.33	2.63	2.37	2.08	1.83	1.84	1.80	1.79	2.12	2.40
	Estimated Infiltration	2.03	1.29	1.82	2.03	1.33	1.07	0.78	0.53	0.54	0.50	0.49	0.82	1.10
	Estimated Sanitary Flow	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	Estimated Inflow	0.60	0.28	0.46	0.39	0.01	0.00	0.04	0.08	0.01	0.04	0.08	0.11	0.18
Wellesley	Average Daily Flow	8.04	4.89	6.81	7.02	4.29	3.41	2.65	2.61	2.56	2.36	2.47	3.44	4.21
	Dry Day Average Daily Flow	6.18	4.28	5.42	5.82	4.26	3.34	2.51	2.58	2.52	2.26	2.30	3.22	3.72
	Estimated Infiltration	4.48	2.58	3.72	4.12	2.56	1.64	0.81	0.88	0.82	0.56	0.60	1.52	2.02
	Estimated Sanitary Flow	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
	Estimated Inflow	1.86	0.61	1.39	1.20	0.03	0.07	0.14	0.03	0.04	0.10	0.17	0.22	0.49
Westwood	Average Daily Flow	2.35	1.57	1.95	2.06	1.51	1.28	1.14	1.05	0.91	0.92	0.88	1.10	1.39
	Dry Day Average Daily Flow	1.80	1.43	1.67	1.77	1.47	1.21	1.13	0.98	0.90	0.91	0.87	1.02	1.26
	Estimated Infiltration	0.90	0.53	0.77	0.87	0.57	0.31	0.23	0.08	0.00	0.01	0.02	0.12	0.37
	Estimated Sanitary Flow	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.85	0.90	0.90
	Estimated Inflow	0.55	0.14	0.28	0.29	0.04	0.07	0.01	0.07	0.01	0.01	0.01	0.08	0.13

Table 4 - Estimated Community Wastewater Flow Components for 2024												02/05/2025	PAGE 4	
Community	Flow Characteristic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average (MGD)
Weymouth	Average Daily Flow	12.75	8.90	12.87	11.91	7.93	7.54	6.01	5.60	5.46	5.62	5.60	8.89	8.26
	Dry Day Average Daily Flow	10.53	7.94	10.00	9.96	7.47	7.44	5.82	5.28	4.92	5.51	5.22	8.31	7.37
	Estimated Infiltration	6.73	4.14	6.20	6.16	3.67	3.64	2.02	1.48	1.12	1.71	1.42	4.51	3.57
	Estimated Sanitary Flow	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80
	Estimated Inflow	2.22	0.96	2.87	1.95	0.46	0.10	0.19	0.32	0.54	0.11	0.38	0.58	0.89
Subtotal (Southern System)	Raw Average Daily Flow	213.41	135.89	196.06	191.93	121.87	107.61	88.89	83.52	76.10	75.00	78.05	115.85	123.73
	Raw Dry Day Average Daily Flow	165.84	118.15	151.46	157.12	116.12	104.75	85.26	79.41	72.44	73.61	71.91	104.94	108.44
	Raw Estimated Infiltration	110.94	63.25	96.56	102.22	61.22	49.85	30.36	24.51	17.54	18.71	17.06	50.04	53.54
	MWRA Estimated Infiltration	12.28	6.94	11.00	11.26	6.65	5.85	4.23	3.68	2.98	3.02	2.65	6.20	6.40
	Final Average Daily Flow	201.13	128.95	185.06	180.67	115.22	101.76	84.66	79.84	73.12	71.98	75.40	109.65	117.33
	Final Dry Day Average Daily Flow	153.56	111.21	140.46	145.86	109.47	98.90	81.03	75.73	69.46	70.59	69.26	98.74	102.04
	Final Estimated Infiltration	98.66	56.31	85.56	90.96	54.57	44.00	26.13	20.83	14.56	15.69	14.41	43.84	47.14
	Estimated Sanitary Flow	54.90	54.90	54.90	54.90	54.90	54.90	54.90	54.90	54.90	54.90	54.85	54.90	54.90
	Estimated Inflow	47.57	17.74	44.60	34.81	5.75	2.86	3.63	4.11	3.66	1.39	6.14	10.91	15.29
South System Pump Station as Reported by NPDES	Average Daily Flow	199.10	121.60	183.20	177.40	112.60	98.60	80.30	75.00	66.80	65.50	68.40	105.50	112.90

Table 4 - Estimated Community Wastewater Flow Components for 2024												02/05/2025	PAGE 5	Annual Average
Community	Flow Characteristic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	(MGD)
Arlington	Raw Average Daily Flow	8.26	5.23	7.85	7.81	4.71	4.12	3.29	3.09	2.96	2.92	3.12	4.30	4.81
	Raw Dry Day Average Daily Flow	6.53	4.64	6.21	6.54	4.63	3.93	3.09	2.91	2.85	2.83	2.91	4.13	4.27
	Raw Estimated Infiltration	3.93	2.04	3.61	3.94	2.03	1.33	0.49	0.31	0.25	0.23	0.31	1.53	1.67
	MWRA Estimated Infiltration	0.16	0.08	0.15	0.16	0.08	0.06	0.02	0.01	0.01	0.01	0.01	0.06	0.07
	Final Average Daily Flow	8.10	5.15	7.70	7.65	4.63	4.06	3.27	3.08	2.95	2.91	3.11	4.24	4.74
	Final Dry Day Average Daily Flow	6.37	4.56	6.06	6.38	4.55	3.87	3.07	2.90	2.84	2.82	2.90	4.07	4.20
	Final Estimated Infiltration	3.77	1.96	3.46	3.78	1.95	1.27	0.47	0.30	0.24	0.22	0.30	1.47	1.60
	Estimated Sanitary Flow	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60
	Estimated Inflow	1.73	0.59	1.64	1.27	0.08	0.19	0.20	0.18	0.11	0.09	0.21	0.17	0.54
Bedford	Average Daily Flow	4.23	2.93	3.73	3.93	2.55	1.93	1.64	1.61	1.51	1.46	1.48	1.88	2.41
	Dry Day Average Daily Flow	3.55	2.62	3.10	3.43	2.51	1.87	1.56	1.50	1.50	1.39	1.42	1.83	2.19
	Estimated Infiltration	2.25	1.32	1.80	2.13	1.21	0.57	0.26	0.20	0.20	0.09	0.12	0.53	0.89
	Estimated Sanitary Flow	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	Estimated Inflow	0.68	0.31	0.63	0.50	0.04	0.06	0.08	0.11	0.01	0.07	0.06	0.05	0.22
Belmont	Average Daily Flow	5.64	3.17	5.15	4.91	2.77	2.37	1.78	1.73	1.61	1.59	1.78	2.66	2.93
	Dry Day Average Daily Flow	4.03	2.71	3.68	3.86	2.63	2.30	1.73	1.62	1.55	1.51	1.54	2.38	2.46
	Estimated Infiltration	2.53	1.21	2.18	2.36	1.13	0.80	0.23	0.12	0.05	0.01	0.04	0.88	0.96
	Estimated Sanitary Flow	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
	Estimated Inflow	1.61	0.46	1.47	1.05	0.14	0.07	0.05	0.11	0.06	0.08	0.24	0.28	0.47
Boston (North Only)														
Boston Charlestown	Raw Average Daily Flow	4.10	3.10	4.01	3.60	3.36	2.93	2.76	2.66	2.58	2.32	2.58	2.95	3.08
	Raw Dry Day Average Daily Flow	3.17	3.08	3.08	3.17	3.00	2.88	2.68	2.42	2.43	2.27	2.51	2.47	2.76
	Raw Estimated Infiltration	1.47	1.38	1.38	1.47	1.30	1.18	0.98	0.72	0.73	0.57	0.81	0.77	1.06
	MWRA Estimated Infiltration	0.19	0.18	0.18	0.19	0.17	0.15	0.12	0.09	0.09	0.07	0.10	0.10	0.14
	Final Average Daily Flow	3.91	2.92	3.83	3.41	3.19	2.78	2.64	2.57	2.49	2.25	2.48	2.85	2.95
	Final Dry Day Average Daily Flow	2.98	2.90	2.90	2.98	2.83	2.73	2.56	2.33	2.34	2.20	2.41	2.37	2.63
	Final Estimated Infiltration	1.28	1.20	1.20	1.28	1.13	1.03	0.86	0.63	0.64	0.50	0.71	0.67	0.93
	Estimated Sanitary Flow	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
	Estimated Inflow	0.93	0.02	0.93	0.43	0.36	0.05	0.08	0.24	0.15	0.05	0.07	0.48	0.32
Boston Columbus Park	Raw Average Daily Flow	47.82	32.55	49.02	44.25	36.15	29.55	25.62	26.31	24.41	22.75	26.31	33.08	33.18
	Raw Dry Day Average Daily Flow	33.62	29.66	31.81	30.44	33.08	27.26	22.78	22.49	23.69	21.21	21.91	25.28	26.93
	Raw Estimated Infiltration	13.32	9.36	11.51	10.14	12.78	6.96	2.48	2.19	3.39	0.91	1.61	4.98	6.63
	MWRA Estimated Infiltration	0.35	0.25	0.30	0.27	0.34	0.18	0.07	0.06	0.09	0.02	0.04	0.13	0.17
	Final Average Daily Flow	47.47	32.30	48.72	43.98	35.81	29.37	25.55	26.25	24.32	22.73	26.27	32.95	33.00
	Final Dry Day Average Daily Flow	33.27	29.41	31.51	30.17	32.74	27.08	22.71	22.43	23.60	21.19	21.87	25.15	26.76
	Final Estimated Infiltration	12.97	9.11	11.21	9.87	12.44	6.78	2.41	2.13	3.30	0.89	1.57	4.85	6.46
	Estimated Sanitary Flow	20.30	20.30	20.30	20.30	20.30	20.30	20.30	20.30	20.30	20.30	20.30	20.30	20.30
	Estimated Inflow	14.20	2.89	17.21	13.81	3.07	2.29	2.84	3.82	0.72	1.54	4.40	7.80	6.24
Boston East Boston	Raw Average Daily Flow	8.46	5.53	7.90	6.70	5.64	5.12	4.55	6.15	6.23	6.41	6.80	7.69	6.44
	Raw Dry Day Average Daily Flow	5.95	4.77	5.31	5.37	4.48	4.30	4.03	5.13	5.77	6.26	5.86	6.37	5.30
	Raw Estimated Infiltration	2.45	1.27	1.81	1.87	0.98	0.80	0.53	1.63	2.27	2.76	2.36	2.87	1.80
	MWRA Estimated Infiltration	0.35	0.18	0.26	0.27	0.14	0.12	0.08	0.23	0.33	0.40	0.34	0.41	0.26
	Final Average Daily Flow	8.11	5.35	7.64	6.43	5.50	5.00	4.47	5.92	5.90	6.01	6.46	7.28	6.18
	Final Dry Day Average Daily Flow	5.60	4.59	5.05	5.10	4.34	4.18	3.95	4.90	5.44	5.86	5.52	5.96	5.04
	Final Estimated Infiltration	2.10	1.09	1.55	1.60	0.84	0.68	0.45	1.40	1.94	2.36	2.02	2.46	1.54
	Estimated Sanitary Flow	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
	Estimated Inflow	2.51	0.76	2.59	1.33	1.16	0.82	0.52	1.02	0.46	0.15	0.94	1.32	1.14

Table 4 - Estimated Community Wastewater Flow Components for 2024														02/05/2025 PAGE 6 Annual Average (MGD)
Community	Flow Characteristic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Boston Ward Street	Raw Average Daily Flow	36.41	28.05	33.80	31.75	26.38	27.64	24.79	24.71	24.01	22.36	22.98	24.79	27.31
	Raw Dry Day Average Daily Flow	28.13	27.48	25.99	26.70	24.32	24.33	24.30	24.61	23.93	22.31	22.56	22.89	24.79
	Raw Estimated Infiltration	3.83	3.18	1.69	2.40	0.02	0.03	0.00	0.31	0.03	0.01	0.26	0.59	1.02
	MWRA Estimated Infiltration	0.62	0.52	0.28	0.39	0.00	0.00	0.00	0.05	0.00	0.00	0.04	0.10	0.17
	Final Average Daily Flow	35.79	27.53	33.52	31.36	26.38	27.64	24.79	24.66	24.01	22.36	22.94	24.69	27.14
	Final Dry Day Average Daily Flow	27.51	26.96	25.71	26.31	24.32	24.33	24.30	24.56	23.93	22.31	22.52	22.79	24.62
	Final Estimated Infiltration	3.21	2.66	1.41	2.01	0.02	0.03	0.00	0.26	0.03	0.01	0.22	0.49	0.86
	Estimated Sanitary Flow	24.30	24.30	24.30	24.30	24.30	24.30	24.30	24.30	23.90	22.30	22.30	22.30	23.76
	Estimated Inflow	8.28	0.57	7.81	5.05	2.06	3.31	0.49	0.10	0.08	0.05	0.42	1.90	2.52
Boston (North Total)	Raw Average Daily Flow	96.79	69.23	94.73	86.30	71.53	65.24	57.72	59.83	57.23	53.84	58.67	68.51	70.01
	Raw Dry Day Average Daily Flow	70.87	64.99	66.19	65.68	64.88	58.77	53.79	54.65	55.82	52.05	52.84	57.01	59.78
	Raw Estimated Infiltration	21.07	15.19	16.39	15.88	15.08	8.97	3.99	4.85	6.42	4.25	5.04	9.21	10.52
	MWRA Estimated Infiltration	1.51	1.13	1.02	1.12	0.65	0.45	0.27	0.43	0.51	0.49	0.52	0.74	0.74
	Final Average Daily Flow	95.28	68.10	93.71	85.18	70.88	64.79	57.45	59.40	56.72	53.35	58.15	67.77	69.27
	Final Dry Day Average Daily Flow	69.36	63.86	65.17	64.56	64.23	58.32	53.52	54.22	55.31	51.56	52.32	56.27	59.05
	Final Estimated Infiltration	19.56	14.06	15.37	14.76	14.43	8.52	3.72	4.42	5.91	3.76	4.52	8.47	9.78
	Estimated Sanitary Flow	49.80	49.80	49.80	49.80	49.80	49.80	49.80	49.80	49.40	47.80	47.80	47.80	49.26
	Estimated Inflow	25.92	4.24	28.54	20.62	6.65	6.47	3.93	5.18	1.41	1.79	5.83	11.50	10.22
Brookline (North Only)	Average Daily Flow	4.35	3.16	4.20	3.88	3.12	3.10	2.91	2.78	2.55	2.41	2.49	2.70	3.14
	Dry Day Average Daily Flow	3.36	2.93	3.36	3.28	2.90	2.85	2.81	2.53	2.47	2.31	2.32	2.20	2.78
	Estimated Infiltration	1.21	0.78	1.21	1.13	0.75	0.70	0.66	0.38	0.32	0.16	0.17	0.05	0.63
	Estimated Sanitary Flow	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
	Estimated Inflow	0.99	0.23	0.84	0.60	0.22	0.25	0.10	0.25	0.08	0.10	0.17	0.50	0.36
Burlington	Average Daily Flow	5.82	4.31	5.29	5.52	3.78	3.20	2.72	2.75	2.56	2.51	2.59	3.25	3.69
	Dry Day Average Daily Flow	5.01	3.93	4.52	4.83	3.73	3.17	2.69	2.70	2.54	2.49	2.48	3.19	3.44
	Estimated Infiltration	3.01	1.93	2.52	2.83	1.73	1.17	0.69	0.70	0.54	0.49	0.48	1.19	1.44
	Estimated Sanitary Flow	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	Estimated Inflow	0.81	0.38	0.77	0.69	0.05	0.03	0.03	0.05	0.02	0.02	0.11	0.06	0.25
Cambridge	Raw Average Daily Flow	30.85	20.87	31.93	28.86	24.66	23.10	20.24	20.44	18.51	17.62	20.26	25.24	23.57
	Raw Dry Day Average Daily Flow	21.36	19.07	21.01	22.93	20.24	20.24	18.85	17.50	17.65	17.23	16.96	18.38	19.28
	Raw Estimated Infiltration	9.36	7.07	9.01	10.93	8.24	8.24	6.85	5.50	5.65	5.23	4.96	6.38	7.28
	MWRA Estimated Infiltration	1.41	1.06	1.36	1.65	1.24	1.24	1.03	0.83	0.85	0.79	0.75	0.96	1.10
	Final Average Daily Flow	29.44	19.81	30.57	27.21	23.42	21.86	19.21	19.61	17.66	16.83	19.51	24.28	22.47
	Final Dry Day Average Daily Flow	19.95	18.01	19.65	21.28	19.00	19.00	17.82	16.67	16.80	16.44	16.21	17.42	18.19
	Final Estimated Infiltration	7.95	6.01	7.65	9.28	7.00	7.00	5.82	4.67	4.80	4.44	4.21	5.42	6.19
	Estimated Sanitary Flow	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
	Estimated Inflow	9.49	1.80	10.92	5.93	4.42	2.86	1.39	2.94	0.86	0.39	3.30	6.86	4.29
Chelsea	Raw Average Daily Flow	9.87	6.14	10.28	8.78	7.44	6.32	4.94	5.09	4.63	4.26	6.17	7.48	6.79
	Raw Dry Day Average Daily Flow	6.05	5.69	6.19	6.33	5.71	5.38	4.73	4.08	4.24	3.87	4.42	5.31	5.16
	Raw Estimated Infiltration	3.05	2.69	3.19	3.33	2.71	2.38	1.73	1.08	1.24	0.87	1.42	2.31	2.16
	MWRA Estimated Infiltration	0.38	0.33	0.39	0.41	0.34	0.29	0.21	0.13	0.15	0.11	0.18	0.29	0.27
	Final Average Daily Flow	9.49	5.81	9.89	8.37	7.10	6.03	4.73	4.96	4.48	4.15	5.99	7.19	6.52
	Final Dry Day Average Daily Flow	5.67	5.36	5.80	5.92	5.37	5.09	4.52	3.95	4.09	3.76	4.24	5.02	4.90
	Final Estimated Infiltration	2.67	2.36	2.80	2.92	2.37	2.09	1.52	0.95	1.09	0.76	1.24	2.02	1.90
	Estimated Sanitary Flow	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
	Estimated Inflow	3.82	0.45	4.09	2.45	1.73	0.94	0.21	1.01	0.39	0.39	1.75	2.17	1.63

Table 4 - Estimated Community Wastewater Flow Components for 2024											02/05/2025		PAGE 7	
Community	Flow Characteristic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average (MGD)
Everett	Raw Average Daily Flow	7.98	5.52	7.34	7.22	5.76	5.63	4.99	5.09	4.60	4.33	4.62	5.92	5.75
	Raw Dry Day Average Daily Flow	6.31	5.01	5.75	6.18	5.34	5.34	4.95	4.69	4.46	4.30	4.14	5.34	5.15
	Raw Estimated Infiltration	3.01	1.71	2.45	2.88	2.04	2.04	1.65	1.39	1.16	1.00	0.84	2.04	1.85
	MWRA Estimated Infiltration	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01
	Final Average Daily Flow	7.96	5.51	7.33	7.20	5.75	5.62	4.98	5.08	4.59	4.32	4.62	5.91	5.74
	Final Dry Day Average Daily Flow	6.29	5.00	5.74	6.16	5.33	5.33	4.94	4.68	4.45	4.29	4.14	5.33	5.14
	Final Estimated Infiltration	2.99	1.70	2.44	2.86	2.03	2.03	1.64	1.38	1.15	0.99	0.84	2.03	1.84
	Estimated Sanitary Flow	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
	Estimated Inflow	1.67	0.51	1.59	1.04	0.42	0.29	0.04	0.40	0.14	0.03	0.48	0.58	0.60
Lexington	Raw Average Daily Flow	10.81	7.33	9.32	10.31	6.26	5.04	3.91	3.51	3.07	2.95	3.13	4.62	5.85
	Raw Dry Day Average Daily Flow	9.09	6.57	8.12	9.04	6.24	4.87	3.72	3.43	3.01	2.89	2.92	4.54	5.37
	Raw Estimated Infiltration	6.89	4.37	5.92	6.84	4.04	2.67	1.52	1.23	0.81	0.69	0.72	2.34	3.17
	MWRA Estimated Infiltration	0.65	0.41	0.56	0.64	0.38	0.25	0.14	0.12	0.08	0.06	0.07	0.22	0.30
	Final Average Daily Flow	10.16	6.92	8.76	9.67	5.88	4.79	3.77	3.39	2.99	2.89	3.06	4.40	5.55
	Final Dry Day Average Daily Flow	8.44	6.16	7.56	8.40	5.86	4.62	3.58	3.31	2.93	2.83	2.85	4.32	5.07
	Final Estimated Infiltration	6.24	3.96	5.36	6.20	3.66	2.42	1.38	1.11	0.73	0.63	0.65	2.12	2.87
	Estimated Sanitary Flow	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
	Estimated Inflow	1.72	0.76	1.20	1.27	0.02	0.17	0.19	0.08	0.06	0.06	0.21	0.08	0.48
Malden	Raw Average Daily Flow	13.52	8.91	12.16	11.78	8.48	8.09	6.62	6.26	5.74	5.61	6.01	8.32	8.46
	Raw Dry Day Average Daily Flow	10.74	8.06	9.73	10.00	8.13	7.79	6.35	5.99	5.64	5.53	5.54	7.73	7.60
	Raw Estimated Infiltration	5.74	3.06	4.73	5.00	3.13	2.79	1.35	0.99	0.64	0.53	0.54	2.73	2.60
	MWRA Estimated Infiltration	0.60	0.32	0.49	0.52	0.33	0.29	0.14	0.10	0.07	0.06	0.06	0.29	0.27
	Final Average Daily Flow	12.92	8.59	11.67	11.26	8.15	7.80	6.48	6.16	5.67	5.55	5.95	8.03	8.19
	Final Dry Day Average Daily Flow	10.14	7.74	9.24	9.48	7.80	7.50	6.21	5.89	5.57	5.47	5.48	7.44	7.33
	Final Estimated Infiltration	5.14	2.74	4.24	4.48	2.80	2.50	1.21	0.89	0.57	0.47	0.48	2.44	2.33
	Estimated Sanitary Flow	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
	Estimated Inflow	2.78	0.85	2.43	1.78	0.35	0.30	0.27	0.27	0.10	0.08	0.47	0.59	0.86
Medford	Raw Average Daily Flow	13.72	8.47	12.81	12.44	8.23	7.14	5.30	5.50	4.79	4.61	5.30	8.01	8.03
	Raw Dry Day Average Daily Flow	10.16	7.54	9.58	10.34	7.90	6.81	5.05	4.93	4.62	4.49	4.43	7.12	6.91
	Raw Estimated Infiltration	5.86	3.24	5.28	6.04	3.60	2.51	0.75	0.63	0.32	0.19	0.13	2.82	2.61
	MWRA Estimated Infiltration	0.73	0.40	0.66	0.75	0.45	0.31	0.09	0.08	0.04	0.02	0.02	0.35	0.33
	Final Average Daily Flow	12.99	8.07	12.15	11.69	7.78	6.83	5.21	5.42	4.75	4.59	5.28	7.66	7.71
	Final Dry Day Average Daily Flow	9.43	7.14	8.92	9.59	7.45	6.50	4.96	4.85	4.58	4.47	4.41	6.77	6.59
	Final Estimated Infiltration	5.13	2.84	4.62	5.29	3.15	2.20	0.66	0.55	0.28	0.17	0.11	2.47	2.29
	Estimated Sanitary Flow	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
	Estimated Inflow	3.56	0.93	3.23	2.10	0.33	0.33	0.25	0.57	0.17	0.12	0.87	0.89	1.12
Melrose	Raw Average Daily Flow	8.41	4.64	7.00	7.31	3.65	2.92	2.08	2.05	1.72	1.67	1.95	3.56	3.91
	Raw Dry Day Average Daily Flow	6.24	3.77	5.33	5.90	3.59	2.86	2.00	1.92	1.68	1.66	1.94	3.34	3.35
	Raw Estimated Infiltration	4.34	1.87	3.43	4.00	1.69	0.96	0.10	0.02	0.03	0.01	0.04	1.44	1.49
	MWRA Estimated Infiltration	0.87	0.38	0.69	0.81	0.34	0.19	0.02	0.00	0.01	0.00	0.01	0.29	0.30
	Final Average Daily Flow	7.54	4.26	6.31	6.50	3.31	2.73	2.06	2.05	1.71	1.67	1.94	3.27	3.61
	Final Dry Day Average Daily Flow	5.37	3.39	4.64	5.09	3.25	2.67	1.98	1.92	1.67	1.66	1.93	3.05	3.05
	Final Estimated Infiltration	3.47	1.49	2.74	3.19	1.35	0.77	0.08	0.02	0.02	0.01	0.03	1.15	1.19
	Estimated Sanitary Flow	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.65	1.65	1.90	1.90	1.86
	Estimated Inflow	2.17	0.87	1.67	1.41	0.06	0.06	0.08	0.13	0.04	0.01	0.01	0.22	0.56

Table 4 - Estimated Community Wastewater Flow Components for 2024														02/05/2025 PAGE 8 Annual Average (MGD)
Community	Flow Characteristic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Milton (North Only)	Average Daily Flow	0.63	0.35	0.51	0.61	0.30	0.25	0.21	0.22	0.22	0.22	0.22	0.27	0.33
	Dry Day Average Daily Flow	0.45	0.29	0.38	0.48	0.29	0.25	0.20	0.20	0.21	0.22	0.21	0.26	0.29
	Estimated Infiltration	0.30	0.14	0.23	0.33	0.14	0.10	0.05	0.05	0.06	0.07	0.06	0.11	0.14
	Estimated Sanitary Flow	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	Estimated Inflow	0.18	0.06	0.13	0.13	0.01	0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.05
Newton (North Only)	Average Daily Flow	11.61	7.70	9.81	10.85	6.65	5.73	4.56	4.13	4.52	3.74	3.89	5.00	6.51
	Dry Day Average Daily Flow	9.48	6.72	8.17	9.24	6.57	5.42	4.30	3.89	4.35	3.70	3.72	4.82	5.86
	Estimated Infiltration	5.78	3.02	4.47	5.54	2.87	1.72	0.60	0.19	0.65	0.00	0.02	1.12	2.16
	Estimated Sanitary Flow	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
	Estimated Inflow	2.13	0.98	1.64	1.61	0.08	0.31	0.26	0.24	0.17	0.04	0.17	0.18	0.65
Reading	Raw Average Daily Flow	4.47	2.82	3.90	4.20	2.36	1.79	1.44	1.53	1.44	1.43	1.47	2.39	2.44
	Raw Dry Day Average Daily Flow	3.74	2.46	3.37	3.66	2.34	1.76	1.40	1.52	1.41	1.41	1.39	2.38	2.24
	Raw Estimated Infiltration	2.44	1.16	2.07	2.36	1.04	0.46	0.10	0.22	0.11	0.11	0.09	1.08	0.94
	MWRA Estimated Infiltration	0.02	0.01	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	Final Average Daily Flow	4.45	2.81	3.88	4.18	2.35	1.79	1.44	1.53	1.44	1.43	1.47	2.38	2.43
	Final Dry Day Average Daily Flow	3.72	2.45	3.35	3.64	2.33	1.76	1.40	1.52	1.41	1.41	1.39	2.37	2.23
	Final Estimated Infiltration	2.42	1.15	2.05	2.34	1.03	0.46	0.10	0.22	0.11	0.11	0.09	1.07	0.93
	Estimated Sanitary Flow	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
	Estimated Inflow	0.73	0.36	0.53	0.54	0.02	0.03	0.04	0.01	0.03	0.02	0.08	0.01	0.20
Revere	Raw Average Daily Flow	9.35	6.22	9.25	8.52	6.81	6.22	5.62	6.16	5.90	5.66	6.02	8.17	7.00
	Raw Dry Day Average Daily Flow	7.08	5.89	6.51	7.11	6.18	5.90	5.38	5.51	5.40	5.57	5.45	7.05	6.09
	Raw Estimated Infiltration	3.08	1.89	2.51	3.11	2.18	1.90	1.38	1.51	1.40	1.57	1.45	3.05	2.09
	MWRA Estimated Infiltration	0.04	0.02	0.03	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03
	Final Average Daily Flow	9.31	6.20	9.22	8.48	6.79	6.20	5.60	6.14	5.88	5.64	6.00	8.14	6.97
	Final Dry Day Average Daily Flow	7.04	5.87	6.48	7.07	6.16	5.88	5.36	5.49	5.38	5.55	5.43	7.02	6.06
	Final Estimated Infiltration	3.04	1.87	2.48	3.07	2.16	1.88	1.36	1.49	1.38	1.55	1.43	3.02	2.06
	Estimated Sanitary Flow	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
	Estimated Inflow	2.27	0.33	2.74	1.41	0.63	0.32	0.24	0.65	0.50	0.09	0.57	1.12	0.91
Somerville	Raw Average Daily Flow	17.75	8.73	17.40	13.69	10.84	8.98	7.10	6.95	6.11	5.66	8.07	9.98	10.12
	Raw Dry Day Average Daily Flow	10.33	7.58	9.23	9.44	7.66	7.13	6.49	5.64	5.65	5.63	5.72	6.59	7.26
	Raw Estimated Infiltration	4.73	1.98	3.63	3.84	2.06	1.53	0.89	0.04	0.05	0.03	0.12	0.99	1.66
	MWRA Estimated Infiltration	0.11	0.05	0.09	0.09	0.05	0.04	0.02	0.00	0.00	0.00	0.00	0.02	0.04
	Final Average Daily Flow	17.64	8.68	17.31	13.60	10.79	8.94	7.08	6.95	6.11	5.66	8.07	9.96	10.08
	Final Dry Day Average Daily Flow	10.22	7.53	9.14	9.35	7.61	7.09	6.47	5.64	5.65	5.63	5.72	6.57	7.22
	Final Estimated Infiltration	4.62	1.93	3.54	3.75	2.01	1.49	0.87	0.04	0.05	0.03	0.12	0.97	1.62
	Estimated Sanitary Flow	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60
	Estimated Inflow	7.42	1.15	8.17	4.25	3.18	1.85	0.61	1.31	0.46	0.03	2.35	3.39	2.86
Stoneham	Raw Average Daily Flow	5.98	4.46	5.70	5.60	3.47	3.24	2.55	2.57	2.29	2.28	2.38	3.27	3.65
	Raw Dry Day Average Daily Flow	5.34	4.02	4.60	4.59	3.45	3.18	2.49	2.38	2.16	2.27	2.15	3.11	3.31
	Raw Estimated Infiltration	3.84	2.52	3.10	3.09	1.95	1.68	0.99	0.88	0.66	0.77	0.65	1.61	1.81
	MWRA Estimated Infiltration	0.63	0.41	0.51	0.50	0.32	0.27	0.16	0.14	0.11	0.13	0.11	0.26	0.30
	Final Average Daily Flow	5.35	4.05	5.19	5.10	3.15	2.97	2.39	2.43	2.18	2.15	2.27	3.01	3.35
	Final Dry Day Average Daily Flow	4.71	3.61	4.09	4.09	3.13	2.91	2.33	2.24	2.05	2.14	2.04	2.85	3.02
	Final Estimated Infiltration	3.21	2.11	2.59	2.59	1.63	1.41	0.83	0.74	0.55	0.64	0.54	1.35	1.52
	Estimated Sanitary Flow	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
	Estimated Inflow	0.64	0.44	1.10	1.01	0.02	0.06	0.06	0.19	0.13	0.01	0.23	0.16	0.34

Table 4 - Estimated Community Wastewater Flow Components for 2024											02/05/2025		PAGE 9	Annual Average
Community	Flow Characteristic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	(MGD)
Wakefield	Raw Average Daily Flow	7.52	4.43	5.96	6.33	4.03	3.03	2.33	2.23	2.05	1.97	2.02	3.22	3.76
	Raw Dry Day Average Daily Flow	5.70	3.86	5.00	5.36	3.94	2.97	2.22	2.18	2.04	1.91	1.87	3.07	3.34
	Raw Estimated Infiltration	4.20	2.36	3.50	3.86	2.44	1.47	0.72	0.68	0.54	0.41	0.37	1.57	1.84
	MWRA Estimated Infiltration	0.03	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	Final Average Daily Flow	7.49	4.41	5.94	6.31	4.01	3.02	2.33	2.23	2.05	1.97	2.02	3.21	3.75
	Final Dry Day Average Daily Flow	5.67	3.84	4.98	5.34	3.92	2.96	2.22	2.18	2.04	1.91	1.87	3.06	3.33
	Final Estimated Infiltration	4.17	2.34	3.48	3.84	2.42	1.46	0.72	0.68	0.54	0.41	0.37	1.56	1.83
	Estimated Sanitary Flow	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
	Estimated Inflow	1.82	0.57	0.96	0.97	0.09	0.06	0.11	0.05	0.01	0.06	0.15	0.15	0.42
Waltham	Raw Average Daily Flow	14.02	9.75	13.08	13.43	8.49	7.62	6.41	6.17	5.69	5.45	5.69	7.41	8.60
	Raw Dry Day Average Daily Flow	11.21	8.88	10.57	11.32	8.34	7.33	6.17	5.91	5.61	5.40	5.65	6.88	7.77
	Raw Estimated Infiltration	5.61	3.28	4.97	5.72	2.74	1.73	0.57	0.31	0.01	0.00	0.05	1.28	2.19
	MWRA Estimated Infiltration	0.21	0.12	0.18	0.21	0.10	0.06	0.02	0.01	0.00	0.00	0.00	0.05	0.08
	Final Average Daily Flow	13.81	9.63	12.90	13.22	8.39	7.56	6.39	6.16	5.69	5.45	5.69	7.36	8.52
	Final Dry Day Average Daily Flow	11.00	8.76	10.39	11.11	8.24	7.27	6.15	5.90	5.61	5.40	5.65	6.83	7.69
	Final Estimated Infiltration	5.40	3.16	4.79	5.51	2.64	1.67	0.55	0.30	0.01	0.00	0.05	1.23	2.11
	Estimated Sanitary Flow	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.40	5.60	5.60	5.58
	Estimated Inflow	2.81	0.87	2.51	2.11	0.15	0.29	0.24	0.26	0.08	0.05	0.04	0.53	0.83
Watertown	Average Daily Flow	6.79	4.86	6.36	6.40	4.49	3.80	3.33	3.29	3.22	3.11	3.16	3.85	4.39
	Dry Day Average Daily Flow	5.52	4.33	5.18	5.44	4.37	3.74	3.26	3.10	3.11	3.05	2.97	3.62	3.97
	Estimated Infiltration	3.32	2.13	2.98	3.24	2.17	1.54	1.06	0.90	0.91	0.85	0.77	1.42	1.77
	Estimated Sanitary Flow	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
	Estimated Inflow	1.27	0.53	1.18	0.96	0.12	0.06	0.07	0.19	0.11	0.06	0.19	0.23	0.41
Wilmington	Raw Average Daily Flow	2.22	1.76	2.15	2.25	1.73	1.59	1.41	1.47	1.38	1.37	1.36	1.50	1.68
	Raw Dry Day Average Daily Flow	1.95	1.68	1.86	2.07	1.71	1.56	1.38	1.45	1.37	1.36	1.29	1.36	1.59
	Raw Estimated Infiltration	1.15	0.88	1.06	1.27	0.91	0.76	0.58	0.65	0.57	0.56	0.49	0.56	0.79
	MWRA Estimated Infiltration	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.01
	Final Average Daily Flow	2.21	1.75	2.14	2.24	1.72	1.58	1.41	1.46	1.38	1.37	1.36	1.50	1.68
	Final Dry Day Average Daily Flow	1.94	1.67	1.85	2.06	1.70	1.55	1.38	1.44	1.37	1.36	1.29	1.36	1.58
	Final Estimated Infiltration	1.14	0.87	1.05	1.26	0.90	0.75	0.58	0.64	0.57	0.56	0.49	0.56	0.78
	Estimated Sanitary Flow	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
	Estimated Inflow	0.27	0.08	0.29	0.18	0.02	0.03	0.03	0.02	0.01	0.01	0.07	0.14	0.10
Winchester	Average Daily Flow	6.11	3.97	5.45	5.76	3.28	2.55	1.99	1.84	1.63	1.56	1.69	2.30	3.18
	Dry Day Average Daily Flow	5.14	3.45	4.53	4.89	3.26	2.50	1.95	1.73	1.60	1.52	1.57	2.17	2.86
	Estimated Infiltration	3.94	2.25	3.33	3.69	2.06	1.30	0.75	0.53	0.40	0.32	0.37	0.97	1.66
	Estimated Sanitary Flow	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
	Estimated Inflow	0.97	0.52	0.92	0.87	0.02	0.05	0.04	0.11	0.03	0.04	0.12	0.13	0.32
Winthrop	Average Daily Flow	3.54	2.83	3.72	3.54	2.73	2.53	2.30	2.31	2.12	1.91	2.10	2.50	2.68
	Dry Day Average Daily Flow	2.67	2.55	2.88	2.94	2.47	2.39	2.20	2.07	1.92	1.85	1.92	2.18	2.34
	Estimated Infiltration	1.47	1.35	1.68	1.74	1.27	1.19	1.00	0.87	0.72	0.65	0.72	0.98	1.14
	Estimated Sanitary Flow	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
	Estimated Inflow	0.87	0.28	0.84	0.60	0.26	0.14	0.10	0.24	0.20	0.06	0.18	0.32	0.34

Table 4 - Estimated Community Wastewater Flow Components for 2024											02/05/2025		PAGE 10	Annual Average
Community	Flow Characteristic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	(MGD)
Woburn	Raw Average Daily Flow	11.66	8.46	10.05	10.26	7.42	6.01	5.05	5.27	4.92	5.22	5.24	6.62	7.18
	Raw Dry Day Average Daily Flow	9.87	7.61	8.61	8.80	7.30	5.73	4.95	5.00	4.68	5.09	4.94	6.45	6.59
	Raw Estimated Infiltration	6.17	3.91	4.91	5.10	3.60	2.03	1.25	1.30	0.98	1.39	1.24	2.75	2.89
	MWRA Estimated Infiltration	0.51	0.32	0.41	0.42	0.30	0.17	0.10	0.11	0.08	0.11	0.10	0.23	0.24
	Final Average Daily Flow	11.15	8.14	9.64	9.84	7.12	5.84	4.95	5.16	4.84	5.11	5.14	6.39	6.94
	Final Dry Day Average Daily Flow	9.36	7.29	8.20	8.38	7.00	5.56	4.85	4.89	4.60	4.98	4.84	6.22	6.35
	Final Estimated Infiltration	5.66	3.59	4.50	4.68	3.30	1.86	1.15	1.19	0.90	1.28	1.14	2.52	2.65
	Estimated Sanitary Flow	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
	Estimated Inflow	1.79	0.85	1.44	1.46	0.12	0.28	0.10	0.27	0.24	0.13	0.30	0.17	0.59
Subtotal (Northern System)	Raw Average Daily Flow	321.90	216.25	305.13	290.49	215.54	191.54	162.44	163.87	152.97	145.36	160.88	202.93	210.87
	Raw Dry Day Average Daily Flow	241.78	196.85	223.66	233.68	196.31	176.04	153.71	149.03	147.54	141.53	142.71	172.44	181.26
	Raw Estimated Infiltration	118.28	73.35	100.16	110.18	72.81	52.54	30.21	25.53	24.69	20.48	21.21	50.94	58.35
	MWRA Estimated Infiltration	7.89	5.08	6.60	7.39	4.65	3.67	2.25	2.00	1.94	1.81	1.85	3.82	4.08
	Final Average Daily Flow	314.01	211.17	298.53	283.10	210.89	187.87	160.19	161.87	151.03	143.55	159.03	199.11	206.80
	Final Dry Day Average Daily Flow	233.89	191.77	217.06	226.29	191.66	172.37	151.46	147.03	145.60	139.72	140.86	168.62	177.18
	Final Estimated Infiltration	110.39	68.27	93.56	102.79	68.16	48.87	27.96	23.53	22.75	18.67	19.36	47.12	54.27
	Estimated Sanitary Flow	123.50	123.50	123.50	123.50	123.50	123.50	123.50	123.50	122.85	121.05	121.50	121.50	122.91
	Estimated Inflow	80.12	19.40	81.47	56.81	19.23	15.50	8.73	14.84	5.43	3.83	18.17	30.49	29.62
Total (North and South)	Raw Average Daily Flow	535.31	352.14	501.19	482.42	337.41	299.15	251.33	247.39	229.07	220.36	238.93	318.78	334.60
	Raw Dry Day Average Daily Flow	407.62	315.00	375.12	390.80	312.43	280.79	238.97	228.44	219.98	215.14	214.62	277.38	289.70
	Raw Estimated Infiltration	229.22	136.60	196.72	212.40	134.03	102.39	60.57	50.04	42.23	39.19	38.27	100.98	111.89
	MWRA Estimated Infiltration	20.17	12.02	17.60	18.65	11.30	9.52	6.48	5.68	4.92	4.83	4.50	10.02	10.48
	Final Average Daily Flow	515.14	340.12	483.59	463.77	326.11	289.63	244.85	241.71	224.15	215.53	234.43	308.76	324.12
	Final Dry Day Average Daily Flow	387.45	302.98	357.52	372.15	301.13	271.27	232.49	222.76	215.06	210.31	210.12	267.36	279.22
	Final Estimated Infiltration	209.05	124.58	179.12	193.75	122.73	92.87	54.09	44.36	37.31	34.36	33.77	90.96	101.42
	Estimated Sanitary Flow	178.40	178.40	178.40	178.40	178.40	178.40	178.40	178.40	177.75	175.95	176.35	176.40	177.80
	Estimated Inflow	127.69	37.14	126.07	91.62	24.98	18.36	12.36	18.95	9.09	5.22	24.31	41.40	44.91
North System as Reported by NPDES	Average Daily Flow	326.00	212.00	308.50	292.10	212.80	192.70	164.70	165.60	153.70	140.80	158.70	203.00	211.00
Total System as Reported by NPDES	Average Daily Flow	525.10	333.60	491.70	469.50	325.40	291.30	245.00	240.60	220.50	206.30	227.10	308.50	323.90

Table 4 - Estimated Community Wastewater Flow Components for 2024											02/05/2025			PAGE 11	Annual Average
Community	Flow Characteristic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		(MGD)
Chelsea Creek	Average Daily Flow	159.09	102.16	146.50	141.52	99.48	86.81	71.39	70.89	64.40	62.52	70.47	92.51		97.36
	Dry Day Average Daily Flow	121.44	91.53	110.00	116.50	91.00	81.02	68.32	63.96	61.46	60.68	61.06	80.93		83.99
	Estimated Infiltration	73.84	43.93	62.40	68.90	43.40	33.42	20.72	16.36	14.11	13.33	13.46	33.33		36.44
	Estimated Sanitary Flow	47.60	47.60	47.60	47.60	47.60	47.60	47.60	47.60	47.35	47.35	47.60	47.60		47.56
	Estimated Inflow	37.65	10.63	36.50	25.02	8.48	5.79	3.07	6.93	2.94	1.84	9.41	11.58		13.36
Columbus Park	Average Daily Flow	48.45	32.90	49.53	44.86	36.45	29.80	25.83	26.53	24.63	22.98	26.52	33.35		33.51
	Dry Day Average Daily Flow	34.07	29.95	32.19	30.93	33.37	27.51	22.99	22.69	23.90	21.43	22.12	25.53		27.22
	Estimated Infiltration	13.62	9.50	11.74	10.48	12.92	7.06	2.54	2.24	3.45	0.98	1.67	5.08		6.77
	Estimated Sanitary Flow	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45		20.45
	Estimated Inflow	14.38	2.95	17.34	13.93	3.08	2.29	2.84	3.84	0.73	1.55	4.40	7.82		6.29
Ward Street	Average Daily Flow	88.03	63.70	83.38	80.98	60.94	58.72	51.35	50.53	48.70	45.11	47.26	56.24		61.26
	Dry Day Average Daily Flow	67.48	59.60	63.69	67.63	55.18	53.15	50.11	45.15	46.18	44.63	42.66	46.24		53.45
	Estimated Infiltration	23.13	15.25	19.34	23.28	10.83	8.80	5.76	0.80	2.23	2.48	0.31	3.89		9.66
	Estimated Sanitary Flow	44.35	44.35	44.35	44.35	44.35	44.35	44.35	44.35	43.95	42.15	42.35	42.35		43.80
	Estimated Inflow	20.55	4.10	19.69	13.35	5.76	5.57	1.24	5.38	2.52	0.48	4.60	10.00		7.80
Winthrop Terminal	Average Daily Flow	26.37	17.47	25.75	23.23	18.77	16.83	14.50	16.54	15.84	15.45	17.30	21.39		19.14
	Dry Day Average Daily Flow	18.81	15.79	17.83	18.72	16.07	15.14	13.50	14.34	14.58	15.03	14.83	17.91		16.05
	Estimated Infiltration	8.41	5.39	7.43	8.32	5.67	4.74	3.10	3.94	4.18	4.63	4.43	7.51		5.65
	Estimated Sanitary Flow	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40		10.40
	Estimated Inflow	7.56	1.68	7.92	4.51	2.70	1.69	1.00	2.20	1.26	0.42	2.47	3.48		3.09
Subtotal - Northern Headworks	Average Daily Flow	321.94	216.23	305.16	290.59	215.64	192.16	163.07	164.49	153.57	146.06	161.55	203.49		211.26
	Dry Day Average Daily Flow	241.80	196.87	223.71	233.78	195.62	176.82	154.92	146.14	146.12	141.77	140.67	170.61		180.72
	Estimated Infiltration	119.00	74.07	100.91	110.98	72.82	54.02	32.12	23.34	23.97	21.42	19.87	49.81		58.51
	Estimated Sanitary Flow	122.80	122.80	122.80	122.80	122.80	122.80	122.80	122.80	122.15	120.35	120.80	120.80		122.21
	Estimated Inflow	80.14	19.36	81.45	56.81	20.02	15.34	8.15	18.35	7.45	4.29	20.88	32.88		30.55
Headworks as Reported by NPDES	SUM of NPDES HW ADF's (below)	326.00	212.00	308.50	292.10	212.80	192.70	164.70	165.60	153.70	140.80	158.70	203.00		211.00
Chelsea Creek	Average Daily Flow	164.80	100.60	152.00	147.20	97.70	86.80	72.50	73.30	65.90	60.30	68.00	93.40		98.60
Columbus Park	Average Daily Flow	48.40	32.60	49.50	44.40	36.20	29.60	25.60	26.40	24.50	22.80	26.40	33.70		33.37
Ward Street	Average Daily Flow	86.10	61.60	81.60	78.40	59.60	57.70	50.90	50.30	48.60	45.20	47.50	56.80		60.38
Winthrop Terminal	Average Daily Flow	26.70	17.20	25.40	22.10	19.30	18.60	15.70	15.60	14.70	12.50	16.80	19.10		18.66
Total System Flow (Southern Collection System Plus Northern Headworks)	Raw Average Daily Flow	535.35	352.12	501.22	482.52	337.51	299.77	251.96	248.01	229.67	221.06	239.60	319.34		334.99
	Raw Dry Day Average Daily Flow	407.64	315.02	375.17	390.90	311.74	281.57	240.18	225.55	218.56	215.38	212.58	275.55		289.16
	Raw Estimated Infiltration	229.94	137.32	197.47	213.20	134.04	103.87	62.48	47.85	41.51	40.13	36.93	99.85		112.06
	MWRA Estimated Infiltration	12.28	6.94	11.00	11.26	6.65	5.85	4.23	3.68	2.98	3.02	2.65	6.20		6.40
	Final Average Daily Flow	523.07	345.18	490.22	471.26	330.86	293.92	247.73	244.33	226.69	218.04	236.95	313.14		328.59
	Final Dry Day Average Daily Flow	395.36	308.08	364.17	379.64	305.09	275.72	235.95	221.87	215.58	212.36	209.93	269.35		282.76
	Final Estimated Infiltration	217.66	130.38	186.47	201.94	127.39	98.02	58.25	44.17	38.53	37.11	34.28	93.65		105.66
	Estimated Sanitary Flow	177.70	177.70	177.70	177.70	177.70	177.70	177.70	177.70	177.05	175.25	175.65	175.70		177.10
	Estimated Inflow	127.71	37.10	126.05	91.62	25.77	18.20	11.78	22.46	11.11	5.68	27.02	43.79		45.83

Table 4 - Estimated Community Wastewater Flow Components for 2024														02/05/2025 PAGE 12 Annual Average (MGD)
Community	Flow Characteristic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Boston (Total)	Raw Average Daily Flow	145.07	97.55	137.22	127.54	96.56	87.34	76.45	78.05	73.25	69.19	75.37	94.64	96.58
	Raw Dry Day Average Daily Flow	106.57	88.57	98.77	98.85	87.69	79.88	71.63	71.51	71.08	67.36	67.23	78.83	82.33
	Raw Estimated Infiltration	48.57	30.57	40.77	40.85	29.69	21.88	13.63	13.51	13.48	11.36	11.23	22.83	24.87
	MWRA Estimated Infiltration	11.83	6.90	10.17	10.49	6.13	5.30	3.89	3.68	3.16	3.16	2.84	5.85	6.12
	Final Average Daily Flow	133.24	90.65	127.05	117.05	90.43	82.04	72.56	74.37	70.09	66.03	72.53	88.79	90.46
	Final Dry Day Average Daily Flow	94.74	81.67	88.60	88.36	81.56	74.58	67.74	67.83	67.92	64.20	64.39	72.98	76.21
	Final Estimated Infiltration	36.74	23.67	30.60	30.36	23.56	16.58	9.74	9.83	10.32	8.20	8.39	16.98	18.75
	Estimated Sanitary Flow	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	57.60	56.00	56.00	56.00	57.46
	Estimated Inflow	38.50	8.98	38.45	28.69	8.87	7.46	4.82	6.54	2.17	1.83	8.14	15.81	14.24
Brookline (Total)	Raw Average Daily Flow	11.07	7.17	10.44	9.60	6.90	6.61	5.71	5.29	4.99	4.79	5.30	6.91	7.07
	Raw Dry Day Average Daily Flow	8.28	6.36	7.78	7.78	6.38	6.23	5.36	4.89	4.80	4.60	4.70	5.76	6.08
	Raw Estimated Infiltration	3.98	2.06	3.48	3.48	2.08	1.93	1.06	0.59	0.50	0.30	0.40	1.46	1.78
	MWRA Estimated Infiltration	0.02	0.01	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	Final Average Daily Flow	11.05	7.16	10.42	9.58	6.89	6.60	5.71	5.29	4.99	4.79	5.30	6.90	7.06
	Final Dry Day Average Daily Flow	8.26	6.35	7.76	7.76	6.37	6.22	5.36	4.89	4.80	4.60	4.70	5.75	6.07
	Final Estimated Infiltration	3.96	2.05	3.46	3.46	2.07	1.92	1.06	0.59	0.50	0.30	0.40	1.45	1.77
	Estimated Sanitary Flow	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
	Estimated Inflow	2.79	0.81	2.66	1.82	0.52	0.38	0.35	0.40	0.19	0.19	0.60	1.15	0.99
Milton (Total)	Average Daily Flow	8.97	5.29	7.94	7.77	4.50	3.69	2.70	2.58	2.35	2.21	2.34	4.38	4.56
	Dry Day Average Daily Flow	6.80	4.45	5.73	6.14	4.27	3.59	2.57	2.43	2.25	2.17	2.14	3.88	3.87
	Estimated Infiltration	5.30	2.95	4.23	4.64	2.77	2.09	1.07	0.93	0.75	0.67	0.64	2.38	2.37
	Estimated Sanitary Flow	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
	Estimated Inflow	2.17	0.84	2.21	1.63	0.23	0.10	0.13	0.15	0.10	0.04	0.20	0.50	0.69
Newton (Total)	Raw Average Daily Flow	30.04	19.44	26.38	27.68	16.69	14.15	11.42	10.29	9.47	8.95	9.35	13.05	16.41
	Raw Dry Day Average Daily Flow	24.13	16.66	21.30	23.14	16.28	13.67	10.85	9.72	8.48	8.84	8.65	12.16	14.49
	Raw Estimated Infiltration	16.33	8.86	13.50	15.34	8.48	5.87	3.05	1.92	0.68	1.04	0.85	4.36	6.69
	MWRA Estimated Infiltration	0.03	0.02	0.02	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	Final Average Daily Flow	30.01	19.42	26.36	27.65	16.68	14.14	11.41	10.29	9.47	8.95	9.35	13.04	16.39
	Final Dry Day Average Daily Flow	24.10	16.64	21.28	23.11	16.27	13.66	10.84	9.72	8.48	8.84	8.65	12.15	14.48
	Final Estimated Infiltration	16.30	8.84	13.48	15.31	8.47	5.86	3.04	1.92	0.68	1.04	0.85	4.35	6.68
	Estimated Sanitary Flow	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80
	Estimated Inflow	5.91	2.78	5.08	4.54	0.41	0.48	0.57	0.57	0.99	0.11	0.70	0.89	1.92

Table 4 - Estimated Community Wastewater Flow Components for 2024											02/05/2025		PAGE 13	Annual Average
Community	Flow Characteristic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	(MGD)
Subtotal	Raw Average Daily Flow	155.26	104.97	154.34	137.63	114.47	103.64	90.00	92.31	86.48	81.38	93.17	111.21	110.49
Northern System CSO	Raw Dry Day Average Daily Flow	108.61	97.33	102.62	104.38	98.49	91.52	83.86	81.87	83.36	78.78	79.94	87.29	91.49
Communities Only:	Raw Estimated Infiltration	38.21	26.93	32.22	33.98	28.09	21.12	13.46	11.47	13.36	10.38	11.54	18.89	21.63
[Sum of Boston (North),	MWRA Estimated Infiltration	3.41	2.57	2.86	3.27	2.28	2.02	1.53	1.39	1.51	1.39	1.45	2.01	2.14
Cambridge, Chelsea,	Final Average Daily Flow	151.85	102.40	151.48	134.36	112.19	101.62	88.47	90.92	84.97	79.99	91.72	109.20	108.35
and Somerville]	Final Dry Day Average Daily Flow	105.20	94.76	99.76	101.11	96.21	89.50	82.33	80.48	81.85	77.39	78.49	85.28	89.35
	Final Estimated Infiltration	34.80	24.36	29.36	30.71	25.81	19.10	11.93	10.08	11.85	8.99	10.09	16.88	19.49
	Estimated Sanitary Flow	70.40	70.40	70.40	70.40	70.40	70.40	70.40	70.40	70.00	68.40	68.40	68.40	69.86
	Estimated Inflow	46.65	7.64	51.72	33.25	15.98	12.12	6.14	10.44	3.12	2.60	13.23	23.92	19.00
Subtotal	Raw Average Daily Flow	166.64	111.28	150.79	152.86	101.07	87.90	72.44	71.56	66.49	63.98	67.71	91.72	100.38
Northern System Without	Raw Dry Day Average Daily Flow	133.17	99.52	121.04	129.30	97.82	84.52	69.85	67.16	64.18	62.75	62.77	85.15	89.77
North CSO Communities:	Raw Estimated Infiltration	80.07	46.42	67.94	76.20	44.72	31.42	16.75	14.06	11.33	10.10	9.67	32.05	36.72
	MWRA Estimated Infiltration	4.48	2.51	3.74	4.12	2.37	1.65	0.72	0.61	0.43	0.42	0.40	1.81	1.94
	Final Average Daily Flow	162.16	108.77	147.05	148.74	98.70	86.25	71.72	70.95	66.06	63.56	67.31	89.91	98.44
	Final Dry Day Average Daily Flow	128.69	97.01	117.30	125.18	95.45	82.87	69.13	66.55	63.75	62.33	62.37	83.34	87.83
	Final Estimated Infiltration	75.59	43.91	64.20	72.08	42.35	29.77	16.03	13.45	10.90	9.68	9.27	30.24	34.79
	Estimated Sanitary Flow	53.10	53.10	53.10	53.10	53.10	53.10	53.10	53.10	52.85	52.65	53.10	53.10	53.04
	Estimated Inflow	33.47	11.76	29.75	23.56	3.25	3.38	2.59	4.40	2.31	1.23	4.94	6.57	10.62
Subtotal	Raw Average Daily Flow	380.05	247.17	346.85	344.79	222.94	195.51	161.33	155.08	142.59	138.98	145.76	207.57	224.11
North/South Systems Without	Raw Dry Day Average Daily Flow	299.01	217.67	272.50	286.42	213.94	189.27	155.11	146.57	136.62	136.36	134.68	190.09	198.21
North CSO Communites:	Raw Estimated Infiltration	191.01	109.67	164.50	178.42	105.94	81.27	47.11	38.57	28.87	28.81	26.73	82.09	90.27
	MWRA Estimated Infiltration	16.76	9.45	14.74	15.38	9.02	7.50	4.95	4.29	3.41	3.44	3.05	8.01	8.34
	Final Average Daily Flow	363.29	237.72	332.11	329.41	213.92	188.01	156.38	150.79	139.18	135.54	142.71	199.56	215.77
	Final Dry Day Average Daily Flow	282.25	208.22	257.76	271.04	204.92	181.77	150.16	142.28	133.21	132.92	131.63	182.08	189.87
	Final Estimated Infiltration	174.25	100.22	149.76	163.04	96.92	73.77	42.16	34.28	25.46	25.37	23.68	74.08	81.93
	Estimated Sanitary Flow	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00	107.75	107.55	107.95	108.00	107.94
	Estimated Inflow	81.04	29.50	74.35	58.37	9.00	6.24	6.22	8.51	5.97	2.62	11.08	17.48	25.90