South Boston Sewer Separation Phase II 21-309-012

2025 - 2027
PROPOSED CAPITAL IMPROVEMENT PROGRAM

Boston Water and Sewer Commission

BOSTON WATER AND SEWER COMMISSION PROPOSED CAPITAL IMPROVEMENT PROGRAM 2025-2027

Henry F. Vitale
Executive Director
November 2024

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Prepared by the Finance Division

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EXECUTIVE SUMMARY

The Boston Water and Sewer Commission ("the Commission" or "BWSC") is a body politic and corporate and political subdivision of the Commonwealth created by Chapter 436 of the Acts of 1977 ("Enabling Act"). The Enabling Act abolished the water and sewer divisions within the City of Boston Public Works Department and transferred the ownership, operation and control of the water, sewer and storm drain systems to the Commission. As a public instrumentality, the Commission performs an essential public function in providing water and sewer services to the residents of the City of Boston. The Act authorizes the Commission to construct and make improvements to the water and sewer systems, establish and collect rates and charges for its services and finance its operations and improvements through revenue collections and the sale of bonds and notes payable solely from the Commission's revenues. The Act further provides that any revenue surplus earned by the Commission in any Fiscal Year shall be credited to the next year's rates or returned to the City of Boston. Since its inception, the Commission has generated a surplus in each year of its operations and has credited the surplus to the reduction of the next year's rates.

The Enabling Act and the Commission's General Revenue Bond Resolution adopted December 6, 1984 ("the Resolution") require the Commission, on an annual basis, to develop a three-year Capital Improvement Program ("CIP"). Information generated by the Commission's ongoing monitoring programs for the systems and from various engineering data files, together with information concerning the development needs of the City, is used to compile a list of pipes, conduits, transmission mains and other system components to be either renewed, replaced, relocated or added to the systems each year. The CIP outlines the schedule and implementation of the capital projects necessary to maintain and improve the water and sewer systems for the ensuing three-year period. Due to pace of project implementation, the actual expenditures are currently expected to occur over a longer period of time. While there can be no assurance that projections for the projects included in the 2025-2027 CIP will not be exceeded or that additional projects will not be required, the Commission believes the amounts set forth the 2025-2027 Capital Improvement Program are reasonable for such projects.

The Commission in compliance with the requirements of the Enabling Act and the Resolution, project costs of the Commission's Capital Improvement Program from Fiscal Years 2025 through 2027 total approximately $401.6 million.

Since the Commission's inception in 1977, the Commission has set forth its Capital Improvement Plan to provide for long-term capital improvements to its water distribution and sewer collection systems, governed by a core commitment to prudent fiscal management. Comprehensive and well-planned water distribution system maintenance and planning has sustained superior water service for our customers and resulted in a low incidence of system failures. The Commission has also led the industry in implementing effective water conservation measures, including dedication to deploying the most efficient technologies and practices enabling the Commission to maximize cost savings.

The Commission utilizes effective conservation measures through continued efforts to eliminate leaks across the system through advanced leak detection technology and proactive maintenance of the system's water mains.

DISCUSSION OF MANAGEMENT OBJECTIVES AND ACCOMPLISHMENTS

The Commission was created to maintain and improve the long-term quality and reliability of water, sewer, and stormwater services for all users in the City and to assure adequate funding for operation and maintenance of the systems. For the purposes of this document, "Systems" include the water distribution system (including potable water and fire suppression facilities) and sewer system (including separate sanitary sewers, separate stormwater drains and combined sewers) and the related appurtenances and fixtures. The Commission is committed to four primary goals:

- To maintain and improve the water distribution and wastewater collection systems. The Commission is committed to various improvements to the Water Distribution and Sewer Systems, including following an aggressive renewal and replacement program, reducing unaccounted for water, encouraging conservation and improving the environment. The Commission is also committed to meeting and exceeding the requirements of all federal and state water and wastewater laws, regulations and technical standards.

- To establish and administer a billing and collections system that is fair and efficient. The Commission has worked to establish a rate structure that fully and fairly reflects its costs, properly distributes the financial obligation concerning its customer base and encourages water conservation. The metering, billing, and collection process is a central focus of the Commission's full management team, and the Commission is committed to maintaining its strong record in that area.

- To maintain a strong financial structure. The Commission has consistently employed conservative financial projections and budgeting assumptions, maintained adequate reserves, and struck a reasonable balance between debt funding and rate funding of capital expenses.

- To sustain the effectiveness of investments / compliance of regulations. The Commission is committed to complying with all its regulatory obligations under federal and state laws, including the Safe Drinking Water Act ("SDWA") and Clean Water Act ("CWA") with its National Pollutant Discharge Elimination System ("NPDES") permitting obligations for both its stormwater systems and combined sewer systems. Compliance obligations also extend to meeting and exceeding the goals and requirements of the Boston Harbor Decree and the Consent Decree executed in 2012 with the Environmental Protection Agency ("EPA") related to stormwater discharges.

In planning its CIP, the Commission balances the recognized need for ongoing renewal and replacement and preservation of its Systems with the desirability of specific improvements to accommodate development or redevelopment plans for the city. Wherever feasible, capital improvements are scheduled in cooperation with the street rebuilding and reconstruction activities of the City's Department of Public Works, the Boston Planning and Development Agency and Massachusetts Department of Transportation.

OBJECTIVES

The overall objectives of the Commission's 2025-2027 CIP are to ensure the delivery of high-quality potable water for consumption and fire protection, as well as the efficient collection of sewage for transport and delivery to a treatment facility or for approved discharge. In addition, the CIP includes projects to improve overall efficiency of the Commission and to enhance the Commission's ability to provide services to its customers.

The Stormwater category was created in 2017 that focuses on Stormwater management. The primary purpose of the Stormwater category in the 2025-2027 CIP is to participate in the Boston Harbor pollution abatement projects and improve the water quality of discharges to the local receiving waters. The goal is also to study existing conditions and make recommendations for placement of best management practices designed to promote improved water quality, ensure compliance with state and federal regulations, minimize flooding, and strategically manage Stormwater throughout the City of Boston.

CIP expenditures are divided into four categories: Water Distribution System projects, Sewer System projects, Support projects and Stormwater projects. Water Distribution System projects account for $132.3 million, or 33.0% of the 2025-2027 CIP. Sewer System projects comprise $135.8 million, or 33.8%, Support projects total $66.8 million, or 16.6% of the expenditures outlined in the program, and Stormwater projects account for $66.7 million, or 16.6% of the 2025-2027 CIP.

Total capital expenditures of $149.7 million are outlined for 2025. Water Distribution projects comprise $56.8 million, or 38.0% of the 2025 CIP. Sewer System projects account for $42.0 million, or 28.0%; Support projects account for $27.4 million of the 2025 amount, or 18.3%; Stormwater projects totaling $23.5 million of the 2025 amount, or 15.7%.

Tables 1 and 2 represent the cash flow expenditures and funding sources for the Commission's 2025-2027 CIP.

Table 1 - 2025-2027 CIP Cash Flows

Program	2025	2026	2027	2025-2027
Water	$56,840,000	$43,269,000	$32,177,000	$132,286,000
Sewer	$41,978,000	$49,823,000	$44,030,000	$135,831,000
Support	$27,386,000	$24,528,000	$14,862,000	$66,776,000
Stormwater	$23,546,000	$24,664,000	$18,449,000	$66,659,000
Total	**$149,750,000**	**$142,284,000**	**$109,518,000**	**$401,552,000**

NOTE: *Although expenditures decrease from periods 2025 to 2027, it is anticipated that funding for 2027 will be equal to or greater than funding presented in 2025. The decrease in 2027 is primarily due to the CIP being a one-year cash flow, over a three-year budget period.*

CIP expenditures are funded by five funding sources: Bonds, Rate Revenue, the MWRA funded Local Water System Assistance Program (LWSAP), the MWRA funded I/I Local Financial Assistance Program (MWII), and the State Revolving Fund (SRF). In 2000 the MWRA instituted a new assistance program for the identification and removal of lead from water pipes. This program is called the Lead Service Line Replacement Loan Program (MWLLP). Costs for this program are associated under the MWRA Water Assistance program and SRF. Rate funded projects comprise of $133.9 million or 33.3%; Bonds funded projects account for $127.4 million of the 2025-2027 CIP or 31.7%; MWRA funded sewer projects account for $66.5 million of the 2025-2027 CIP or 16.6%; SRF funded projects account for $56.6 or 14.1% of the 2025-2027 CIP; and MWRA funded water projects total $17.2 million of the expenditures outlined in the program or 4.3%.

Total capital expenditures of $149.8 million are outlined for 2025. Bond funded projects comprise $59.4 million of the 2025 amount or 39.7%; Rate funded projects account for $42.8 million of the 2025 amount or 28.6%; I/I projects total $22.5 million of the 2025 amount or 15.0%; and SRF account for $17.5 million of the 2025 amount or 11.7%; and MWRA Water projects account for $7.5 million of the 2025 amount or 5.0%.

Table 2 – 2025-2027 CIP Funding Souces

Program	2025	2026	2027	2025-2027
BWSC Bonds	$59,406,000	$41,639,000	$26,315,000	$127,360,000
Rate Revenue	$42,820,000	$44,222,000	$46,832,000	$133,874,000
MWRA Water Assistance	$7,492,000	$4,286,000	$5,458,000	$17,236,000
MWRA I/I Assistance	$22,533,000	$29,970,000	$14,010,000	$66,513,000
SRF	$17,499,000	$22,167,000	$16,903,000	$56,569,000
Total	**$149,750,000**	**$142,284,000**	**$109,518,000**	**$401,552,000**

NOTE: *Although expenditures decrease from periods 2025 to 2027, it is anticipated that funding for 2027 will be equal to or greater than funding presented in 2025. The decrease in 2027 is primarily due to the CIP being a one-year cash flow, over a three-year budget period.*

PROJECT HIGHLIGHTS

The Commission's CIP includes projects to improve the overall efficiency and to enhance the Commission's ability to provide services to its customers. The projects included in this CIP are intended to accomplish these objectives in the most efficient and cost-effective manner. The Commission intends to enhance Boston's water, sewer, and stormwater infrastructure with several targeted projects included in the 2025-2027 Capital Improvement Program. Some of the major projects are listed below:

- ✓ Fort Point Channel and Mystic/Chelsea Combined Sewer Overflow Control Projects
- ✓ Water Main Large Valve Replacement
- ✓ Rehabilitation of the New Boston Main Interceptor (NBMI)
- ✓ East Boston Sewer Separation
- ✓ South Boston Sewer Separation
- ✓ Design of Dorchester Interceptor - Relief Sewer
- ✓ West Roxbury and Hyde Park SSES
- ✓ City-wide Illegal Connections Investigations
- ✓ Upgrades to Union Park Pumping Station & Satellite Stations
- ✓ Charlestown SSES
- ✓ Charlestown Sewer Separation
- ✓ Construction of Daisy Field Green Infrastructure
- ✓ Coastal Stormwater Impact Analysis
- ✓ Projects affiliated with the Consent Decree; includes cleaning and televising 90 miles of sewer and drains
- ✓ Improvements of Information Technology
- ✓ Citywide Renewal & Rehabilitation of Drains and Sewers
- ✓ Lead Sampling and Education Program for Schools and Childcare Facilities

WATER DISTRIBUTION SYSTEM

Since its creation, the Boston Water and Sewer Commission has provided the City of Boston with reliable, quality water. A program, which began as an aggressive 17 miles of water pipe replaced or rehabilitated annually based on age and the City's construction schedule, has transformed into a successful asset management approach. When combined with an aggressive leak detection and flushing program, the results have been undeniable. The Commission has averaged just over 35 water pipe failures per year and has witnessed its unbilled water drop from 48% to 18%. The Commission utilizes effective conservation measures through continued efforts to eliminate leaks across the system through advanced leak detection technology and proactive maintenance of the system's water mains.

In 1991, the EPA issued the Lead and Copper Rule (the "Lead Rule") regulating the concentration of lead and copper in drinking water. Lead enters tap water through corrosion, or wearing away of lead contained in service piping, solder used in plumbing and some brass fixtures. The Commission's drinking water is treated at the MWRA's John J. Carroll facility to make it less corrosive. Under the Lead Rule, water suppliers must conduct treatment lead and copper sampling programs, identify and implement optimal corrosion control treatment and provide information to the public on ways to further reduce their exposure to lead in drinking water. At the time the Lead Rule was passed, the MWRA and MassDEP agreed that, since the MWRA was a consecutive water supplier and provides the same drinking water to all communities it serves, the number of lead and copper samples the MWRA communities were required to collect could be reduced. The Commission collects water samples from the required 33 customer locations and submits them to the MWRA. The MWRA analyzes the samples for lead and copper content and provides the results from all the MWRA local communities to MassDEP.

In March 2004, the Commission's sample results, exceeded the 90th percentile lead action level, triggering a series of required actions under the Lead Rule, including the conducting of a public education program and the implementation of an approved Lead Service Line Replacement Program. The Commission's Lead Service Line Replacement was approved by the MassDEP in November 2004. Over a three-year period from 2004-2007, the Commission removed 1,074 public lead service lines identified in the system, far exceeding MassDEP requirement to remove 107 service lines annually. In February 2008, because of consecutive, favorable water sampling results below the 90th percentile lead action level, both MassDEP and EPA allowed the Commission to suspend its Lead Service Line Replacement Program. The Commission, however, continued to replace lead lines in the public way as they encountered through maintenance.

In accordance with state and federal regulations, the Commission continues its sampling program at 33 private sites that are known to have lead services. Importantly, Boston drinking water is lead free when its leaves the reservoirs, and the MWRA and Boston's water mains do not contain lead. In October 2020, the Commission's sample results from identified private homes exceeded the 90th percentile lead action level for the first time since 2004, triggering a series of required actions under the Lead Rule. In October 2021, the Commission and MassDEP executed an administrative consent order requiring the Commission to remove at least three hundred lead service lines annually as well as perform 700 investigations of water services on the "lead, unknown and other" inventory lists. In the most recent reporting period January 2024 through October 2024, the Commission removed 326 lead service lines in the system, both public and private. The Commission has performed 377 Vacuum excavations in the public way and 954 scratch tests on the private side. The MassDEP has approved the Commission for partial funding of this program, including 100% reimbursement for the investigations and 40% grant for lead water service removals. As part of the plan, the Commission implemented a robust public education program to inform particularly vulnerable members of the public about the dangers of lead in water. The Commission's website provides information for customers to indicate the potential of a lead service on their property. The Commission expanded its Lead Service Line Program, which was approved by MassDEP in March 2021. In October 2023, the Commission's lead sample results from identified private homes exceeded 15 parts per billion at 6 of the 33 tested locations, thus exceeding EPA's action level of 15 parts per billion at the 90th percentile. The Commission is continuing the removal of known lead service lines in the system and investigating service lines of unknown composition. The Commission agreed to implement the removal of private lead service lines as part of the Administrative Order ahead of the pending EPA changes to the Lead and Copper Rule. The change upon implementation at a future date uncertain, will require systems to remove all lead lines in the public way and also those located on private property. Under the Commission's water use regulations, the property

owner is responsible for the private portion of the water service line, which is the portion running from the property line into the home. The cost of private line replacement is therefore the responsibility of the individual home or property owner. In 2004, the Commission created the Lead Replacement Incentive Program. The program was designed to encourage the replacement of private lead lines in the City by providing financial assistance to eligible homeowners to help defray and finance the cost of lead service line replacements. In February 2016, the Board of Commissioners voted to upgrade the Commission's existing Lead Replacement Incentive Program increased the credit from $1,000 to $2,000 and expanded eligibility to all properties with services two-inches (2") and under. In March 2021, the Board of Commissioners voted to further upgrade this credit from $2,000 to $4,000 to incentivize property owners to remove their private lead service line and reduce the financial cost to do so. The Commission mailed letters to all customers with a known private lead service line or a private service line of unknown composition to inform them of the increased credit and public lead service line removal. A second round of letters was sent to all customers with a known private lead service line or an unknown service line. The Commission does not expect that the SDWA requirements will impose any significant additional burden of lead service line replacement in excess of its current program.

From January 1st to date, the number of private lead service removals is 282 and the number of public lead removals is 31. Lead was removed from 13 services on both the public side and the private side for a total of 326 addresses where lead has been removed.

On July 26, 2023, the Commissioners voted to amend the financial assistance program removing any cost limits on lead removal on private property whereas DEP has provided a commitment to give a grant for 30% of the lead replacement costs as well as 100% grant on investigations. In October 2023, the Clean Water Trust in conjunction with DEP approved an increase to the grant in the amount of 40% of the contract.

In 2024, 377 Vacuum investigations have occurred, finding 35 lead services and 342 copper services and other material services, In 2024, 954 scratch tests were conducted, finding 156 lead services and 798 copper services and other material services.

The Safe Drinking Water Act (SDWA) requires that all community water systems publish an annual drinking water quality report to be distributed to all customers of each community system. The report, called a Consumer Confidence Report, is required to contain monitoring results of all detected contaminants that are regulated by the EPA. The regulations governing this provision of the SDWA were promulgated in August 1998. The report has been published annually since 1998 by the MWRA, in cooperation with the communities it serves.

The Public Health Security and Bioterrorism Response Act, enacted in June 2002, mandated the preparation of a Vulnerability Assessment and Emergency Response Plan (ERP) by each public drinking water supplier. The Commission's Vulnerability Assessment was submitted and received by the EPA in March 2003. The Commission's Emergency Response Plan was completed in September 2003, certification of its completion was submitted to the EPA in September 2003 and it was updated in July 2004, January 2009, November 2011 and December 2014. The Emergency Response Plan addresses the actions to be taken in response to a major or catastrophic events and terrorists attack on the Commission's Water Distribution System. Based in part upon the findings of the Vulnerability Assessment and the Emergency Response Plan, the Commission continues to design and develop Water Distribution System Improvements to mitigate, prevent, detect and respond to disruptive acts and terrorist activities. The Commission also complied with the America's Water Infrastructure Act of 2018 (AWIA) by completing an updated Emergency Response Plan by September 2020.

In 2011, the Commission completed a Water Distribution Study, which provided a thorough understanding of the water system and how to best manage it. The study gave all stakeholders a better sense of the history of Boston's water infrastructure and provided key insights into current conditions. The study has been responsible for the development of best management practices in value maintenance, main flushing and more effective methodology of selecting pipe to be replaced under the Capital Improvement Plan. Not only do these tools assist current Commission employees with an understanding of the system, but they also provide future employees with a roadmap for optimal system maintenance.

The three-year study was divided into two phases. The first phase was to have both Commission staff and a hired contractor collect 93 pipe samples (coupons). The samples were taken from every neighborhood and varied in size and pipe material. The age of the water pipes ranged from 18 years old to 147 years old and included cast iron, ductile iron and a mix of cement lined and unlined. The pipe and soil samples, which were also taken from the locations, were analyzed. The analysis consisted of physical observations and measurements, microscopic examination, mechanical properties test, and chemical composition analysis. The soil sample obtained at each location was also analyzed to determine its corrosiveness. The results of the tests performed were matched with locations on Commission maps, and corrosion rates were correlated with fill areas, electrified rail locations and groundwater levels.

The second phase was to create a sustainable distribution system by developing a risk-based measure for selecting pipe to be included in the annual CIP budget. This phase employed sophisticated models that levered all the data collected in phase one, data the Commission collects in its GIS, Citiworks, and hydraulic model to determine the appropriate level of pipe rehabilitation and replacement needed to achieve the Commission's goals. The pipe selected is based on a risk-based assessment. The framework is derived from asset management principles, which consider the highest risk of pipe to be the probability of a failure, and what the consequences of an event occurring could be (hospital flooding or critical customers without water).

This system is used in the selection of pipes for replacement under the Capital Improvement Program. Pipes with the highest ranking are considered first. Pipes are also selected within proximity to other selected pipe to create geographic based contracts. All street excavations are coordinated with City and State Paving Programs.

The study recommended replacing eleven miles of pipe per year through the year 2030. This ranking system was updated in 2016 resulting in a recommendation to replace and rehabilitate eight miles of pipe per year.

In addition to the samples taken during the three-year study, the Commission obtains eight pipe samples every year. Once the results of the analysis are received the information is uploaded into the Commission's database to continue selecting the most vulnerable pipe.

Using the latest technology solutions, we are identifying new areas where BWSC can make sustainable improvement to the quality of our environment and services.

With aggressive leak detection and repair combined with progressive metering programs, the Commission continues to reduce its unbilled water by approximately 85% from 70 mgd in Fiscal Year 1977 to 9.66 mgd in Fiscal year 2023. Unbilled water is the difference between water purchased from the MWRA and water sold to customers. Of the 9.7 mgd of unbilled water in Fiscal Year 2023, approximately 4.52 mgd was identified as water for unbilled public purposes such as firefighting and street cleaning. Thus, unaccounted-for-water was approximately 5.14 mgd, or about 8.52% of the 60.31 mgd which the Commission purchased from the MWRA. The Commission continues to provide a leakage survey of the entire system each year.

Water distribution system improvements made since 1978 include the replacement of 404.8 miles of older water mains.

Over the three years of the CIP, the Commission is projected to expend $132.3 million on improvements to the Water Distribution System. Most of these expenditures will occur in the replacement of water mains.

The projects scheduled for initiation in 2025 will result in the replacement of 10.7 miles of water mains.

Table 3 presents a summary of the 2025-2027 capital expenditures for the Water Distribution System.

Table 3 - Water Distribution System Expenditures by Program Category

Program	2025	2026	2027	2025-2027
Water Replacement	$45,294,000	$34,486,000	$23,041,000	$102,821,000
Water Special	$11,546,000	$8,783,000	$9,136,000	$29,465,000
Total	**$56,840,000**	**$43,269,000**	**$32,177,000**	**$132,286,000**

NOTE: *Although expenditures decrease from periods 2025 to 2027, it is anticipated that funding for 2027 will be equal to or greater than funding presented in 2025. The decrease in 2027 is primarily due to the CIP being a one-year cash flow, over a three-year budget period.*

SEWER SYSTEM

The CIP for the Sewer System includes a total of $135.8 million for various types of system improvements. These include in-kind replacement and rehabilitation of sewer pipes, installation or replacement of sewers and storm drains that increase the overall capacity of the system, separation of combined sewers, identification and reduction of infiltration and inflow and compliance with permit requirements in the areas of combined sewer overflows and stormwater discharges.

Major sewer system improvements have resulted in increased system capacity and the virtual elimination of dry weather overflows from combined sewers into Boston Harbor and the Neponset, Charles and Mystic Rivers. These improvements have also increased water quality and improved accessibility to all waterways.

Projects associated with the Plan in the Sewer System CIP include the rehabilitation or replacement of approximately 15.5 miles of newly identified deteriorated or collapsed sanitary sewers and storm drains and the television inspection of approximately 21 miles of sewer and drain pipe within the next year. Also included are drainage improvements and the replacement of faulty tide-gates and the installation of new tide-gates.

The CIP continues funding for the separation of combined sewers and for the reduction of infiltration and inflow into the sanitary system. Infiltration and inflow (I/I) are extraneous quantities of water, which enters the sanitary sewers and reduces the capacity of the system to transport sanitary sewage. Reduction of I/I also decreases the quantity of water transported to the Massachusetts Water Resource Authority ("MWRA") wastewater treatment facilities, thereby reducing overall transportation costs, treatment costs and BWSC's sewer assessments.

Combined flows that exceed the capacity of the interceptors during storm events discharged into the Boston Harbor and the Charles River. In the past several years, the Commission has undertaken a number of studies of its combined sewer system and has developed flows to significantly reduce CSO. The issue of infiltration and inflow ("I/I") into the sanitary system in separated areas of the system is also being addressed. Surveys have been performed to identify I/I sources, stormwater into the sanitary sewers.

Table 4 presents a summary of the 2025-2027 capital expenditures for the Sewer System.

Table 4 - Sewer System Expenditures by Program Category

Program	2025	2026	2027	2025-2027
Sewer R & R	$33,262,000	$44,478,000	$39,916,000	$117,656,000
Sewer Special	$8,716,000	$5,345,000	$4,114,000	$18,175,000
Total	**$41,978,000**	**$49,823,000**	**$44,030,000**	**$135,831,000**

NOTE: *Although expenditures decrease from periods 2025 to 2027, it is anticipated that funding for 2027 will be equal to or greater than funding presented in 2025. The decrease in 2027 is primarily due to the CIP being a one-year cash flow, over a three-year budget period.*

CONSENT DECREE

On August 23, 2012, the Commission entered in a Consent Decree with the Environmental Protection Agency and Conservation Law Foundation. Under the terms of the Consent Decree the Commission implemented a Capacity, Maintenance, Operations and Management ("CMOM") self-assessment study in 2012 that analyzed all aspects of the Commission's sanitary sewer and storm drainage facility operations and maintenance. The Commission finalized a CMOM Corrective Action Plan in July 2013 and developed a CMOM Program Document in May 2014. The CMOM Program synchronizes infrastructure maintenance and operations goals with long-term CIP planning to achieve ("CWA") compliance with the Commission's NPDES permit and ultimately improve water quality.

As part of the CMOM Corrective Action Plan filed with the EPA, the Commission increased its inspection and assessment of its sewer and drainage systems. The program represents progressive increases in the quantity of pipes cleaned and televised with an end goal of completing approximately 10% of the system annually.

The Commission has embraced the Consent Decree requirements from senior management through all divisions and departments. The Commission views the requirements as an opportunity to enhance its current practices and procedures in operating and maintaining the sewer system. Staffing leadership changes have been implemented; for example, a CMOM superintendent and an SSO manager were hired in 2013 to ensure compliance with the requirements enforced by the Consent Decree.

The Consent Decree offers an unprecedented opportunity for the Commission to increase its role as an environmental steward for Boston's waterways. The Commission is committed to meeting and surpassing the benchmarks outlined in the Consent Decree. To fulfill this commitment, the Commission has begun implementing both short-term and long-term measures that are designed to improve water quality, increase public awareness, and protect the environment.

The City of Boston, the Commission and its ratepayers have helped clean up Boston Harbor and Boston's waterways to a level where they are accessible for the public use 90.2% of the time. South Boston's beaches are recognized as the cleanest urban beaches in the U.S. and the Charles River has been recognized by the EPA and internationally as one of the cleanest urban rivers in America. The Commission's illicit discharge detection protocol and sampling program have been cited as an example and standard by EPA. These achievements are a direct result of the Commission's investment in improved sewer and stormwater infrastructure, implementation of best management practices and working with other stakeholders in the City of Boston. The Commission will continue a tenable, sustainable path to improve water quality and maintain outstanding access to the City's waterways.

PROJECTS ASSOCIATED WITH THE CONSENT DECREE & WATER QUALITY IMPROVEMENTS

There are several projects that the Commission is performing and planning to undertake to fulfill and exceed recommendations of the Environmental Protection Agency and Conservation Law Foundation ("EPA" and "CLF") under the Consent Decree. The following projects will support the Commission's goal of compliance with the Consent Decree and improved water quality discharges and the environment:

Consent Decree:

Sewer R & R

- Cleaning and Inspections of Sewers and Storm Drains (CMOM-Capacity Management Operations)

Sewer Special

- Citywide Illegal Connection Investigation
- Customization of SCREAM & CMOM

Storm Water

- Design of Stormwater Detention Facilities
- Fort Point Channel and Mystic/Chelsea Combined Sewer Overflow Control Projects
- Construction of Stormwater Detention Facilities PH I
- CCTV of Sewers and Storm Drains (Contamination Investigation) IDDE
- Constructed Wetland in Stormwater Tributary Area
- Green Infrastructure
- Sampling of Stormwater Treatment Vault on Talbot Avenue

NOTE: *Full description and forecasted budgets of individual projects are available in the Sewer R & R, Sewer Special & Stormwater sections.*

Table 5 presents a summary of the 2025-2027 projected capital expenditures associated with the Consent Decree.

Table 5 – Consent Decree Expenditures by Contract

Description	Budget
Sewer Lateral Testing and CCTV Inspection of Sewers and Drains	$461,000
CCTV Inspections for Tidal Infiltration	$1,200,000
Citywide Illicit Connection Investigation Program Stormwater Phase 6	$1,670,000
Citywide Illict Connection Investigation Program Stormwater Phase 5	$436,000
Owner Correction of Illicit Connections	$46,000

DEDICATED INFILTRATION INFLOW 4:1 PROJECTS

In 2004, the Massachusetts Department of Environmental Protection ("DEP"), in conjunction with the MWRA and its member communities implemented a program to help remove stormwater infiltration and inflow: I/I from the sewer system. Private developments may add substantial flows to the sewer collection system, requiring additional MWRA treatment.

To offset the effect of these additions, the Massachusetts DEP previously recommended to the Massachusetts Environmental Policy Act Office and the Executive Office of Environmental Affairs that new developments with a sewerage flow estimated at greater than 15,000 GPD be required to remove I/I at a 4:1 ratio from the sanitary sewer system, as part of the requirements by the Secretary of Environmental Affairs.

The Commission conducts investigations to identify sources of I/I to the Commission's system. These projects identify both public and private sector sources of I/I. Commission staff initially planned on developing a database with locations of I/I sources, which would be provided to a developer. The developer would correct sources from that list to fulfill their I/I removal requirement.

However, the Commission staff believed that this process would be unwieldy and unmanageable. Subsequently, at the July 28, 2005 Commission meeting, the Commission approved the establishment of a Dedicated Infiltration/Inflow ("DEDII") account into which developers assessed a 4:1 I/I reduction requirement by the DEP would contribute funds to fulfill their requirements. These funds will be used by the Commission to fund I/I identification and reduction projects.

During private project design, Engineering Customer Services receives and reviews a Site Plan for conformance with the Commission's Engineering Design and Construction standards. The Commission will confirm if the project is subject to the 4:1 compliance requirement as required by the new regulations.

The Engineering Customer Service Department will coordinate with the Planning Department on the most current estimated wastewater flow that has been submitted by the developer. The developer will coordinate with the Commission how to comply with the proposed assessment. The developer can either remove sources of I/I or make a requisite monetary contribution to the Commission.

In April 2014, the DEP promulgated new regulations. These regulations require the Commission to mitigate the impacts of development of all new sewer connections exceeding 15,000 gpd by removing four gallons of I/I for each new gallon of wastewater flow. For example, if a proposed project's calculated new daily wastewater flow is 100,000 gallons per day (gpd), the developer must remove 400,000 gpd of I/I from the sewer system.

All costs identified as "DEDII" and are 100% reimbursable; therefore, are not included in the 2025-2027 cashflow.

Table 6 – Dedicated I/I Expenditures and Status by Contract

Contract	Description	Cost	Status
22-206-009	Engineering Design, 3 year Services	$1,362,000	Active
22-206-008	Engineering Design, 3 year Services	$1,362,000	Active
21-206-003	East Boston Sewer Separation - Phase 4	$3,010,000	Active

WASTEWATER AND STORM DRAINAGE FACILITIES PLAN

The Commission completed its Wastewater and Storm Drainage System Facilities Plan in 2015. A major objective of the plan was to develop facility plans for the operation of the Commission's sewer and storm drains that are aligned with the Commission's primary service goals and supported by effective operations, maintenance, and engineering practices. This plan has reviewed all aspects of the Commission Sewer System, including the Commission's design standards, assets, mapping, maintenance and operational practices and future impacts of climate change on the Commission's facilities.

Critical elements of this Plan include:

- ✓ **Assessment of the Commission's Service Goals and other factors affecting long-term planning including** changing regulatory requirements, climate change and financial conditions.
- ✓ **Systematic use of Risk-based tools** to govern prioritization of investments in condition assessments, repairs and replacements
- ✓ **Integration of Business Processes** needed to sustain effective **C**apacity, **M**anagement, **O**peration and **M**aintenance (CMOM) Programs for sanitary sewer collections systems and engineering programs
- ✓ **Training and Education** to embrace the use of new tools and business processes and to sustain knowledge of the system and its operations

In addition to establishing a sustainable framework for planning and management, the plan includes a broad spectrum of data collection, engineering evaluation and tool development activities.

SUPPORT PROJECT EXPENDITURES

The capital projects included in the Support category contribute to the overall efficient operation of the Commission and improve the Commission's ability to manage/administer projects and collect revenues. The allocated budget for Support projects in the 2025-2027 CIP total $66.8 million.

The allocated budget in this section of the CIP includes expenditures for Advanced Meter Infrastructure, Information Technology, and various Administrative Equipment.

Table 7 presents a summary of the 2025-2027 capital expenditures for the Support projects.

Table 7 - Support Expenditures by Project Category

Program	2025	2026	2027	2025-2027
Metering	$1,600,000	$2,100,000	$2,100,000	$5,800,000
IT	$3,780,000	$3,650,000	$3,850,000	$11,280,000
Admin Equip	$22,006,000	$18,778,000	$8,912,000	$49,696,000
Total	**$27,386,000**	**$24,528,000**	**$14,862,000**	**$66,776,000**

NOTE: *Although expenditures decrease from periods 2025 to 2027, it is anticipated that funding for 2027 will be equal to or greater than funding presented in 2025. The decrease in 2027 is primarily due to the CIP being a one-year cash flow, over a three-year budget period.*

STORMWATER PROJECT EXPENDITURES

The primary purpose of the Stormwater Program is to encourage participation in the Boston Harbor pollution abatement projects and implement green infrastructure to improve the water quality of discharges to the local receiving waters. The goal is also to study existing conditions and make recommendations for placement of best new management practices designed to promote improved water quality, ensure compliance with state and federal regulations, minimize flooding, and manage stormwater throughout the City of Boston. The allocated budget for Stormwater projects in the 2025-2027 CIP total $66.7 million.

Table 8 presents a summary of the 2025-2027 capital expenditures for the Stormwater projects.

Table 8 - Stormwater Expenditures by Project Category

Program	2025	2026	2027	2025-2027
Stormwater	$23,546,000	$24,664,000	$18,449,000	$66,659,000
Total	**$23,546,000**	**$24,664,000**	**$18,449,000**	**$66,659,000**

NOTE: *Although expenditures decrease from periods 2025 to 2027, it is anticipated that funding for 2027 will be equal to or greater than funding presented in 2025. The decrease in 2027 is primarily due to the CIP being a one-year cash flow, over a three-year budget period.*

MASSACHUSETTS WATER RESOURCES AUTHORITY (MWRA)

The Commission obtains its water supply and wastewater treatment services from MWRA. MWRA provides water services to 54 cities, towns and special purpose entities ("Local Bodies") including the Commission and wastewater treatment to nearly half of the State's population in 43 cities, towns and special purpose entities located throughout central and eastern Massachusetts.

MWRA Background

In December 1984, MWRA was created by Chapter 372 of the Acts of 1984 ("the Act"). In accordance with the provisions of the Act effective July 1, 1985 the ownership, possession and control of all property comprising the Metropolitan District Commission ("MDC") water and sewer systems was transferred to MWRA. The Act authorizes MWRA to repair, replace, rehabilitate, modernize and extend the water delivery system and the sewage collection, disposal and treatment systems on a self-sustaining basis. The Act also allows for the issuance of bonds and notes to finance any of its corporate activities.

On January 31, 1985, a suit commonly referred to as the Boston Harbor case, was brought against the MDC, the Commonwealth, MWRA (as successor to the MDC) and the Commission alleging water pollution of and alleged illegal discharges into Boston Harbor in violation of the Clean Water Act. As the successor to the MDC, MWRA assumed responsibility for taking the Court-ordered actions to achieve and maintain compliance with the CWA. Such large-scale projects are financed through the issuance of revenue bonds, proceeds of federal and state grants and operating revenues.

MWRA Rates and Charges

Under the Act, MWRA was empowered to establish charges for its services and commodities. One of the basic goals achieved by the MWRA Act was the substitution of assessments, or user fees, to the member communities for the prior tax-based system of charges.

The Commission is the largest single customer for MWRA. For MWRA fiscal year 2025, the Commission will be assessed 35.3% of the water system charges and 27.6% of the sewer system charges. On a combined basis, the Commission will pay 30.4% of the total MWRA assessments.

Assessments for water services are calculated by MWRA based on the metered water use in the calendar year immediately preceding the MWRA fiscal year. The Commission's water charges for the MWRA fiscal year 2025 total $109.9 million based on the Commission's calendar year 2023 metered water use.

As of fiscal year, 1995, sewer assessments were calculated by a formula using, among other things, population and population equivalents. In accordance with legislation enacted in 1993, the MWRA developed a new sewer rate methodology for calculating assessments beginning in fiscal year 1996. The new methodology allocates operating and maintenance costs based on total metered annual flow and total annual average strength, septage contributions and high strength flow loads. Septage contributions are allocated based on volume, total suspended solids ("TSS") and biochemical oxygen demand ("BOD") loadings. High-strength flow loads are generated by those permitted entities whose flows exceed 25,000 gallons per day and whose TSS and/or BOD concentrations exceed 400 milligrams per liter.

Capital or debt service costs are allocated as follows: two-eighths based on maximum month metered flow and total annual average strength, septage and high strength flow loads; three-eighths based upon contributing (sewer) population; and three-eighths based population. Metered wastewater flow from the immediately preceding calendar year is used in calculating assessments. The Commission's sewer assessment for the MWRA fiscal year 2025 based on calendar year 2023 data, totals $150.0 million. Total assessments for water and sewer charges for MWRA fiscal year 2025 are $259.9 million.

As the largest of MWRA's customers, BWSC represents 34.8 percent of the current demand on the MWRA water supply. BWSC's water comes from the Quabbin Reservoir and the Wachusett Reservoir, located about 65 miles and 35 miles west of Boston. The two reservoirs combined supplied an average of 194.7 mgd (millions of gallon per day) to consumers in 2023. The safe yield of the reservoir system is 300 mgd.

Water distributed to the Boston metropolitan area is conveyed from the reservoirs through the Cosgrove or Wachusett Aqueducts and treated at the MWRA's John J. Carroll Water Treatment Plant at Walnut Hill in Marlborough. Treatment includes ozone disinfection, pH adjustment with sodium bicarbonate and the addition of chloramines and fluoride. Water leaves the plant through the MetroWest Water Supply Tunnel and is stored in covered storage tanks, such as Norumbega Reservoir and the Loring Road Tanks, where it is held for delivery to BWSC's service networks. MWRA mains distribute water to the BWSC system at 29 metered delivery points.

Today, Boston is one of 54 customers that purchases water wholesale from MWRA. BWSC's water distribution system currently provides service to approximately 90,000 active accounts throughout the City. Boston's resident population of nearly 675,000 almost doubles each day by commuting workers and students, shoppers, tourists, conventioneers, hospital patients and visitors.

MWRA has completed construction of major transmission and treatment facilities to service the Greater Boston area including the Metro West Tunnel. These improvements will ensure that Boston receives a reliable source of clean water.

FUNDING SOURCES AND FINANCIAL IMPACT

Funding for the Commission's CIP is provided through five sources: Commission general revenue bonds, rate revenues, state revolving funds and two grant/loan programs provided by MWRA.

The primary funding source for the three-year capital program is the sale of Commission general revenue bonds. Over the three-year plan, general revenue bonds will comprise $127.4 million of the total funding requirement. In 2025, bonds will make up approximately $59.4 million of the funding required for that year.

As in past CIP's, the 2025-2027 program funds renewal and replacement ("R&R") work from current rate revenues. Renewal and replacement projects include water main relining, water main replacement (only replacement with the same size pipe), sewer pipe rehabilitation, and storm drain improvement. The 2025-2027 CIP outlines R&R expenditures of $133.9 million of total expenditures over the three years of the program. In 2025, approximately $42.8 million will be expended out of current rate revenues for CIP projects.

Each year the Commission participates in the MWRA's I/I program for Infiltration/Inflow and Separation projects. Since 1993, the Commission has received $127.3 million in MWRA funding for various Infiltration/Inflow and Separation projects of which $6.5 million is currently outstanding. In addition, the Commission has received grants under the I/I Grant/Loan Program totaling $66.5 million. The Commission plans to continue to take advantage of MWRA funding over the 2025-2027 period.

Table 9 lists projects funded by MWRA's I/I program for Infiltration/Inflow and Separation

Table 9 – Projects Funded by MWRA's I/I Program of Infiltration/Inflow and Separation

Contract	Description
24-309-006	Charlestown Sewer Separation
24-308-014	Sewage Works Improvements in Mattapan
24-308-003	Associated Sewer Back Bay/ East Boston
23-309-001	Sewage Works Improvements in Allston/Brighton
23-206-005	West Roxbury and Hyde Park SSES
23-206-001	Charlestown SSES
22-309-003	Upper Roxbury R&R
22-309-002	Replacement of Sewer and Drains Citywide, R&R
22-309-001	Roslindale/West Roxbury Rehabilitation
21-309-002	East Boston Sewer Separation Phase IV - Contract 1
21-309-001	Sewer & Storm Drain Improvements in Hyde Park
20-309-006	Sewer and Drain Replacement and Rehabilitation (R&R)
20-309-004	Sewerage & Drainage Works Improvements
19-309-001	Tidegates, Citywide
	Roxbury SSES
	CCTV Inspections for Tidal Infiltration

The MWRA Board of Directors, by their vote on March 16, 2016, authorized the enhancement of the Local Water System Assistance Program to provide up to $100 million in 10-year zero-interest loans to communities under the MWRA Lead Service Line Replacement Loan Program. The program will also be referenced as the "Lead Loan Program" or "LLP" for short. This interest-free loan program is designed to assist member water communities to rehabilitate or replace water service lines so that all lead pipe is fully removed. The program will help upgrade local water systems to reduce the potential for elevated lead levels at customer taps and maintain high water quality conditions throughout the system. As of December 31, 2023, the Commission has received $3.5 million in LLP funding of which there currently is an outstanding balance of $2.5 million.

The MWRA provides support for water systems improvement projects through its Local Water System Assistance Program (LWSAP). The program offers interest-free loans payable over a ten-year period and is designed to improve water quality in local distribution systems. The MWRA has also established the Local Water System Assistance Program ("LWSAP") to assist its Local Bodies in the performance of water systems improvement projects. The program offers interest-free loans payable over a ten year period and is designed to improve water quality in local distribution systems. The amount allocated for BWSC in Phase 3 of the program is $52.8 or approximately $5.3 million per year. The loans will be repaid to the MWRA over a 10-year period. Loans are approved for distribution from fiscal year 2011 through fiscal year 2030. The Commission has applied for loan funding for certain water main replacement projects through the remainder of this program. MWRA's Board of Directors recently approved Phase 4 of the Local Water System Assistance Program (LWSAP) to provide an additional $300 million in interest-free loans to member water communities for local water system improvement projects. New Phase 4 Loan funds are approved for distribution beginning in FY25 through FY34. For Boston, a total of $16,926,136 is currently available for LWSAP loan distribution (Program Phases 3 and 4), with a new annual allocation of $4,963,900 for Phase 4. All project costs incurred on or after January 1, 2010 have been considered for eligibility in application $17.2 million will be funded using the LWSAP Program. In total, the commission has received $80.0 million in LWSAP funding. As of December 31, 2023, the Commission has received $11.0 million in LWSAP funding of which there currently is an outstanding balance of $36.8 million.

It is anticipated that in the 2025-2027 Capital Improvement Program $17.2 million will be funded using the LWSAP Program.

Table 10 lists water projects funded by the MWRA with LWSAP & MWLLP

Table 10 – Projects Funded by the MWRA with LWSAP & MWLLP

Contract	Description
24-308-002	Water Main Replacement Heath Street
23-308-001	Water Relay Lower Roxbury
19-308-004	Replacement and Rehabilitation of Water, Sewer, and Drain Pipes in Back Bay, Beacon Hill, and City Proper
19-308-001	Water, Sewer, & Drainage Works Improvements

The EPA and Commonwealth provide support for funding and financing through the State Revolving Fund (SRF). The SRF offers affordable loan options to cities and towns to improve water supply infrastructure and drinking water safety; and to help them to comply with federal and state water quality requirements that deal with wastewater treatment plants and collection systems, while addressing issues such as watershed management priorities, stormwater management, and green infrastructure. Additionally, the SRF supplies financial assistance to address communities with septic system problems. These federal-state programs offer below-market rate loans and other authorized assistance with extended loan terms typically over twenty to thirty years.

It is anticipated that in the 2025-2027 Capital Improvement Program $56.6 million will be funded using the SRF Program.

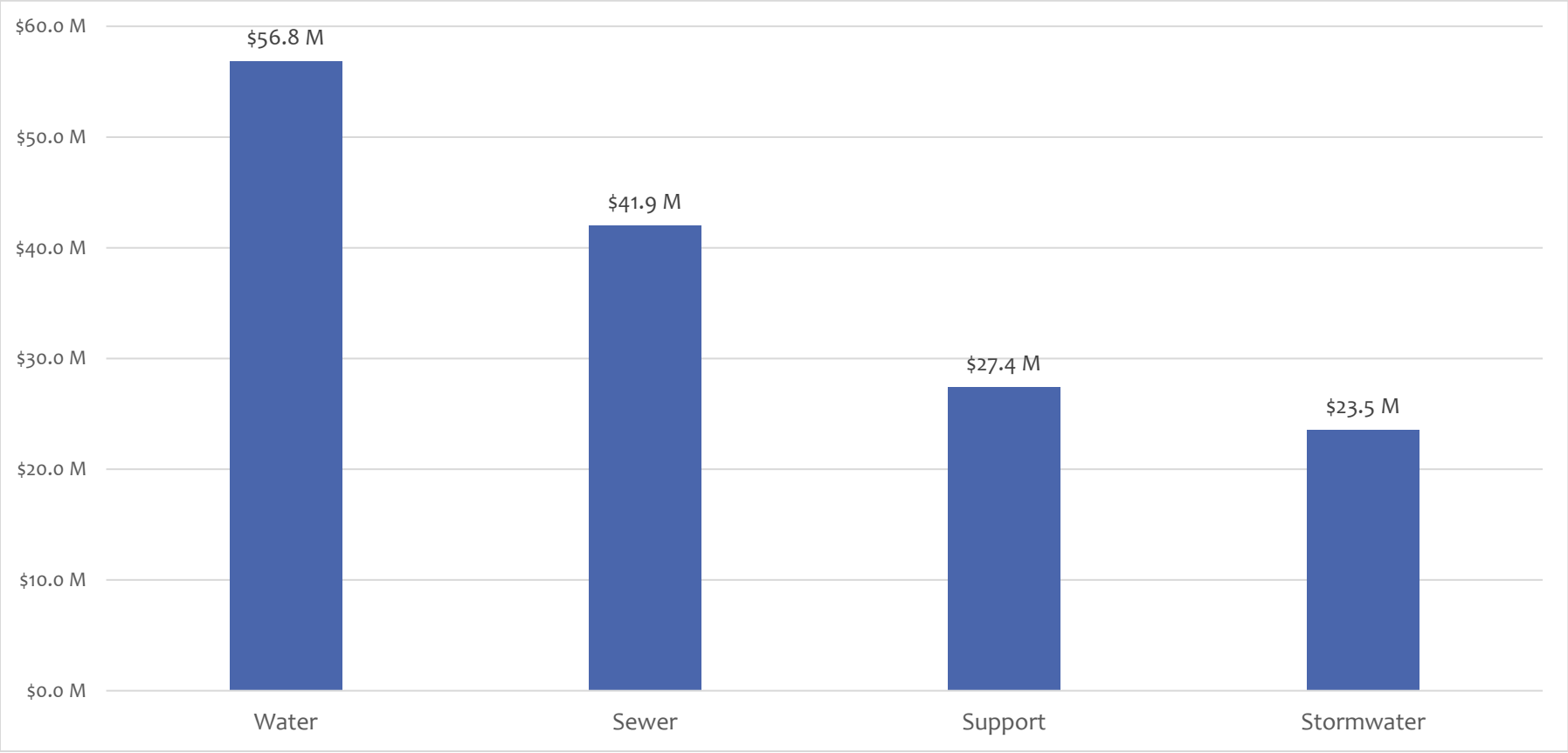
Table 11 on page 19 represents the cash flow expenditures by category and funding source for the Commission's 2025-2027 CIP.

Table 11

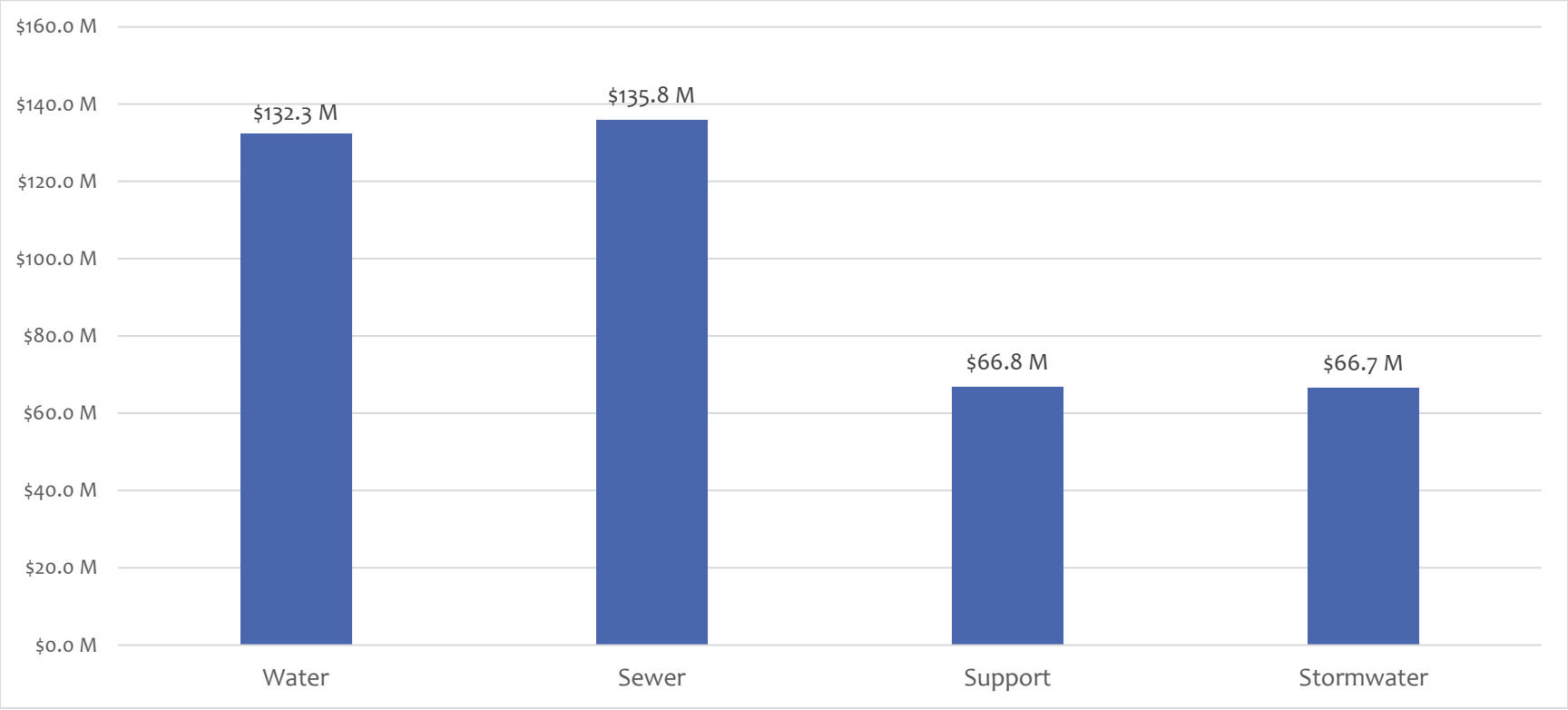
Capital Improvement Program
2025 - 2027
Totals by Category and Funding Source

	2025	2026	2027	Total 2025 - 2027
Water Total	$ 56,840,000	$ 43,269,000	$ 32,177,000	$ 132,286,000
BWSC Bonds	19,313,000	11,085,000	7,635,000	38,033,000
LWSAP	7,492,000	4,286,000	5,458,000	17,236,000
MWRA II	77,000			77,000
RATE Revenue	24,362,000	22,039,000	16,366,000	62,767,000
SRF	5,596,000	5,859,000	2,718,000	14,173,000
Sewer Total	$ 41,978,000	$ 49,823,000	$ 44,030,000	$ 135,831,000
BWSC Bonds	10,931,000	4,623,000	2,502,000	18,056,000
MWRA II	13,129,000	21,212,000	10,896,000	45,237,000
Rate Revenue	12,987,000	16,218,000	23,700,000	52,905,000
SRF	4,931,000	7,770,000	6,932,000	19,633,000
Support Total	$ 27,386,000	$ 24,528,000	$ 14,862,000	$ 66,776,000
Stormwater Total	$ 23,546,000	$ 24,664,000	$ 18,449,000	$ 66,659,000
BWSC Bonds	1,776,000	1,403,000	1,316,000	4,495,000
MWRA II	9,327,000	8,758,000	3,114,000	21,199,000
Rate Revenue	5,471,000	5,965,000	6,766,000	18,202,000
SRF	6,972,000	8,538,000	7,253,000	22,763,000
Total	**$ 149,750,000**	**$ 142,284,000**	**$ 109,518,000**	**$ 401,552,000**
BONDS	59,406,000	41,639,000	26,315,000	127,360,000
LWSAP	7,492,000	$4,286,000	5,458,000	17,236,000
MWRA II	22,533,000	29,970,000	14,010,000	66,513,000
RATE	42,820,000	44,222,000	46,832,000	133,874,000
SRF	17,499,000	22,167,000	16,903,000	56,569,000
Total	**$ 149,750,000**	**$ 142,284,000**	**$ 109,518,000**	**$ 401,552,000**

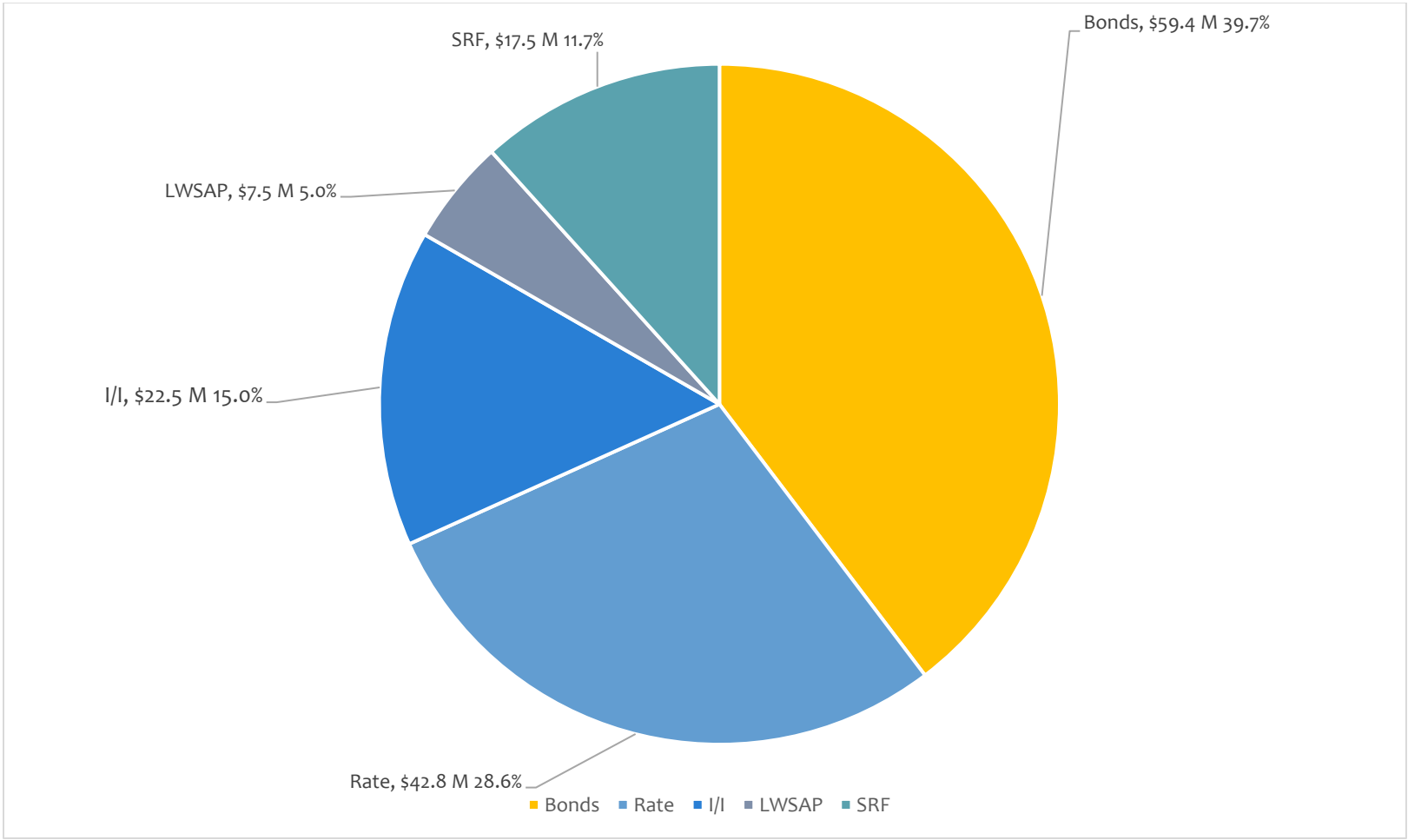
Graph 1 - 2025 CIP Total Expenditures by Category $149.7 Million



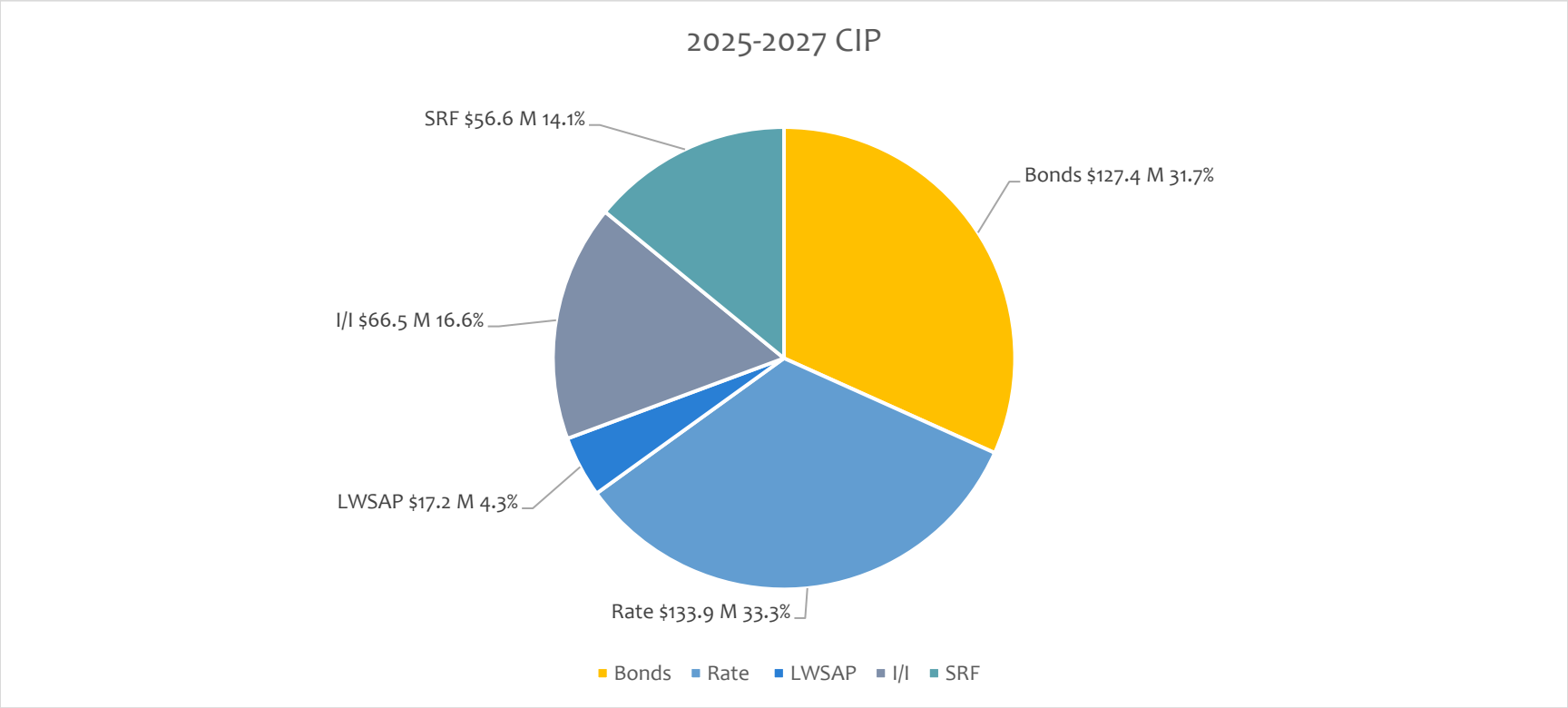
Graph 2 – 2025-2027 CIP Total Expenditures by Category $401.6 Million



Graph 3 – 2025 CIP Total Expenditures by Funding $149.7 Million



Graph 4 – 2025 - 2027 Total Expenditures by Funding Source $401.6 Million



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WATER DISTRIBUTION SYSTEM

The system serves approximately 90,000 accounts through five major service networks: Southern Low Service, which serves City Proper, South Boston and parts of Roxbury; Northern Low Service, which serves Allston/Brighton, Charlestown and East Boston; Southern High Service, which serves City Proper, Allston/Brighton, Dorchester, Hyde Park, Roslindale and parts of Jamaica Plain, Roxbury and West Roxbury; and Southern Extra-High Service, which serves portions of Jamaica Plain, West Roxbury and Hyde Park. In addition, a relatively small area in the Orient Heights section of East Boston is served by a single connection to the MWRA Northern High Service System.

Approximately 90% of the water consumed in the city is delivered through the Southern Low Service and Southern High Service, with most of the remainder delivered through the Northern Low Service. These service networks are supplied with potable water purchased from MWRA at 29 metered delivery points. This water is drawn from the Quabbin and Wachusett Reservoirs located in western and central Massachusetts. Supply is conveyed via aqueducts from these reservoirs to the Loring Road Tanks and Norumbega Reservoirs, where it is held for delivery to the Commission's service networks.

The Commission's current water distribution system consists of the following:

APPURTENANCES		WATER MAIN CITY WIDE		PRESSURE ZONE	
Hydrants	12,823	Total Linear Feet	5,329,099	High Pressure Fire System	14 Miles
		Total Linear Miles	1,008	Northern High	4 Miles
				Northern Low	90 Miles
		Water Pumping	1		
Gate Valves *	17,839	Stations		Southern Extra High	80 Miles
				Southern High	560 Miles
				Southern Low	260 Miles

** Includes only facilities owned by BWSC*

OBJECTIVES

Primary Objectives of the 2025-2027 Water Distribution System Capital Improvement Plan are:

- To ensure a continued adequate supply of high quality, potable water at adequate pressure for consumption by Commission's customers and for fire protection

- To reduce the amount of non-revenue producing water and to reduce the long-term maintenance costs of the system

- To improve the operability of valves and appurtenances to advance the efficient operation of the water system

- To reduce public inconvenience by coordinating the scheduling of system improvements with related projects of other public agencies

To ensure the above stated objectives are attained, the Commission has implemented projects of the rehabilitation and replacement of water mains, the replacement of valves and hydrants, and the installation or replacement of water mains associated with bridge reconstruction projects.

2025-2027 WATER PROJECTS

Water Pipe Replacement Projects	• Replacement of Cast-Iron Water Mains and Pipes That Have Reached the End of Their Useful Life
Water Special	• System Planning as well as Other Studies and Professional Services with the Rehabilitation and Operation of the Water System

The Commission's improvements to the Water Distribution System since 1977 include the replacing or relining of approximately 675.9 miles of water mains, resulting in lower maintenance costs and improved water service. As a result of the Commission's renewal and replacement, leak detection and metering programs, annual unbilled water, which is the difference between water purchased from the Massachusetts Water Resources Authority (the "MWRA") and water sold to customers, has been reduced from 70 mgd in Fiscal Year 1977 to 9.7 mgd in Fiscal in 2023, an 86% reduction. Over the last ten years, the Commission has completed a total of $262.2 million in water distribution system improvements.

2025-2027 WATER DISTRIBUTION SYSTEM CAPITAL PROGRAM

The Commission's 2025-2027 CIP for the Water Distribution System continues the investments necessary to maintain and improve the water distribution infrastructure. Projects are planned in the following areas: the rehabilitation or replacement of water mains, including the replacement of water pipes and the upgrade of valves and hydrants. Also included are water mains that are replaced as part of the Commission's sewer separation work. Together, these planned program activities will result in significant improvements to the water distribution system.

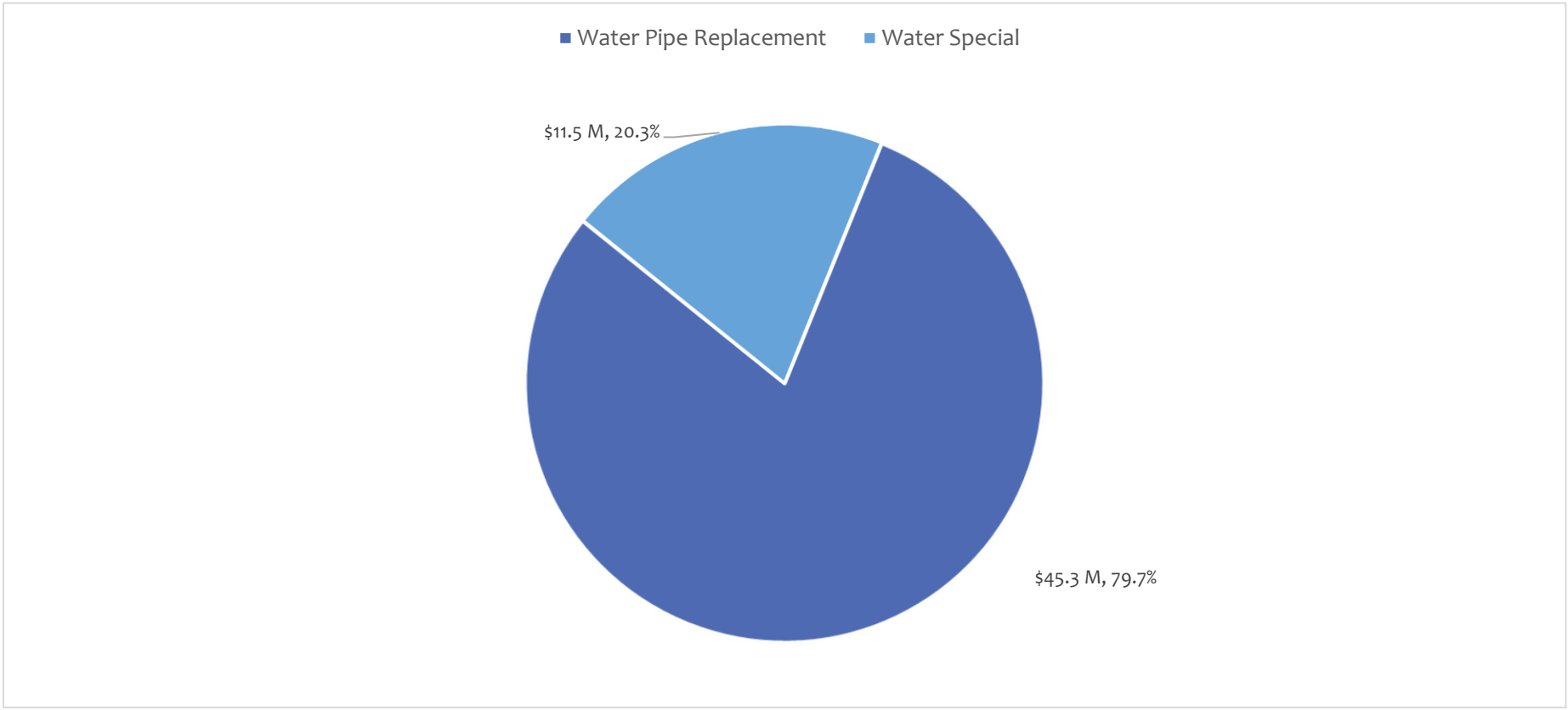
Table 12 and Graph 5 on the following pages present the 2025-2027 capital expenditures for the Water Distribution System. Graph 6 depicts the funding source application of the 2025-2027 capital expenditures. Graph 7 illustrates the spending by the program for 2025. Three-year expenditures are projected to be $132.3 million, of which $56.8 million is allocated in 2025. The three-year amounts are distributed in the Water Program as follows: Replacement $102.8 million and Special $29.5 million.

Table 12 - Water Distribution System by Category

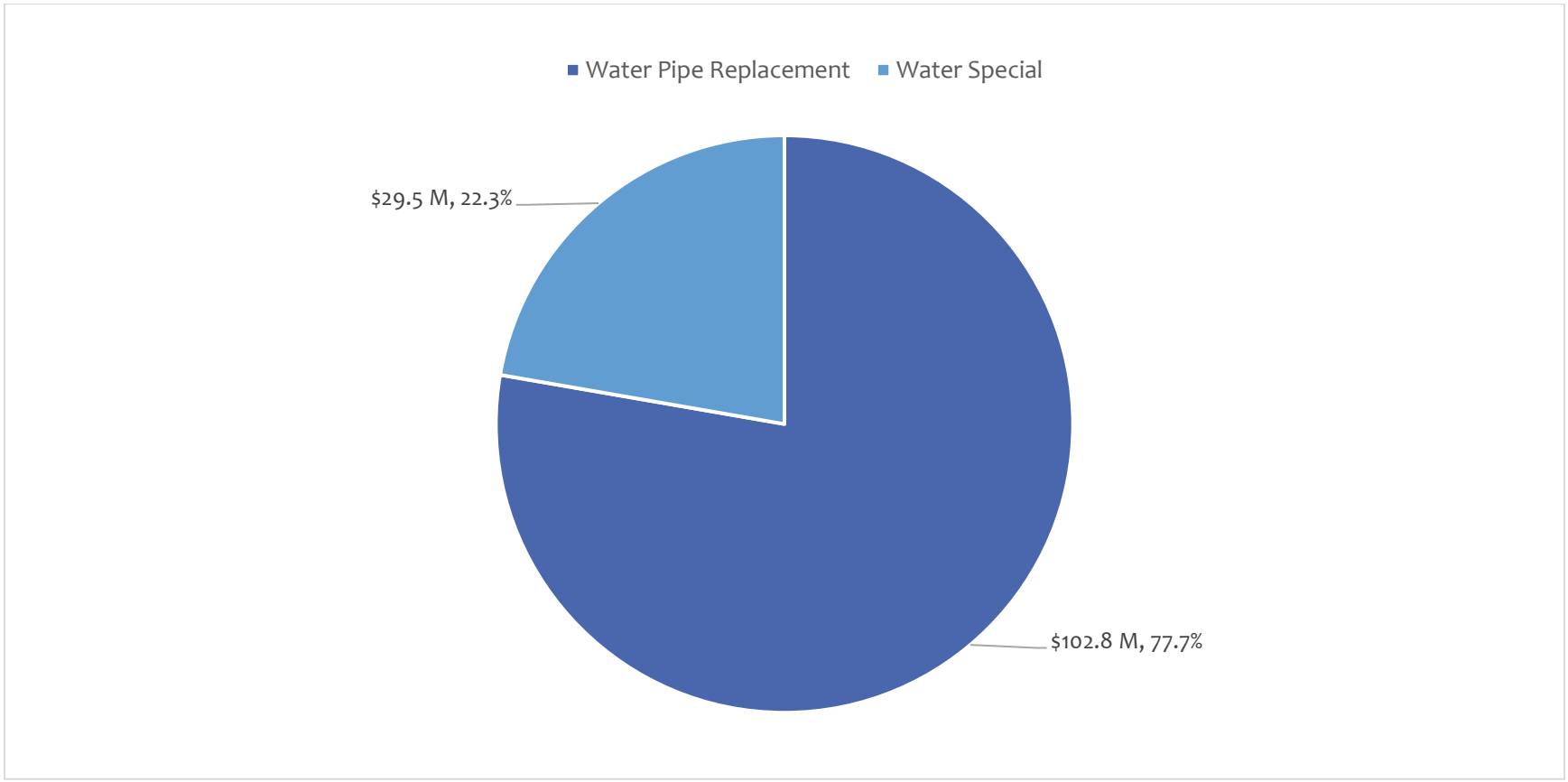
Capital Improvement Program
2025 - 2027
Water Total

	2025	2026	2027	Total 2025 - 2027
Water Replacement	$ 45,294,000	$ 34,486,000	$ 23,041,000	$ 102,821,000
BWSC Bonds	14,923,000	6,800,000	3,500,000	25,223,000
LWSAP	7,492,000	4,286,000	5,458,000	17,236,000
MWRA II	77,000			77,000
RATE Revenue	19,802,000	17,716,000	11,365,000	48,883,000
SRF	3,000,000	5,684,000	2,718,000	11,402,000
Water Special	$ 11,546,000	$ 8,783,000	$ 9,136,000	$ 29,465,000
BWSC Bonds	4,390,000	4,285,000	4,135,000	12,810,000
Rate Revenue	4,560,000	4,323,000	5,001,000	13,884,000
SRF	2,596,000	175,000		2,771,000
Total	**$ 56,840,000**	**$ 43,269,000**	**$ 32,177,000**	**$ 132,286,000**
BONDS	19,313,000	11,085,000	7,635,000	38,033,000
LWSAP	7,492,000	4,286,000	5,458,000	17,236,000
MWRA II	77,000			77,000
RATE	24,362,000	22,039,000	16,366,000	62,767,000
SRF	5,596,000	5,859,000	2,718,000	14,173,000
Total	**$ 56,840,000**	**$ 43,269,000**	**$ 32,177,000**	**$ 132,286,000**

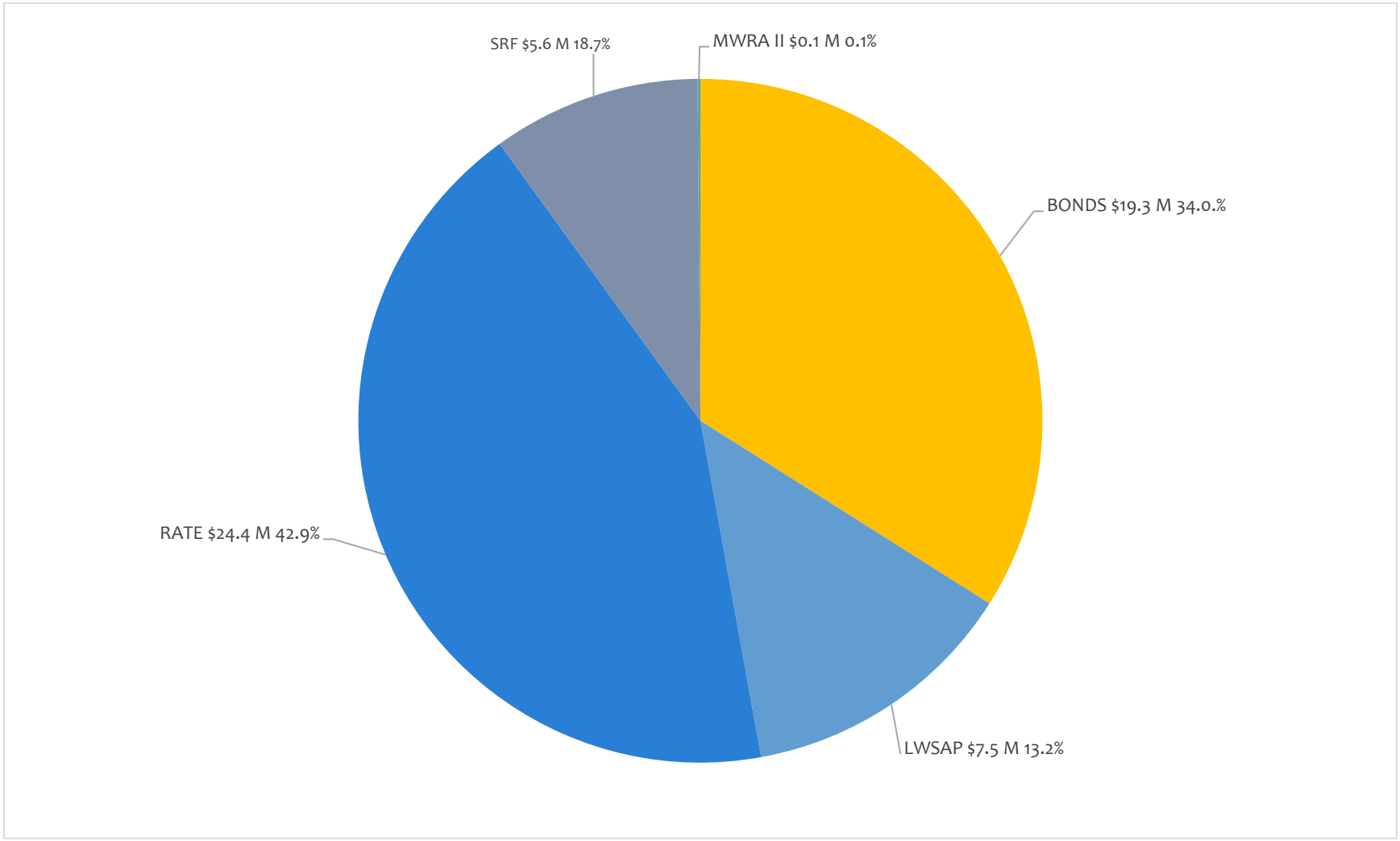
Graph 5 - 2025 Total Water Expenditures by Program $56.8 million



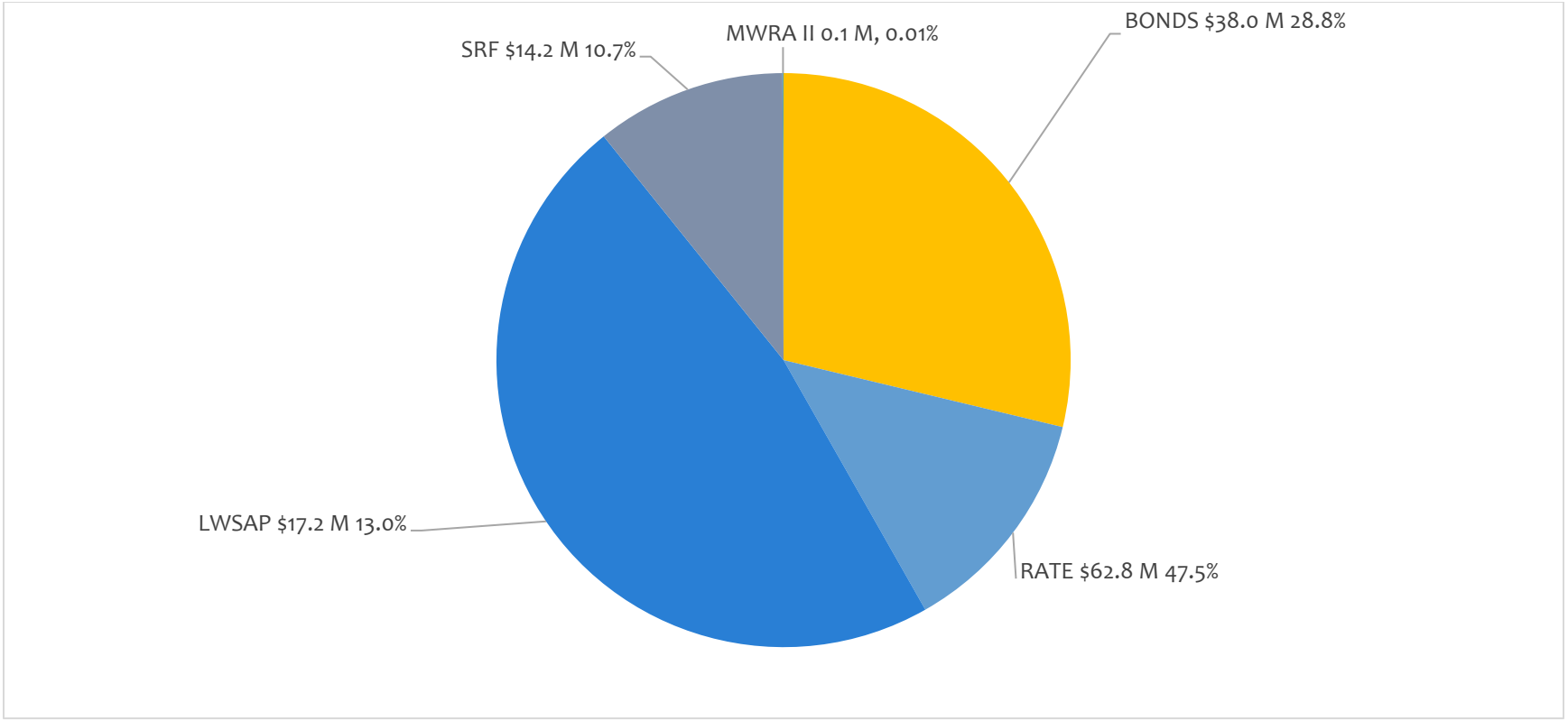
Graph 6 – 2025 - 2027 Total Water Expenditures by Program $132.3 million



Graph 7 – 2025 Total Water Expenditures by Funding Source
$56.8 Million



Graph 8 - 2025-2027 Total Water Expenditures by Funding Source $132.3 million



WATER MAIN REPLACEMENT PROGRAM

DESCRIPTION AND JUSTIFICATION

Funding is provided in the 2025-2027 CIP for the continuation of the Commission's Water Main Replacement Program. The program consists of the replacement of cast-iron water mains and water mains that have reached the end of their useful life.

The primary purpose of the Water Main Replacement Program is to ensure the quality and quantity of water provided by the Commission to its customers. Over long periods of time, the internal and external surfaces of water mains are subject to corrosion and deterioration. Internal corrosion of water mains can affect water quality, particularly taste, odor and color as well as reduce the hydraulic capacity of the pipe. Internal and external corrosion can also reduce the structural integrity of pipe, causing potential leakage and main breaks.

The largest component of the Water Distribution System CIP is the program to replace water mains. The replacement program replaces aged, undersized or structurally deteriorated pipe. The program also includes rehabilitation of pipe by structural lining.

The 2025-2027 CIP for the Water Distribution System continues programs for the replacement of water mains, the replacement of hydrants as necessary on all replacement projects, the replacement of water mains on new or reconstructed bridges and various design services, permits and paving fees associated with the capital funded projects.

THE WATER MAIN REPLACEMENT PROGRAM ACCOMPLISHES THE FOLLOWING:

- Reduces the occurrence of main breaks, public inconvenience, loss of water and associated costs
- Decreases water leakage
- Increases the capacity of water mains, when replacing unlined mains
- Reduces discolored water conditions associated with water main tuberculation
- Reduces long-term maintenance costs
- Contributes to the control of biofilm in complying with the requirements of the Safe Drinking Water Act

WATER MAIN REPLACEMENT PROGRAM 2025 SUMMARY

The projects scheduled for initiation in 2025 will result in the replacement of approximately 10.7 miles of water mains.

Prior to construction, the Commission inspects sewer and drain pipes in streets where water pipes are scheduled to be replaced. All sewer and drain replacement and rehabilitation work is then performed along with the water pipe replacement. This coordination avoids disruption of the streets and saves project costs. Funding for the sewer and drain work is included in the sewer section of the CIP.

METHODOLOGY FOR SELECTING WATER MAINS FOR REHABILITATION

The Commission conducts an annual evaluation of its water distribution system to determine and prioritize water main replacement and rehabilitation needs. Based on this annual evaluation, staff prepares a priority list of pipes to be replaced.

Candidates are based on information and recommendations from the 2016 update of the pipe ranking system as well as water main breaks, customer complaints concerning water quality or pressure deficiency, BWSC maintenance records, pressure and fire-flow tests, machine learning artificial intelligence software and construction work planned by other agencies.

To the highest extent possible, the Commission coordinates the replacement and lining of water mains with roadway and highway construction, urban development, housing development and mass transit work planned by state or local government entities.

For example, if the City of Public Works Department (BWPD) is planning to resurface a roadway within the next few years, the Commission would make every effort to replace the older water main in that street before it is resurfaced.

The coordination of the Commission's capital programs with other infrastructure improvements minimizes temporary construction related impacts to Boston's residential neighborhoods and commercial centers.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WATER REPLACEMENT

The following pages contain brief summaries of each on-going and new water replacement projects included in the 2025-2027 CIP.

PROJECTS

East Boston Sewer Separation Phase IV - Contract 3 26-309-002: Construction Contract No. 3 is one of five (5) planned contracts to construct new storm drains to separate approximately 230 acres between all five (5) contracts in East Boston to further mitigate CSOs and improve water quality. The project also includes upgrades of the sanitary sewer and water main systems to continue providing the highest level of service to the community. Construction is projected to commence in August 2027 and be completed in July 2029. The total three-year budget is $200,000.

Engineering CCTV Contract 25-309-004: Television inspection and cleaning of sewer and drain pipes in the City of Boston for streets where water main replacement or separation work is planned. The total three-year budget is $675,000.

Citywide R & R 25-309-003: The intent of this project will be to rehab and replace water/sewers/drains where SSOs and other issues have occurred in order to mitigate future issues. This will be on an as needed basis due to receiving emergency design requests from the Chief Engineer and OPS during year after CIP is developed. The total three-year budget is $200,000.

Citywide R & R 25-309-002: Construction of new storm drains to separate approximately 230 acres between all five (5) contracts in East Boston and is a continuation of sewer separation work that has been implemented in the neighborhood over the last 20 years. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community. Construction is projected to commence in August 2025 and be completed in July 2029. The total three-year budget is $200,000.

South Boston Sewer Separation - Contract 5 24-309-012: Construction of new storm drains to separate approximately 400 acres between all five (5) contracts in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community and support future development along Dorchester Avenue. Construction Contract No. 4 is one of five (5) planned contracts to construct new storm drains to separate approximately 400 acres in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue providing the highest level of service to the community and to support the BPDA's initiative to foster future development along Dorchester Avenue. Construction is projected to commence in February 2026 and be completed in July 2028. The total three-year budget is $200,000.

Citywide R & R 24-309-002: The intent of this project will be to rehab and replace water/sewers/drains where SSOs and other issues have occurred in order to mitigate future issues. This will be on an as needed basis due to receiving emergency design requests from the Chief Engineer and OPS during year after CIP is developed. The total three-year budget is $100,000.

Water Main Replacement Heath Street 24-308-002: Relay of old water mains and associated sewers. Construction is projected to commence in April 2026 and be completed in November 2029. The total three-year budget is $4,296,000.

Water Relay Tremont Street 24-308-001: Relay of old water mains and HPFS replacement. Construction is projected to commence in April 2025 and be completed in November 2026. The total three-year budget is $13,600,000.

South Boston Sewer Separation - Contract 4 23-309-012: Construction of new storm drains to separate approximately 400 acres between all five (5) contracts in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community and support future development along Dorchester Avenue. Construction Contract No. 4 is one of five (5) planned contracts to construct new storm drains to separate approximately 400 acres in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue providing the highest level of service to the community and to support the BPDA's initiative to foster future development along Dorchester Avenue. Construction is projected to commence in February 2026 and be completed in July 2028. The total three-year budget is $8,147,000.

Associated Water Work in Fenway 23-309-011: Replacement and rehabilitation of sanitary sewer and drain pipes. The pipes in this contract have been inspected and reviewed and are found to be in poor condition. Associated water work. Pipes in this contract have been found defective and in need of repair or replacement as determined by cleaning and CCTV inspection under various programs including SSO investigations, CMOM contracts, and illegal connections inspection. Construction is projected to commence in April 2025 and be completed in November 2027. The total three-year budget is $1,376,000.

Replacement and Rehabilitation Water Sewer and Drain Pipes in Dorchester, Mattapan Roxbury, Fenway Kenmore 23-309-005: Replacement of aging water mains that have reached the end of their useful life and associated replacement and rehabilitation of sanitary sewer and drain pipes. The total three-year budget is $3,391,000.

East Boston Sewer Separation Phase IV - Contract 2 23-309-002: Construction Contract No. 2 is one of five (5) planned contracts to construct new storm drains to separate approximately 230 acres between all five (5) contracts in East Boston to further mitigate CSOs and improve water quality.The project also includes upgrades of the sanitary sewer and water main systems to continue providing the highest level of service to the community. The total three-year budget is $1,000,000.

Water Relay Lower Roxbury 23-308-001: Relay of old water mains. Water main breaks and age criterion. Construction is projected to commence in June 2025 and be completed in November 2028. The total three-year budget is $6,400,000.

South Boston Sewer Separation - Contract 3 22-309-012: Construction of new storm drains to separate approximately 400 acres between all five (5) contracts in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community and support future development along Dorchester Avenue. Construction Contract No. 3 is one of five (5) planned contracts to construct new storm drains to separate approximately 400 acres in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue 38 providing the highest level of service to the community and to support the BPDA's initiative to foster future development along Dorchester Avenue. Construction is projected to commence in September 2024 and be completed in July 2026. The total three-year budget is $9,303,000.

Upper Roxbury R&R 22-309-003: Replacement of failing 1800s combined sewers, installation of new storm drains, and replacement of aging water mains that have reached the end of their useful life. The intent of this project will be to rehab and replace sewers/drains where SSOs have occurred in order to mitigate future overflows. Construction is projected to commence in January 2024 and be completed in December 2027. The total three-year budget is $1,900,000.

Replacement of Sewer and Drains Citywide, R&R 22-309-002: The intent of this project will be to rehab and replace sewers/drains where SSOs have occurred in order to mitigate future overflows. Construction is projected to commence in December 2023 and be completed in December 2025. The total three-year budget is $1,420,000.

Roslindale/West Roxbury Rehabilitation 22-309-001: Rehabilitation of sewers and drains and point repairs identified by the Planning Department during the Roslindale Sanitary Sewer Evaluation Survey, conducted by CDM Smith. The objective of this project is to reduce I/I tributary to the Roslindale Interceptor. The total three-year budget is $70,000.

Georgetowne Neighborhood Water Main Replacement 22-308-003: Replacement of water mains and associated sewers and drains in West Roxbury. Replacement of old CI water mains that have reached the end of their useful life citywide. Replacement of CICL or DI mains that have break history. Repair sewer and storm drain mains in the area with major structural damage. Construction is scheduled to commence in April 2025 and be completed in December 2026. The total three-year budget is $3,000,000.

Replacement of Water Mains Citywide 22-308-002: Replacement of old CI water mains that have reached the end of their useful life citywide. Replacement of CICL or DI mains that have break history. The total three-year budget is $3,540,000.

R&R of Water Sewer and Drain in Back Bay/Beacon Hill, City Proper and Fenway/Kenmore 22-308-001: Belvidere, Bowker, Boylston, Exeter, Harrison Streets. Construction began in August 2023 and be completed in July 2025. The total three-year budget is $2,382,000.

East Boston Sewer Separation Phase IV - Contract 1 21-309-002: Construction of new storm drains to separate approximately 230 acres between all five (5) contracts in East Boston and is a continuation of sewer separation work that has been implemented in the neighborhood over the last 20 years. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community. Construction Contract No. 1 is one of five (5) planned contracts to construct new storm drains to separate approximately 230 acres in East Boston to further 39 mitigate CSOs and improve water quality. The project also includes upgrades of the sanitary sewer and water main systems to continue providing the highest level of service to the community. Construction is scheduled to commence in April 2025 and be completed in July 2027. The total three-year budget is $11,550,000.

Sewer & Storm Drain Improvements in Hyde Park 21-309-001: Sewer and Storm Drain Improvements in Hyde Park based on the findings of the CMOM group which identified sewer and drain defects in this area. The contract also includes associated water relay for pipes within project limits that have reached the end of their lifespan. Construction is projected to commence in April 2024 and be completed in October 2026. The total three-year budget is $356,000.

Replacement and Rehabilitation of Water, Sewer, and Drain Pipes in City Proper 21-308-003: Replacement of aging water mains that have reached the end of their useful life and associated replacement and rehabilitation of sanitary sewer and drain pipes. The total three-year budget is $398,000.

Charlestown Relay and Rehabilitation 20-309-002: Final and Semifinal Payments in 2025. Construction commenced in June 2023 and is projected to be completed in December 2024. The total three-year budget is $546,000.

Replacement and Rehabilitation of Water, Sewer and Drain pipes in the South End and Dorchester 20-308-001: Replacement of older cast iron water mains that have reached the end of their useful life. Also, associated sewers and drains that are in disrepair. Construction commenced in October 2023 and is projected to be completed in May 2025. The total three-year budget is $3,831,000.

Tidegates, Citywide 19-309-001: This contract identified the need for and provided design for the installation of four tide gates on drainage systems of various sizes in City Proper, Charlestown, East Boston and South Boston (Seaport). The Design Department is worked with the Planning and Operations department to identify outfalls which may not be protected from extreme tides to prevent street flooding from surcharged drainage systems. The total three-year budget is $77,000.

Replacement and Rehabilitation of Water, Sewer, and Drain Pipes in Back Bay, Beacon Hill, and City Proper 19-308-004: Replacement of aging water mains that have reached the end of their useful life and associated replacement and rehabilitation of sanitary sewer and drain pipes. The total three-year budget is $7,582,000.

Water Improvements in Charlestown 19-308-002: This project will replace 8,800 feet of 8- and 12-inch water mains on Bunker Hill Street, Chelsea Street, School Street, Vine Street, and Bartlett Street in Charlestown. This contract is being programmed as a response to a request by the Operations Division for Water Relay on Chelsea Street, in conjunction with break history (School Street), and pipe age/risk scoring on 1880's cast iron mains in Bunker Hill and Vine Streets. Construction is projected to commence in April 2025 and be completed in November 2027. The total three-year budget is $8,500,000.

Water, Sewer, & Drainage Works Improvements 19-308-001: Retainage Release and Water work in 2024. Construction commenced in April 2023 and will be completed in December 2024. The total three-year budget is $340,000.

Sewer and Drain Replacement and Rehabilitation (R&R) 18-309-003: Associated water work in conjunction with replacement and rehabilitation of sanitary sewer and drain pipes. The total three-year budget is $4,989,000.

Water, Sewer, & Drainage Works Improvements 18-309-001: Replacement of Water Mains on Jersey Street, Peterborough Street, and Public Alley 931. Construction commenced in October 2024. The total three-year budget is $3,252,000.

PROJECT CASH FLOW

Table 13 on page 41 presents cash flow expenditures for Water Replacement Projects for the period from 2025-2027. The total expenditures for the three-year period are $117.7 million, of which $33.3 million is allocated in 2025.

Contract 20-309-002 – Installing and preparing to disinfect newly installed water main on Park St

Table 13 - Water Replacement

Description	Contract	Class	2025	2026	2027	2025-2027
East Boston Sewer Separation Phase IV - Contract 3	26-309-002	BONDS			100,000	100,000
East Boston Sewer Separation Phase IV - Contract 3	26-309-002	SRF			100,000	100,000
Engineering CCTV Contract	25-309-004	RATE	506,000	169,000		675,000
Citywide R & R	25-309-003	RATE			200,000	200,000
Citywide R & R	25-309-002	RATE			200,000	200,000
South Boston Sewer Separation - Contract 5	24-309-012	BONDS			100,000	100,000
South Boston Sewer Separation - Contract 5	24-309-012	SRF			100,000	100,000
Citywide R&R	24-309-002	RATE			100,000	100,000
Water Main Replacement Heath Street	24-308-002	LWSAP		1,456,000	1,458,000	2,914,000
Water Main Replacement Heath Street	24-308-002	RATE		691,000	691,000	1,382,000
Water Relay Tremont Street	24-308-001	BONDS	4,000,000	6,800,000	2,800,000	13,600,000
South Boston Sewer Separation - Contract 4	23-309-012	RATE		3,067,000	1,278,000	4,345,000
South Boston Sewer Separation - Contract 4	23-309-012	SRF		2,684,000	1,118,000	3,802,000
Associated Water Work in Fenway	23-309-011	RATE		500,000	876,000	1,376,000
Replacement and Rehabilitation Water Sewer and Drain Pipes in Dorchester, Mattapan Roxbury, Fenway Kenmore	23-309-005	BONDS	3,391,000			3,391,000
East Boston Sewer Separation Phase IV - Contract 2	23-309-002	BONDS			500,000	500,000
East Boston Sewer Separation Phase IV - Contract 2	23-309-002	SRF			500,000	500,000
Water Relay Lower Roxbury	23-308-001	LWSAP		2,400,000	4,000,000	6,400,000
South Boston Sewer Separation - Contract 3	22-309-012	RATE	3,101,000	3,101,000	3,101,000	9,303,000
Upper Roxbury R&R	22-309-003	RATE	950,000	950,000		1,900,000
Replacement of Sewer and Drains Citywide, R&R	22-309-002	RATE		1,349,000	71,000	1,420,000
Roslindale/West Roxbury Rehabilitation	22-309-001	RATE	70,000			70,000
Georgetowne Neighborhood Water Main Replacement	22-308-003	RATE	3,000,000			3,000,000
Replacement of Water Mains Citywide	22-308-002	RATE	500,000	1,770,000	1,270,000	3,540,000
R&R of Water Sewer and Drain in Back Bay/Beacon Hill, City Proper and Fenway/Kenmore	22-308-001	BONDS	2,382,000			2,382,000
East Boston Sewer Separation Phase IV - Contract 1	21-309-002	SRF	3,000,000	3,000,000	900,000	6,900,000
East Boston Sewer Separation Phase IV - Contract 1	21-309-002	RATE	750,000	3,000,000	900,000	4,650,000
Sewer & Storm Drain Improvements in Hyde Park	21-309-001	RATE		178,000	178,000	356,000
Replacement and Rehabilitation of Water, Sewer, and Drain Pipes in City Proper	21-308-003	BONDS	398,000			398,000
Charlestown Relay and Rehabilitation	20-309-002	RATE	546,000			546,000
Replacement and Rehabilitation of Water, Sewer and Drain pipes in the South End and Dorchester	20-308-001	RATE	3,390,000	441,000		3,831,000
Tidegates, Citywide	19-309-001	MWRA II	77,000			77,000
Replacement and Rehabilitation of Water, Sewer, and Drain Pipes in Back Bay, Beacon Hill, and City Proper	19-308-004	LWSAP	7,152,000	430,000		7,582,000
Water Improvements in Charlestown	19-308-002	BONDS	1,500,000			1,500,000
Water Improvements in Charlestown	19-308-002	RATE	2,000,000	2,500,000	2,500,000	7,000,000
Water, Sewer, & Drainage Works Improvements	19-308-001	LWSAP	340,000			340,000
Sewer and Drain Replacement and Rehabilitation (R&R)	18-309-003	RATE	4,989,000			4,989,000
Water, Sewer, & Drainage Works Improvements	18-309-001	BONDS	3,252,000			3,252,000
Water Replacement			$ 45,294,000	$ 34,486,000	$ 23,041,000	$ 102,821,000
BWSC Bonds			14,923,000	6,800,000	3,500,000	25,223,000
LWSAP			7,492,000	4,286,000	5,458,000	17,236,000
MWRA II			77,000			77,000
RATE Revenue			19,802,000	17,716,000	11,365,000	48,883,000
SRF			3,000,000	5,684,000	2,718,000	11,402,000

WATER DISTRIBUTION SYSTEM SPECIAL PROJECTS

DESCRIPTION AND JUSTIFICATION

Special Projects includes funding for a variety of system planning and other studies, professional services associated with the rehabilitation and operation of the water system, and for the engineering design and construction of the installation or replacement of water mains associated with bridge improvement projects undertaken by other agencies. Also included are the associated design and engineering services required for the implementation of capital projects and the permanent paving fees for ongoing and future capital improvements.

Overall, the objectives of the Water Distribution System Special Projects are to extend the useful life of water mains, reduce long-term maintenance and repair costs, reduce the occurrence of main breaks and the resulting impacts, conserve drinking water and coordinate improvements with other agencies to minimize disruptions.

PROJECTS

Interceptor Cleaning Phase I 25-309-001: Television inspection and cleaning of large storm drains and combined sewers associated with the Union Park Tributary area and the South End. The total three-year budget is $500,000.

Paving and Restoration 25-303-008, 25-303-009 & 25-303-012, 26-303-008, 26-303-009 & 26-303-012, 27-303-008, 27-303-009 & 27-303-012: This project involves the permanent restoration of streets and sidewalks excavated as a result of Commission activities. Operations will be adding a second Restoration of Sidewalk Excavations in 2024, due to the increased number of lead service pipe investigations and replacements. Construction is projected to commence in January 2025 and be completed in December 2027. The total three-year budget is $11,980,000.

Traffic Management Services 25-206-XXX: Professional services contract for traffic management design. In support of the capital plan, on occasion it is necessary to develop traffic management plans for construction phasing of water, sewer, and drain replacement projects. This project allows the Commission to utilize transportation engineers to develop these plans in accordance with BTD regulations. If the construction will occur on state agency roadways, the traffic plans can be produced to meet state agency requirements. The contract is scheduled to be signed in October 2025 and is scheduled to end October 2028. The total three-year budget is $250,000.

Roadway Restoration of Boston Water and Sewer Commission Excavations 24-309-007: Permanent paving restoration of streets and sidewalks excavated during construction activities. The total three-year budget is $102,000.

Excavation for Identification of Water Services 24-308-005: Work under this contract includes excavating, locating, identifying and possible relaying the water services of approximately 700 existing water services currently listed in the Commission's GIS system as being lead or unknown. Construction commences in July 2024 and be completed in June 2026. The total three-year budget is $1,294,000.

Replacement of Lead Services 24-308-004: Work under this contract includes replacement of lead water services in the public way and on private property, Citywide. Construction commenced in April 2024 and be completed in December 2026. The total three-year budget is $1,477,000.

Replacement of Non-Lead Services 24-308-004: The total three-year budget is $369,000.

Lead Sampling and Education Program for Schools and Childcare 23-206-006: This funding will be used to develop and implement a long-term program for lead sampling of the tap water of public and private schools and licensed childcare facilities within the Commission's service area. Planning commenced in June 2023 and is projected to be completed in July 2027. The total three-year budget is $800,000.

Traffic Management Services 22-206-006: Professional services contract for traffic management design. In support of the capital plan, on occasion it is necessary to develop traffic management plans for construction phasing of water, sewer, and drain replacement projects. This project allows the Commission to utilize transportation engineers to develop these plans in accordance with BTD regulations. If the construction will occur on state agency roadways, the traffic plans can be produced to meet state agency requirements. The contract was signed in October 2022 and is scheduled to end October 2025. The total three-year budget is $47,000.

Water Main Flushing 22-203-001: This project involves the implementation and maintenance of a water main flushing program for the Commission's water distribution system by a qualified professional engineering consulting firm. Construction commenced in April 2024 and be completed in December 2026. The total three-year budget is $933,000.

Engineering Design Services 21-206-004: Design Services to update water distribution model and perform asset management. Planning commenced in June 2022 and is anticipated to be completed in June 2026. The total three-year budget is $160,000.

Citywide Illicit Connection Investigation Program Stormwater Phase 5 20-206-007: Illicit sanitary connections to storm drains are prohibited under the Commission's NPDES Stormwater Permit. Also, under the Consent Decree with EPA the Commission is required to identify and eliminate illicit connections and annually screen all of the Commission's storm drain and combined sewer outfalls. The total three-year budget is $218,000.

Evaluation of Water Transmission Mains: Transmission main study to evaluate the state of the water transmission system and design the first rehabilitation contract. The total three-year budget is $3,000,000.

Citywide Illicit Connection Investigation Program Phase 6: Illicit sanitary connections to storm drains are prohibited under the Commission's NPDES Stormwater Permit. Also, under the Consent Decree with EPA the Commission is required to identify and eliminate illicit connections and annually screen all of the Commission's storm drain and combined sewer outfalls. The total three-year budget is $835,000.

City of Boston-Permit Fees: This project involves obtaining street opening permits from the City of Boston for excavation activities performed by the Commission's crews and contractors in the public way. The City of Boston Public Works Department issues the street opening permits for which the Commission reimburses the City. This service is projected to commence in January 2025 and be completed in December 2027. The total three-year budget is $7,500,000.

Streets	2025	2026	2027	2025-2027 Total
Permits	$2,500,000	$2,500,000	$2,500,000	$7,500,000
Paving	$3,800,000	$3,990,000	$4,190,000	$11,980,000
Total	**$6,300,000**	**$6,490,000**	**$6,690,000**	**$19,480,000**

PROJECT CASH FLOW

Table 14 on page 45 illustrates the cash flow information for the Water Special Program for 2025-2027. Three-year expenditure for this program total $29.5 million, of which $11.5 million is allocated in 2025.

Table 14 - Water Special

Description	Contract	Class	2025	2026	2027	2025-2027
Citywide Illicit Connection Investigation Program Stormwater Phase 5	20-206-007	BONDS	218,000			218,000
Lead Sampling and Education Program for Schools and Childcare	23-206-006	BONDS	238,000	281,000	281,000	800,000
Replacement of Lead Services	24-308-004	SRF	1,389,000	88,000		1,477,000
Replacement of Non Lead Services	24-308-004	RATE	347,000	22,000		369,000
Excavation for Identification of Water Services	24-308-005	SRF	1,207,000	87,000		1,294,000
Roadway Restoration of Boston Water and Sewer Commission Excavations	24-309-007	RATE	102,000			102,000
Traffic Management Services	25-206-XXX	BONDS	50,000	100,000	100,000	250,000
Interceptor Cleaning Phase I	25-309-001	RATE			500,000	500,000
Evaluation of Water Transmission Mains		BONDS	1,080,000	1,000,000	920,000	3,000,000
Citywide Illict Connection Investigation Program Stormwater Phase 6		BONDS	167,000	334,000	334,000	835,000
Engineering Design Services	21-206-004	BONDS	90,000	70,000		160,000
Water Main Flushing	22-203-001	RATE	311,000	311,000	311,000	933,000
Traffic Management Services	22-206-006	BONDS	47,000			47,000
Paving and Restoration	25-303-008, 25-303-009 & 25-303-012, 26-303-008, 26-303-009 & 26-303-012, 27-303-008, 27-303-009 & 27-303-012	RATE	3,800,000	3,990,000	4,190,000	11,980,000
City of Boston-Permit Fees		BONDS	2,500,000	2,500,000	2,500,000	7,500,000
Water Special			$ 11,546,000	$ 8,783,000	$ 9,136,000	$ 29,465,000
BWSC Bonds			4,390,000	4,285,000	4,135,000	12,810,000
Rate Revenue			4,560,000	4,323,000	5,001,000	13,884,000
SRF			2,596,000	175,000		2,771,000

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THE SEWER SYSTEM

The Commission owns and operates a system for the collection and transport of wastewater in the City of Boston.

The original backbone of the sewer system was the Boston Main Drainage System ("BMDS"). The BMDS was constructed from 1877 to 1884 under the direction of a special committee established by the City of Boston for that specific purpose. The original system consisted of five combined interceptors, the Calf Pasture pumping station and the Dorchester Bay Tunnel. Neither the pumping station, nor the tunnel is in use today. The BMDS interceptors were initially designed to carry a peak dry weather sanitary flow together with an allowance for stormwater.

In 1988, construction of the New Boston Main Interceptor and the New East Side Interceptor were completed, replacing portions of the original system. The interceptors serve the sewer needs of downtown Boston, the South End, Roxbury, Dorchester, and South Boston. These improvements have increased capacity, eliminated dry weather overflows, and decreased the occurrences and volume of wet weather overflows.

Other collection facilities provide sewer services to different parts of the City. Charlestown is served by a separated system, except for one small area. East Boston, City Proper, South Boston and Roxbury are served by combined systems; however, major portions of each area have been or are in the process of being separated. The South End has been separated under a program initiated by the City's urban renewal program and continued by the Commission where feasible and cost effective. Allston/Brighton, Roslindale, West Roxbury, Hyde Park, Mattapan and portions of Dorchester and Jamaica Plain, all of which are in the southern part of the City, are served by separate systems.

Contract 21-309-012 – South Boston Sewer and Drain Separation on D St

The backbone of the Commission's sewer is several major interceptors, which convey flows from the Commission's system to the MWRA's interceptors. The New East Side Interceptor, the Boston Main Interceptor completed in 1988 and the New Albany St. Interceptor completed in 1990, serve Downtown, South Boston, the South End and Dorchester. The other interceptors and the neighborhoods they serve are:

Interceptor	Neighborhood Served
Boston Main Interceptor	South End, Roxbury and North Dorchester
Dorchester Interceptor	Dorchester and Neponset
East Side Interceptor	Downtown and North End
Faneuil Street Trunk Sewer	Allston/Brighton
Roslindale Interceptor	Roslindale and West Roxbury
South Boston Interceptors	South Boston
Southwest Corridor Interceptor	Roxbury and Jamaica Plain
Stony Brook Interceptor	Roxbury
Stony Brook Valley Sewer	Roxbury and Jamaica Plain
West Side Interceptor	Back Bay, Beacon Hill and West End
Talbot Avenue High Level Sewer	Dorchester, Mattapan and Roslindale
Hyde Park Trunk Sewer	Hyde Park
East Boston Low Level Sewer	East Boston
Dorchester High Level Sewer	Mattapan and Hyde Park

The sewer system is comprised of the following:

APPURTENANCES		SEWER PIPES CITY WIDE		TYPE OR DESIGNATION	
Catch Basins	30,300	Total Linear Feet	8,104,270	Combined Sewer	140 Miles
Manholes	50,096	Total Linear Miles	1,535	Combined Sewer Overflow	12 Miles
Outfalls	267	Pumping Stations	9	Sanitary Sewer	713 Miles
Regulators	147			Storm Drain	668 Miles
Tide gates	200				

OBJECTIVES

Primary Objectives of the 2025-2027 Sewer Collection System are:

- Implement and manage contracts affiliated with the Consent Decree
- Implement Green Infrastructure Projects
- Comply with the requirements of the Commission's National Pollutant Discharge Elimination System ("NPDES") and Municipal permits
- Minimize infiltration and inflow into the sanitary system, which will increase system capacity and decrease treatment costs
- Reduce combined sewer overflows by reducing wet weather inflows and minimizing sea water intrusions
- Provide sufficient hydraulic capacity for current and projected flows
- Protect the structural integrity of the wastewater collection and storm drainage systems
- Coordinate sewer system improvements with the related projects of other public agencies

OBJECTIVES

The objectives of the Sewer System Capital Improvement Program for 2025-2027 are to provide uninterrupted wastewater transport and storm drainage services to the residents, businesses, and visitors of Boston and to improve water quality in Boston Harbor and its tributary waters. The 2025-2027 CIP has five major programs for the Sewer System: the sewer renewal and replacement program, the increased capacity program, the sewer separation program, the infiltration/inflow program, and sewer special program.

The Commission's CMOM Program utilizes closed circuit TV camera inspection equipment and software to assess the structural and maintenance condition of pipes and identify areas of excessive infiltration and inflow. The System Condition Risk Enhanced Assessment Model "SCREAM" software system is utilized to prioritize these inspection results for repair and replacement by Commission crews and under its Capital Improvement Program. The CMOM Program includes the cleaning and inspection of approximately 21 miles of sewer pipe in 2025. This along with TV inspection under other programs will result in the inspection of 90 miles of pipe in 2025 with a goal of completing the entire system over a ten-year period.

Projects included in the Sewer System CIP include repair or replacement of approximately 22.6 miles of deteriorated or failing sanitary sewers and storm drains each year.

The sewer system objectives will be carried out through the continuation of the following program activities renewal and replacement of sewer pipes, rehabilitation of sewers and drains, separation of combined sewers, improvements that will result in an increase in system capacity, an infiltration/inflow reduction program including the disconnection of downspouts and several special projects necessary to improve the efficiency and effectiveness of the sewer system.

In addition, all sewers and drains on streets where water mains are to be replaced will be inspected prior to replacement. All defective pipes will then be replaced or rehabilitated in the water main replacement contract under the 2025-2027 Sewer System Capital Program.

WASTEWATER PROJECT HIGHLIGHTS

- New Boston Main Interceptor
- South Boston Separation Contracts 3
- Design of Dorchester Interceptor - Relief Sewer
- West Roxbury and Hyde Park SSES
- Sewer Improvements in Charlestown
- Sewer R&R in Fenway
- Replacement and Rehabilitation of Sewer in Dorchester and South Boston
- Replacement and Rehabilitation of Sewers and Drains in Allston/Brighton, Fenway/Kenmore, Jamaica Plain and Roxbury
- Charlestown SSES
- Dorchester, Mattapan and Roxbury R&R

PROJECT CASH FLOW

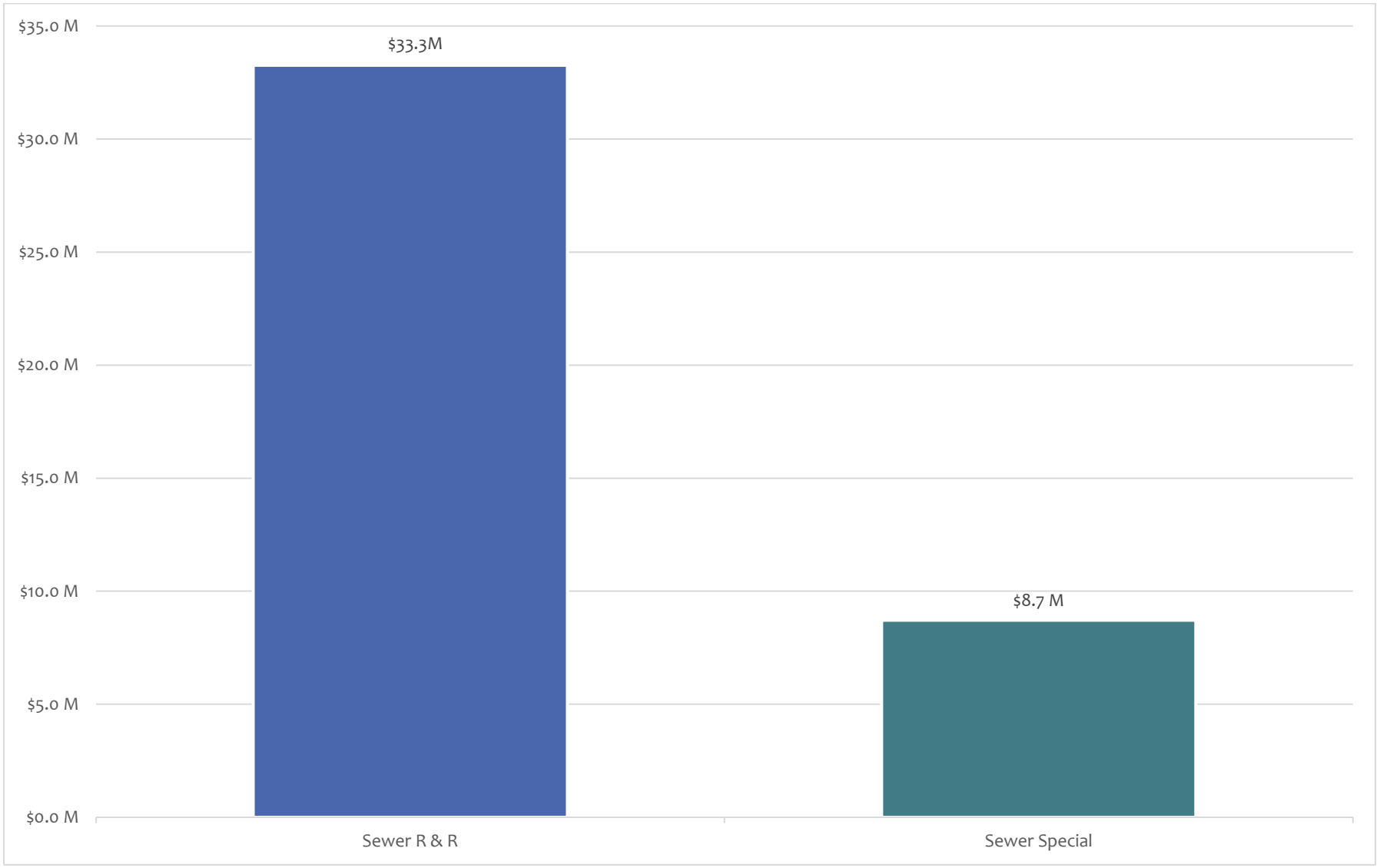
Table 15 on page 52 illustrates Sewer Distribution System by Category. Graph 9 on page 53 illustrates the capital expenditures by program of the Total Sewer Program for 2025-2027. Three-year total expenditures are $135.8 million, of which $42.0 million is allocated in 2025. Graph 12 on page 56 illustrates Sewer Expenditure by Funding Source for 2025-2027.

TABLE 15 - SEWER DISTRIBUTION SYSTEM BY CATEGORY

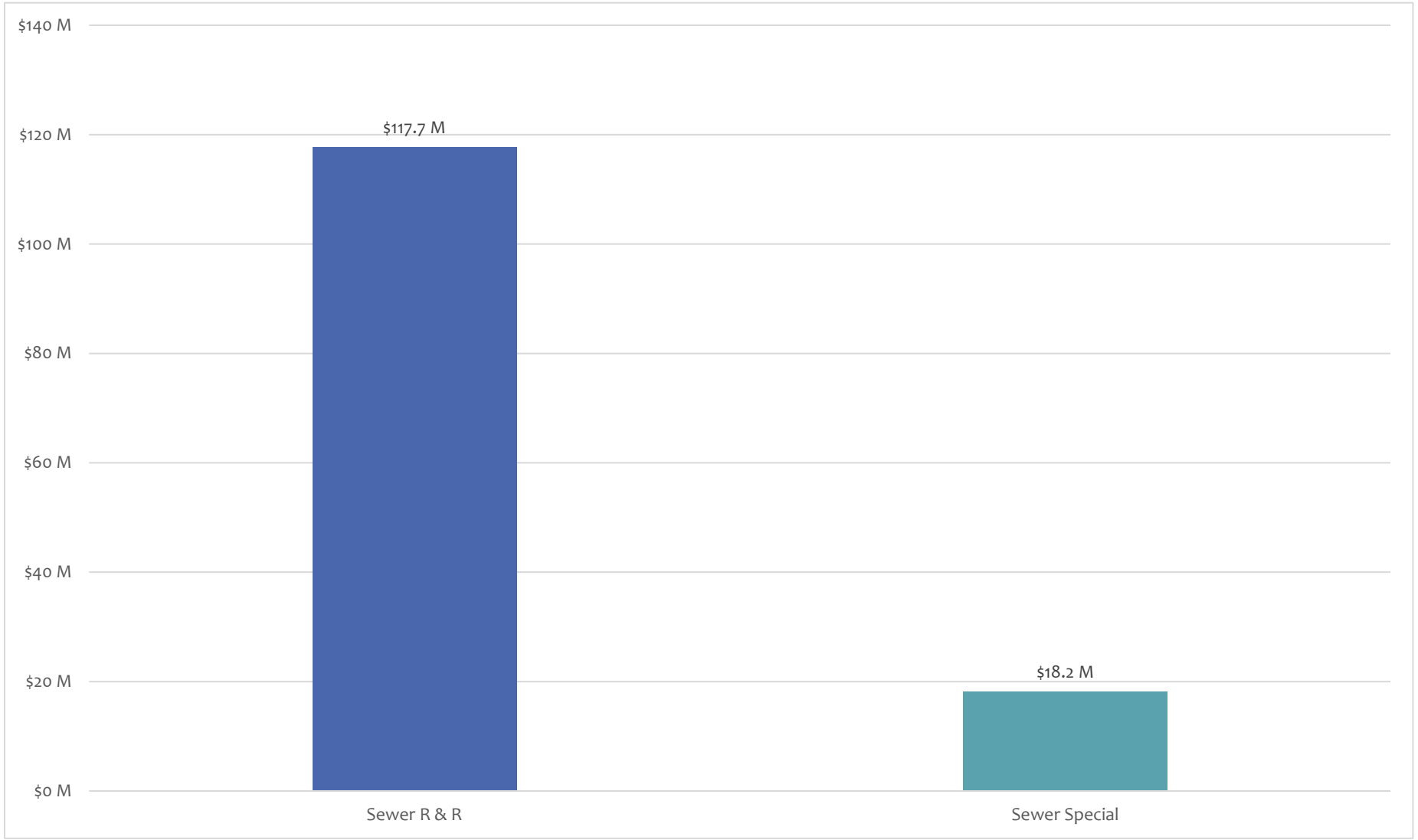
Capital Improvement Program
2025 - 2027
Sewer Total

	2025	2026	2027	Total 2025 - 2027
Sewer Replacement	$ 33,262,000	$ 44,478,000	$ 39,916,000	$ 117,656,000
BONDS	7,689,000	3,404,000	1,518,000	12,611,000
MWRA II	11,595,000	18,065,000	9,396,000	39,056,000
RATE	9,752,000	15,778,000	23,350,000	48,880,000
SRF	4,226,000	7,231,000	5,652,000	17,109,000
Sewer Special	$ 8,716,000	$ 5,345,000	$ 4,114,000	$ 18,175,000
BONDS	3,242,000	1,219,000	984,000	5,445,000
MWRA II	1,534,000	3,147,000	1,500,000	6,181,000
RATE	3,235,000	440,000	350,000	4,025,000
SRF	705,000	539,000	1,280,000	2,524,000
Total	**$ 41,978,000**	**$ 49,823,000**	**$ 44,030,000**	**$ 135,831,000**
BONDS	10,931,000	4,623,000	2,502,000	18,056,000
MWRA II	13,129,000	21,212,000	10,896,000	45,237,000
RATE	12,987,000	16,218,000	23,700,000	52,905,000
SRF	4,931,000	7,770,000	6,932,000	19,633,000
Total	**$ 41,978,000**	**$ 49,823,000**	**$ 44,030,000**	**$ 135,831,000**

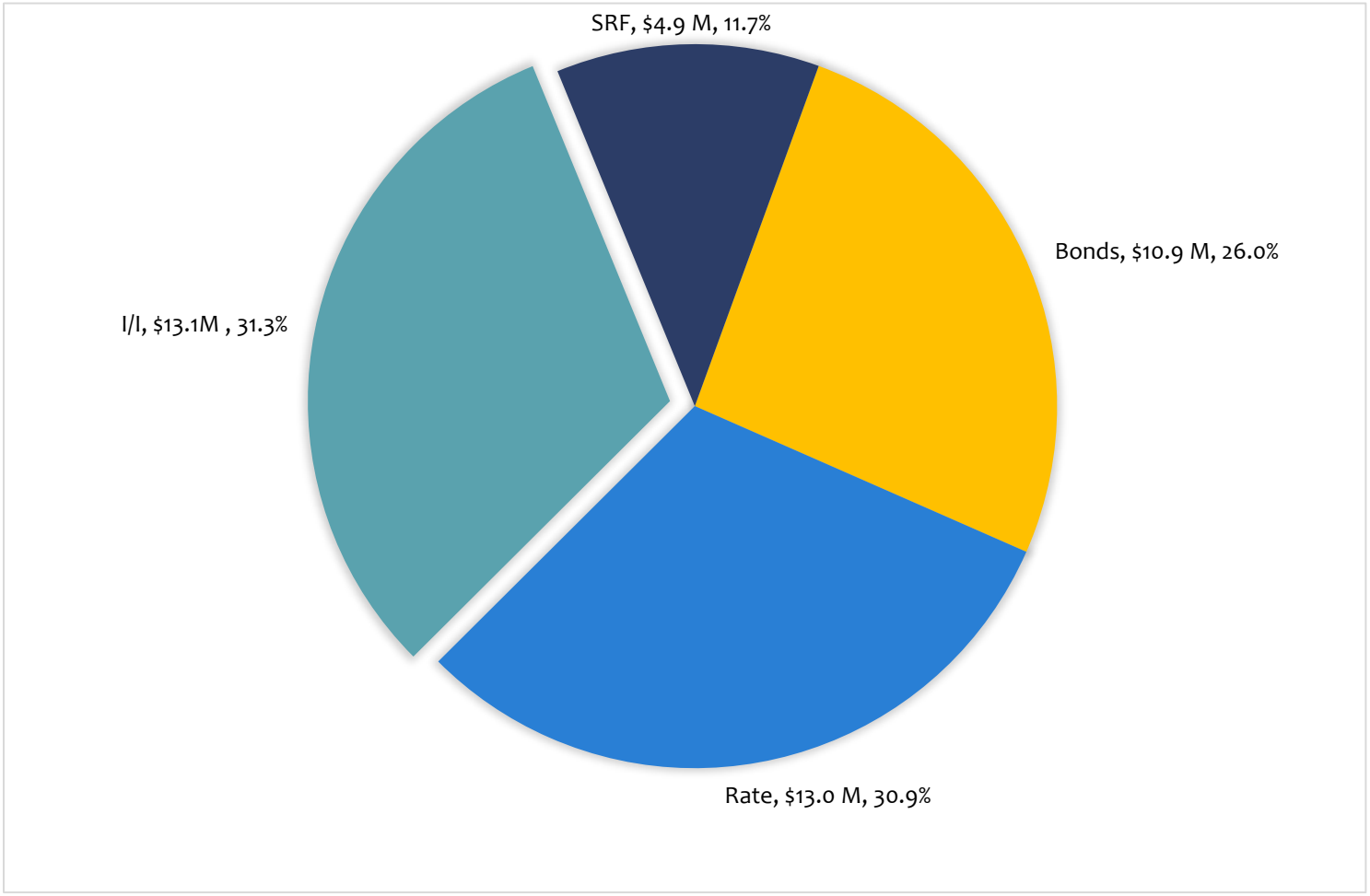
Graph 9 – 2025 Total Sewer Expenditures by Program $42.0 Million



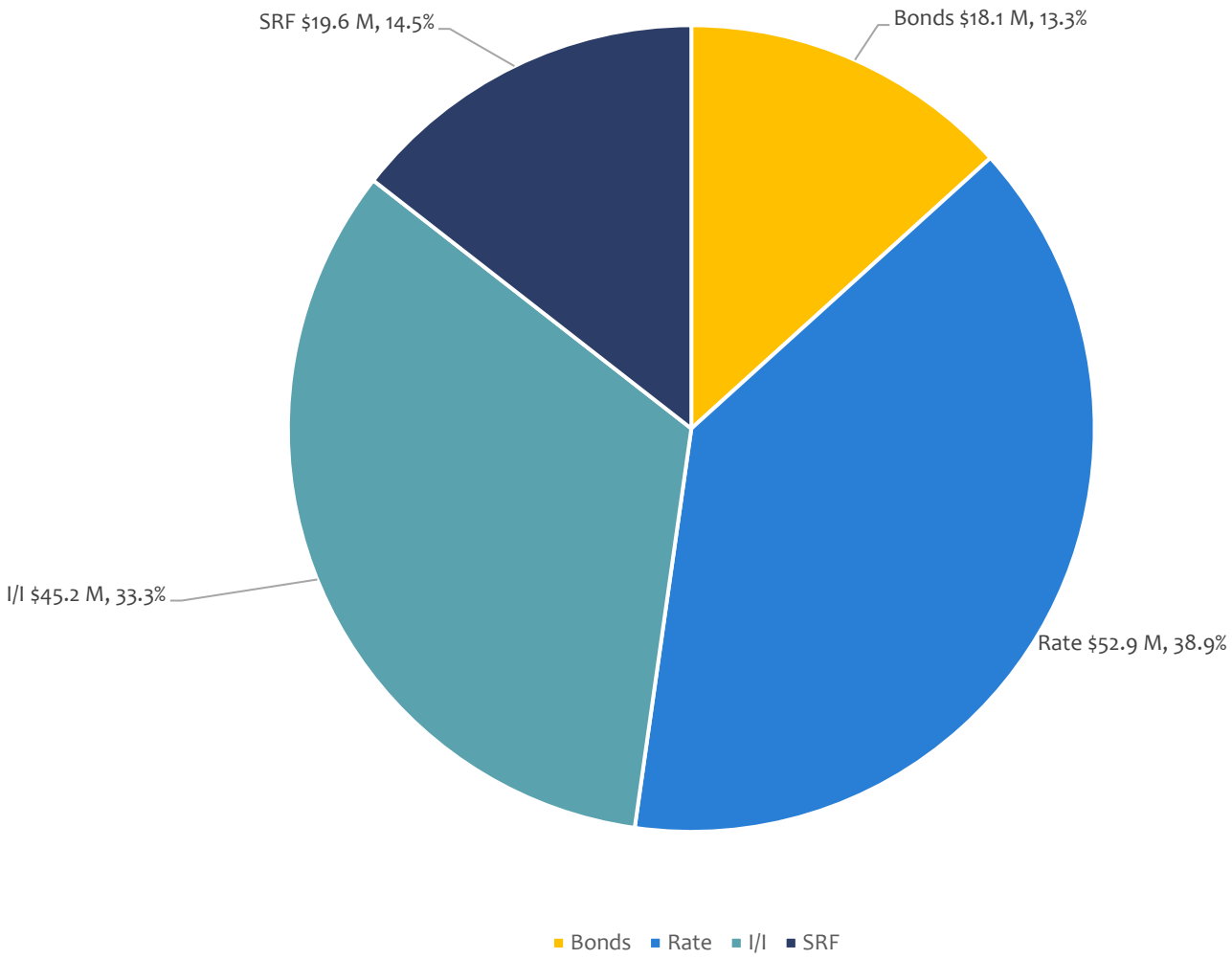
Graph 10 – 2025 - 2027 Total Sewer Expenditures by Funding Source $135.8 Million



Graph 11 – 2025 Total Sewer Expenditures by Funding Source $42.0 Million



Graph 12 - 2025 - 2027 Sewer Expenditures by Funding Source $135.8 Million



SEWER RENEWAL AND REPLACEMENT

DESCRIPTION AND JUSTIFICATION

Renewal and replacement projects involve the trenchless rehabilitation or replacement of sewers and storm drains in response to persistent malfunction, structural deterioration, excessive emergency repairs and other operation and maintenance problems.

The Commission identifies sewer and drain lines that require renewal or replacement through television inspections, sewer system evaluation surveys and routine maintenance activities. Renewal and replacement projects are coordinated with the Boston DPWD's Roadway Resurfacing and Reconstruction Programs to ensure that the Commission avoids excavating newly resurfaced street, unless under emergency circumstances.

The objectives of the renewal and replacement program are to ensure the operability of sewers and storm drains, protect the structural integrity of the sewer system, reduce long-term capital and maintenance costs and minimize disruptions of service caused by sewerage back-ups or other related problems.

PROJECTS

East Boston Sewer Separation Phase IV - Contract 3 26-309-002: Construction Contract No. 3 is one of five (5) planned contracts to construct new storm drains to separate approximately 230 acres between all five (5) contracts in East Boston to further mitigate CSOs and improve water quality. The project also includes upgrades of the sanitary sewer and water main systems to continue providing the highest level of service to the community. Construction is projected to commence in August 2027 and be completed in July 2029. The total three-year budget is $100,000.

South Boston Sewer Rehabilitation - NBMI Phase III 25-309-005: Rehabilitation of a portion of the 102" New Boston Main Interceptor (NBMI) on Frontage Road between Andrew Square and 15 Widett Circle, including rehabilitation of all manhole risers and two special structures. Evaluation of the siphon chambers at Andrew Square identified significant deterioration of both structures. This finding resulted in further investigations to assess conditions along the entire length of the 102" NBMI system. These investigations revealed that there was also deterioration of all pipe segments, manhole risers and large chambers, both upstream and downstream of the siphon chambers. The total three-year budget is $14,599,000.

Citywide R & R 25-309-003: The intent of this project will be to rehab and replace water/sewers/drains where SSOs and other issues have occurred in order to mitigate future issues. This will be on an as needed basis due to receiving emergency design requests from the Chief Engineer and OPS during year after CIP is developed. The total three-year budget is $6,500,000.

Citywide R & R 25-309-002: Construction of new storm drains to separate approximately 230 acres between all five (5) contracts in East Boston and is a continuation of sewer separation work that has been implemented in the neighborhood over the last 20 years. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community. Construction is projected to commence in August 2025 and be completed in July 2029. The total three-year budget is $6,500,000.

South Boston Sewer Separation - Contract 5 24-309-012: Construction of new storm drains to separate approximately 400 between all five (5) contracts acres in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community and support future development along Dorchester Avenue. Construction is projected to commence in February 2027 and be completed in July 2029.The total three-year budget is $100,000.

Charlestown Sewer Separation 24-309-006: Sewer Separation in Charlestown Lost Village area to reduce CSO overflow. Construction is projected to commence in April 2025 and be completed in October 2027. The total three-year budget is $ 1,394,000.

Replacement and Rehabilitation of Drain and Sewer Pipes in JP and Roxbury 24-309-003: The intent of this project will be to rehab and replace water/sewers/drains where SSOs and other issues have occurred in order to mitigate future issues. This will be on an as needed basis due to receiving emergency design requests from the Chief Engineer and OPS during year after CIP is developed. Construction is projected to commence in April 2025 and be completed in November 2027.The total three-year budget is $150,000.

Citywide R&R 24-309-002: Water, Sewer and Drain Replacement and Rehabilitation Citywide. Construction is projected to commence in April 2025 and be completed in November 2027. The total three-year budget is $250,000.

Citywide R&R 24-309-001: Sewer and Drain Replacement and Rehabilitation Citywide. The intent of this project will be to rehab and replace sewers/drains where SSOs and other issues have occurred in order to mitigate future overflows. Construction is projected to commence in August 2024 and be completed in August 2028. The total three-year budget is $250,000.

Sewage Works Improvements in Mattapan 24-308-014: Design began in September 2024 and is expected to be completed June 2025. Construction is anticipated to commence September 2025 and be completed June 2027. The total three-year budget is $5,154,000.

Associated Sewer Back Bay/ East Boston 24-308-003: Design began in May 2024 and is expected to be completed May 2025. Construction is anticipated to commence August 2025 and be completed July 2027. The total three-year budget is $7,370,000.

East Boston Construction Oversight 24-206-001: Construction oversight and resident engineering services during installation of new water mains, sanitary sewers and storm drains in the East Boston neighborhood. The total three-year budget is $2,944,000.

South Boston Sewer Separation - Contract 4 23-309-012: Construction of new storm drains to separate approximately 400 acres between all five (5) contracts in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community and support future development along Dorchester Avenue. Construction Contract No. 4 is one of five (5) planned contracts to construct new storm drains to separate approximately 400 acres in South Boston along the Dorchester Avenue Corridor. Construction is projected to commence in February 2026 and be completed in July 2028. The total three-year budget is $6,218,000.

R & R of Sewer and Drain in Fenway 23-309-011: Replacement and rehabilitation of sanitary sewer and drain pipes. The pipes in this contract have been inspected and reviewed and are found to be in poor condition. Associated water work. Pipes in this contract have been found defective and in need of repair

or replacement as determined by cleaning and CCTV inspection under various programs including SSO investigations, CMOM contracts, and illegal connections inspection. Construction is projected to commence in April 2025 and be completed in November 2027. The total three-year budget is $1,438,000.

Replacement and Rehabilitation Water Sewer and Drain Pipes in Dorchester, Mattapan Roxbury, Fenway Kenmore 23-309-005: Replacement and rehabilitation of sanitary sewer and drain pipes.The total three-year budget is $3,343,000.

Citywide R&R 23-309-003: Sewer and Drain Replacement and Rehabilitation Citywide. Construction is scheduled to commence in 2026 and be completed in June 2027. The total three-year budget is $100,000.

East Boston Sewer Separation Phase IV - Contract 2 23-309-002: Construction of new storm drains to separate approximately 230 acres between all five (5) contracts in East Boston and is a continuation of sewer separation work that has been implemented in the neighborhood over the last 20 years. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community. The total three-year budget is $1,000,000.

Sewage Works Improvements in Allston/Brighton 23-309-001: Replacement and rehabilitation of sanitary sewer and drain pipes. The total three-year budget is $2,806,000.

Sewer Relay Lower Roxbury 23-308-001: Relay of old water mains and associated sewerage works. Construction began in April 2025 and is projected to be completed in November 2026. The total three-year budget is $2,100,000.

Construction Supervision Services - NBMI Rehabilitation Phase II and Phase III 23-103-006: Phase II - Rehabilitation of a portion of the 102" New Boston Main Interceptor (NBMI) from Columbus Park Headworks to Preble Street at Wendeller Street, including rehabilitation of all manhole risers and 2 special structures. Phase III - Rehabilitation of a portion of the 102" New Boston Main Interceptor (NBMI) on Frontage Road between Andrew Square and 15 Widett Circle, including rehabilitation of all manhole risers and 2 special structures. The total three-year budget is $2,019,000.

Replacement of Failing and Broken Sewers and Drains 22-309-014: Construction of new storm drains to separate approximately 400 acres in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest-level service to the community and support future development along Dorchester Avenue. Construction Contract No. 3 is one of five (5) planned contracts to construct new storm drains. Construction began in September 2024 and is projected to be completed in July 2026. The total three-year budget is $1,509,000.

South Boston Sewer Separation - Contract 3 22-309-012: Construction of new storm drains to separate approximately 400 acres between all five (5) contracts in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest-level service to the community and support future development along Dorchester Avenue. Construction Contract No. 3 is one of five (5) planned contracts to construct new storm drains. Construction commenced in September 2024 and is projected be completed in July 2026. The total three-year budget is $7,867,000.

Upper Roxbury R&R 22-309-003: Replacement of failing 1800s combined sewers, installation of new storm drains, and replacement of aging water mains that have reached the end of their useful life. The intent of this project will be to rehab and replace sewers/drains where SSOs have occurred in order to mitigate future overflows. Construction is scheduled to commence in April 2025 and is projected be completed in December 2026. The total three-year budget is $4,714,000.

Replacement of Sewer and Drains Citywide, R&R 22-309-002: The intent of this project will be to rehab and replace sewers/drains where SSOs have occurred in order to mitigate future overflows. The total three-year budget is $2,446,000.

Roslindale/West Roxbury Rehabilitation 22-309-001: Rehabilitation of sewers and drains and point repairs identified by the Planning Department during the Roslindale Sanitary Sewer Evaluation Survey, conducted by CDM Smith. The objective of this project is to reduce I/I tributary to the Roslindale Interceptor. The total three-year budget is $3,503,000.

Georgetowne Neighborhood Water Main Replacement 22-308-003: Replacement of water mains and associated sewers and drains in West Roxbury. Replacement of old CI water mains that have reached the end of their useful life citywide. Replacement of CICL or DI mains that have break history. Repair sewer and storm drain mains in the area with major structural damage. Construction is scheduled to commence in April 2025 and is projected to be completed in December 2026. The total three-year budget is $750,000.

Replacement of Water Mains Citywide 22-308-002: Associated Sewer work in addition to replacement of old CI water mains that have reached the end of their useful life citywide. Replacement of CICL or DI mains that have break history. The total three-year budget is $1,200,000.

R&R of Water Sewer and Drain in Back Bay/Beacon Hill, City Proper and Fenway/Kenmore 22-308-001: Belvidere, Bowker, Boylston, Exeter, Harrison Ave. Construction commenced in August 2023 and will be completed in July 2025. The total three-year budget is $82,000.

South Boston Sewer Separation - Phase II Police 21-309-12P: Funds allocated for the South Boston Sewer and Drain Separation Police Detail. The total three-year budget is $117,000.

South Boston Sewer Separation - Phase II 21-309-012: Water, sewer, and drain improvements in South Boston, construction commenced in August 2023 and will be completed in June 2026. The total three-year budget is $198,000.

East Boston Sewer Separation Phase IV - Contract 1 21-309-002: Construction of new storm drains to separate approximately 230 acres in East Boston and is a continuation of sewer separation work that has been implemented in the neighborhood over the last 20 years. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest-level service to the community. Construction Contract No. 1 is one of five (5) planned contracts. Construction commenced in April 2024 and is projected to be completed in July 2027. The total three-year budget is $8,000,000.

Sewer & Storm Drain Improvements in Hyde Park 21-309-001: Sewer and Storm Drain Improvements in Hyde Park based on the findings of the CMOM group which identified sewer and drain defects in this area. The contract also includes associated water relay for pipes within project limits that have reached the end of their lifespan. Construction is projected to commence in April 2025 and be completed in October 2027. The total three-year budget is $1,208,000.

Replacement and Rehabilitation of Sewers and Drains in Allston/Brighton, Fenway/Kenmore, Jamaica Plain and Roxbury 20-309-007: Includes sanitary sewer & drain replacement and rehabilitation in Allston/Brighton, Fenway/Kenmore, Jamaica Plain, and Roxbury. Construction began in April 2025 and is projected to be completed in September 2026. The total three-year budget is $3,500,000.

Sewer and Drain Replacement and Rehabilitation (R&R) 20-309-006: Sewer Replacement/Rehabilitation based on findings of the CMOM group, some Water Main Replacement. Construction commence in July 2024 and is projected to be completed in December 2025. The total three-year budget is $4,876,000.

Charlestown Relay and Rehabilitation 20-309-002: Final and Semifinal Payments expected in 2025. Construction commenced in June 2023 and will be completed in December 2024. The total three-year budget is $428,000.

Replacement and Rehabilitation of Water, Sewer and Drain pipes in the South End and Dorchester 20-308-001: Replacement of older cast iron water mains that have reached the end of their useful life. Also, associated sewers and drains that are in disrepair. Construction commenced in April 2024 and is projected to be completed in May 2026. The total three-year budget is $164,000.

South Boston Sewer Separation - Construction Administration for Multiple Construction Contracts 20-206-002: Construction administration and resident engineering services during installation of new water mains, sanitary sewers and storm drains in the South Boston neighborhood abutting the Fort Point Channel. Infrastructure is being constructed to improve water quality in Fort Point Channel, reduce the volume of stormwater delivered to MWRA's Deer Island Wastewater Treatment Plan and to support future economic expansion along the Dorchester Avenue Corridor. Construction commenced in February 2024 and is projected to be completed in July 2025. The total three-year budget is $1,918,000.

Replacement and Rehabilitation of Water, Sewer, and Drain Pipes in Back Bay, Beacon Hill, and City Proper 19-308-004: Construction commenced in April 2024 and will be completed in May 2026. The total three-year budget is $900,000.

Water Improvements in Charlestown 19-308-002: Replacement and rehabilitation of sewers and drains in Charlestown. The total three-year budget is $4,250,000.

Sewer and Drain Replacement and Rehabilitation (R&R) 18-309-003: Replacement and rehabilitation of sewers and drains. The total three-year budget is $1,860,000.

Water, Sewer, & Drainage Works Improvements 18-309-001: Replacement of Water Mains on Jersey Street, Peterborough Street, and Public Alley 931. The total three-year budget is $3,704,000.

PROJECT CASH FLOW

Table 16 on page 62 presents the cash flow expenditures for the Sewer Renewal and Replacement Program. Total 2025-2027 expenditures are $117.7 million, of which $33.3 million is allocated in 2025.

Table 16 - Sewer Renewal & Replacement

Description	Contract	Class	2025	2026	2027	2025-2027
Sewer and Drain Replacement and Rehabilitation (R&R)	18-309-003	RATE	1,860,000			1,860,000
Replacement and Rehabilitation of Water, Sewer, and Drain Pipes in Back Bay, Beacon Hill, and City Proper	19-308-004	RATE	852,000	48,000		900,000
South Boston Sewer Separation - Phase II Police	21-309-12P	SRF	84,000	33,000		117,000
Engineering Design, 3 year Services	22-206-008	DEDII	382,000	299,000		681,000
Engineering Design, 3 year Services	22-206-009	DEDII	382,000	299,000		681,000
R&R of Water Sewer and Drain in Back Bay/Beacon Hill, City Proper and Fenway/Kenmore	22-308-001	RATE	82,000			82,000
Replacement of Water Mains Citywide	22-308-002	RATE	400,000	800,000		1,200,000
Georgetowne Neighborhood Water Main Replacement	22-308-003	RATE	175,000	575,000		750,000
Roslindale/West Roxbury Rehabilitation	22-309-001	MWRA II	2,382,000	1,121,000		3,503,000
Replacement of Sewer and Drains Citywide, R&R	22-309-002	MWRA II		2,312,000	76,000	2,388,000
Replacement of Sewer and Drains Citywide, R&R	22-309-002	RATE			58,000	58,000
Upper Roxbury R&R	22-309-003	RATE	1,178,000	1,179,000		2,357,000
Upper Roxbury R&R	22-309-003	MWRA II	1,178,000	1,179,000		2,357,000
Replacement of Failing and Broken Sewers and Drains	22-309-014	SRF	1,322,000	187,000		1,509,000
East Boston Sewer Separation Phase IV - Contract 2	23-309-002	SRF			1,000,000	1,000,000
R & R of Sewer and Drain in Fenway	23-309-011	RATE		500,000	938,000	1,438,000
South Boston Sewer Separation - Contract 4	23-309-012	SRF		4,389,000	1,829,000	6,218,000
East Boston Construction Oversight	24-206-001	RATE	803,000	1,070,000	1,071,000	2,944,000
Citywide R&R	24-309-001	RATE			250,000	250,000
Citywide R&R	24-309-002	RATE			250,000	250,000
Replacement and Rehabilitation of Drain and Sewer Pipes in JP and Roxbury	24-309-003	RATE			150,000	150,000
Charlestown Sewer Separation	24-309-006	MWRA II			1,394,000	1,394,000
South Boston Sewer Separation - Contract 5	24-309-012	SRF			100,000	100,000
Citywide R & R	25-309-002	RATE			6,500,000	6,500,000
Citywide R & R	25-309-003	RATE			6,500,000	6,500,000
East Boston Sewer Separation Phase IV - Contract 3	26-309-002	SRF			100,000	100,000
Sewage Works Improvements in Allston/Brighton	23-309-001	MWRA II	1,403,000	1,403,000		2,806,000
Associated Sewer Back Bay/ East Boston	24-308-003	MWRA II	2,896,000	4,474,000		7,370,000
Sewage Works Improvements in Mattapan	24-308-014	MWRA II	736,000	2,577,000	1,841,000	5,154,000
Upper Roxbury Area Sewer Separation - Phase III	17-309-011	BONDS	127,000			127,000
Water, Sewer, & Drainage Works Improvements	18-309-001	BONDS	3,704,000			3,704,000
Water Improvements in Charlestown	19-308-002	BONDS	1,000,000	250,000	250,000	1,500,000
Water Improvements in Charlestown	19-308-002	RATE	750,000	1,000,000	1,000,000	2,750,000
South Boston Sewer Separion - Construction Administration for Multiple Construction Contracts	20-206-002	BONDS	572,000	673,000	673,000	1,918,000
Replacement and Rehabilitation of Water, Sewer and Drain pipes in the South End and Dorchester	20-308-001	RATE	125,000	39,000		164,000
Charlestown Relay and Rehabilitation	20-309-002	RATE	214,000			214,000
Charlestown Relay and Rehabilitation	20-309-002	RATE	214,000			214,000
Sewer and Drain Replacement and Rehabilitation (R&R)	20-309-006	MWRA II		645,000	4,231,000	4,876,000
Replacement and Rehabilitation of Sewers and Drains in Allston/Brighton, Fenway/Kenmore, Jamaica Plain and Roxbury	20-309-007	RATE		1,867,000	1,633,000	3,500,000
Sewer & Storm Drain Improvements in Hyde Park	21-309-001	MWRA II		604,000	604,000	1,208,000
East Boston Sewer Separation Phase IV - Contract 1	21-309-002	MWRA II	3,000,000	3,750,000	1,250,000	8,000,000
South Boston Sewer Separation - Phase II	21-309-012	SRF	198,000			198,000
Engineering Design, 3 year Services	22-206-009	DEDII	382,000	299,000		681,000
South Boston Sewer Separation - Contract 3	22-309-012	SRF	2,622,000	2,622,000	2,623,000	7,867,000
Construction Supervision Services - NBMI Rehabilitation Phase II and Phase III	23-103-006	BONDS	636,000	788,000	595,000	2,019,000
Water Relay Lower Roxbury	23-308-001	RATE		700,000	1,400,000	2,100,000
Citywide R&R	23-309-003	RATE			100,000	100,000
Replacement and Rehabilitation Water Sewer and Drain Pipes in Dorchester, Mattapan Roxbury, Fenway Kenmore	23-309-005	BONDS	1,650,000	1,693,000		3,343,000
South Boston Sewer Separation - NBMI Phase III	25-309-005	RATE	3,099,000	8,000,000	3,500,000	14,599,000
Sewer Replacement			$33,262,000	$44,478,000	$39,916,000	$117,656,000
BONDS			7,689,000	3,404,000	1,518,000	12,611,000
MWRA II			11,595,000	18,065,000	9,396,000	39,056,000
RATE			9,752,000	15,778,000	23,350,000	48,880,000
SRF			4,226,000	7,231,000	5,652,000	17,109,000

INCREASED CAPACITY PROJECTS

DESCRIPTION AND JUSTIFICATION

During the 1980s, the Commission completed the construction of several new major interceptors including the New Boston Main and New East Side Interceptors. They provided increased system capacity, which reduced wet weather combined sewer overflow discharges and virtually eliminated dry weather discharges to Boston Harbor and its tributary waters. In 1994, the EPA issued a policy nationwide on CSOs that requires communities with CSOs to implement nine minimum controls to reduce the frequency and volume of CSO discharges. Maximizing the use of in-system storage, or system capacity, is one of the nine controls. The Commission continues its efforts to increase system capacity. The projects presented in the CIP Increased Capacity Program seek to fulfill that objective.

Since their completion, the Commission has continued to make capital investments to increase system capacity in some areas and maximize the existing capacity of the system in other areas. The Commission's efforts to increase system capacity are designed to ensure sufficient hydraulic flow in all areas of the city, reduce long-term maintenance costs, minimize the frequency and volume of CSO discharges and ensure the continued structural integrity of the wastewater collection system.

SEWER SYSTEM SPECIAL

DESCRIPTION AND JUSTIFICATION

The Sewer System Special Projects category provides funding for a variety of system planning and other studies and for professional services associated with the rehabilitation and operation of the sewer system.

Overall, the objectives of the Sewer System Special Projects are to extend the useful life of the Commission's wastewater facilities, comply with the requirements of the NPDES Permit regulations and plan for future sewer system projects.

PROJECTS

Roadway Restoration of BWSC Excavations 25-309-007: The total three-year budget is $3,000,000.

Survey Services for CIP Projects 25-206-XXX: Professional services contract for total station surveys used to design CIP project plans. This professional services contract provides survey information utilized to produce design plans. These services augment the Commission staff surveys. The services are scheduled to begin in June 2025 and must be completed June 2028. The total three-year budget is $250,000.

Sewer Lateral Testing and CCTV Inspection of Sewers and Drains 24-309-015: The new lateral testing contract will enable the Commission to continue testing sewer laterals for leakage and continue televising sewers and drains to identify illicit sanitary connections to the storm drain and structural deficiencies which may allow sewage to enter storm drains (cross contamination). Planning commenced in August 2024 and is scheduled to be completed August 2026. The total three-year budget is $323,000.

South Boston Sewer Separation - NBMI Phase II 24-309-005: Rehabilitation of a portion of the 102" New Boston Main Interceptor (NBMI) from Columbus Park Headworks to Preble Street at Wendeller Street, including rehabilitation of all manhole risers and 2 special structures. Evaluation of the siphon chambers at Andrew Square identified significant deterioration of both structures. This finding resulted in further investigations to assess conditions along the entire length of the 102" NBMI system. These investigations revealed that there was also deterioration of all pipe segments, manhole risers and large chambers, both upstream and downstream of the siphon chambers. The total three-year budget is $1,842,000.

West Roxbury and Hyde Park SSES 23-206-005: The Massachusetts Department of Environmental Protection (DEP) developed regulations requiring sewer system operators to create and implement a long term infiltration and inflow (I/I) reduction plan to remove extraneous flows from the wastewater collection system. The I/I Master Plan was completed in May of 2017. The I/I Master Plan recommends that the Commision conduct sewer system evaluation surveys in sections of the waterwater collection system exhibiting excessive flows. Design is scheduled to commence January 2026 and be completed July 2026. This project is intended to identify sources of extraneous flows in the wastewater collection system serving West Roxbury and Hyde Park. The total three-year budget is $1,912,000.

Depictions of Sewer Special Structures - Phase II 23-206-003: Produce animated three-dimensional (3D) interactive renderings for up to 50 sewer regulators and other sewer structures. Planning commenced in January 2023 and will be completed in April 2025. The total three-year budget is $129,000.

Charlestown SSES 23-206-001: This project will entail an Infiltration and Inflow Sewer System Evaluation Survey (SSES) to identify sources of extraneous flow in the Commission's wastewater collection system. The SSES will include flow monitoring, manhole inspection, smoke testing, dye testing and television inspection of sewer pipes. Findings will be provided to the Commission in a report with recommendations for capital improvements to eliminate sources of extraneous flows. The total three-year budget is $569,000.

Sewer Drain Model Update 22-206-011: The purpose of this project is to update and recalibrate the Commission's Sewer and Drain model. The model has not been updated and calibrated since 2016. Utilizing models that are up to date and are representative of the Commissions infrastructure is critical to long term planning goals and to meet regulatory milestones. The total three-year budget is $704,000.

Survey Services for CIP Projects 22-206-003: Professional services contract for total station surveys used to design CIP project plans. This professional services contract provides survey information utilized to produce design plans. These services augment the Commission staff surveys. The services began in June 2022 and must be completed June 2025. The total three-year budget is $76,000.

Dorchester Interceptor - Relief Sewer Construction Monitoring: This project involves engineering services in connection with monitoring construction of the Dorchester Interceptor Relief Sewer. Construction is projected to commence in January 2025 and be completed in October 2027. The total three-year budget is $100,000.

Dorchester Interceptor - Relief Sewer Construction: This project is for engineering services for construction of the Dorchester Interceptor Relief Sewer. The total three-year budget is $500,000.

Dorchester Interceptor Storage Tank Design: This project entails engineering services for design and preparation construction document suitable for public bidding. The engineering firm will prepare bid documents include plans, specification, and cost estimates for construction of a tank and appurtenances for the temporary storage excess wastewater flows that occur in Dorchester Interceptor during extreme storm events. The total three-year budget is $500,000.

Roxbury SSES: This project will entail an Infiltration and Inflow Sewer System Evaluation Survey (SSES) to identify sources of extraneous flow in the Commission's wastewater collection system. The SSES will include flow monitoring, manhole inspection, smoke testing, dye testing and television inspection of sewer pipes. Findings will be provided to the Commission in a report with recommendations for capital improvements to eliminate sources of extraneous flows. After the Commission approves the recommendations, Contract Documents for Bid will be produced. The total three-year budget is $2,500,000.

CCTV Inspections for Tidal Infiltration: This project involves CCTV inspections of sanitary sewer and combined sewer in sections of the city with high groundwater level resulting from tide water levels. This modified SSES project will identify sources of extraneous flow in the wastewater system by closed circuit television inspection of sewers and combined sewer. Defects may include cracked or broken pipe that allow groundwater to enter the sewer system. The defects found will be evaluated and included in a capital improvements design project to rehabilitate or replace the cracked and broken pipe. The total three-year budget is $1,200,000.

Sewer Drain Sensor Deployment Phase 2: The purpose of this project is to continue the real-time sewer and drain level monitoring program currently deployed in Commission's system. The monitoring program tracks water levels in 75 sewer and drain pipes across the city and displays the data on a web-based dashboard. The dashboard and data are used to inform operation and planning objectives. This project

will expand the number of sensors deployed in the sewer and drain system from 75 to 125. The total three-year budget is $672,000.

Owner Correction of Illicit Connections: Funds will be used to reimburse owners who must pay to install ejector pumps or redirect internal building sewers in order to correct illicit connections. The total three-year budget is $23,000.

Inundation Model Update and Maintenance: The purpose of this program is to utilize the updated Commission's Sewer and Drain Models to update the inundation model, add new LIDAR data and coastal sea level and storm surge data and rerun the updated inundation model to determine what areas of the city may experience inundation with the implementation of the City's flood barriers, implementation of the Coastal Stormwater discharge recommendations and stormwater detention recommendations. Planning commenced in August 2024 and be completed in July 2027. The total three-year budget is $720,000.

Iron Frame and Cover Castings: Supply of Iron Frame and Cover Castings. The total three-year budget is $1,025,000.

Summer Street Pump Station: Pump/Equipment Up-Grades; Building/Roof Upgrades; Flood Protection. Construction commenced in January 2024 and be completed in December 2026. The total three-year budget is $300,000.

Union Park Pump Station: Pump/Equipment Up-Grades; Building/Roof Upgrades; Flood Protection. Construction commenced in January 2024 and be completed in December 2026. The total three-year budget is $1,500,000.

Trilling Way Pump Station: Pump/Equipment Up-Grades; Building/Roof Upgrades; Flood Protection. Construction commenced in January 2024 and be completed in December 2026. The total three-year budget is $330,000.

PROJECT CASH FLOW

Table 18 on page 67 illustrates the cash flow expenditures for Sewer Special Projects for the period 2025-2027. The total expenditures for the Sewer Special program are $18.2 million, of which $8.7 million is allocated in 2025.

TABLE 18 - SEWER SPECIAL

Description	Contract	Class	2025	2026	2027	2025-2027
Survey Services for CIP Projects	25-206-XXX	BONDS	50,000	100,000	100,000	250,000
Roadway Restoration of BWSC Excavations	25-309-007	RATE	2,860,000	140,000		3,000,000
Dorchester Interceptor - Relief Sewer Construction Monitoring	-	SRF			100,000	100,000
Dorchester Interceptor - Relief Sewer Construction	-	SRF			500,000	500,000
Fort Point Channel and Mystic/Chelsea Combined Sewer Overflow Control Projects	22-206-002	MWRA MOU	162,000			162,000
Depictions of Sewer Special Structures - Phase II	23-206-003	BONDS	129,000			129,000
South Boston Sewer Separation - NBMI Phase II	24-309-005	BONDS	1,842,000			1,842,000
Sewer Lateral Testing and CCTV Inspection of Sewers and Drains	24-309-015	BONDS	210,000	113,000		323,000
Dorchester Interceptor Storage Tank Design		SRF			500,000	500,000
Roxbury SSES		MWRA II		1,250,000	1,250,000	2,500,000
CCTV Inspections for Tidal Infiltration		MWRA II	100,000	850,000	250,000	1,200,000
Sewer Drain Sensor Deployment Phase 2		BONDS	192,000	288,000	192,000	672,000
Owner Correction of Illicit Connections		BONDS	8,000	8,000	7,000	23,000
Survey Services for CIP Projects	22-206-003	BONDS	76,000			76,000
Sewer Drain Model Update	22-206-011	SRF	435,000	269,000		704,000
Charlestown SSES	23-206-001	MWRA II	569,000			569,000
West Roxbury and Hyde Park SSES	23-206-005	MWRA II	865,000	1,047,000		1,912,000
Inundation Model Update and Maintenance		SRF	270,000	270,000	180,000	720,000
Iron Frame and Cover Castings		RATE	375,000	300,000	350,000	1,025,000
Summer Street Pump Station		BONDS	125,000	100,000	75,000	300,000
Union Park Pump Station		BONDS	500,000	500,000	500,000	1,500,000
Trilling Way Pump Station		BONDS	110,000	110,000	110,000	330,000
Sewer Special			$ 8,716,000	$ 5,345,000	$ 4,114,000	$ 18,175,000
BONDS			3,242,000	1,219,000	984,000	5,445,000
MWRA II			1,534,000	3,147,000	1,500,000	6,181,000
RATE			3,235,000	440,000	350,000	4,025,000
SRF			705,000	539,000	1,280,000	2,524,000

DEDICATED INFILTRATION INFLOW 4:1 PROJECTS

Infiltration and inflow (I/I) are extraneous quantities of water, which enter the sanitary sewer system and reduce the capacity of the system to transport sanitary sewage to a treatment plant. Infiltration is groundwater that leaks into the sanitary sewerage system through pipe joints and defects. Inflow refers to storm water that enters sewers through catch basins, sump pumps, downspouts, basement drains and defected manholes. Saltwater inflow can also enter the Sewer System through defective CSO tide gates that are subject to tidal inflow.

In 2004, the Massachusetts Department of Environmental Protection ("DEP"), in conjunction with the MWRA and its member communities implemented a program to help remove stormwater infiltration and inflow: I/I from the sewer system. Private developments may add substantial flows to the sewer collection system, requiring additional MWRA treatment.

Subsequently, at the July 28, 2005, Commission meeting, the Commission approved the establishment of a Dedicated Infiltration/Inflow ("DEDII") account into which developers assessed a 4:1 I/I reduction requirement by the DEP would contribute funds to fulfill their requirements. These funds will be used by the Commission to fund I/I identification and reduction projects.

To date, the Commission has implemented thirteen contracts, which are funded by the 4:1 I/I Infiltration Inflow Reduction Mitigation Account. All costs are funded by the ("DEDII") account and are 100% reimbursable; therefore, are not included in the 2025-2027 cashflow.

In 2004, the Massachusetts Department of Environmental Protection (DEP), in conjunction with the MWRA and its member communities, implemented a program to help remove stormwater infiltration and inflow (I/I) from the sewer system. Large projects that are constructed can contribute substantial additional flows to the sewer collection system and subsequently require additional MWRA treatment. In the 2004 program, the Massachusetts DEP recommended to the Massachusetts Environmental Policy Act Office, through the Executive Office of Energy and Environmental Affairs, that new developments be required to remove I/I from the sanitary sewer system, as part of the requirements by the Secretary of Energy and Environmental Affairs. A ratio of 4:1 is used for I/I removed to new wastewater added. For example, if a proposed project's calculated new daily wastewater flow is 100,000 gallons per day (gpd), the developer must remove 400,000 gpd of I/I from the sewer system.

The Commission conducts investigations to identify sources of I/I to the Commission's system. These projects identify both public and private sector sources of I/I. Commission staff initially planned on developing a database with locations of I/I sources which would be provided to a developer. The developer would correct sources from that list to fulfill their I/I removal requirement. However, Commission staff believed that this process would be unwieldy and unmanageable. Subsequently, at the July 28, 2005 Commission meeting, the Commission approved the establishment of a dedicated account into which developers assessed a 4:1 Infiltration/Inflow reduction requirement by the DEP could pay money to fulfill their requirements. The funds would then be used by the Commission to fund I/I identification and reduction projects.

In April 2014, the DEP promulgated new regulations. The Commission has a National Pollutant Discharge Elimination System (NPDES) Permit for its combined sewer overflows and is subject to these new regulations [314 CMR 12.00, section 12.04(2)(d)]. This section requires all new sewer connections with design flows exceeding 15,000 gpd to mitigate the impacts of the development by removing four gallons of I/I for each new gallon of wastewater flow. In this regard, any new connection or expansion of an existing connection that exceeds 15,000 gallons per day of wastewater shall assist in the I/I reduction effort to ensure that the additional wastewater flows are offset by the removal of I/I. Projects constructed in

multiple phases may contribute 4:1 reduction 90 days before each phase comes on-line. Phased construction may include flows under 15,000 gpd. Currently, a minimum ratio of 4:1 is used for I/I removal to new wastewater flow added.

Process of 4:1 Infiltration Inflow Payments

During private project design, Engineering Customer Services receives and reviews the Site Plan for conformance with the Commission's Engineering Design and Construction Standards. Engineering Customer Services will confirm if the project has been assessed a 4:1 compliance requirement by the MEPA.

Engineering Customer Service will notify the Planning Department of the most current estimated wastewater flow that has been submitted by the project developer. The developer shall coordinate with the Commission how to comply with the proposed assessment, either removing sources of I/I or making a requisite monetary contribution. The removal or contribution must be completed at least ninety days prior to the issuance of the Occupancy Permit by the Boston Inspectional Services Department. If the developer chooses to contribute monetarily to the Commission's I/I reduction program, the check is payable to the Commission. The check is submitted to the Finance Department for deposit into the Commission's dedicated I/I Reduction Account.

Commission Contributions Generated to Date

Most projects fulfilled their contribution requirement by monetary means. Overall, the Commission has collected $63,666,029, through September 2024. From January 2024 to September 2024, the Commission collected $3,261,447.

Contracts

Engineering Design, 3 year Services 22-206-008: The total three year budget is $1,362,000.

Engineering Design, 3 year Services 22-206-009: The total three year budget is $1,362,000.

East Boston Sewer Separation - Phase 4 21-206-003: The total three year budget is $3,010,000.

PROJECT CASH FLOW

Table 18 on page 70 illustrates the cash flow expenditures for DEDII Projects for the period 2025-2027. The total expenditures for the DEDII program are $5.7 million, of which $2.4 million is allocated in 2025.

Table 18 - DEDII

Description	Contract	Class	2025	2026	2027	2025-2027
Engineering Design, 3 year Services	22-206-008	DEDII	382,000	299,000		681,000
Engineering Design, 3 year Services	22-206-009	DEDII	382,000	299,000		681,000
East Boston Sewer Separation - Phase 4	21-206-003	DEDII	898,000	1,056,000	1,056,000	3,010,000
Engineering Design, 3 year Services	22-206-009	DEDII	382,000	299,000		681,000
Engineering Design, 3 year Services	22-206-008	DEDII	382,000	299,000		681,000
Dedicated Inflitration Inflow			$2,426,000	$2,252,000	$1,056,000	$5,734,000

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SUPPORT PROJECTS

Various Support Projects are included in the 2025-2027 CIP, which the Commission firmly believes will improve the overall efficiency of Commission's functions and enhance its ability to collect revenues and track information. Funds are also allocated for software licenses and upgrades, hardware and peripheral equipment, metering, and vehicles.

Primary Objectives of the 2025-2027 Support Category are as follows:

- Upgrade of Automatic Meter Reading System Data Base
- Replace HVAC System of Commission Headquarters
- Rooftop Upgrade Replacement
- Replacement of Commission Vehicles

Support Projects are divided into three sections. These sections are:

- Metering
- Information Technology
- Administrative Equipment

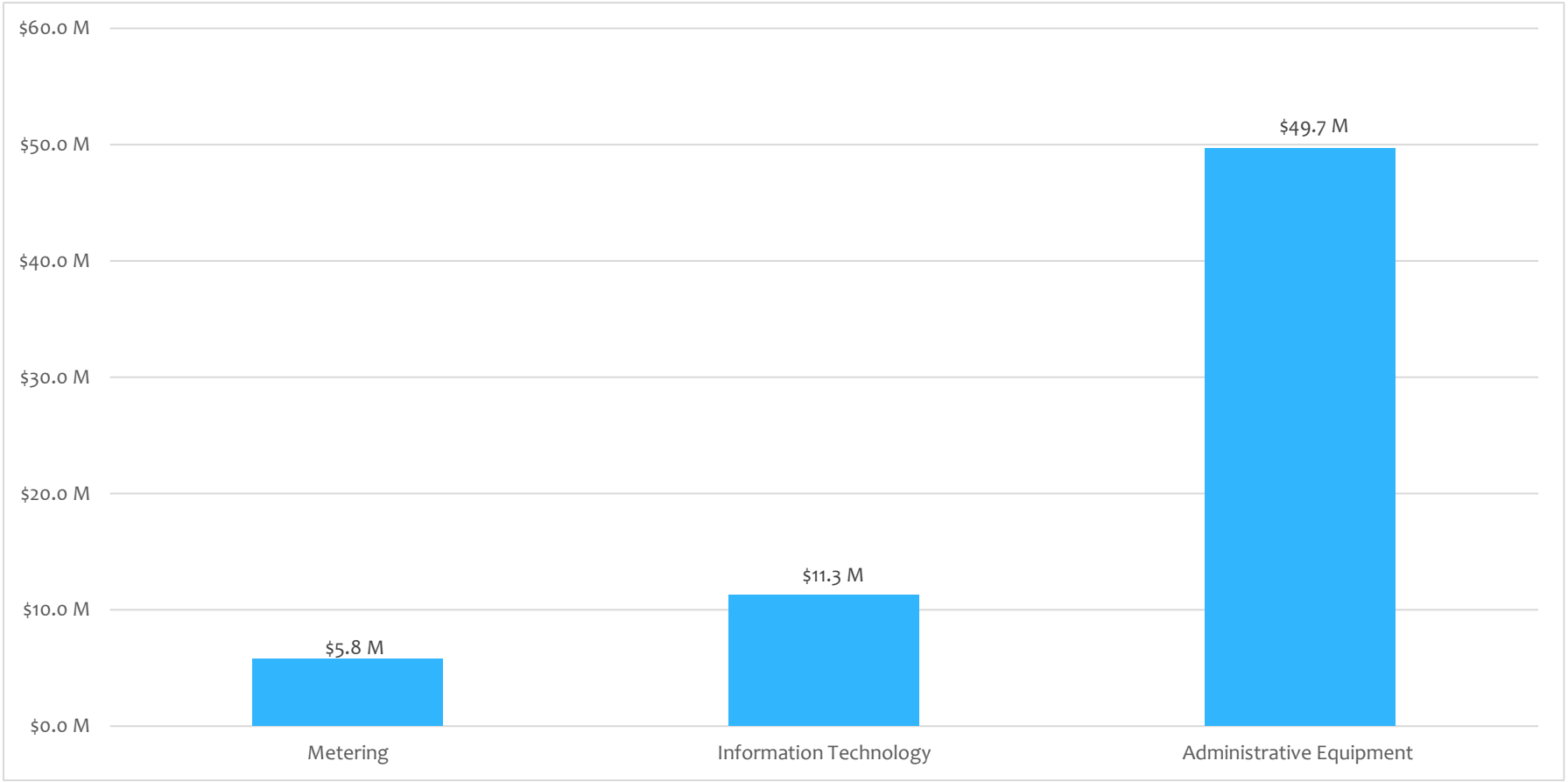
Table 19 on page 73 illustrates the Support Projects in the 2025-2027 Capital Improvement Program total $66.8 million, of which $27.4 million is allocated for 2025. Graph 13 on page 74 illustrates the Total Support expenditures for 2025-2027. Graph 14 on page 75 illustrates Support Distributions Spending by category for 2025.

Table 19 - Support Category

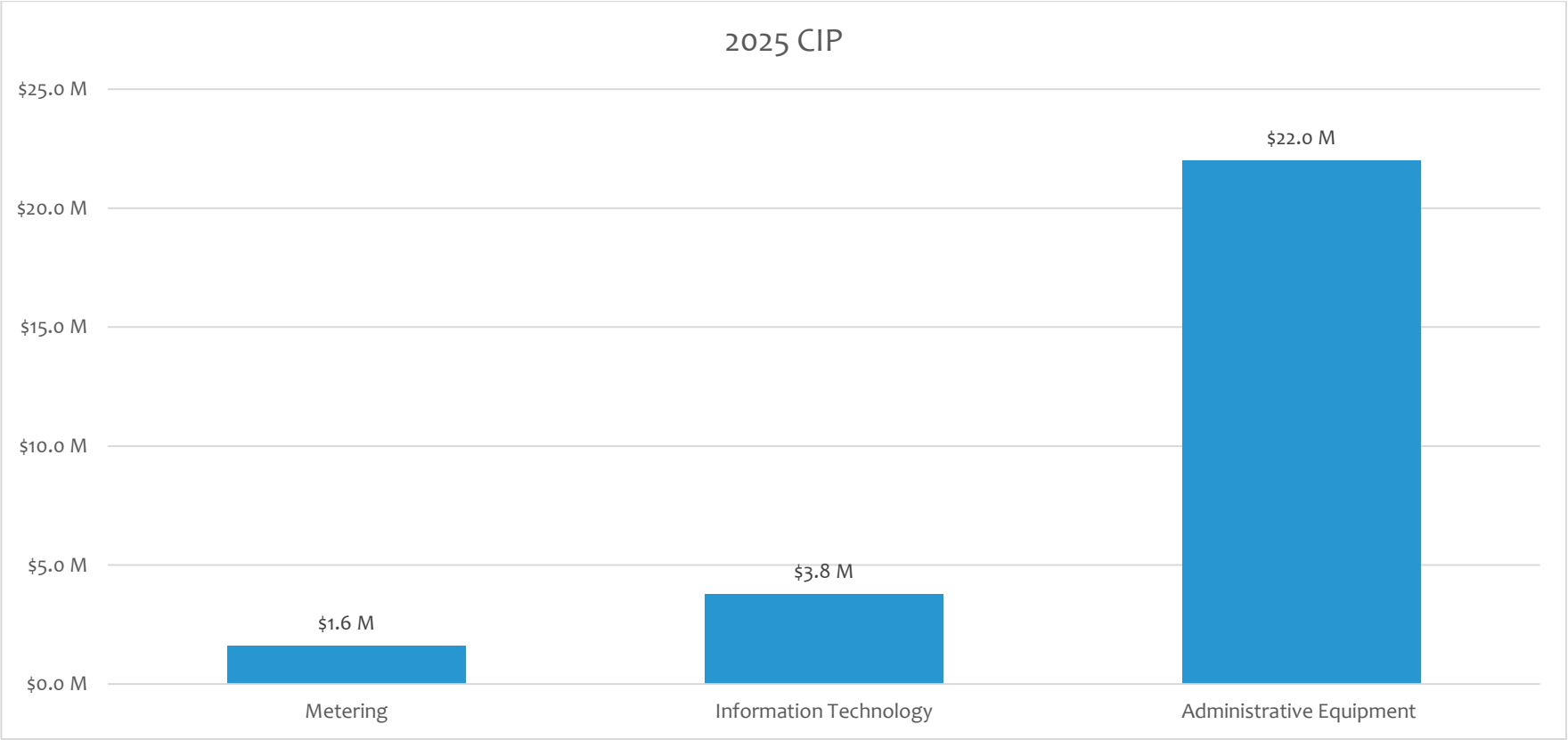
Capital Improvement Program
2025 - 2027
Support Total

	2025	2026	2027	Total 2025 - 2027
Metering	$ 1,600,000	$ 2,100,000	$ 2,100,000	$ 5,800,000
BWSC Bonds	1,600,000	2,100,000	2,100,000	5,800,000
Information Technology	$ 3,780,000	$ 3,650,000	$ 3,850,000	$ 11,280,000
BWSC Bonds	3,780,000	3,650,000	3,850,000	11,280,000
Administrative Equipment	$ 22,006,000	$ 18,778,000	$ 8,912,000	$ 49,696,000
BWSC Bonds	22,006,000	18,778,000	8,912,000	49,696,000
Total	$ 27,386,000	$ 24,528,000	$ 14,862,000	$ 66,776,000
BONDS	27,386,000	24,528,000	14,862,000	66,776,000
Total	$ 27,386,000	$ 24,528,000	$ 14,862,000	$ 66,776,000

GRAPH 13 -2025-2027 TOTAL SUPPORT EXPENDITURES
$66.8 MILLION



GRAPH 14 - 2025 SUPPORT DISTRIBUTION SPENDING
$27.4 MILLION



METERING

DESCRIPTION AND JUSTIFICATION

The Meter Services Department maintains the efficient operation of approximately 91,000 water meters and associated automatic meter reading devices in the system thus insuring accurate registration of consumption. Metering programs include meter downsizing, which involves the replacement of large meters with smaller meters, where hydraulically feasible. On an annual basis, the Meter Services Department repairs, replaces, tests and installs water meters and automatic reading devices and maintains all field components of the Commission's Automatic Meter Reading system. All meters that are removed are tested on a fully equipped test bench, which was purchased in 2009. Meters 3" and larger are field tested, based on size, at intervals of: every year (6" to 10", every other year (4") and every three years (3"), in accordance with American Water Works Association standards. In addition, usage is evaluated utilizing the AMR system and recommendations are made to downsize identified meters to more accurately account for low flow.

PROJECTS

MTU and DCU Maintenance/Repair/Replacements and Upgrades: Having completed the upgrade of its AMR infrastructure in 2018, efforts will focus on quickly addressing any system issues with the intent of preserving the elimination of estimated bills which the system has achieved. In conjunction with Aclara, the Commission will update the current star programmer which will no longer be supported after May 1, 2024, to mobile wireless programmer. At the end of 2024 and into 2025 the commission will explore the feasibility of adding another analytics module to AcalarOne that automatically adjusts bad reads and estimates read based on historical trends. In addition, the Commission will explore a pilot for a different automated meter reading system. This is projected to be awarded January 2024 and be completed in April 2024. The three-year budget is $2,500,000.

Large Meter Work (Water): The Commission closely follows AWWA recommendations and tests all large meters in accordance with AWWA parameters. In the course of its large meters work, the Commission prioritizes the repair/replacement of any malfunctioning parts and/or replaces large meters, as necessary. Wherever feasible, the Commission downsizes large meters to improve accuracy of registration. The three- year budget for this project is $1,800,000.

Residential Metering (Water): The residential metering program is an ongoing project to replace approximately 4,000 residential meters sizes 5/8" through 2" annually**.** The three- year budget for this project is $1,500,000.

Table 20 on page 76 illustrates cash flow for Metering projects for 2025-2027 CIP totals $5.8 million, of which $2.1 million is allocated for 2025.

PROJECT CASH FLOW

Table 20 - Metering Category

Description	2025	2026	2027	2025-2027
AMR SYSTEM	500,000	1,000,000	1,000,000	2,500,000
LARGE METERS	600,000	600,000	600,000	1,800,000
Residential Meters	500,000	500,000	500,000	1,500,000
Metering	$1,600,000	$2,100,000	$2,100,000	$5,800,000
BWSC Bonds	1,600,000	2,100,000	2,100,000	5,800,000

INFORMATION TECHNOLOGY

Effective use of the right technologies enables BWSC to provide more efficient and high-quality water and sewer services to the City of Boston. Strategic planning, careful selection of technological tools, and effective use of such tools has enabled BWSC to continue to improve the level of service associated with emergency responses, preventative maintenance, infrastructure improvements, and most importantly, quality customer service. Providing staff with appropriate training and utilizing the right mix of hardware and software is something BWSC continues to assess and act upon as new technologies continue to evolve.

A number of mission critical software applications are utilized to support BWSC's daily operations and provide for emergency response services 24 hours a day, 7 days a week. BWSC is actively upgrading and replacing various systems. The following are projects that have been completed to date and projects projected to be completed during the next several years.

- Implement new Project Management Information System
- Move Customer Information System to the Cloud
- Implement new Geographic Information System Viewing Application
- Upgrade Virtualization Hardware

Cybersecurity: BWSC adheres to the NIST (National Institute of Standards and Technology) Cybersecurity Framework (the "NIST Framework"). As the Cybersecurity landscape evolves so does the NIST Framework. The only way to accelerate detection and response to sophisticated threats is to understand the behavior of all individual components of an attack across your organization. BWSC has selected security products from different vendors which integrate to offer an overlapping layered approach to security with multiple levels of protection. In the event of a breach BWSC has multiple levels of backups in place to mitigate data loss. Most of the deployed security products are now cloud based and rely on analysis of datasets to identify threats based on patterns. These products also include remote monitoring and response. BWSC has deployed security products to cover each functional level of the NIST Framework: Identify, Protect, Detect, Respond and Recover. BWSC has recently completed a cybersecurity assessment, which is compliant with the AWIA Cybersecurity and Resilience assessment requirement.

PROJECTS

Server / Network Hardware & Peripheral Equipment: New Server/Network Hardware is used to upgrade and add to the Commission's Computing Infrastructure, which provides sufficient capacity and performance to support computing activities including: billing, HRIS, payroll, financials, work order system and GIS. The total three-year budget for this project is $1,450,000. Hardware and upgrades consist of the following:

- Backup disk/tape
- Communications/Networking
- Server Upgrades
- Disaster Recovery Hardware
- Replace/Upgrade PC's
- Tablets/Ipads/Phones
- Laptops
- Peripherals (cables, adapters, cases etc.)

Server/Network Software Licenses and Upgrades: Funding is included for software upgrades and additions to the Commission's Computer Infrastructure. Software and related upgrades to support Commission computing activities include: Billing, HRIS, Payroll, Financials, Work Order system, GIS, Document Management and Construction Management System. The total three-year budget for this project is $ $8,210,000. Software and upgrades consist of the following:

- Workorder Mgt. System (Cityworks)
- CIS
- Database Software
- Application Development Tools
- Construction Management Software
- Website
- GIS Software/Upgrade
- Management Dashboard
- Information Security
- Disaster Recovery Software & Services
- AutoCAD & Design Software/upgrades
- Peoplesoft Upgrade

PROJECT CASH FLOW

Table 21 on page 80 illustrates cash flow expenditures for IT projects for 2025-2027. Total three-year expenditure is $11.3 million, of which $3.8 million is allocated for 2025.

Table 21 - Information Technology Category

Description	2025	2026	2027	2025-2027
Hardware	1,030,000	800,000	850,000	2,680,000
Software	2,750,000	2,850,000	3,000,000	8,600,000
Information Technology	$3,780,000	$3,650,000	$3,850,000	$11,280,000
BWSC Bonds	3,780,000	3,650,000	3,850,000	11,280,000

ADMINISTRATIVE EQUIPMENT

DESCRIPTION AND JUSTIFICATION

The projects contained in the administrative equipment category provide funding for improvements to administrative facilities and equipment. The Fleet department manages and coordinates all activities required for the efficient operation and maintenance of the Commission's fleet of vehicles including heavy equipment. To minimize fleet total cost of ownership (operating and capital cost) and ensure the ability to provide required customer services using reliable transportation and equipment, vehicles should be replaced at regular intervals, derived from optimal replacement cycle analyses. Vehicle replacement cycles provide the basis for long-term replacement plans for year-to-year replacement earmarking and budgeting. A recent study of the Commission's fleet by a professional management consulting firm has determined that optimum replacement cycles for all classes of vehicles range from 7 to 12 years with a weighted average replacement cycle of 8.8 years for all vehicles.

PROJECTS

BWSC Parking Garage – Construction: Construction of New Parking Garage at BWSC Headquarters is scheduled to commence in March 2026. The total three-year budget is $2,000,000.

Phase II of the Replacement of the Internal HVAC System at BWSC Headquarters: Completion of repairs/replacement of internal HVAC system components that have failed or beyond their useful life. Construction is scheduled to commence in April 2025 and the anticipated complete date of April 2026. The total three-year budget is $3,000,000.

New Solar Array: Construction of a New Solar Array on Parking Garage at BWSC Headquarters. Design is anticipated to begin January 2025. Construction is scheduled to commence in March 2026. The total three-year budget is $2,730,000.

BWSC Parking Garage - Design: Design and Construction Services for New Parking Garage at BWSC Headquarters commenced in October 2024. Design is anticipated to be completed October 2025. The total three-year budget is $1,000,000.

Replacement of the Roof and HVAC Roof Units at BWSC Headquarters: The replacement of 980 Harrison Avenue roof and HVAC rooftop equipment. The total three-year budget is $19,206,000.

Gas Pumps Roof Replacement: The total three-year budget is $1,000,000.

Office Furniture: For the funding of replacement office furniture and installation of modular office space. Planning is projected to commence in January 2024 and be completed in December 2026. The total three-year budget is $3,600,000.

First Floor Garage Repairs: For the funding of repairs to defective areas of first floor garage. This project will repair compromised areas of the 980 Harrison Avenue first floor garage, protecting Commission vehicles and reducing injury risk to employees. The total three-year budget is $180,000.

Electrical Hardware Upgrades: The components of the existing electrical system at 980 Harrison Avenue are original to the building's online date of 2001. The replacement of electrical circuits and subpanels would enhance overall performance capability and provide the flexibility to accomodate future electrical needs.The total three-year budget is $250,000.

Second Floor Garage Fire Suppression Installation: The Commission has added a fleet of electric vehicles which are stationed on the second floor garage. These vehicles pose a unique fire risk that was not a known accounted for during the building's orinal design about 25 years ago. This project will allow the Commission to install a fire suppression system in this area best able to protect Commission assets and employees. The total three-year budget is $3,110,000.

Commercial Garage Sweeper: The Commission houses two parking garages at its 980 Harrison Avenue Headquarters Building. A commercial garage sweeper is an asset needed to maneuver tight spaces and provide cleanliness to the garage floors. The total three-year budget is $1,500,000.

Owner's Project Management (OPM): For the funding of Owner's Project Management (OPM) professional services, Contract No. 20-201-005A, for public building projects exceeding $1,500,000.00 and complex smaller projects. Owner's Project Management (OPM) is required for public building projects exceeding a contract value of $1,500,000 such as the Roof Replacement and HVAC project. It can also be utilized for smaller projects complex in nature. Planning began in January 2024 and be completed in December 2026. The total three-year budget is $1,000,000.

Replacement of Variable Air Volume (VAV) Boxes: This is for the replacement of Variable Air Volume (VAV) boxes for all three floors of 980 Harrison Avenue. Variable Air Volume (VAV) boxes are critical to the Headquarters HVAC system as they offer more precise temperature control, reduce compressor wear and lower energy consumption by system fans. This project will replace the existing VAV boxes at 980 Harrison Avenue which are original to the building's online date of 2001. Construction is scheduled to commence September 2025 and is anticipated to be completed October 2027. The total three-year budget is $2,500,000.

Third Floor Carpet Tile & Stairwell Treading Replacement: The total three-year budget is $620,000.

Fleet Vehicle Maintenance and Replacement: Replacement of Commission Vehicles; Vehicle Repairs; Equipment Purchases; Bulk Fluid Transfer Dispensing System Upgrade. The total three-year budget is $8,000,000.

PROJECT CASH FLOW

The 2025-2027 cash flow is presented in Table 22 on page 83. Total three-year expenditure for administrative equipment is $49.7 million, of which $22.0 million is allocated for 2025.

Table 22 - Administrative Equipment Category

Description	Contract	Class	2025	2026	2027	2025-2027
Replacement of the Roof and HVAC Roof Units at BWSC Headquarters	23-201-007	BONDS	12,433,000	6,561,000	212,000	19,206,000
BWSC Parking Garage - Design	24-201-003	BONDS	400,000	400,000	200,000	1,000,000
New Solar Array	25-201-001	BONDS	-	2,730,000	-	2,730,000
Phase II of the Replacement of the Internal HVAC System at BWSC Headquarters	25-201-002	BONDS	2,138,000	862,000	-	3,000,000
BWSC Parking Garage - Construction	26-201-001	BONDS	-	-	2,000,000	2,000,000
Gas Pumps Roof Replacement		BONDS	150,000	850,000		1,000,000
Office Furniture		BONDS	1,200,000	1,200,000	1,200,000	3,600,000
First Floor Garage Repairs		BONDS	90,000	90,000		180,000
Electrical Hardware Upgrades		BONDS	25,000	125,000	100,000	250,000
Second Floor Garage Fire Suppression Installation		BONDS	110,000	1,500,000	1,500,000	3,110,000
Commercial Garage Sweeper		BONDS	500,000	500,000	500,000	1,500,000
Owner's Project Management (OPM)		BONDS	350,000	350,000	300,000	1,000,000
Replacement of Variable Air Volume (VAV) Boxes		BONDS	300,000	1,300,000	900,000	2,500,000
Third Floor Carpet Tile & Stairwell Treading Replacement		BONDS	310,000	310,000		620,000
Fleet Vehicle Maintenance and Replacement		BONDS	4,000,000	2,000,000	2,000,000	8,000,000
Administrative Equipment			$22,006,000	$18,778,000	$8,912,000	$49,696,000
BWSC Bonds			22,006,000	18,778,000	8,912,000	49,696,000

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STORMWATER/GREEN INFRASTRUCTURE/LOW IMPACT DEVELOPMENT PROJECTS

DESCRIPTION AND JUSTIFICATION

Funding is provided in the 2025-2027 CIP for the implementation of the Commission's Stormwater Program. This program consists of studies of existing and new drainage infrastructure, best management practices and implementation of programs designed to improve water quality, the environment and manage stormwater resources.

The primary purpose of the Stormwater Program is to participate in the Boston Harbor pollution abatement projects, implement green infrastructure/low impact development to improve the water quality of discharges to the local receiving waters and promote public awareness of stormwater quality issues. The goal is also to study existing conditions and make recommendations for placement of new best management practices designed to promote improved water quality, ensure compliance with state and federal regulations, minimize flooding and manage stormwater throughout the City of Boston.

The Green Infrastructure/Low Impact Development ("GI/LID") category provides funding for ("GI/LID") projects as needed in collaboration with public improvements in the City of Boston.

The Commission was required by its Consent Decree with the U.S. EPA to develop a stormwater model to identify pollutant loadings (including phosphorus) from land areas that contribute stormwater runoff to the Commission's storm drain system. The Commission is under an obligation to meet the Phosphorus Total Maximum Daily Load ("TMDL") for the Lower Charles River Basin by reducing elevated levels of phosphorus discharged from its stormwater outfalls. In addition, the Commission prepared a Best Management Practice ("BMP") Recommendations Report in compliance with the terms of the Consent Decree, which was approved by EPA October 23, 2018. The BMP Recommendations Report provides a scheduled plan for implementation of structural BMPs, Green Infrastructure and Low Impact Development ("LID") to reduce pollutant loadings discharged to the twenty-seven sub-watersheds of the City of Boston.

The BMP Recommendations Report provides a plan for the Commission's whole stormwater collection system. According to the interim findings, the cost to implement this plan could be substantial. The purpose of this program is to make available funding to implement GI/LID projects (in collaboration with other city departments and/or private landowners) in the City of Boston as they become available. This program will further the Commission's goal of compliance with the Consent Decree.

As a result of the aforementioned Consent Decree, the commission began charging for stormwater on April 1, 2024. The stormwater charge is a charge to all parcels in the City of Boston with greater than 400 square feet of impervious (hard/impermeable) surface. The stormwater charge is charged based on Equivalent Residential Unit (ERU). Each ERU is equal to 2,164 square feet of impervious surface which represents the average amount of impervious area on one to six unit residential properties in the City of Boston. The rate per ERU will be $8.98 per month. The stormwater charge implemented as follows: (1) Every one to six unit residential properties are charged only one ERU per month, (2) all other parcels are charged per ERU based on the amount of square feet of impervious area. The total amount of impervious area is divided by 2,164 and rounded to the next whole number to calculate the number of ERUs a parcel will be charged.

Stormwater is water from rain or other precipitation. Stormwater runoff is stormwater that does not soak into the ground. Stormwater flows off hard surfaces, like streets, parking lots, construction sites, and rooftops during heavy rainstorms and when the snow melts. The water then goes into BWSC's stormwater system. As stormwater flows over these hard surfaces, it collects trash, sediment, and pollutants like motor oil and fertilizer. Most of the City's storm drains take that water directly to our brooks and streams without treatment. The City of Boston lies within the Charles, Neponset, and Mystic River watersheds, which means that our city's streams ultimately drain into Boston Harbor. Managing stormwater helps prevent pollution in our waterways.

The Commission's separation projects involve the replacement of combined sanitary and storm sewers with two separate systems, one for sanitary sewage and one for stormwater. The purpose of the separation program is to reduce the frequency and volume of wet weather CSO discharges and ensure the continued compliance with state and federal permits. Combined systems will be separated where it is appropriate and cost effective to do so. Sewer separation work most often involves converting the combined sewer to a separate sanitary sewer and constructing a new storm drain.

Since 1996, the Commission has spent approximately $300 million on sewer separation projects. Projects were designed with the intent of eliminating combined sewer overflow ("CSO") discharge, improving water quality in Boston Harbor and its tributaries and diverting stormwater from environmentally sensitive areas. The Commission's ability to remove extraneous flow from its sewers will result in a reduction in its metered wastewater flow and wholesale sewer charges. Thus far, these projects have reduced annual discharge of CSO by 124.3 million gallons.

In addition to addressing CSO concerns, the Commission is identifying sanitary sewage that is being discharge into the storm drain system. In 2023, the Commission eliminated illicit discharges at 15 locations, thereby eliminating the discharge of an estimated 2,320 gallons per day (gpd) of wastewater to the drainage system and receiving waters. Between 1986, when the Commission first vegan correcting illicit discharges, and the end of 2023, the Commission removed 1,947 illicit discharges, thereby eliminating the discharge of an estimated total of 875,192 gallons of wastewater per day to the storm drainage system and receiving waters.

The Commission regularly inspects, cleans, and maintains its catch basins citywide. Cleaning restores the effective capacity of catch basins, thereby allowing for greater solids removal from stormwater flows. Hoods and traps are replaced on catch basins as needed. The Commission's site plan review process has been upgraded and enhanced in recent years. The Commission now exercises greater control over non-stormwater discharges and ensures that construction sites and new development projects conform to its requirements, as well as state and federal requirements for stormwater management.

Table 23 on page 88 illustrates Stormwater by category. Three-year total expenditures are $66.7 million, of which $23.5 million is anticipated to be spent in 2025.

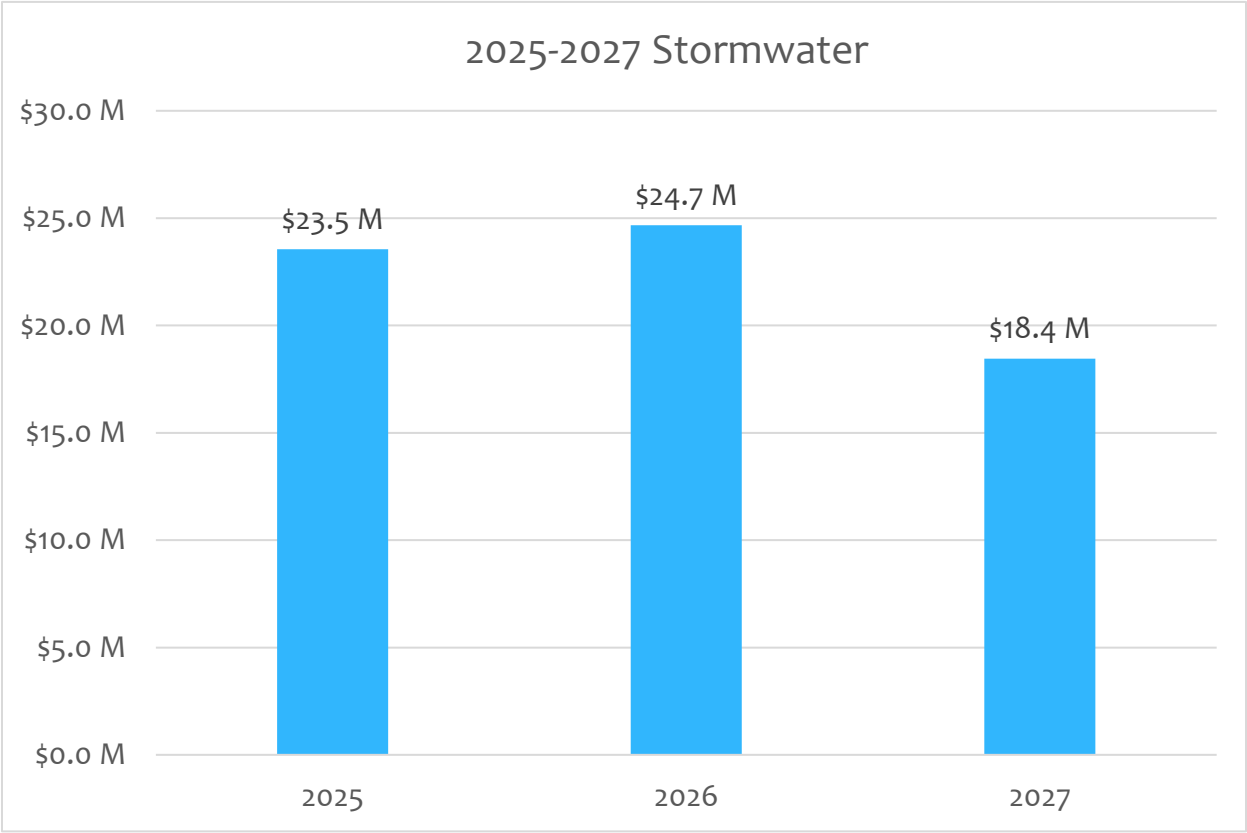
Contract 21-309-012 – South Boston Sewer and Drain Separation – Installation of Manhole at D Street at W 9th

Table 23 - Stormwater

Capital Improvement Program
2025 - 2027
Stormwater Total

	2025	2026	2027	Total 2025 - 2027
Stormwater Total	$ 23,546,000	$ 24,664,000	$ 18,449,000	$ 66,659,000
BWSC Bonds	1,776,000	1,403,000	1,316,000	4,495,000
MWRA II	9,327,000	8,758,000	3,114,000	21,199,000
Rate Revenue	5,471,000	5,965,000	6,766,000	18,202,000
SRF	6,972,000	8,538,000	7,253,000	22,763,000
Total	**$ 23,546,000**	**$ 24,664,000**	**$ 18,449,000**	**$ 66,659,000**
BWSC Bonds	1,776,000	1,403,000	1,316,000	4,495,000
MWRA II	9,327,000	8,758,000	3,114,000	21,199,000
Rate Revenue	5,471,000	5,965,000	6,766,000	18,202,000
SRF	6,972,000	8,538,000	7,253,000	22,763,000
Total	**$ 23,546,000**	**$ 24,664,000**	**$ 18,449,000**	**$ 66,659,000**

Graph 15 - 2025-2027 Total Stormwater Expenditures $66.7 Million



CLIMATE CHANGE PREPARATIONS

As the frequency and intensity of wet weather events continue to increase due to climate change, the potential for flooding during large storm events will also increase. Sea level rise will further exacerbate flooding issues as it will impede the ability of storm drains to discharge to the ocean during higher tides and storm surge. BWSC is coordinating and sharing data with various City of Boston departments, state agencies such as Mass DOT, MWRA and the MBTA, local communities such as Cambridge and Somerville, and organizations such as Boston Harbor Now and the Mystic River Collaborative to develop resilient solutions to prepare for impacts caused by climate change. BWSC is also collaborating with institutions such as the Woods Hole Research Center and UMASS Boston to incorporate their work on rising sea levels and coastal impacts into plans and projections for mitigating the impacts of climate change.

To address the issues associated with climate change BWSC has undertaken several projects:

Stormwater Detention Facilities: BWSC has completed a study to identify sites where stormwater runoff can be temporarily stored during large storm events. Storing stormwater at these locations will free up conveyance capacity in the storm drainage system and reduce the potential for flooding. The detained stormwater will be slowly released back to the storm drain system after storms have ended and capacity in the storm drain system is back to normal. The study included the preliminary design of the detention facilities that could be installed at these locations.

Coastal Stormwater Impact Analysis: Due to the expected higher sea levels and tides it is predicted that storm drain outfalls located along Boston's coast will be impeded in their ability to discharge. The Coastal Stormwater Discharge Analysis will identify where BWSC's coastal outfalls will be impacted, develop plans and strategies, evaluate the feasibility and costs of alternatives, and prepare conceptual plans for structural solutions to mitigate the impacts. Plans and strategies developed pursuant to the BWSC's Coastal Analysis will be consistent with the Mayor's Resilient Harbor Vision, which builds on the City's Climate Ready Boston analysis.

Stormwater Retention-Arnold Arboretum / Boston Nature Center: BWSC prepared conceptual designs for a large constructed wetland that could be installed at the Arnold Arboretum and a stormwater detention design for an area near the Boston Nature Center. The wetland will retain and treat stormwater, thereby maintaining the conveyance capacity of BWSC's storm drain system and reducing the potential for upstream and downstream flooding. An additional benefit of the wetland is that it will be designed to improve stormwater quality by reducing the City's stormwater phosphorus load to the Charles River. The Commission is working with agencies to determine what process could be taken to move these concepts to design.

Fort Point Channel Storage Feasibility: BWSC is evaluating the feasibility of having a flood control gate structure installed at the harbor end of the Fort Point Channel to mitigate the impacts of tidal surge and increased wet weather discharges from outfalls located within the channel. When a large storm event is anticipated the gate would be closed, and waters in the channel pumped out, thus providing storage capacity for the stormwater discharges from outfalls located within the Channel. After storms have passed stormwater detained in the storage basin would be pumped out and the gates reopened to allow for normal discharges and tidal flow. Preliminary analysis indicates that installation of a gate structure will prevent flooding in almost 10 percent of the City of Boston, including significant portions of the critical downtown, South End and seaport districts during a 10 year design event. To handle storms larger than this design storm, pumps within the dam4structure would maintain levels within the channel until the higher tides recede.

Installation and Inspection of Tide Gates on Outfall Pipes: BWSC continues to install new tide gates on coastal storm drain outfall pipes where they will be needed in the future, but don't currently exist. The tide gates will prevent back-water flow resulting from higher tides and storm surge from entering BWSC's storm drain system and causing inundation of inland low-lying areas. New tide gates will be installed in storm drains outfalls located in the City Proper, East Boston, South Boston, Charlestown, and Dorchester.

PROJECTS

East Boston Sewer Separation Phase IV - Contract 3 - 26-309-002: Construction Contract No. 3 is one of five (5) planned contracts to construct new storm drains to separate approximately 230 acres between all five (5) contracts in East Boston to further mitigate CSOs and improve water quality. The project also includes upgrades of the sanitary sewer and water main systems to continue providing the highest level of service to the community. Construction is projected to commence in August 2025 and be completed in July 2029. The total three-year budget is $100,000.

Tidegates, Citywide 25-309-006: Replacement of existing tidegates**,** the Design Department is worked with the Planning and Operations department to identify outfalls which may not be protected from extreme tides to prevent street flooding from surcharged drainage systems. Design is scheduled to commence in January 2025. Construction is scheduled to start April 2026. The total three-year budget is $1,000,000.

Citywide R & R 25-309-003: The intent of this project will be to rehab and replace storm drains where SSOs and other issues have occurred in order to mitigate future issues. This will be on an as needed basis due to receiving emergency design requests from the Chief Engineer and OPS during year after CIP is developed. The total three-year budget is $500,000.

Citywide R & R 25-309-002: Construction of new storm drains to separate approximately 230 acres in East Boston and is a continuation of sewer separation work that has been implemented in the neighborhood over the last 20 years. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community. The total three-year budget is $500,000.

Interceptor Cleaning Phase I 25-309-001: Television inspection and cleaning of combined sewer and drainpipes in the South End included in the Union Park tributary area. Design is scheduled to commence in January 2025. Construction is anticipated to commence July 2025. The total three-year budget is $500,000.

Sewer Lateral Testing and CCTV Inspection of Sewers and Drains 24-309-015: The new lateral testing contract will enable the Commission to continue testing sewer laterals for leakage and continue televising sewers and drains to identify illicit sanitary connections to the storm drain and structural deficiencies which may allow sewage to enter storm drains (cross contamination). Planning commenced in August 2024 and is scheduled to be completed August 2026. The total three-year budget is $138,000.

South Boston Sewer Separation - Contract 5 - 24-309-012: Construction of new storm drains to separate approximately 400 acres in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community and support future development along Dorchester Avenue. Construction is projected to commence in February 2026 and be completed in July 2029. The total three-year budget is $100,000.

Charlestown Sewer Separation 24-309-006: Sewer Separation in Charlestown Lost Village area to reduce CSO overflow. Construction is projected to commence in April 2025 and be completed in October 2025. The total three-year budget is $364,000.

Replacement and Rehabilitation of Drain and Sewer Pipes in JP and Roxbury 24-309-003: Water, Sewer and Drain Replacement and Rehabilitation Citywide on an as needed basis. The intent of this project will be to rehab and replace water/sewers/drains where SSOs and other issues have occurred in order to mitigate future issues. This will be on an as needed basis due to receiving emergency design requests from the Chief Engineer and OPS during year after CIP is developed. Construction is projected to commence in April 2025 and be completed in November 2027. The total three-year budget is $473,000**.**

Citywide R&R 24-309-002: Construction of new storm drains to separate approximately 230 acres in East Boston and is a continuation of sewer separation work that has been implemented in the neighborhood over the last 20 years. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest

level service to the community. Construction is projected to commence in April 2025 and be completed in November 2025. The total three-year budget is $250,000.

Citywide R&R 24-309-001: Sewer and Drain Replacement and Rehabilitation Citywide. The intent of this project will be to rehab and replace sewers/drains where SSOs and other issues have occurred in order to mitigate future overflows. Construction is projected to commence in August 2024 and be completed in August 2028. The total three-year budget is $250,000.

Sewage Works Improvements in Mattapan 24-308-014: Design began in September 2024 and is expected to be completed June 2025. Construction is anticipated to commence September 2025 and be completed June 2027. The total three-year budget is $100,000.

Associated Sewer Back Bay/ East Boston 24-308-003: Design began in May 2024 and is expected to be completed May 2025. Construction is anticipated to commence August 2025 and be completed July 2027. The total three-year budget is $160,000**.**

On-Call Green Infrastructure Design Services 24-206-004: Professional services contract for the design of green infrastructure / stormwater management structures citywide. The total three-year budget is $1,000,000.

South Boston Sewer Separation - Contract 4 23-309-012: Construction of new storm drains to separate approximately 400 acres in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community and support future development along Dorchester Avenue. Construction Contract No. 4 is one of five (5) planned contracts to construct new storm drains to separate approximately 400 acres in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue providing the highest level of service to the community and to support the BPDA's initiative to foster future development along Dorchester Avenue. Construction is projected to commence in February 2025 and be completed in July 2028. The total three-year budget is $7,075,000.

R & R of Sewer and Drain in Fenway 23-309-011: Replacement and rehabilitation of sanitary sewer and drain pipes. The pipes in this contract have been inspected and reviewed and are found to be in poor condition. Associated water work. Pipes in this contract have been found defective and in need of repair or replacement as determined by cleaning and CCTV inspection under various programs including SSO investigations, CMOM contracts, and illegal connections inspection. Construction is projected to commence in April 2025 and be completed in November 2026. The total three-year budget is $2,314,000**.**

Separation of Sanitary House Laterals 23-309-008: Replacement and Rehabilitation of Water, Sewer, and Drain Pipes in Charlestown. The total three-year budget is $249,000**.**

Replacement and Rehabilitation Water Sewer and Drain Pipes in Dorchester, Mattapan Roxbury, Fenway Kenmore 23-309-005: The intent of this project will be to rehab and replace sewers/drains where SSOs and other issues have occurred in order to mitigate future overflows. The project also includes the rehabilitation and replacement of water mains that are at the end of their useful life. The total three-year budget is $1,419,000.

East Boston Sewer Separation Phase IV - Contract 2 23-309-002: Construction Contract No. 3 is one of five (5) planned contracts to construct new storm drains to separate approximately 230 acres between all five (5) contracts in East Boston to further mitigate CSOs and improve water quality. The project also includes upgrades of the sanitary sewer and water main systems to continue providing the highest level of service to the community. The total three-year budget is $2,000,000.

Sewage Works Improvements in Allston/Brighton 23-309-001: Replacement and Rehabilitation of Sewers and Manholes. The total three-year budget is $ 2,806,000.

Replacement of Failing and Broken Sewers and Drains 22-309-014: Construction of new storm drains to separate approximately 400 acres in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades

of the sanitary sewer and water main systems to continue to provide the highest-level service to the community and support future development along Dorchester Avenue. Construction Contract No. 3 is one of five (5) planned contracts to construct new storm drains. Construction began in February 2024 and is projected to be completed in July 2025. The total three-year budget is $1,287,000.

South Boston Sewer Separation - Contract 3 22-309-012: Construction of new storm drains to separate approximately 400 acres in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community and support future development along Dorchester Avenue. Construction Contract No. 3 is one of five (5) planned contracts to construct new storm drains to separate approximately 400 acres in South Boston along the Dorchester Avenue Corridor. The project also includes upgrades of the sanitary sewer and water main systems to continue providing the highest level of service to the community and to support the BPDA's initiative to foster future development along Dorchester Avenue. Construction commenced in February 2024 and is projected to be completed in July 2025. The total three-year budget is $7,656,000**.**

Upper Roxbury R&R 22-309-003: Replacement of failing 1800s combined sewers, installation of new storm drains, and replacement of aging water mains that have reached the end of their useful life. The intent of this project will be to rehab and replace sewers/drains where SSOs have occurred in order to mitigate future overflows. Construction commenced in January 2024 and is projected to be completed in December 2025. The total three-year budget is $ 4,370,000.

Replacement of Sewer and Drains Citywide, R&R 22-309-002: Citywide R&R of Sewers and Storm Drains. The intent of this project will be to rehab and replace sewers/drains where SSOs have occurred in order to mitigate future overflows. Construction commenced in December 2023 and is projected to be completed in December 2025. The total three-year budget is $1,383,000.

Sewer Drain Model Update 22-206-011: The purpose of this project is to update and recalibrate the Commission's Sewer and Drain model. The model has not been updated and calibrated since 2016. Utilizing models that are up to date and are representative of the Commissions infrastructure is critical to long term planning goals and to meet regulatory milestones. The total three-year budget is $469,000.

South Boston Sewer Separation - Phase II 21-309-012: Water and sewer improvements in South Boston, Construction commenced in August 2023 and is projected to be completed in June 2026. The total three-year budget is $ 2,396,000.

East Boston Sewer Separation Phase IV - Contract 1 21-309-002: Construction of new storm drains to separate approximately 230 acres between all five (5) contracts in East Boston and is a continuation of sewer separation work that has been implemented in the neighborhood over the last 20 years. The project also includes upgrades of the sanitary sewer and water main systems to continue to provide the highest level service to the community. Construction Contract No. 1 is one of five (5) planned contracts to construct new storm drains to separate approximately 230 acres in East Boston to further mitigate CSOs and improve water quality. The project also includes upgrades of the sanitary sewer and water main systems to continue providing the highest level of service to the community. Construction commenced in August 2024 and is projected to be completed in July 2026. The total three-year budget is $8,500,000**.**

Sewer & Storm Drain Improvements in Hyde Park 21-309-001: Sewer and Storm Drain Improvements in Hyde Park based on the findings of the CMOM group which identified sewer and drain defects in this area. The contract also includes associated water relay for pipes within project limits that have reached the end of their lifespan. Construction commenced in April 2024 and is projected to be completed in October 2026. The total three-year budget is $214,000**.**

Replacement and Rehabilitation of Sewers and Drains in Allston/Brighton, Fenway/Kenmore, Jamaica Plain and Roxbury 20-309-007: Includes sanitary sewer & drain replacement and rehabilitation in Allston/Brighton,

Fenway/Kenmore, Jamaica Plain, and Roxbury. Construction commenced in October 2023. The total three-year budget is $2,500,000.

Sewer and Drain Replacement and Rehabilitation (R&R) 20-309-006: Sewer Replacement/Rehabilitation based on findings of the CMOM group, some Water Main Replacement. Construction is projected to commence in July 2024 and be completed in December 2025. The total three-year budget is $1,529,000.

Sewerage & Drainage Works Improvements 20-309-004: Sewer and Storm Drain Improvements City wide. These improvements are based on the findings of the CMOM group which identified sewer and drain defects in this area. Construction commenced in September 2023. The total three-year budget is $126,000.

Replacement and Rehabilitation of Water, Sewer and Drain Pipes in the South End and Dorchester 20-308-001: The total three-year budget is $56,000.

Citywide Illicit Connection Investigation Program Stormwater Phase 5 20-206-007: Funds will be used to continue the fifth phase of the Citywide Illicit Connection Investigation Program. In this Program illicit sanitary sewer connections and other sources of sewage contamination to storm drains are identified using manhole inspections and sandbagging, water quality sampling, and dye testing of buildings and pipes. The Program includes wet and dry weather outfall screening to prioritize drainage sub-catchments for investigation. Construction commenced in August 2020 and is projected to be completed in December 2024. The total three-year budget is $218,000.

Coastal Stormwater Impact Analysis 20-206-004: The purpose of this project to conduct an analysis of areas along the coast in Boston that will be unable to discharge stormwater due to potential higher tides and develop a strategy for addressing the impact. Planning commenced in November 2020 and is projected to be completed in December 2024. The total three-year budget is $50,000.

Tidegates, Citywide 19-309-001: Tide gate installations and repair at 5 locations along coastal drainage systems to resist tidal inundation of drain conduits. It is anticipated that access and permitted work schedule near the coastal and marine resource areas may delay construction and project cash flow. Construction commenced in March 2024 and projected to be completed in December 2024. The total three-year budget is $3,981,000**.**

Replacement and Rehabilitation of Water, Sewer, and Drain Pipes in Back Bay, Beacon Hill, and City Proper 19-308-004: The total three-year budget is $900,000**.**

Water Improvements in Charlestown 19-308-002: This project will replace 8,800 feet of 8- and 12-inch water mains on Bunker Hill Street, Chelsea Street, School Street, Vine Street, and Bartlett Street in Charlestown. This contract is being programmed as a response to a request by the Operations Division for Water Relay on Chelsea Street, in conjunction with break history (School Street), and pipe age/risk scoring on 1880's cast iron mains in Bunker Hill and Vine Streets. Construction commenced in April 2024 and be completed in November 2026. The total three-year budget is $2,784,000**.**

Sewer and Drain Replacement and Rehabilitation (R&R) 18-309-003: Replacement and rehabilitation of sewers and drains. The total three-year budget is $1,000,000.

Water, Sewer, & Drainage Works Improvements 18-309-001: Replacement of Water Mains on Jersey Street, Peterborough Street, and Public Alley 931. The total three-year budget is $1,467,000.

Citywide Illicit Connection Investigation Program Stormwater Phase 6: Funds will be used to continue the sixth phase of the Citywide Illicit Connection Investigation Program. In this Program illicit sanitary sewer connections and other sources of sewage contamination to storm drains are identified using manhole inspections and sandbagging, water quality sampling, and dye testing of buildings and pipes. The Program includes wet and dry weather outfall screening to prioritize drainage sub-catchments for investigation. The total three-year budget is $835,000.

Sewer Drain Sensor Deployment Phase 2: The purpose of this project is to continue the real-time sewer and drain level monitoring program currently deployed in Commission's system. The monitoring program tracks water levels in 75 sewer and drain pipes across the city and displays the data on a web-based dashboard. The dashboard and data is used to inform operation and planning objectives. This project will expand the number of sensors deployed in the sewer and drain system from 75 to 125. The total three-year budget is $672,000.

Owner Correction of Illicit Connections: Funds will be used to reimburse owners who must pay to install ejector pumps or redirect internal building sewers in order to correct illicit connections. The total three-year budget is $23,000.

Inundation Model Update and Maintenance: The purpose of this program is to utilize the updated Commission's Sewer and Drain Models to update the inundation model, add new LIDAR data and coastal sea level and storm surge data and rerun the updated inundation model to determine what areas of the city may experience inundation with the implementation of the City's flood barriers, implementation of the Coastal Stormwater discharge recommendations and stormwater detention recommendations. The project will also prepare conceptual designs for locations inland to address potential inland inundation. The total three-year budget is $1,680,000.

Supply of Fire Hydrants: The total three-year budget is $1,315,000.

PROJECT CASH FLOW

Table 24 on page 99 illustrates Stormwater by Category. Three-year total expenditures are $66.7 million, of which $23.5 million is anticipated to be spent in 2025.

Contract 21-309-012 – Installation of 12" Storm Drain on Old Colony Avenue

Table 24 – Stormwater/GI/LID PROJECTS

Description	Contract	Class	2025	2026	2027	2025-2027
Sewer and Drain Replacement and Rehabilitation (R&R)	18-309-003	RATE	1,000,000			1,000,000
Replacement and Rehabilitation of Water, Sewer, and Drain Pipes in Back Bay, Beacon Hill, and City Proper	19-308-004	RATE	852,000	48,000		900,000
Tidegates, Citywide	19-309-001	MWRA II	3,675,000	232,000		3,907,000
Citywide Illict Connection Investigation Program Stormwater Phase 5	20-206-007	RATE	218,000			218,000
Replacement and Rehabilitation of Water, Sewer and Drain pipes in the South End and Dorchester	20-308-001	RATE	17,000	39,000		56,000
Replacement of Sewer and Drains Citywide, R&R	22-309-002	MWRA II		1,325,000	46,000	1,371,000
Replacement of Sewer and Drains Citywide, R&R	22-309-002	RATE			12,000	12,000
Upper Roxbury R&R	22-309-003	RATE	1,092,000	1,093,000		2,185,000
Upper Roxbury R&R	22-309-003	MWRA II	1,092,000	1,093,000		2,185,000
South Boston Sewer Separation - Contract 3	22-309-012	SRF	2,552,000	2,552,000	2,552,000	7,656,000
Replacement of Failing and Broken Sewers and Drains	22-309-014	SRF	1,104,000	183,000		1,287,000
East Boston Sewer Separation Phase IV - Contract 2	23-309-002	SRF			2,000,000	2,000,000
Replacement and Rehabilitation Water Sewer and Drain Pipes in Dorchester, Mattapan Roxbury, Fenway Kenmore	23-309-005	RATE		1,419,000		1,419,000
Separation of Sanitary House Laterals	23-309-008	RATE	114,000	135,000		249,000
R & R of Sewer and Drain in Fenway	23-309-011	RATE		1,000,000	1,314,000	2,314,000
South Boston Sewer Separation - Contract 4	23-309-012	SRF		4,994,000	2,081,000	7,075,000
On-Call Green Infrastructure Design Services	24-206-004	BONDS	334,000	333,000	333,000	1,000,000
Citywide R&R	24-309-001	RATE			250,000	250,000
Citywide R&R	24-309-002	RATE			250,000	250,000
Replacement and Rehabilitation of Drain and Sewer Pipes in JP and Roxbury	24-309-003	RATE			473,000	473,000
Charlestown Sewer Separation	24-309-006	MWRA II			364,000	364,000
South Boston Sewer Separation - Contract 5	24-309-012	SRF			100,000	100,000
Sewer Lateral Testing and CCTV Inspection of Sewers and Drains	24-309-015	RATE	90,000	48,000	-	138,000
Interceptor Cleaning Phase I	25-309-001	RATE			500,000	500,000
Citywide R & R	25-309-002	RATE			475,000	475,000
Citywide R & R	25-309-003	RATE			475,000	475,000
Tidegates, Citywide	25-309-006	RATE			1,000,000	1,000,000
East Boston Sewer Separation Phase IV - Contract 3	26-309-002	SRF			100,000	100,000
Citywide Illict Connection Investigation Program Stormwater Phase 6		BONDS	167,000	334,000	334,000	835,000
Sewer Drain Sensor Deployment Phase 2		BONDS	192,000	288,000	192,000	672,000
Owner Correction of Illicit Connections		BONDS	8,000	8,000	7,000	23,000
Sewage Works Improvements in Allston/Brighton	23-309-001	MWRA II	1,403,000	1,403,000		2,806,000
Associated Sewer Back Bay/ East Boston	24-308-003	MWRA II	80,000	80,000		160,000
Sewage Works Improvements in Mattapan	24-308-014	MWRA II	14,000	50,000	36,000	100,000
Water, Sewer, & Drainage Works Improvements	18-309-001	RATE	1,467,000			1,467,000
Water Improvements in Charlestown	19-308-002	BONDS	650,000			650,000
Water Improvements in Charlestown	19-308-002	RATE	434,000	850,000	850,000	2,134,000
Tidegates, Citywide	19-309-001	RATE	74,000			74,000
Coastal Stormwater Impact Analysis	20-206-004	RATE	50,000			50,000
Sewerage & Drainage Works Improvements	20-309-004	RATE	63,000			63,000
Sewerage & Drainage Works Improvements	20-309-004	MWRA II	63,000			63,000
Sewer and Drain Replacement and Rehabilitation (R&R)	20-309-006	MWRA II		218,000	1,311,000	1,529,000
Replacement and Rehabilitation of Sewers and Drains in Allston/Brighton, Fenway/Kenmore, Jamaica Plain and Roxbury	20-309-007	RATE		1,333,000	1,167,000	2,500,000
Sewer & Storm Drain Improvements in Hyde Park	21-309-001	MWRA II		107,000	107,000	214,000
East Boston Sewer Separation Phase IV - Contract 1	21-309-002	MWRA II	3,000,000	4,250,000	1,250,000	8,500,000
South Boston Sewer Separation - Phase II	21-309-012	SRF	2,396,000			2,396,000
Sewer Drain Model Update	22-206-011	SRF	290,000	179,000		469,000
Inundation Model Update and Maintenance		SRF	630,000	630,000	420,000	1,680,000
Supply of Fire Hydrants		BONDS	425,000	440,000	450,000	1,315,000
Stormwater Total			$23,546,000	$24,664,000	$18,449,000	$66,659,000
BWSC Bonds			1,776,000	1,403,000	1,316,000	4,495,000
MWRA II			9,327,000	8,758,000	3,114,000	21,199,000
Rate Revenue			5,471,000	5,965,000	6,766,000	18,202,000
SRF			6,972,000	8,538,000	7,253,000	22,763,000

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APPENDIX A - GLOSSARY

ARB: A trademark for Schlumberger remote meter reader interfaces. See also R.M.I.

Board of Commissioners: The three-member governing board of the Commission.

Bond: A written promise to pay a specific sum of money (called the face value or principal amount) at a specific date or dates in the future (called the maturity dates), together with periodic interest at a specific or variable rate.

Bond Resolution: A document that contains terms and conditions relating to the issuance and sale of bonds and sets forth the obligations to bondholders.

BWSC: The Boston Water and Sewer Commission.

Capital Improvement Program (CIP): A plan which identifies and estimates the nature, schedule, cost, priority, and financing of long-term assets that the Commission intends to build or acquire during a specific period.

Cleaning and Lining: A process to improve unlined but structurally sound, older cast iron mains. The mains are cleaned and lined with cement (while still in place) to improve hydraulic capacity and extend useful life.

Collection System: The pipes, conduits, pumping stations and appurtenances involved in the collection and transport of wastewater and storm-water.

Combined Sewer: A sewer designed to receive both sanitary sewage and storm-water runoff.

CSO (Combined Sewer Overflow): The discharge from combined sewers which collect both sanitary sewage and storm-water runoff for wastewater treatment under normal (dry) weather conditions. During rainstorms, the system becomes overloaded and the excess is discharged directly into neighboring waterways from CSO outlets. In the City of Boston area there are 37 permitted combined sewer overflow outlets.

Current Expense Budget (CEB): A financial plan which estimates the revenues and expenses associated with the Commission's operations for a fiscal year.

Debt Service: In a given fiscal year, the amount of money necessary to pay interest and principal on outstanding debt instruments.

DEP (Department of Environment Protection): The Massachusetts agency that regulates water pollution control, water supplies, drinking water quality and waterways and certifies projects for eligibility under the Water Pollution Abatement Trust Loan programs.

Department: A sub-unit of a division.

Division: A major organizational unit within the Commission, encompassing the activities and resources for providing a major service or function.

Drain: A pipe or conduit which conveys storm-water.

Enabling Act: Chapter 436 of the Acts of the Commonwealth of Massachusetts of 1977, the legislation which established the BWSC and defined its purpose and responsibilities as of August 5, 1977.

EPA (Environmental Protection Agency): The federal government agency responsible for environmental enforcement and investigation. The EPA enforces the provisions of the Safe Drinking Water Act and the Clean Water Act.

Expenditures: Actual payment within a specified period for goods and services received.

Fiscal Year: The 12-month financial period used by the Commission which begins January 1 and ends December 31 of the same calendar year.

General Revenue Bonds: Bonds which are general obligations of the issuer where the full faith and credit of the issuer is pledged to the payment of the principal and interest thereon utilizing the revenue to be generated through the sale of a particular commodity, service or toll.

Hydrant: A device connected to a public water main for the purpose of providing water for firefighting or other authorized purposes.

Illegal Connection: A sanitary sewer service which is connected to a storm drain system, thus contributing sewerage.

Infiltration/Inflow: Extraneous sources of water that enter the sanitary system and are transported unnecessarily to the treatment facility. Infiltration is groundwater that leaks into the sanitary sewerage system through pipe joints and defects. Inflow refers to water that enters sewers from improperly connected catch basins, sump pumps, downspouts, basement drains and defective manholes. Inflow also enters through defective harbor CSO tide-gates when the tide is high.

Interceptors: The large pipes or culverts that convey wastewater from the localized collection system to the treatment plant.

Meter: An instrument for measuring the flow of water.

Meter Pit: An underground vault enclosing a meter.

MWRA (Massachusetts Water Resources Authority): An agency created by the Massachusetts Legislature through the passage of Chapter 372 of the Acts of 1984, responsible for providing wholesale potable water and wastewater collection, transport, delivery and treatment services to user Communities in Eastern Massachusetts. The Communities provide retail services directly to their customers or end users.

NPDES (National Pollutant Discharge Elimination System): A permit issued by EPA in conjunction with DEP to govern discharges into waterways.

Potable Water: Water fit for human consumption in conformance with the regulations of the Environmental Protection Agency and the Massachusetts Department of Environmental Protection.

Program: An organized group of activities and the resources to carry them out, aimed at achieving related goals.

Public Water Main: The piping and associated valves, hydrants and appurtenances installed in a public way, Commission-owned easement, or private way open to public travel, for the purpose of supplying water to one or more customers or for public fire protection.

R.M.I: Remote Meter Interface. A device for reading water meters using a hand held computer which is plugged into an outside box wired to the meter.

Rate Revenue: Income received in a specified period from user charges for providing water and sewer services.

Rehabilitation: Any process which serves to extend the useful life of a pipe or structure which is in need of repair.

Residential Meter: A meter two inches in size or smaller used to measure the flow of water to predominantly residential properties.

Sanitary Sewage: Liquid and water-carried human and domestic wastes from buildings, exclusive of ground, storm and surface water.

Sanitary Sewers: In a separated system, pipes that carry only domestic or commercial sanitary sewage as opposed to rainwater runoff.

Sewer: A pipe or conduit that carries wastewater

Sewer System: The combined Wastewater System and Storm Drainage System.

Storm Drain: A pipe or conduit designed to carry storm-water or surface water runoff.

Storm Drainage System: Storm drains, tidegates, flow regulators, catch basins, storm-water pumping stations and appurtenant facilities.

Storm Sewers: Storm drains or storm drainage system.

Stormwater: Any water resulting from rainfall or other precipitation that runs off surfaces during or after a storm.

Unaccounted-for Water: The difference between the volume of water withdrawn from the source of supply and the volume of water billed to customers. Unaccounted for water is caused by system losses, fire protection and construction activities.

Valve: A device used in water systems to control the flow of water.

Wastewater: The spent water of a community, which may be a combination of the liquid and water-carried domestic or industrial wastes from buildings, together with any groundwater and stormwater that may be present

Wastewater System: The totality of the devices, equipment or works used in transportation, pumping, storage, treatment, recycling, or reclamation of wastewater or in the disposal of the effluent.

Water Service Pipe: The connection, piping and associated valves and appurtenances that extend from a public water main to a building or property for the purpose of supplying water.

APPENDIX B - KEY ABBREVIATIONS

SIZE	DESCRIPTION
4 W/ 8	4" PIPE IS REPLACED WITH 8" PIPE
6 W/ 8	6" PIPE IS REPLACED WITH 8" PIPE
8 W/ 12	8" PIPE IS REPLACED WITH 12" PIPE

TYPE	TYPE OF SEWER PIPE
D	STORM DRAIN
S	SEWER
W	WATER

APPENDIX C – STREET LISTING

Fort Point Channel and Mystic/Chelsea Combined Sewer Overflow Control

STREETS	LIMITS	Neighborhood
Seaport Boulevard	At Atlantic Avenue	Boston Proper
East Street	At South Street	Boston Proper
Kneeland Street	At Atlantic Avenue	Boston Proper
Rutherford Avenue	At Sullivan Square	Charlestown
Massachusetts Avenue	Clapp Street to Allstate Road	Dorchester
Condor Street	At Meridian Street	East Boston

Dorchester Interceptor - Relief Sewer

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Gallivan Boulevard	Hallet Street to Neponset Avenue	Dorchester	1,300 ft.	60 in.	Sewer
Morrissey Boulevard	Neponset Avenue to Freeport Street.	Dorchester	5,800 ft.	60 in.	Sewer
Freeport Street	Morrissey Boulevard to Beach Street	Dorchester	1,900 ft.	60 in.	Sewer

26-309-002

STREETS	LIMITS	Neighborhood
Bennington St	Putnam St To Bremen St	East Boston
Bremen St	Prescott St To Bennington St	East Boston
Chelsea St	Putnam St To Day Sq	East Boston
Lexington St	Putnam St To Prescott St	East Boston
Prescott St	Lexington St To Bremen St	East Boston
Princeton Pl	Princeton St To #1	East Boston
Princeton St	#147 To #288	East Boston
Putnam St	#67 To Bennington St	East Boston
Saratoga St	#214 To #458	East Boston
Trenton St	#155 To Putnam St	East Boston

25-309-001

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
MALDEN ST	HARRISON AV TO ALBANY ST	South End	1,570	varies	CS
UNION PARK ST	TREMONT ST TO SHAWMUT AV	South End	600	77x77	SD
UNION PARK ST	MONTGOMERY ST TO ALBANY ST	South End	4,546	varies	CS
SHAWMUT AV	HAVEN ST TO UNION PARK ST	South End	1,510	12x18, 18x27, 24x36	CS
HARRISON AV	EAST CONCORD ST TO MALDEN ST	South End	1,840	72	CS
HARRISON AV	MASSACHUSETTS AV TO EAST BERKELEY ST	South End	2,388	53x96, 72, 54x66, 66	SD
MASSACHUSETTS AV	PUBLIC ALLEY NO. 715 TO HARRISON AV	South End	760	24x36	CS
EAST CONCORD ST	WASHINGTON ST TO HARRISON AV	South End	731	96x60	CS
WEST NEWTON ST	TREMONT ST TO WASHINGTON ST	South End	1,073	24x28	CS
WEST CONCORD ST	TREMONT ST TO WASHINGTON ST	South End	1,220	96x60	CS
TREMONT ST	NORTHAMPTON ST TO UNION PARK	South End	3,000	36x48, 41x60, 36	CS
TREMONT ST	CAMDEN ST	South End	287	36x48	SD
			16,250		CS
			3,275		SD
			19,525		**Total**

25-309-006

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Sydney Street	Carson Street	North Dorchester			SD
Yawkey Way	Brookline Avenue	Fenway/Kenmore			SD
Chelsea Street	Vine Street	Charlestown			SD
Terminal Street	behind Old Ironsides Way	Charlestown			SD
Congress Street	Sleeper Street	South Boston			SD

25-309-005

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
WIDETTE CIRCLE	S. Boston Bypass (I-93) to 15 Widette Circle	South Boston	460	102"	CS
SOUTHAMPTON STREET	Andrew Square to Frontage Road	South Boston	2,540	102"	CS

24-309-012

STREETS	LIMITS	Neighborhood
Alger St	Dorcester Ave to end	South Boston
Boston St	#7 to Dorchester Ave	South Boston
Carpenter St	Devine Way to Preble St	South Boston
Devine Way	Carpenter St to Rogers St	South Boston
Dexter St	Ellery St to Dorchester Ave	South Boston
Dorchester Ave	Greenbaum St to Kemp St	South Boston
Dorchester St	Dorchester Ave to Jenkins St	South Boston
Ellery St	Boston St to Humboldt Pl	South Boston
Father Songin Way	#46 to Dorchester Ave	South Boston
Foundry St	Gillette Park to West Fourth St	South Boston
Gifford Pl	Ward St to end	South Boston
Gillette Park	Foundry St to Dorchester Ave	South Boston
Goodwin Ct		South Boston
Greenbaum St	Foundry St to Dorchester Ave	South Boston
Humboldt Pl		South Boston
Jenkins St	Dorchester St to Old Colony Way	South Boston
Kemp St	Dorchester Ave to O'Conner Way	South Boston
Leeds St	Dorchester Ave to Woodward St	South Boston
Liberty Pl	Preble St to Devine Way	South Boston
Mohawk St	Devine Way to #19, #5 to Preble St	South Boston
O'Conner Way	#5 to #248	South Boston
Old Colony Way	Preble St to Dorchester St	South Boston
Preble St	Dorcester Ave to Old Colony Ave	South Boston
Rogers St	Devine Way to Preble St	South Boston
Southampton St	#440 to Preble St	South Boston
Transit Way		South Boston
Traveler St	on Foundry St	South Boston
Vinton St	Dorchester St to Preble St	South Boston
Wadleigh Pl		South Boston
Ward Ct		South Boston
Ward St	Dorchester St to end	South Boston
Wendell Pl		South Boston
Wendeller St	Devine Way to Preble St	South Boston
Widett Cir		South Boston

24-309-006

	STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE	Recommended Work
	Cambridge St	Cambridge St from 28IMH2 to 28JMH5	Charlestown	235	24"	Sanitary	Lining
	Caldwell St	Caldwell St from Perkins St to 23 Caldwell St	Charlestown	185	12"	Sanitary	Lining
	Brighton St	Segment of pipe on Brighton St north of Perkins St	Charlestown	100	12"	Sanitary	Lining
	Parker St	Parker St from 13 Parker St to Perkins St	Charlestown	245	12"	Sanitary	Lining
	Stark St	Stark St from Cambridge St to Roland St	Charlestown	150	10"	Sanitary	Lining
	Roland St	Roland St from the East side of 92-100 Cambridge St to Carter	Charlestown	345	12"	Sanitary	Lining
	Carter St	Carter from Cambridge St to Roland St	Charlestown	170	12"	Sanitary	Lining
	Crescent St	Crescent St from Cambridge St to Roland St	Charlestown	150	10"	Sanitary	Lining
	Perkins St	Perkins St from Parker St to Clinton Pl	Charlestown	470	12"	Sanitary	New sewer
	Clinton Pl	Clinton Pl from 6 Clinton Pl to Perkins St	Charlestown	150	12"	Sanitary	New sewer
	Brighton St	Brighton St from Perkins St to Cambridge St	Charlestown	610	12"	Sanitary	Replacement
	Brighton St	Brighton St from 29JMH262 to 29JMH261	Charlestown	50	15"	Drain	Lining
	Brighton St	Brighton St from 29JMH260 to 29JMH258	Charlestown	120	18"	Drain	Lining
	Perkins St	Perkins St from Parker St to Brighton St	Charlestown	205	24"	Drain	Lining
	Clinton Pl	Pipe segment along northern portion of Clinton Pl	Charlestown	135	24"	Drain	Lining
	Perkins St	Perkins St from Brighton St to Clinton Pl	Charlestown	130	24"	Drain	Replacement
	Roland St	Segment of Pipe on Roland St from Stark St to Crescent St	Charlestown	110	12"	Drain	Replacement
	Caldwell St	Caldwell St from Maffa Way to Perkins St	Charlestown	615	12"	Drain	New Drain
	Hadley St	Hadley St from Crescent St to 29IMH4	Charlestown	70	12"	Drain	New Drain
	Parker St	Parker St from Hadley St to Cambridge St	Charlestown	100	12"	Drain	New Drain
	Cambridge St	Cambridge St from Crescent St to 99 Cambridge St	Charlestown	505	12"	Drain	New Drain
	Spice St	Spice St from 6 Spice St to Rutherford Avenue	Charlestown	770	12"	Drain	New Drain
	Perkins St	Perkins St from Caldwell St to Clinton Pl	Charlestown	440	12"	WM	Replacment
	Cambridge St	Cambridge St from Interstate 93 Highway Overpass to Sullivan	Charlestown	690	12"	WM	Replacment

24-309-005

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
PREBLE STREET	Wendeller Street to Columbia Road (Columbus Park Headworks)	South Boston	2,080	102"	CS

24-309-003

Location	Limits	Neighborhood	Total Length (ft)	type	SIZE(IN.)
MINTON STREET	AMORY ST. TO MERRIAM ST	Rox/JP	25	SS	12
KENNY STREET	DAY ST. TO END	JP	270	SS	10
KENNY STREET	DAY ST. TO END	JP	140	SD	10
KENNY STREET	DAY ST. TO END	JP	130	SD	10
AMSTRONG STREET	MOZART ST TO CHESTNUT AVE	JP	417	SS	10
GURNEY STREET	GURNEY TO TREMONT	JP	126	SS	12
NEWBERN ST	BISHOP ST. TO CAROLINA AVE	JP	145	SS	12
NEWBERN ST	BISHOP ST. TO CAROLINA AVE	JP	360	SS	12
JOHN A. ANDREWS ST	SEDGWICK ST TO NEWBERN ST	JP	485	SS	12
PARKER HILL AVENUE	TER	JP	155	SS	12
SOUTH STREET	MCBRIDE ST TO BOYNTON ST	JP	135	SS	12
RIVERWAY	352 RIVERWAY TO 384 RIVERWAY	JP	430	SS	10
KINGSBORO PARK	CENTRE ST. TO END	JP	305	SS	10
WAITE STREET	HUNTINGTON ST TO PEQUOT ST	JP	195	SS	8
CENTRE STREET	PERKINS ST. TO OAKVIEW TERR	JP	160	SS	12
CENTRE STREET	SOUTH ST TO HATHAWAY ST	JP	225	SS	10
BOYLSTON PLACE	BOYLESTON STREET TO END	JP	230	SS	6
HUNTINGTON AVE	SAINT ALBANS RD TO FENWOOD RD	JP	200	SS	12
Saint Albans Road	HUNTINGTON AVE TO MISSION PARK RD	JP	20	SS	12
Saint Albans Road	HUNTINGTON AVE TO MISSION PARK RD	JP	170	SD	12
Spring Park Ave.	CENTRE ST TO ADELAIDE ST	JP	40	SS	12
MINTON STREET	AMORY ST. TO MERRIAM ST	Rox/JP	120	SS	12
ROSEWAY ST	CENTR STREET TO END	JP	480	SS	10
KENNY STREET	DAY ST. TO END	JP	475	SS	10
TERRACE STREET	OSCAR ST TO GORE ST	JP	370	SS	12
GOODRICH ROAD	CENTRE ST TO END	JP	475	SS	10
GURNEY STREET	GURNEY TO TREMONT	JP	130	SS	12
NEWBERN ST	BISHOP ST. TO CAROLINA AVE	JP	165	SS	12
PARKER HILL AVENUE	SUNSET ST TO PARKER HILL TER	JP	370	SD	15
LOUDER'S LANE	94 LOUDER LN TO 72 LOUDER'S LN	JP	340	SS	8
SOUTH STREET	MCBRIDE ST TO BOYNTON ST	JP	275	SS	12
Huntington Avenue	FENWOOD RD TO TREMONT ST	JP	250	SS	12
CENTRE STREET	PERKINS ST. TO OAKVIEW TERR	JP	170	SS	12
CENTRE STREET	PERKINS ST. TO OAKVIEW TERR	JP	190	SS	12
CENTRE STREET	SOUTH ST TO HATHAWAY ST	JP	70	SS	10
CENTRE ST/ROSEWAY	ROSEWAY ST TO BOYLSTON ST	JP	135	SS	12
PARKER STREET	PARKER HILL AVE TO HILLSIDE ST	JP	320	SS	15"
Spring Park AVE	CENTRE ST TO ADELAIDE ST	JP	545	SS	12

24-309-002

STREETS	LIMITS	Neighborhood		PIPE LENGTH	SIZE	TYPE
CENTRAL AV	ARLINGTON ST	WEST ST	Hyde Park	509	8	SSReplace
WEST ST	HYDE PARK AV	CENTRAL AV	Hyde Park	600	8;10	SSReplace
WESTMINSTER ST	METROPOLITAN AV	HUNTINGTON AV	Hyde Park	682	8, 10	SSReplace
LOCKWOOD ST	METROPOLITAN AV	HUNTINGTON AV	Hyde Park	369	8	SSReplace
COLLINS ST	HYDE PARK AV	METROPOLITAN AV	Hyde Park	37	10	SSReplace
HYDE PARK AV	AMERICAN LEGION HWY	COLLINS ST	Hyde Park	48	10	SSReplace
CLARE AV			Hyde Park	289	24	SSReplace
WASHINGTON STREET PL	WASHINGTON ST	WASHINGTON ST	Hyde Park	500	8	SSReplace
WASHINGTON ST	NEWACRE RD	GARFIELD AV	Hyde Park	66	10	SSReplace
HYDE PARK AV	RESERVATION RD	MILTON ST	Hyde Park	347	20-24	SSReplace
HYDE PARK AV	THATCHER ST	WILLOW AV	Hyde Park	473	10	SSReplace
GROVE ST	BIRCHWOOD ST	STIMSON ST	West Roxbury	977	12,20	SSReplace
STIMSON ST	GROVE ST	WASHINGTON ST	West Roxbury	153	20	SSReplace
HYDE PARK AV	WOLCOTT SQ	MILTON ST	Hyde Park	515	20	SSReplace
METROPOLITAN AV	HIGHLAND ST	BRUSHWOOD CIR	Hyde Park	157	10	SSReplace
HILTON ST			Hyde Park	444	8	SSReplace
WEST ST	HYDE PARK AV	CENTRAL AV	Hyde Park	825	8, 10	SSReplace
WINSLOW ST	COTTAGE PL	CHILD ST	Hyde Park	342	8	SSReplace
				6,224		
COLLINS ST	CLARE AV	HYDE PARK AV	Hyde Park	237	10	SSLining
HYDE PARK AV	AMERICAN LEGION HWY	COLLINS ST	Hyde Park	48	10	SSLining
PROVIDENCE ST	WESTMINSTER ST	ARLINGTON ST	Hyde Park	324	15	SSLining
HIGHLAND ST	ALBION ST	METROPOLITAN AV	Hyde Park	1,257	8 W 10	SSLining
OSCEOLA ST	FRIENDSHIP RD	HOPEWELL RD	Hyde Park	164	8w10	SSLining
METROPOLITAN AV	HIGHLAND ST	BRUSHWOOD CIR	Hyde Park	273	10,8	SSLining
RIVER ST	MASSASOIT ST	MATTAKEESET ST	Hyde Park	513	10	SSLining
WINSLOW ST	CHILD ST		Hyde Park	150	6w8 or 10?	SSLining
CHILD ST	WINSLOW ST	RESERVATION RD	Hyde Park	169	6w8 or 10?	SSLining
MSGR. DENNIS F. O`CALLAGHAN WY	GENERAL LAWRENCE J LOGAN WY	DOCTOR MICHAEL GAVIN WY	South Boston	705	12x18, 15x18	SSLining
				3,840		
HYDE PARK AV	METROPOLITAN AV	WILLOW AV	Hyde Park	191	12	SDReplace
METROPOLITAN AV			Hyde Park	176	12	SDReplace
				367		
HYDE PARK AV	THATCHER ST	WILLOW AV	Hyde Park	193	10	SDLining
NAVARRE ST	JALLEISON ST	NAVARRE PL	Hyde Park	457	10,12,15	SDLining
HYDE PARK AV	WILLOW AV	METROPOLITAN AV	Hyde Park	704	12	SDLining
GARFIELD AV	LORING ST	TRUMAN PKWY	Hyde Park	263	15	SDLining
MARIPOSA ST	BLAKE ST	WOOD AV	Hyde Park	62	15	SDLining
LORING PL	LORING ST	LORING ST	Hyde Park	146	12	SDLining
				1,825		

24-308-002

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Heath Street	South Huntington Avenue to Columbus Avenue	Jamaica Plain	3,660	12	W
Heath Street	South Huntington Avenue to Columbus Avenue	Jamaica Plain	360 Relay	12	SS
Heath Street	South Huntington Avenue to Columbus Avenue	Jamaica Plain	80 Lining	10	SS
Heath Street	South Huntington Avenue to Columbus Avenue	Jamaica Plain	910 Lining	12	SS
Heath Street	South Huntington Avenue to Columbus Avenue	Jamaica Plain	315 Lining	15	SS
Heath Street	South Huntington Avenue to Columbus Avenue	Jamaica Plain	115 Lining	18	SS
Heath Street	South Huntington Avenue to Columbus Avenue	Jamaica Plain	255 Lining	18	SS
New Heath Street	Parker Street to Terrace Street	Jamaica Plain	500	12	W

24-308-001

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Tremont	Boylston to Court	City Proper	2900	16	W
Boylston Street	Tremont Street to Charles Street	City Proper	500	12	W

23-103-006

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
PHASE II					
PREBLE STREET	Wendeller Street to Columbia Road (Columbus Park Headworks)	South Boston	2080	102"	CS
PHASE III					
WIDETTE CIRCLE	S. Boston Bypass (I-93) to 15 Widette Circle	South Boston	460	102"	CS
SOUTHAMPTON STREET	Andrew Square to Frontage Road	South Boston	2540	102"	CS

23-309-012

STREETS	LIMITS	Neighborhood
Altantic St	East Forth St to Thomas Park	South Boston
Cottage St	D Street to Dorchester Street	South Boston
Dorchester St	Jenkins St to East Broadway	South Boston
E St	Old Colony Ave to West Seventh St	South Boston
East Broadway	Dorchester St to G St	South Boston
East Fourth St	Dorchester St to G St	South Boston
F St	West Eighth St to West Seventh St	South Boston
Frederick St	Old Colony Ave to West Ninth St	South Boston
Gates St	Dorchester St to Telegraph St	South Boston
Grimes St	West Eighth St to End	South Boston
Gustin St	Old Colony Ave to End	South Boston
Lark St	West Ninth St to West Eighth St	South Boston
Linden St	East Fourth St to Thomas Park	South Boston
Loring St	West Eighth St to West Seventh St	South Boston
Mercer St	Dorchester St to East Eigth Street	South Boston
Mitchell St	Old Colony Ave to West Ninth St	South Boston
National St	Dorchester St to Thomas Park	South Boston
Old Harbor St	Dorchester St to Telegraph St	South Boston
Pacific St	East Fourth St to Thomas Park	South Boston
Private Rd		South Boston
Silver St	Dorchester St to G St	South Boston
Telegraph St	Dorchester St to Thomas Park	South Boston
Thomas Park	National St to #69, 96 G St to Atlantic St	South Boston
West Eighth St	E St to Dorchester St	South Boston
West Ninth St	E St to Dorchester St	South Boston

23-309-005

Street	Limits	Neighborhood	Pipe Length (ft)	Size (in)	Type
Altmont Street	Altmont St. to Blue Hill Ave	MATP	310	12	SS
Banfield Avenue	Delhi Street to Morton Village Dr.	MATP	335	12	SS
Banfield Avenue	Delhi Street to Morton Village Dr.	MATP	240	27	SD
Blue Hill Avenue	Esmond St to Northeast Abbot St	ROXB	390	12	SS
Blue Hill Avenue	Livingstone St to Morton St	MATP	355	12	SS
Blue Hill Avenue	Talbot Ave to Northeast Abbot St	MATP	1175	12	SS
Blue Hill Avenue	Woodrow St. to Clarkwood St.	MATP	1865	12	W
Blue Hill Avenue	Woodrow St. to Clarkwood St.	MATP	1425	12	SS
Blue Hill Avenue	Harvard St. to Esmond St.	MATP	1255	12	SS
Blue Hill Avenue	Baird St. to Deering St.	MATP	755	12	SS
Blue Hill Avenue	at 1050 Blue Hill Ave.	MATP	135	12	SD
Blue Hill Avenue	at 1517 Blue Hill Ave.	MATP	155	12	SS
Blue Hill Avenue	Hansborough St. to Havelock St.	MATP	740	12	SS
Blue Hill Avenue	at Floyd St.	MATP	30	12	SS
Blue Hill Avenue	at Washington St.	MATP	75	12	SS
Brookline Avenue	Pilgram Road to Riverway	Fenway /Kenmore	20	16	SS
Clarkwood Street	Blue Hill Ave to Norfolk St	MATP	1075	12	W
Clarkwood Street	Blue Hill Ave to Norfolk St	MATP	930	12	SD
Clarkwood Street	Blue Hill Ave to Norfolk St	MATP	1000	12	SS
Columbia Road	at Elder Street	NDOR	25	8	W
Columbia Road	East Cottage St to Holden St	NDOR	360	12	CS
Freeland Street	Standard Street to End	MATP	435	10	SS
Gallivan Blvd	at Vera Street	MATP	165	10	SS
Ledgebrook Rd	Meadowbank Ave to Southmere Rd	MATP	230	8	SS
Lena Terr	Lorna Rd to West Selden St	MATP	285	12	SD
Lena Terr	Lorna Rd to West Selden St	MATP	290	10	SS
Lorna Rd	Lena Ter. To End	MATP	490	10	SS
Lorna Rd	Lena Ter. To End	MATP	235	12	SD
Longmeadow Street	Clifton St. to Batchelder St.	ROX	45	8	W
Longmeadow Street	Clifton St. to Batchelder St.	ROX	230	10	CS
Meadowbank Road	Richwood St. to End	MATP	230	8	SS
Seaver	Blue Hill Ave to Maple St.	ROX	620	"10/12	SS
Southmere Rd	River St to Ledgebrook Rd.	MATP	140	8	SS
Vera St	Gallivan Blvd. to End	MATP	280	10	SS
Willowwood St	Dumas St to Woodrow	MATP	335	30	SD
Woodhaven St	Messinger St to Culbert St	MATP	430	10	SS
Woodhaven St	Messinger St to Culbert St	MATP	300	10	SD

23-309-011

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Water					
Kilmarnock St	Boylston St to Park Drive	Fenway	750	10,8	W
Queensberry	Park Drive to Park Drive	Fenway	1800	8	W
Sewer					
Boylston Street	Kilmarnock St to Jersey St	Fenway	724	32x42	SS
Kilmarnock St	Boylston St to Park Drive	Fenway	656	15x22	SS
Queensberry	Park Drive to Park Drive	Fenway	255	15x18,30x36	SS
Private Alley 914	Jersey St to Queensberry St	Fenway	232	12	SS
Private Alley 925	Kilmarnock St to Jersey St	Fenway	252	15x18, 18	SS
Private Alley 926	Kilmarnock St to Jersey St	Fenway	297	15	SS
Private Alley 930	Peterborough St to Queensberry St	Fenway	343	15x18	SS
Drain					
Boylston Street	Jersey St to Kilmarnock	Fenway	1389	12,15,18,24	SD
Queensberry	Park Drive to Park Drive	Fenway	1745	15, 18, 30x30	SD
Private Alley 914	Jersey St to Queensberry St	Fenway	232	18	SD
Private Alley 925	Kilmarnock St to Jersey St	Fenway	221	18x24	SD
Private Alley 930	Peterborough St to Queensberry St	Fenway	304	36x36	SD

23-309-002

STREETS	LIMITS	Neighborhood
Anthony J Grieco Ter	#8 To Chelsea St	East Boston
Bremen St	Sumner St To Prescott St	East Boston
Brooks St	Chelsea St To Bremen St	East Boston
Chelsea St	Maverick St To George R Visconti Rd	East Boston
Drake Pl	#3 To Chelsea St	East Boston
Elbow St	Meridian St To Chelsea St	East Boston
Emmons St	Paris St To Chelsea St	East Boston
George R Visconti Rd	Chelsea St To Bremen St	East Boston
Gove St	Paris St To Bremen St	East Boston
Marion St	Chelsea St To Bremen St	East Boston
Maverick St	Chelsea St To Bremen St	East Boston
Meridian St	Paris St To Maverick St	East Boston
Paris St	Meridian St To Emmons St	East Boston
Porter St	Chelsea St To Orleans St	East Boston
Putnam St	Chelsea St To Bremen St	East Boston
Rev Anthony Ciao Fw	Bremen St To Orleans St	East Boston

23-309-003

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Ave Louis Pasteur	Longwood Ave to Blackfan Circle	FEKE	555	10	SS
Beacon St	Charlesgate West to Raleigh St	FEKE	115	15	SS
Cedarcrest Cir	Cedarcrest Rd	WROX	350	10	SS
Clarendon St	Stanhope St to Stuart St	BBBH	245	18	SS
Clarendon St	Stanhope St to Stuart St	BBBH	10	18	SS
Clarendon St	Stanhope St to Stuart St	BBBH	375	18x18, 12	SS
Colchester St	Stanbro St to Millstone Rd	HYDE	650	12	SS
George St	Danbury Rd to River St	HYDE	630	8 x 12	SS
Millstone Rd	Prescott St to Hyde Park Ave	HYDE	330	15	SS
Northdale Rd	Gould St to Northdale Ter	WROX	160	15	SS
Roseberry Rd	Ruskindale Rd to Greenfield Rd	HYDE	360	8	SS
Rowe St	Seymour St to Cummins Highway	ROSL	1335	12	SS
Sprague St	Horne St to Lakeside Ave	HYDE	395	15	SS
Tremont St	Berkeley St to Appleton St	SEND	240	12	SS
VFW Parkway	Centre St to Vincent St	WROX	555	24	SS
Walter St	Centre St to Private Rd	ROSL	445	10	SS
Whipple Ave	Washington St	ROSL	250	10	SS

22-308-003

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Willers St	Edgemere Rd to Fensmere Rd	WROX	735	8	W
Georgetowne Dr	Willers St to Dedham Blvd	WROX	3120	12	W
Margaretta Dr	Georgetowne Dr to End	WROX	1120	8	W
Georgetowne Pl	Georgetowne Dr to End	WROX	875	8	W
Crown Point Dr	Margaretta Dr to Margaretta Dr	WROX	1490	8	W
Averton St	Washington St to Walworth St	ROSL	1100	12	W
Misc.		WROX	50	10-12	SS
Misc.		WROX	50	10-12	SD

23-308-001

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
MLK Blvd	Washington St to Warren St	ROXB	6200	8	SH
Warren St	Townsend St to Woodbine St	ROXB	725	8	SH
Mayfair St	Elmore St to End	ROXB	330	8	SH
Harold Park/Street	Townsend St to End	ROXB	850	8	SH
Humbolt Ave	MLK Blvd to Laurel St	ROXB	225	12	SH
Laurel St	Humbolt Ave to Dale St	ROXB	550	8	SH
Catawba St	Laurel St to Charlame St	ROXB	570	8	SH
Charlame St	Laurel St to Catawba St	ROXB	1100	8	SH
Fenno St	Walnut Ave to End	ROXB	200	8	SH
Leslie Park	Walnut Ave to End	ROXB	330	8	SH
Homes Ave	Geneva Ave to Draper	Dorchester	1550	12	SH

22-309-014

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Almont St		Mattapan	10	12	S
Carolina Ave		Jamaica Plain	135	15	S
Constance Rd		West Roxbury	300	10	S
Grove St		West Roxbury	1190	10-24	S & D
Johnston Rd		Mattapan	200	12	D
Orlando St		Mattapan	270	24	D
Safford St		Hyde Park	200	10-12	S & D
Stimson St		West Roxbury	200	15	S
Various - Unknown at this time		Citywide	3110	10-24	S & D

22-309-001

Street	Limits		Neighborhood
Ainsworth Street	Centre St	South St	**ROSL/WROX**
Albano Street	Washington St	Cliftondale St	**ROSL/WROX**
Alhambra Road	Maple St	Willow St	**ROSL/WROX**
Anawan Avenue	Stratford St	Beech St	**ROSL/WROX**
Anawan Terrace	Anawan Av	Iona St	**ROSL/WROX**
Arboretum	Fairview St	South St	**ROSL/WROX**
Arborough Street	Conway St	Arboretum	**ROSL/WROX**
Averton Street	Walworth St	Washington St	**ROSL/WROX**
Beech Street	Kenneth St	Anawan Av	**ROSL/WROX**
Belgrade Avenue	Robert St	Corinth St	**ROSL/WROX**
Bradfield Avenue	Centre St	South St	**ROSL/WROX**
Brookfield St	South Fairview St	South St	**ROSL/WROX**
Cedrus Avenue	Walworth St	Washington St	**ROSL/WROX**
Centre Street	Fletcher St	Farquhar St	**ROSL/WROX**
Clement Avenue	Stratford St	Meredith St	**ROSL/WROX**
Colberg Avenue	West Roxbury Pkwy	Beech St	**ROSL/WROX**
Congreve Street	(Centre St)	South St	**ROSL/WROX**
Coniston Road	Selwyn St	Walter St	**ROSL/WROX**
Corey Street	Centre St	Park St	**ROSL/WROX**
Crandall Street	Augustus Av	Hillview Avenue	**ROSL/WROX**
Crest Street	Houston St	Kirk St	**ROSL/WROX**
Cummins Hwy	Washington St	Florence St	**ROSL/WROX**
Edgemont Street	South St	Ainsworth St	**ROSL/WROX**
Emelia Terrace	(Maple St)	Willow St	**ROSL/WROX**
Fairview Street	Cotton St	Mendum St	**ROSL/WROX**
Farquhar Street	Centre St	Selwyn St	**ROSL/WROX**
Florence Street	Hawthorne St	Cummins Hwy	**ROSL/WROX**
Garth Road	Corey St	Maple St	**ROSL/WROX**
Hastings Street	Centre St	Railroad St	**ROSL/WROX**
Havey Street	Alder St	Durnell Av	**ROSL/WROX**
Hawthorne Street	Florence St	Sycamore St	**ROSL/WROX**
Hemman Street	Kittredge St	Highfield Rd	**ROSL/WROX**
Henshaw Terrace	end	Corey St	**ROSL/WROX**
Hilburn Street	Whitford St	Poplar St	**ROSL/WROX**
Hillview Avenue	Whitford St	Poplar St	**ROSL/WROX**
Kenneth Street	Clement Av	Beech St	**ROSL/WROX**
Kirk Street	Crest St	Montview St	**ROSL/WROX**
Kittredge Court	Kittredge St	Augustus Av	**ROSL/WROX**
Kittredge Street	Cornell St	Denton Ter	**ROSL/WROX**
Knoll Street	Hazelmere Rd	Selwyn St	**ROSL/WROX**

La Grange Street	Larkhill Rd	Partridge St	**ROSL/WROX**
Maple Street	Alhambra Road	Centre St	**ROSL/WROX**
Maria Lane	Roslindale Av	Metropolitan Av	**ROSL/WROX**
Mendum Street	Walter St	Fairview St	**ROSL/WROX**
Meredith Street	Clement Av	Kenneth St	**ROSL/WROX**
Metropolitan Avenue	Maria Ln	Washington St	**ROSL/WROX**
Montclair Avenue	Sunset Hill Rd	-	**ROSL/WROX**
Montview Street	Mount Vernon St	Kirk St	**ROSL/WROX**
New Park Avenue	West Roxbury Pkwy	Beech St	**ROSL/WROX**
Park Street	Centre St	Corey St	**ROSL/WROX**
Park Street	Gentrude Rd	Robin St	**ROSL/WROX**
Parklawn Road	Church St	Weld St	**ROSL/WROX**
Poplar Street	Washington St	Sycamore St	**ROSL/WROX**
Realton Road	Weld St	Willowdean Av	**ROSL/WROX**
Redlands Road	Alameda Rd	Centre St	**ROSL/WROX**
Robert Street	Brookfield St	Belgrade Av	**ROSL/WROX**
Robin Street	La Grange St	Stratford St	**ROSL/WROX**
Robken Road	Hazelmere Rd	Selwyn St	**ROSL/WROX**
Rosecliff Street	Cliftondale St	Rosecliff Ter	**ROSL/WROX**
Roslindale Avenue	Averton St	Maria Ln	**ROSL/WROX**
Selwyn Street	Farquhar St	Robken Rd	**ROSL/WROX**
Sherman Street	Poplar St	Hawthorne St	**ROSL/WROX**
South Fairview Street	South Walter St	Robert St	**ROSL/WROX**
South Street	Centre St	Ainsworth St	**ROSL/WROX**
South Street	Arboretum	Mosgrove Av	**ROSL/WROX**
South Walter Street	Robert St	South Fairview St	**ROSL/WROX**
Stratford Street	Clement Av	Bellevue Hill	**ROSL/WROX**
Sunset Hill Road	Sunset Hill Path	Montclair Av	**ROSL/WROX**
Sycamore Street	Hawthorne St	Florence St	**ROSL/WROX**
Walter Street	Ashfield St	Cotton St	**ROSL/WROX**
Washington Street	Beech St	Cummins Hwy	**ROSL/WROX**
Weld Street	Rendall Rd	Burnside Av	**ROSL/WROX**
West Roxbury Parkway	Anawan Av	Hobson St	**ROSL/WROX**
White Oak Road	Wren St	Wren St	**ROSL/WROX**
Whitford Street	Augustus Av	Hilburn St	**ROSL/WROX**
Whittemore Street	Crest St	Montview St	**ROSL/WROX**
Willow Street	Schirmer Rd	Centre St	**ROSL/WROX**
Willowdean Avenue	Realton Rd	Weld St	**ROSL/WROX**
Wilna Ct.	end	Willow St	**ROSL/WROX**
Wren Street	Oriole St	Woodard Rd	**ROSL/WROX**

22-309-012

STREETS	LIMITS	Neighborhood
Bowen Street	D Street to Dorchester Street	South Boston
Crowley Rogers Way	D Street to #163-189	South Boston
D Street	West Seventh Street to West Fourth Street	South Boston
E Street	West Seventh Street to West Broadway	South Boston
F Street	West Seventh Street to Silver Street	South Boston
Flaherty Way	D Street to 50 feet west of D Street	South Boston
Gold Street	D Street to Dorchester Street	South Boston
Orton Marotta Way	D Street to 50 feet west of D Street	South Boston
Silver Street	D Street to Dorchester Street	South Boston
Tudor Street	D Street to Dorchester Street	South Boston
West Fifth Street	D Street to Dorchester Street	South Boston
West Fourth Street	D Street to Dorchester Street	South Boston
West Seventh Street	D Street to Dorchester Street	South Boston
West Sixth Street	D Street to Dorchester Street	South Boston

22-309-002

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Cliffmont Street	Canterbury to #33 Cliffmont (10F329 to 10F280)	Hyde Park	250	10	SLIN
Cliffmont Street	#75 Cliffmont to #61 Cliffmont Street (9F284 to 9F283)	Hyde Park	210	10	SLIN
Cliffmont Street	Canterbury Street to #77 Cliffmont Street (10FV134 to 9FV101)	Hyde Park	1140	8	WREL
Wingate Road	at Neponset Valley Parkwy (DCR) (2F CB42 to DCR drain/drywell)	Hyde Park	50	10	DREL
Easement (under MBTA Fairmont Line)	#237 Hyde Park Ave to #50 Brookway Terrace (12G28 to 12G03)	Roslindale	260	15	SLIN
Easement (under MBTA Fairmont Line)	#237 Hyde Park Ave to #50 Brookway Terrace (20' from 12G03)	Roslindale	20	15	SREL
Geneva Avenue	Vaughn Avenue to MBTA Sta. (14j282 to 14j283)	Roxbury	185	15	DLIN
Geneva Avenue	Vaughn Avenue to MBTA Sta. (14j112 to 14j114)	Roxbury	140	10	SREL
Geneva Avenue	Olney Street to #237 Geneva Ave. (14j212 to 14j211)	Roxbury	210	12	SLIN
Geneva Avenue	#255 Geneva Ave. to Everton Street (14j210 to 14j209)	Roxbury	225	12	SLIN
Columbia Road	Oldfields Rd. to Stanwood St. (#200 Columbia add new drain and CB)	Dorchester	100	18	DREL
Columbia Road	Intervale Street at Columbia Road (new drain to remove from SS)	Dorchester	60	18	DREL
Centre Street	#364 Centre, remove CB 18G35 from 12" sewer on Forbes Street	Jamaica Plain	60	8	DREL
John Andrew Street	Sedgewick to Carolina Avenue (15g222 to 15g217)	Jamaica Plain	140	12	SREL
John Andrew Street	Sedgewick to Carolina Avenue (15g238 to 15g228)	Jamaica Plain	160	12	DREL
Sedgewick Street	at John Andrew Street (15g221 to 15g222)	Jamaica Plain	30	12	SREL
Sedgewick Street	at John Andrew Street (15g455 to 15g228)	Jamaica Plain	15	12	DREL
Wenlock Road (Easement)	#14 Wenlock Rd. to #31 Hallet Street (11L147 to 11L152)	Dorchester	425	15	SLIN
Wenlock Road	Gallivan Blvd. to Minot Street (11L160 to 11L161)	Dorchester	100	10	DLIN
Wenlock Road	Gallivan Blvd. to Minot Street (11L148 to 11L474)	Dorchester	85	10	SLIN
Wenlock Road	Gallivan Blvd. to Minot Street (11L474 to 11L147)	Dorchester	90	10	SLIN
Wenlock Road	Gallivan Blvd. to Minot Street (11LV156 ot 11LV30)	Dorchester	230	8	WREL
Converse Street (Easement)	#12 Converse thru easement (24D28 to 24D27) to Electric Ave.	Allston/Brighton	210	10	SREL
Converse Street (Easement)	Easement (Welch Construction) to Electric Ave. (24D180 to 24Dy182)	Allston/Brighton	25	12	DLIN
Electric Avenue	Parsons Street to Goodenough Street (24CV90 to 24DV18)	Allston/Brighton	970	8	WREL
Electric Avenue	Parsons Street to Goodenough Street (24D245 to 24D248)	Allston/Brighton	200		DLIN
Electric Avenue	Parsons Street to Goodenough Street (24D246 to 24D247)	Allston/Brighton	145	10	SLIN
Electric Avenue	Parsons Street to Goodenough Street (24D249 to 24D246)	Allston/Brighton	80	10	SLIN
Electric Avenue	#35 Electric Ave. to Easement - NGrid Sta.315 (24D23 to 24D364)	Allston/Brighton	95	12	SLIN
Electric Avenue	Easement (Welch Construction) to NGrid Sta. 315 (24D364 to 24D366)	Allston/Brighton	90	12	SREL
Electric Avenue (Easement)	Easement (NGrid Sta. #315) to Goodenough St. (24D365 to 24D238)	Allston/Brighton	240	12	SLIN
Electric Avenue (Easement)	Easement (NGrid Sta. #315) to Goodenough St. (24D239 to 24D241)	Allston/Brighton	100	12	SLIN
Electric Avenue (Easement)	Easement at Goodenough St. (24D241 to 24D240) SREL 12 w/15	Allston/Brighton	60	15	SREL
Gannett Street	Holburn Street to Gaston Street (16iV184 thry 16iV118)	Dorchester	500	8	WREL
Gannett Street	Holburn Street to Gaston Street (16i292 to 16i307)	Dorchester	515	18	DREL
Gannett Street	Holburn Street to Gaston Street (16i289 to 16i290)	Dorchester	250	15	SLIN
Gannett Street	Holburn Street to Gaston Street (16i290 to 16i303)	Dorchester	290	15	SREL
Carlisle Street	#11 Carlisle to Warren Street (16i236 to 16i234)	Dorchester	400	12	SLIN
Carlisle Street (Easement)	#11 Carlisle to Gannett Street (16i236 to SLHs Gannett)	Dorchester	160	12	SLIN
Carlisle Street	Point repairs at #7 and #11 Carlisle Street	Dorchester	30	12	SREL
Gaston Street	#17 Gaston to Gannett Street (16i308 to new 16i307)	Dorchester	200	12	DLIN
Gaston Street	Otisfield Street to Bluehill Avenue (set new MH at 16i307 to 16i306)	Dorchester	215	24	DLIN
Gaston Street	Otisfield Street to Bluehill Avenue (16i304 to 16i258)	Dorchester	310	12	SLIN
Gaston Street	Gannett Street to Otisfield Street (16i303 to 16i304)	Dorchester	140	12	SLIN
Gaston Street	Otisfield Street to Bluehill Avenue (set new MH structure)	Dorchester	10	24	DREL

22-309-003

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Thornton St	Cedar St to Guild St	Roxbury	800	8	W
Thornton St	Cedar Sq to Guild St	Roxbury	520	8	CS
Thornton St	Cedar Sq to Guild St	Roxbury	400	12, 15, 18	SD
Lambert Av	Cedar St to Bartlett St	Roxbury	1255	12	W
Lambert Av	Logan St to Norfolk St	Roxbury	745	12 to 15	CS
Lambert Av	Logan St to Norfolk St	Roxbury	750	TBD	SD
Logan St	9 Logan st to 23 Logan St	Roxbury	110	10	CS
Logan St	23 Logan St to Thornton St	Roxbury	210	8	CS
Juniper St	Cedar Sq tp Cedar St	Roxbury	180	12	CS
Juniper St	Juniper Ter to Cedar St	Roxbury	475	TBD	SD
Cedar St	Juniper St to Washington St	Roxbury	150	TBD	SD
Rockledge St	4 Rockledge St to Thornton St	Roxbury	330	10	CS
Rockledge St	25 Rockledge to Thornton St	Roxbury	75	TBD	SD
Guild St	Thornton St to Washington St	Roxbury	330	12	CS
Guild St	Thornton St to Washington St	Roxbury	260	TBD	SD
Highland St	Cedar St Intersection	Roxbury	45	12	CS
Highland St	Millmont St to Cedar St	Roxbury	440	12	CS
Highland Av	Highland St to Centre St	Roxbury	440	12	CS
Centre St	Highland Av to Highland St	Roxbury	595	15	CS
Centre St	Highland Av to Highland St	Roxbury	460	TBD	SD
Eliot Ter	Entire St	Roxbury	90	6	W
Morley St	Entire St	Roxbury	230	8	W
Morley St	Entire St	Roxbury	210	12	CS
Highland St	Morley St to Norfolk St	Roxbury	150	12	CS
Highland St	Norfolk St to 18 Highland St	Roxbury	40	12	CS
Highland St	Norfolk St to Centre St	Roxbury	355	TBD	SD
Bartlett St	Dudley St to Blanchard St	Roxbury	115	9 to 10	CS
Bartlett St	Blanchard St to Bartlett Station Dr	Roxbury	455	TBD	SD
Kenilworth St	13 Kenilworth St to Dudley St	Roxbury	255	12	CS
Kenilworth St	13 Kenilworth St to Dudley St	Roxbury	255	TBD	SD
Dudley St	Lambert Av to Shawmut Av	Roxbury	735	TBD	SD

22-308-003

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Willers St	Edgemere Rd to Fensmere Rd	WROX	735	8	W
Georgetowne Dr	Willers St to Dedham Blvd	WROX	3120	12	W
Margaretta Dr	Georgetowne Dr to End	WROX	1120	8	W
Georgetowne Pl	Georgetowne Dr to End	WROX	875	8	W
Crown Point Dr	Margaretta Dr to Margaretta Dr	WROX	1490	8	W
Averton St	Washington St to Walworth St	ROSL	1100	12	W
Misc.		WROX	50	10-12	SS
Misc.		WROX	50	10-12	SD

22-308-002

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Norton St	River St to Readville St	HDYE	1230	8	W
Arborcrest Ter	Gladeside Ave to Ridgeview Av	MATP	490	8	W
Gladeside Ter	End to Gladeside Av	MATP	225	6	W
Westmount Ave	LaGrange St to Mount Vernon St	WROX	640	8	W
Pleasant Ave	Westmount Ave to Dead End	WROX	160	8	W
Eustis St	Magazine St to Hampden st	ROXB	740	8	W
Roslindale Ave	West Roxbury Pkwy to Beech St	ROSL	680	8	W
Hillis Rd	End to Church St	HYDE	230	6	W
Hardwick St	Bigelow St to Dunboy St	ALBR	770	8	W
Hardwick Ter	Hardwick St to End	ALBR	125	6	W
Imbaro Rd	Norton St to End	HDYE	380	6	W
Dunns Ter	Minot St to End	SDOR	230	4	W

22-308-001

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Belvidere	Belvidere @Huntington	BOSTON			
Bowker	New Chardon St@ Bowker TO Hawkins St@ Bowker St	BOSTON			
Boylston	Dalton St @ Boylston St TO Hereford St @ Boylston St	BOSTON			
Exeter	Commonwealth Ave W@ Exeter TO Commonwealth Ave E	BOSTON			
Harrison	Essex St @ Harrison Ave TO Hayward Pl @Harrison Ave	BOSTON			
Hawkins	New Chardon St@ Hawkins TO Bowker St@ Hawkins St	BOSTON			
Hudson	Kneeland St @ Hudson St TO Beach St @ Hudson St	BOSTON			
Huntington	Mass Ave @ Huntington TO West Newton St/Belvidere @Huntington	BOSTON			
Kneeland	Kneeland St @ Tyler St	BOSTON			
Somerset	Somerset st @ Pemberton	BOSTON			
Tyler	Kneeland St @ Tyler St TO Beach St @ Tyler St	BOSTON			
Pemberton	Somerset st @ Pemberton	BOSTON			
General Project		BOSTON			

21-309-012

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
EIGHTH		SOUTH BOSTON			
NINTH		SOUTH BOSTON			
BAXTER		SOUTH BOSTON			
BELL		SOUTH BOSTON			
C		SOUTH BOSTON			
D		SOUTH BOSTON			
DARMRELL		SOUTH BOSTON			
EIGHTH	`	SOUTH BOSTON			
EARL		SOUTH BOSTON			
EWER		SOUTH BOSTON			
GLOVER		SOUTH BOSTON			
GUSTIN		SOUTH BOSTON			
MIDDLE		SOUTH BOSTON			
OLD COLONY		SOUTH BOSTON			
SAYWARD		SOUTH BOSTON			
TRUCKERMAN		SOUTH BOSTON			
WOODWARD		SOUTH BOSTON			
GENERAL PROJECT		BOSTON			

21-309-002

STREETS	LIMITS	Neighborhood
Beck St	Chelsea St To Bremen St	East Boston
Bennington St	Bremen St To Swift St	East Boston
Bremen St	Bennington St To Curtis St	East Boston
Chaucer St	Saratoga St To Curtis St	East Boston
Chelsea St	Day Sq To #467	East Boston
Condor St	Putnam St To East Eagle St	East Boston
Eagle Sq	East Eagle St To Chelsea St	East Boston
East Eagle St	Putnam St To Chelsea St	East Boston
Falcon St	Putnam St To Glendon St	East Boston
Frankfort St	Neptune Rd To Swift St	East Boston
Glendon St	Condor St To East Eagle St	East Boston
Lawson Pl	Princeton St To #7	East Boston
Lexington Sq	East Eagle St To Lexington St	East Boston
Lexington St	Prescott St To East Eagle St	East Boston
Neptune Rd	Saratoga St To Bennington St	East Boston
Prescott St	East Eagle St To Lexington St	East Boston
Princeton St	#288 To Eagle Sq	East Boston
Putnam St	White St To #67	East Boston
Saratoga St	#458 To Swift St	East Boston
Shelby St	Lexington St To Chelsea St	East Boston
Swift St	Bennington St To Swift Ter	East Boston
Swift Ter	#27 To Swift St	East Boston
Trenton St	Putnam St To East Eagle St	East Boston
Vienna St	Neptune Rd To Bennington St	East Boston
White St	Eutaw St To Trenton St	East Boston
William F Mcclellan Hwy	Addison St To Boardman St	East Boston

21-309-001

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Coniston Rd. (easement)	#104 Walther Street to Roslindale wetlands	Roslindale	785	12, 15	SS
Waumbeck Street	Crawford Street to Wabeno Street	Roxbury	360	10, 12	SS
Waumbeck Street	Crawford Street to Humboldt Avenue	Roxbury	340	12	SD
Humboldt Ave.	Waumbeck Street to Townsend Street	Roxbury	440	10,12	SS
Humboldt Ave.	Waumbeck Street to Townsend Street	Roxbury	205	12	SD
Harold St	Harrisof Street to Waumbeck Street	Roxbury	280	15,24	SS
Harold St	Harrisof Street to Waumbeck Street	Roxbury	320	12,24	SD
Hollander Street	Harold Street to Crawford Street	Roxbury	345	18	SS
Howland St	Harold Street to Humboldt Avenue	Roxbury	210	10	SS
Howland St	Harold Street to Humboldt Avenue	Roxbury	190	10	SD
Walnut Avenue	Harrisof Street to Holworthy Street	Roxbury	245	12	SS
Walnut Avenue	Harrisof Street to Holworthy Street	Roxbury	230	18	SD
Thwing St (easement)	#55 (rear) to 43 Beech Glen (rear) Thwing (easement)	Roxbury	270	8, 10	SS
Thwing St (easement)	#55 (rear) to 43 Beech Glen (rear) Thwing (easement)	Roxbury	195	10	SD
Sanford Street	#15 Sanford to Vallaro Rd.	Hyde Park	20	18	SD
Manilla Ave. (Easement)	Norton Street to Neponset Valley Pkwy	Hyde Park	475	18	SS
Westinghouse Plaza	Readville Ave. to parking lot #1 Westinghouse Pz.	Hyde Park	275	20	SS
Readville St	Como Rd. to Albemarle Street	Hyde Park	870	10	SS
Chesterfield Street	Epson Rd. to Manilla Ave.	Hyde Park	300	10	SS
Danny Rd.	#52 Danny Rd to #32 Danny Road.	Hyde Park	205	8	SS
Como Rd.	#40 Como Rd. to Readville St..	Hyde Park	400	10	SS
Ernest Avenue	Marion Street to Como Rd.	Hyde Park	90	8	SS
Denison St	Hailey Street to END	Roxbury	680	12	SS
Denison St	Hailey Street to END	Roxbury	400	12	W

20-309-012

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
A Street	Dorchester Ave to West Broadway	South Boston			
W 5th Street	Dorchester Ave to B Street	South Boston			
Gold Street	Dorchester Ave to B Street	South Boston			
W 4th Street	Dorchester Ave to B Street	South Boston			
Silver Street	Dorchester Ave to B Street	South Boston			
B Street	Dorchester Ave to W 2nd Street	South Boston			
W 7th Street	B Street to D Street	South Boston			
W 4th Street	Dorchester Ave to B Street	South Boston			
W 6th Street	Haul Road to B Street	South Boston			
Joyce Hayes Way	W 7th St to Orton Marotta Way	South Boston			
Orton Marotta Way	B Street to Joyce Hays	South Boston			
Flaherty Way	B Street to D Street	South Boston			
St. Casimir St	Flaherty Way to Crowley Rodgers Way	South Boston			
Crowley Rodger Way	B Street to D Street	South Boston			
West Broadway	Haul Road to D Street	South Boston			
C Street	West Broadway to W 2nd Street	South Boston			
W 3rd Street	B Street to C Street	South Boston			
Athens Street	Haul Road to C Street	South Boston			

20-309-007

STREETS	LIMITS	Neighborhood
Blenford Road	Easement to Colborne Road	Allston/Brighton
Burton Street	Bellamy Street to #63	Allston/Brighton
Chestnut Hill Avenue	#55 to William Jackson Avenue	Allston/Brighton
Easement	Union Street to Blenford Road	Allston/Brighton
Easement	Nonantum Road to Newton Street	Allston/Brighton
Easement	Shepard Street to Shannon Street	Allston/Brighton
Hunnewell Avenue	Burton Street to Presentation Road	Allston/Brighton
Priscilla Road	#15 to #28	Allston/Brighton
Private Road	Shannon Street to Snow Street	Allston/Brighton
Shannon Street	#40-42 to Union Street	Allston/Brighton
Wallingford Road	Chestnut Hill Avenue to #88	Allston/Brighton
Annunciation Road	Ruggles Street to Prentiss Street & #60 to Parker Street	Fenway/Kenmore
Ruggles Street	Ruggles Upper Busway to Annunciation Road	Fenway/Kenmore
Parker Street	#540 to Prentiss Street	Jamaica Plain
Batchelder Street	Marshfield Street to Longmeadow Street	Roxbury
Marshfield Street	#56 to #9-11	Roxbury

20-309-006

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Windham Road (ROSLINDALE)	Sherrin Avenue to #85 Windham Avenue	Roslindale	460	12	SS
Belgrade Avenue (ROSLINDALE)	Walworth Street to #142 Belgrade Avenue	Roslindale	175	10	SS
Woodhaven Street (NEPONSET/MATTAPAN)	Messinger Street to #51 Woodhaven Street	Neponset/Mattapan	155	12	SD
Easement (Tyndale Street ROSLINDALE)	#104 Tyndale Street to #261 Belgrade Avenue	Tyndale Street Roslindale	360	12	SS
Tyndale Street (ROSLINDALE)	#11 Tyndale Street to Walworth Street	Roslindale	235	12	SS
Easement (Ruskindale Road NEPONSET/MATTAPAN)	#24 Ruskindale Road to #80 Mariposa Street	Ruskindale Road Neponset/Mattapan	60	12	SS
Rockingham Road (NEPONSET/MATTAPAN)	#22 Rockingham Road to Cummins Highway	Neponset/Mattapan	245	12	SS
Rockingham Road (NEPONSET/MATTAPAN)	#22 Rockingham Road to Cummins Highway	Neponset/Mattapan	170	12	SD
River Street (NEPONSET/MATTAPAN)	River Street at Cummins Highway	Neponset/Mattapan	20	12	SS
Easement (Livermore Street NEPONSET/MATTAPAN)	Livermore Street to Kennebec Street	Livermore Street Neponset/Mattapan	225	10	SS
Neponsent Avenue (ROSLINDALE)	Wyvern Street to Byrd Avenue	Roslindale	230	12	SS
Neponsent Avenue (ROSLINDALE)	Wyvern Street to Byrd Avenue	Roslindale	250	12	W
Wyvern Street (ROSLINDALE)	Hyde Park Avenue to Florian Street	Roslindale	170	12	SD
Canterbury Street (ROSLINDALE)	Paine Street to American Legion Highway	Roslindale	120	12	SS
Balfour Street (ROXBURY/MISSION HILL)	Wayland Street to Dalkeith Street	Roxbury/Mission Hill	100	10	SS
Dove Street (ROXBURY/MISSION HILL)	Blue Hill Avenue to Dacia Street	Roxbury/Mission Hill	230	12	SD
Whitby Terrace (DORCHESTER)	Pleasant Street to End (#23 Whitby Street)	Dorchester	270	8	SS
Hartford Street (ROXBURY/MISSION HILL)	#43 Hartford Street to Sargent Street	Roxbury/Mission Hill	210	8	SS
Hartford Street (ROXBURY/MISSION HILL)	#43 Hartford Street to Chamblet Street	Roxbury/Mission Hill	190	12	CS
VFW Parkway (WEST ROXBURY)	#623 VFW Parkway to Brucewood Street	West Roxbury	460	12	SS
George Street (HYDE PARK)	Danbury Road to River Street	Hyde Park	625	12	SS
Tileston Street (HYDE PARK)	Radcliffe Road to Winborough Street	Hyde Park	480	12	SS
Tileston Street (HYDE PARK)	Mercer Street to Winborough Street	Hyde Park	245	24	SD
Peacevale Road (DORCHESTER)	Norfolk Street to #11 Peacevale Road	Dorchester	155	10	SS
Easement (Jones Avenue DORCHESTER)	#49 Jones Avenue to #134 Woodrow Street	Jones Avenue Dorchester	335	12	SS
Mountain Avenue (NEPONSET/MATTAPAN)	Dumas Street to #72 Mountain Avenue	Neponset/Mattapan	115	12	SD
Theodore Street (NEPONSET/MATTAPAN)	Middleton Street to #21 Theodore Street	Neponset/Mattapan	175	12	SD
Middleton Street (NEPONSET/MATTAPAN)	Theodore Street to Wildwood Street	Neponset/Mattapan	220	15	SD
Hildreth Street (NEPONSET/MATTAPAN)	Wildwood Street to #15 Hildreth Street	Neponset/Mattapan	125	18	SD
Sargent Street (ROXBURY/MISSION HILL)	Hartford Street to Howard Avenue	Roxbury/Mission Hill	465	12	SD
Sargent Street (ROXBURY/MISSION HILL)	Hartford Street to Howard Avenue	Roxbury/Mission Hill	400	12	SS
G Street (SOUTH BOSTON)	Thomas Park to Columbia Road	South Boston	760	8	CS
G Street (SOUTH BOSTON)	East Eighth Street to Columbia Road	South Boston	300	12	W

20-308-001

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Harrison Avenue	Melnea Cass Blvd to East Berkley	South End	5,335.00	16", 12", 30"	W
Harrison Avenue	Melnea Cass Blvd to East Berkley	South End	1,250.00	12", 18"	SS
Traveler Street	Washington Street to Harrison Avenue	South End	330	12"	W
Union Park Street	Washington Street to Harrison Avenue	South End	460	8"	W
Washington Street	Talbot Street to Park Street	Dorchester	1,935.00	12"	W
Washington Street	Richmond Street to Morton Street	Dorchester	230	12"	SS
Washington Street	Rugdale Road to 1014 Washington Street	Dorchester	180	12"	SS
Washington Street	1058 Washington Street to Saint Gregory Street	Dorchester	120	12"	SS

19-309-001

STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Beverly Street/Lovejoy Wharf	Beverly Street ext. to Charles River Dam (DCR). Adj. DMH 26K451	City Proper/Central	14	60	DREL
Beverly Street/Lovejoy Wharf	Beverly Street ext. to Charles River Dam (DCR). Adj. DMH 26K451	City Proper/Central	1	12'x8'	TG-A
Beverly Street/Lovejoy Wharf	Beverly Street ext. to Charles River Dam (DCR). Adj. DMH 26K451	City Proper/Central	40	12	WREL
Beverly Street/Lovejoy Wharf	Beverly Street ext. to Charles River Dam (DCR) (26k536 to 26k535)	City Proper/Central	150	8	SLIN
Warren Street	Warren Street at Constitution Road (between 27k377 and 27k537)	Charlestown	1	84	DREL
Warren Street	Warren Street at Constitution Road (between 27k377 and 27k537)	Charlestown	1	8'x12'	TG-B
Warren Street	Warren Street at Constitution Road (27kV92 to 16" NL main)	Charlestown	30	12	WREL
Warren Street	Warren Street at Constitution Road (27kV100 to HYD 27k46)	Charlestown	70	16	WREL
Lewis Street	Lewis Street at East Pier Drive (between 26L82and 26Lsdo84)	East Boston	14	24	DREL
Lewis Street	Lewis Street at East Pier Drive (between 26L82and 26Lsdo84)	East Boston	1	12'x8'	TG-A
Seaport Boulevard	#150 Seaport Boulevard at B Street (between 23L217 and 23Lsdo195)	South Boston	14	36	DREL
Seaport Boulevard	#150 Seaport Boulevard at B Street (between 23L217 and 23Lsdo195)	South Boston	1	8'x12'	TG-B
Seaport Boulevard	#150 Seaport Boulevard at B Street (23Lred20 to 60' west)	South Boston	60	12	WREL

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STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Water Replacement					
Vine St	Chelsea Street to Bunker Hill	Charlestown	790	8	W
Bunker Hill St	Lowney Way to Allston	Charlestown	3,130	8, 8w12	W
Chelsea St	Constitution to Medford	Charlestown	1,720	12	W
School St	Main Street to Bunker Hill Street	Charlestown	1,350	16w8, 8	W
Bartlett Street	Monument Sq. to Pearl Street	Charlestown	2,860	10w12 SH/NL	W
		TOTAL WMREL	**9,850**		
Water Rehabilitation					
Bartlett Street	School Street to Pearl Street	Charlestown	310	10	W
		TOTAL WMLINE	**310**		
Sewer Replacement					
Vine St	at Moulton Street	Charlestown	25	12	SS
Bunker Hill St	Sackville Street to Lowney way	Charlestown	480	20w21,24	SS
Chelsea St	Constitution to Medford	Charlestown	745	12,15,18, 30x39	SS
School St	Bunker Hill Street to Main Street	Charlestown	475	8,12w10	SS
		TOTAL SWREL	**1,725**		
Sewer Line					
Bunker Hill St	Lowney Way to Allston	Charlestown	1,070	12, 18, 20	SS
Vine Street	Chelsea Street to Bunker Hill	Charlestown	975	15, 39x41	SS
School St	Bunker Hill Street to Main Street	Charlestown	200	12	SS
		TOTAL SWLIN	**2,245**		
Drain Replacement					
Bunker Hill St	Lowney Way to Allston	Charlestown	310	18, 21	SD
Chelsea St	Constitution to Medford	Charlestown	700	12	SD
School St	Main to Bunker Hill	Charlestown	170	12	SD
		TOTAL DRREL	**1180**		
Drain Line					
Bunker Hill St	Lowney Way to Allston	Charlestown	795	15, 18	SD
Bartlett Street	Monument Sq. to Pearl Street	Charlestown	585	10,12,15	SD
School St	Bunker Hill Street to Main Street	Charlestown	325	24	SD
		TOTAL DRLIN	**1,705**		

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STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Bradlee St/Navarre	End under American Legion Hwy	Hyde Park	360	18	SSReplace
Clare Ave	Collins St to American Legion Hwy	Hyde Park	105	6	SSReplace
Coronado Rd	Belnel Rd to End	Hyde Park	225	10	SSReplace
Cummins Hwy	Harding Rd to American Legion Hwy	Roslindale	175	8	SSReplace
Cummins Hwy	Sycamore St to Florence St	Roslindale	105	12	SDReplace
Destefano Rd	Hyde Park Ave to End	Roslindale	330	10	SSReplace
Harding Rd	Stella Rd to Hadwin Wy	Roslindale	165	10	SDReplace
Hawthorne Ter	Hawthorne St to End	Roslindale	175	10	SDReplace
Hawthorne St	Florence St to End	Roslindale	415	15, 18	SD/SSReplace
Herbertson Rd	Eldridge Rd to Northnourne Rd	Roslindale	105	10	SSReplace
Huntington Ave	Collins St to Thatcher St	Roslindale	215	12	SSReplace
Hyde Park Ave	#497 to #515 Hyde Park Ave	Roslindale	115	12	SSReplace
Morton St	Blue Hill Ave to Leston St	Mattapan	340	12	SDReplace
Neponset Ave	Charme Ave to Byrd Ave	Roslindale	650	10	SDReplace
Philbrick St	Neponset Ave to Mount Hope St	Roslindale	205	10	SSReplace
Rodman St	Wachusett St to Patten St	Roslindale	295	12	SSReplace
Rowe St	Seymour St to Cummins Hwy	Roslindale	255	12	SSReplace
Sycamore St	Hawthorne St to Cummins Hwy	Roslindale	300	12	SSReplace
Verrill St	Woolson St to Morton St	Mattapan	205	10	SSReplace
Wachusett St	Rodman Rd to Patten St	Roslindale	315	10, 12	SDReplace
Wellington Hill St	Duke St to Hillsboro Rd	Mattapan	330	10	SSReplace
Wildwood St	Woolson St to Morton St	Mattapan	725	12	SSReplace
Wilkins Pl	Sycamore St to End	Roslindale	195	6	SSReplace
Wyvern	Grover Ave to Florian St	Roslindale	430	10	SSReplace

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STREETS	LIMITS	Neighborhood	PIPE LENGTH	SIZE	TYPE
Jersey Street	Boylston Street to Park Drive	Fenway Kenmore	925	12	WREL
Peteborough Street	Park Drive to Park Drive	Fenway Kenmore	1830	12	WREL
Jersey Street	Peterborough Street to Queensberry Street	Fenway Kenmore	320	18	SREL
Jersey Street	Boylston Street to Park Drive	Fenway Kenmore	515	18	SLIN
Jersey Street	Peterborough Street to Queensberry Street	Fenway Kenmore	290	34,36	DLIN
Peteborough Street	Public Alley 931 to Jersey Street	Fenway Kenmore	1075	30	SREL
Public Alley 931	Boylston Street to Peteborough Street	Fenway Kenmore	355	30	SREL
Peterborough Street	Park Drive to Jersey Street		1130	12,15	DREL

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STREETS	LIMITS	Neighborhood
Blue Hill Avenue	Dudley Strreet to Maywood Street	Roxbury
La Grange Place	Blue Hill Avenue to #6 La Grange Place	Roxbury
Winthrop Street	At Blue Hill Avenue	Roxbury
Moreland Street	Blue Hill Avenue to #40 Moreland Street	Roxbury
Montose Street	At Moreland Street	Roxbury
Perrin Street	Moreland Street to Alaska Sreet	Roxbury
Copeland Street	Moreland Street to Langford Park	Roxbury
Copeland Place	At Copeland Street	Roxbury
Aspen Street	At Copeland Street	Roxbury
Langford Park	Copeland Street to #7 Langford Park	Roxbury
Alaska Street	Blue Hill Avenue to #22 Alaska Street	Roxbury
West Cottage Street	Blue Hill Avenue to # 74- 80 West Cottage Street	Roxbury
Waverly Street	Blue Hill Avenure to #26-30 Waverly Street	Roxbury
Clifford Street	At Blue Hill Avenue	Roxbury
Julian Street	Blue Hill Avenure to #26-30 Julian Street	Roxbury
Brookford Sreeet	Blue Hill Avenuet to Rand Street	Roxbury
Rand Street	Brookford Street to #40 Rand Street	Roxbury
Woodbine Street	Blue Hill Avcnue to #32 Woodbine Street	Roxbury
Southwood Street	Blue Hill Avcnue to #21 Southwood Street	Roxbury
Edgewood Street	Blue Hill Avcnue to #23 Edgewood Street	Roxbury
Maywood Street	Blue Hill Avcnue to #29 Maywood Street	Roxbury

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