2024 Annual Green Bonds and Sustainability Bonds Report

MASSACHUSETTS
CLEAN WATER TRUST

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A Note from the Treasurer

As Chair of the Massachusetts Clean Water Trust (the Trust) Board of Trustees, and in keeping with the Trust's policy of openness and transparency, I am pleased to submit the 2024 Annual Green Bonds and Sustainability Bonds Report.

The Trust has issued eight new money Green Bond series totaling over **$1.4 billion** to support **432** local water infrastructure project loans, and three new money Sustainability Bonds series totaling over **$464.4 million** in support of **116** project loans. With the issuance of Green and Sustainability Bonds, the Trust is once again demonstrating its commitment to an innovative finance program.

The projects financed by these bonds enhanced ground and surface water resources, ensured the safety of drinking water, protected public health, and developed resilient communities. The impact of these investments may not always be visible to the public, but it is felt in every glass of water poured, in restored water bodies, and in homes and businesses that receive safe and reliable water.

These bond designations provide investors with an Environmental, Social, and Governance (ESG) focus an opportunity to invest in bonds that support critical public health infrastructure, supports needed environmental improvement, and helps communities that need it most.

Sustainability

The Trust was one of the first to leverage the Sustainability Bonds designation for water infrastructure through the State Revolving Fund program. These bonds finance projects that meet the same standards as Green Bonds, but have the additional impact of serving communities with socio-economic challenges. As this ESG marketplace continues to mature, the Trust is committed to transparent and accurate reporting for the bond label to continue to instill investor confidence.

AAA Credit Rating

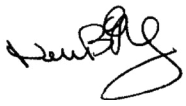
With its AAA credit rating by all three major credit agencies, the Trust provides low interest loans to local governments and other eligible entities for water infrastructure projects across the state. Since its establishment, the Trust has financed approximately **$9.1 billion** for nearly three hundred borrowers, serving **97%** of the Massachusetts' population.

Commitment

The Trust is committed to transparency and constant improvement. This can be found in its industry leading issuances with the improved accessibility, to its documents from the preliminary official statements, to this very report. We are pleased to contribute to this innovative marketplace and stay committed to improving our communications. We ask that you let us know if there are any additional ways that we can meet your information needs. Your feedback is always welcome and much appreciated.

Finally, I am deeply thankful to the staff of the Trust and our program partners, the Massachusetts Department of Environmental Protection (MassDEP) and EPA Region 1, for their tireless work and commitment to the communities of Massachusetts. The Trust and MassDEP are constantly innovating and remain dedicated to the mission of serving our residents.

Sincerely,



Deborah B. Goldberg
Treasurer and Receiver-General
Commonwealth of Massachusetts
mass.gov/treasury

Introduction to the Trust

The Massachusetts Clean Water Trust (the Trust), in collaboration with the Massachusetts Department of Environmental Protection (MassDEP), helps communities build or replace water infrastructure that enhances ground and surface water resources, ensures the safety of drinking water, protects public health, and develop resilient communities. It accomplishes these objectives by providing low-interest loans and grants to cities, towns, and water utilities through the Massachusetts State Revolving Funds (SRFs).

The Trust and MassDEP administer two SRFs, the Clean Water (CW) and Drinking Water (DW) SRFs. The CWSRF was established in 1987 under the Clean Water Act and the DWSRF was established in 1996 under the Safe Drinking Water Act. The Trust manages the flow of funds to borrowers while MassDEP manages project development and oversight.

SRFs receive funding from the United State Environmental Protection Agency (EPA) in the form of annual capitalization grants. The SRFs function as an environmental infrastructure bank making loans to local governments with the federal funds and once those loans are paid back, the funds are then loaned out again, which is how the fund "revolves."

The Trust uses a "leveraged financing model" to provide funding to projects in excess of the federal and state grants. Bonds are issued in the capital markets and are secured by borrower repayments and reserve funds. The proceeds from bonds are used to provide capital for new, below-market rate loans to borrowers for water infrastructure projects. This model has allowed the Trust to finance approximately **$9.1 billion** in projects from nearly **$3.1 billion** in federal grants and state matching funds.

The Trust is administered by a three-member Board of Trustees that is chaired by the Treasurer of the Commonwealth. The Secretary of the Executive Office for Administration and Finance and the Commissioner of MassDEP serve as Trustees. During monthly meetings, the Board of Trustees approves all financial commitments, agreements, and program decisions. All Board of Trustees materials can be found on the Trust's website along with all pertinent investor information, including this report.

About this Report

This report covers the Trust's activity during State Fiscal Year (SFY) 2024 and is separated into three sections. The first section, "The Trust's Bonds," details the Trust's process for issuing Green Bonds and Sustainability Bonds. It covers program-specific project categories, project selection and an overview of the Trust's operations. The second and third sections provide full project descriptions from the Series 25A Green Bonds and Series 25B Sustainability Bonds, and when referenced together, are noted collectively as Series 25, organized by the CWSRF and DWSRF programs. Projects associated with Series 25B Sustainability Bonds are shaded in light green. The appendices at the end of this report list all loans by Green Bonds and Sustainability Bonds series that are still being funded. Additional information such as the percentage of project funding drawn, and loan numbers are included. Readers should note that the main report sections are organized by projects that, in certain cases, were financed by multiple loans spanning multiple bond series.

For full project descriptions for previous bond series, please review previous editions of the Green Bond Report, the Trust's Annual Reports, or the specific bond series' official statements. All reports and documents may be found on the Trust's website under "Investor Resources": www.mass.gov/orgs/the-massachusetts-clean-water-trust.

Section I • The Trust's Bonds

In SFY 2024, the Trust successfully issued three series of bonds — Series 25A Green Bonds, Series 25B Sustainability Bonds and Series 2023 Green Bonds, the Trust's first refunding Green Bond Series[1]. This was the Trust's eighth issuance of new money Green Bonds and the third issuance of new money Sustainability Bonds. This section will describe the Trust's approach to issuing Green Bonds and how the Trust has adopted the International Capital Market Association (ICMA) 2021 *Green Bond Principles* framework for project selection. Further, this section details how Sustainability Bonds are designated and their distinction from Green Bonds. Finally, the section will describe how the Trust maps projects to United Nations Sustainable Development Goals (UN SDGs)

Since Series 23, the Trust departed from the way it had traditionally issued Green Bonds. The Trust made the decision to include all projects associated with the issuances. Previous practice limited project disclosure to those directly funded through bond proceeds and did not include projects that were financed with the Trust's program funds, pledged to secure the Trust's bonds. Series 23 through 25 included all projects, whether they were bond funded or funded by Trust program funds. Tables found in this report that detail the number of projects or loans for previous issuances reflect the policy that was in place at the time of issuance and should be considered individually.

Green Bonds

Since 2015, the Trust has issued over **$1.5 billion** of its bonds as Green Bonds in compliance with the federal Clean Water Act and the Safe Drinking Water Act. Consistent with the "Green Bond" classification, the proceeds are dedicated to projects that promote pollution prevention, sustainable water, wastewater management, energy efficiency or other environmentally sustainable purposes in alignment with ICMA's *Green Bond Principles*. The Green Bonds were issued to finance **432** loans for **353** water infrastructure projects through the CWSRF and DWSRF programs.

Green Bonds Issued			
Series	**Year**	**Issue Amount**	**Total Loans**
Series 18	2015	$228,155,000	81
Series 19	2016	207,805,000	66
Series 20	2017	207,350,000	51
Series 21	2018	163,460,000	38
Series 22	2019	191,610,000	44
Series 23A	2021	141,945,000	48
Series 24A	2022	137,095,000	56
Series 25A	2023	144,990,000	48
Totals		**$1,422,410,000**	**432**

Sustainability Bonds

The Trust issued Sustainability Bonds due to the projects' adherence to the same environmental standards of the Green Bonds and the designation of certain borrowers as "Disadvantaged Communities" under the acts. These projects represent communities that are identified as the most disadvantaged in relation to other communities in the Commonwealth.

The purpose of labeling the bonds as "Sustainability Bonds" is to allow investors to invest directly in bonds that finance projects in Disadvantaged Communities and are environmentally beneficial projects that meet ICMA's 2021 *Green Bond Principles, Social Bond Principles, Sustainability Bond Guidelines,* and the *United Nations Sustainable Development Goals.* Projects designated as "Sustainability Bonds" are made up exclusively from Disadvantaged Community projects ranked as Tier 3, those most in need, according to the Trust's Annual Affordability Calculation as detailed below. Sustainability Bonds were issued to finance **116** loans for **85** water infrastructure projects through the CWSRF and DWSRF programs.

Footnote

[1]The Series 2023 Green Bond refunding series was issued to refund a portion of the Series 18 Green Bonds, which had fully drawn the bonds proceeds and reported on the use of proceeds in the 2018 Annual Report. Therefore, the Trust will not report on the use of proceeds for the Series 2023 Refunding Green Bonds, or include the series in the total amount of Green Bonds issued.

Sustainability Bonds Issued			
Series	**Year**	**Issue Amount**	**Total Loans**
Series 23B	2021	$209,495,000	44
Series 24B	2022	143,060,000	47
Series 25B	2023	111,870,000	25
Totals		**$464,425,000**	**116**

The Trust's Disadvantaged Community Program

The Clean Water Act and the Safe Drinking Water Act define a Disadvantaged Community as a municipality most in need as identified by a state's affordability criteria. SRFs are required to provide additional subsidies to Disadvantaged Communities, calculated as an annual percentage of the CWSRF and DWSRF capitalization grants. Massachusetts awards this subsidy in the form of loan forgiveness, reducing the principal obligation that must be repaid on eligible loans. Additionally, the Trust applies further loan forgiveness through a state matching component to this federal requirement.

The Trust uses the Affordability Calculation for an adjusted per capita income (APCI) metric as its affordability criteria. This approach identifies communities that are the most in need of additional financial assistance to construct needed infrastructure improvements. In addition to determining financial need, the metric uses publicly available, transparent sources of data. Pursuant to EPA guidance, the criteria must be based upon income, unemployment data, population trends, and other data determined relevant by the state. The Trust uses the following formula to calculate the affordability tiers.

Adjusted Per Capita Income (APCI) = Per Capita Income * Employment Rate * Population Change

PER CAPITA INCOME (as listed on the most recent data tables of the Massachusetts Department of Revenue): Per Capita Income is a widely accepted metric of an ability to afford the cost of infrastructure projects.

EMPLOYMENT RATE (as listed on the most recent calendar year data tables of the Massachusetts Department of Revenue): The percentage of the workforce employed. Higher employment rates suggest that a community has more residents able to afford the cost of infrastructure than a community with lower employment rates.

POPULATION CHANGE: The percentage of gain or loss, according to the US Census data, in a municipal population between 2010 and 2020. Increase in population suggests that the community is experiencing growth, which provides a larger rate payer base to support infrastructure costs. Loss of population suggests negative growth and leaves fewer taxpayers and rate payers to absorb the burden of the infrastructure cost.

Based on the APCI formula described above, the Trust calculates APCI for the state and its 351 individual municipalities annually. Communities that fall below the Commonwealth's APCI are assigned into the three (3) affordability tiers based on a community's APCI as a percentage of the Commonwealth's APCI. The table below shows how the tiers are broken down.

Disadvantaged Community Tier Designation	
Tier 1	APCI equal to or more than 80% of the State APCI, but less than 100% of the State APCI
Tier 2	APCI equal to or more than 60% of the State APCI, but less than 80% of the State APCI
Tier 3	APCI less than 60% of the State APCI

Project Selection

The Trust's loan process is dictated by an annual list of projects it commits to finance called the Intended Use Plan (IUP). MassDEP compiles two IUPs annually, one for each SRF program and project eligibility is determined by the Clean Water Act and Safe Drinking Water Act. Projects that apply for financing are selected during an annual solicitation process which is open July through August.

MassDEP compiles the annual IUPs using this rigorous selection process that establishes the Commonwealth's priorities for the upcoming year. MassDEP engineers review detailed project specifications and rank them using an established set of criteria that measures the severity of the problem, the sensitivity of the environmental hazard, the public health risk, and the appropriateness of the proposed solution.

For CWSRF projects, the program emphasizes watershed management priorities, stormwater management, green infrastructure and encourages communities to undertake projects with meaningful water quality and public health benefits. The DWSRF program emphasizes compliance with federal and state water requirements to protect public health while addressing the Commonwealth's drinking water needs.

Project Funding

The Trust, MassDEP, and EPA have entered into a Revolving Fund Operating Agreement for the CWSRF and DWSRF. These agreements establish rules, procedures, and activities to be followed by the EPA and the Trust in administering federal grants. To date, the Trust has been awarded approximately **$1.9 billion** in federal grants and **$344.9 million** in state matching funds for the CWSRF program. Approximately **$882.6 million** in federal grants and **$129.4 million** in state matching funds have been awarded to the DWSRF program.

Project Categories

The SRF programs fund or finance a wide range of projects. **11** categories of projects are eligible to receive CWSRF assistance and six categories are eligible to receive DWSRF assistance. To streamline the content of this report, the Trust has consolidated similar and related categories while omitting categories with no current projects. Below is an overview of the categories listed within this report.

Clean Water Categories

Wastewater Treatment Projects

These projects involve the maintenance, upgrade, or construction of wastewater treatment facilities (WWTF). A WWTF receives sewage from a municipality or utility district service area then treats the water before releasing it back into the environment in accordance with National Pollutant Discharge Elimination System (NPDES) permits. The goal of these projects is to reduce or eliminate pollutants and nutrients found in wastewater for cleaner water ways.

Infiltration/Inflow (I/I) and Sewer System Rehabilitation Projects

These projects involve removing infiltration and inflow (i.e. water other than wastewater) from a sewer system, including construction associated with I/I rehabilitation. I/I is when groundwater or stormwater enters a dedicated wastewater or sanitary sewer system either by direct connections or through damaged parts of sewer pipes. I/I increases the flow to wastewater treatment facilities and leads to back-ups or overflows of the systems. Sewer system rehabilitation and I/I correction projects are concerned with removing sources of water that are either illicitly adding to a sewer system, or from sources entering via defective pipes or utility access holes. Eliminating I/I and replacing sewer systems reduces the occurrences of overflows, meaning less untreated wastewater is released into surface water bodies.

Collector and Interceptor Sewer Projects

These projects involve the physical conveyance of wastewater. Collector sewers gather wastewater from the source. Interceptor sewers convey wastewater to a treatment facility. Extending capacity in an existing sanitary sewer system can help mitigate issues in communities that have insufficient infrastructure to meet local demand. These projects are generally implemented in conjunction with other project categories such as combined sewer overflow correction which separates stormwater and wastewater collection systems to reduce untreated water being released into surface water bodies.

Combined Sewer Overflow (CSO) Correction Projects

These projects involve the reduction of untreated water discharged from combined sewer systems. Combined sewer systems are sewers that are designed to collect rainwater runoff, domestic sewage, and industrial wastewater all in the same pipe. During wet weather events, combined sewer systems can reach capacity and the excess overflows into surrounding waters, creating a CSO. CSO correction projects work to reduce the amount of untreated water discharged from combined sewer systems. Eliminating CSOs is an EPA and Commonwealth priority goal because it will reduce untreated water being released into surface water bodies.

Non-Point Source (NPS) Sanitary Landfill
These projects involve the reduction of NPS pollution from landfills by capping, installing leachate collection systems or repairing insufficient or damaged landfill systems. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, depositing them into ground and surface waters.

NPS Decentralized Wastewater Treatment Systems
These projects involve the rehabilitating or replacing residential onsite wastewater treatment systems or clustered systems. Failed onsite systems are a leading source of groundwater and nutrient enrichment in waterways. This category contains the projects related to the community septic management program.

Stormwater Infrastructure
These projects involve techniques for managing stormwater to prevent or reduce non-point source pollutants from entering surface waters or ground waters. This includes designing and installing stormwater management systems for conveying, collecting, storing, discharging, recharging, or treating stormwater. These systems aim to reduce the overall impact of excess water on an existing system during wet weather events.

Planning Projects
These projects involve developing plans to address water quality and related public health problems. Infrastructure management tracking, capital investment schedules, and the adoption of best management practices are also common objectives. For example, comprehensive wastewater management plans provide strategies for addressing wastewater treatment and disposal issues in a community. Integrated municipal stormwater and wastewater resource management planning assists communities with meeting requirements that arise from distinct wastewater and stormwater programs. Fiscal sustainability and asset management planning assists communities with maintaining replacement schedules and forecasting capital needs.

Drinking Water Categories

Drinking Water Treatment Projects
These projects involve the upgrade, maintenance, and construction of water treatment facilities. These projects are meant to improve the overall quality of drinking water and are targeted to remove pollutants that are known health risks. Treatment plant upgrades can impact the overall efficiency of a plant's energy consumption. Replacing equipment at the end of its useful life will improve overall system efficiency. New pumping and filtering equipment is designed with energy efficiency in mind.

Drinking Water Transmission and Distribution Projects
These projects involve the infrastructure that brings untreated water to treatment facilities and the infrastructure that conveys treated water for consumption. This includes everything from large transmission mains from reservoirs to the service lines that provide treated water to homes and businesses. Lines at the end of their useful life can lead to inefficiency in water transmission. Older pipes made of lead or cast iron can be severe health risks when corrosion occurs. Upgrades to pumping and booster stations make the transmission process more energy-efficient and improve the overall efficiency of the system.

Drinking Water Source and Storage Projects
These projects involve two distinct categories. Source water projects are related to untreated water sources – such as rehabilitating surface water in a reservoir or drilling and maintaining wells. Storage projects deal with infrastructure for maintaining and storing treated water before it is distributed into a system.

Drinking Water Planning and Design Projects
These projects involve the activities needed to plan, design, and/or study drinking water infrastructure. Such projects are essential for maintaining and improving the key infrastructure that protects public health and water quality.

United Nations Sustainable Development Goals Project Mapping

The United Nations Sustainable Development Goals (UN SDGs) are **17** goals adopted as part of the '2030 Agenda for Sustainable Development.' The goals were adopted by all United Nations member states in 2015. The UN SDGs are meant to provide a blueprint for combating poverty, spurring economic growth, and improving health and education while ensuring both climate and environmental sustainability. In reference to the 2022 ICMA's *Green and Social Bonds: A High-Level Mapping to the Sustainable Development Goals,* the Trust intends for the proceeds from the designated bonds to be used in a manner that is expected to be consistent with the following UN SDGs.

While the Trust intends for projects financed with Green Bonds and Sustainability Bonds to adhere to the applicable UN SDGs as detailed below, the Trust does not guarantee that such criteria will ultimately be met, either in substance or with respect to any timelines set forth in the UN SDGs.

Mapping Green Bonds

Consistent with the "Green Bond" classification, the proceeds from the Green Bonds will be dedicated to projects that promote pollution prevention, sustainable water and wastewater management, energy efficiency, or other environmentally sustainable purposes in alignment with ICMA's 2021 *Green Bond Principles.*

Goal 3: Ensure healthy lives and promote well-being for all at all ages

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

Goal 6: Ensure availability and sustainable management of water and sanitation for all

6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.

6.b Support and strengthen the participation of local communities in improving water and sanitation management.

Goal 12: Ensure sustainable consumption and production patterns

12.2 By 2030, achieve the sustainable management and efficient use of natural resources.

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience and take action for their restoration in order to achieve healthy and productive oceans.

Programs	Project Category	UN SDG Alignment
CWSRF Eligible Projects	Wastewater Treatment	3.9, 6.3, 6.4, 12.4
	Collector and Interceptor Sewers	3.9, 6.3, 6.4, 14.1
	Combined Sewer Overflow Correction	3.9, 6.3, 6.b, 12.2, 14.1
	Infiltration/Inflow and Sewer System Rehabilitation	3.9, 6.3, 6.b, 14.1
	NPS Sanitary Landfill	3.9, 6.3, 6.b, 12.2, 12.4, 14.1, 14.2
	NPS Decentralized Wastewater Treatment System	3.9, 6.3, 6.b, 12.2, 12.4, 14.1, 14.2
	Stormwater Infrastructure	3.9, 6.3, 6.b, 12.2, 14.1, 14.2
	Planning	3.9, 6.3, 6.4, 6.5, 6.b, 12.2, 14.1
DWSRF Eligible Projects	Drinking Water Treatment	3.9, 6.1, 6.4, 6.5, 12.4
	Drinking Water Transmission and Distribution	3.9, 6.1, 6.4, 12.2
	Drinking Water Source and Storage	3.9, 6.1, 12.2, 12.4
	Drinking Water Planning and Design	3.9, 6.1, 6.4, 6.5, 6.b, 12.2, 12.4

Mapping Sustainability Bonds

Projects financed as 'Sustainability Bonds' will generally adhere to the UN SDGs as detailed in this report. In addition, the projects financed by the Series 23B Bonds all fall into the Tier 3 Disadvantaged Communities category as determined at the time of project approval.

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

Goal 10: Reduce inequality within and among countries

10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable

11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all.

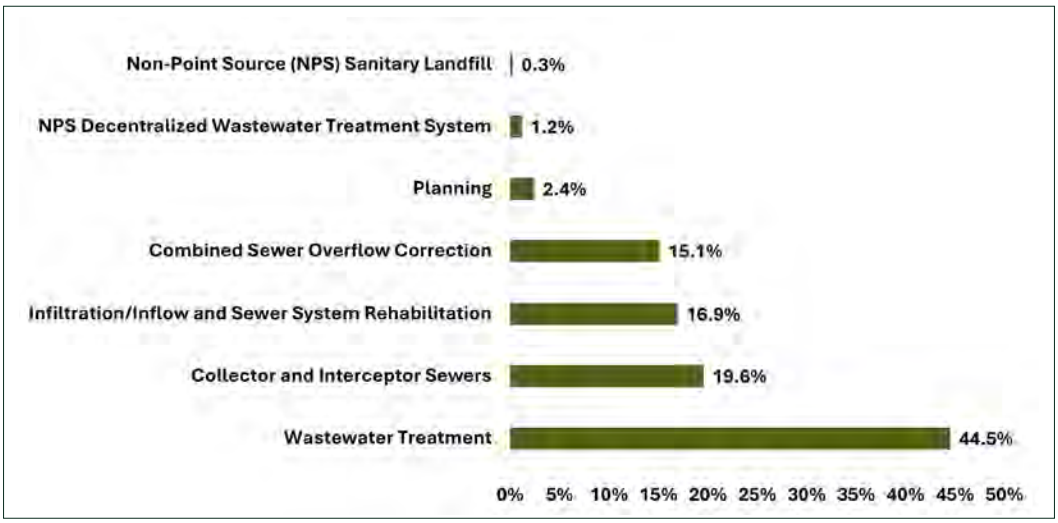
A Look at Series 25

The Data

The following sections include data from the combined Series 25A Green Bonds and Series 25B Sustainability Bonds. Series 25 is composed of **73** projects with **71%** being CWSRF projects and **29%** DWSRF projects. The following charts illustrate the distribution of Series 25 projects in each of the CWSRF and DWSRF project categories, first by financing amount and then by number of projects.

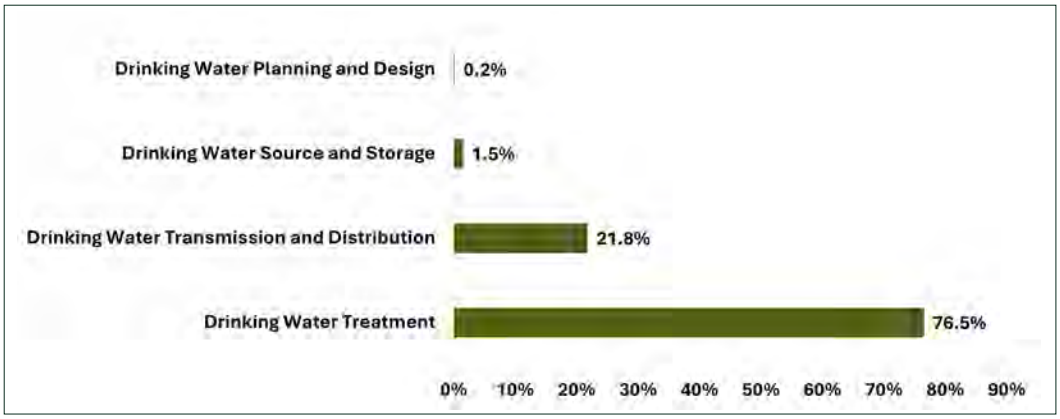
Series 25 Data Highlights

Series 25 CWSRF Funding Distribution



- Wastewater Treatment projects make up **18%** of projects in Series 25 by count but **32%** of all project funding.
- I/I and Sewer System Rehabilitation projects as the next largest CWSRF category made up **16%** of all Series 25 projects by count, and **12%** percent of all project funding.
- CSO Correction projects account for nearly **3%** of CWSRF Series 25 projects by count, but nearly **11%** of total Series 25 project funding. These projects tend to be in early industrialized communities, where the cost of repair is disruptive and expensive. Based on the forementioned statistics, the projects in this category tend to receive substantial amounts of financing to help these communities reduce the amount of untreated water released into the environment.
- Collector and Interceptor Sewer projects account for **14%** of Series 25 project funding.
- NPS Sanitary Landfill was the least represented category of projects in CWSRF Series 25, with only one project accounting for **0.2%** of Series 25 funding.
- NPS Decentralized Wastewater Treatment Systems has the fourth largest portfolio of projects, but only accounts for **1%** of CWSRF funding. This disparity is due to the small-scale nature of these projects.
- Planning projects, unlike the other categories, are less costly per project as they do not require the procurement of physical infrastructure. While Planning projects account for approximately **8%** of the total number of projects, they only occupy little more than **1%** of total CWSRF funding.

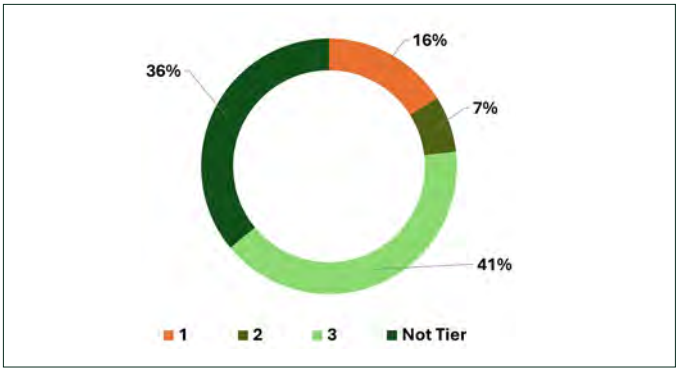
Series 25 DWSRF Funding Distribution by Project Category



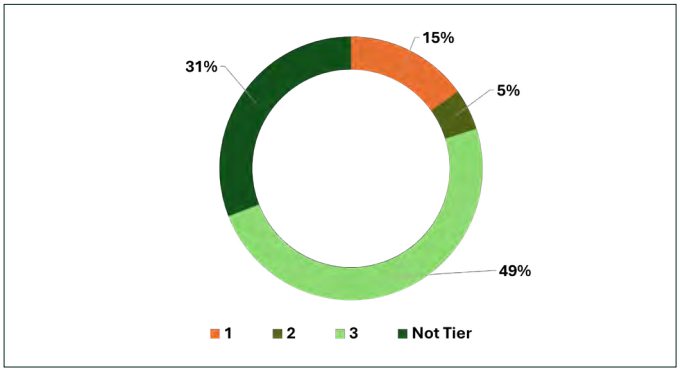
- Drinking Water Treatment projects account for approximately **22%** of the Series 25 project funding but represent nearly **77%** of DWSRF project funding.
- Drinking Water Transmission and Distribution accounts for most remaining funds. These **7** projects account for more than **21%** of DWSRF project funding.
- Drinking Water Planning and Design projects account for nearly **0.2%** of total project funding. Like their CWSRF counterparts, Drinking Water Planning and Design is limited to non-construction activities. Though it should be noted that many projects will build this design work into their DWSRF projects.
- Drinking Water Source and Storage's single project accounts for the last **0.2%** of project funding. These projects focus on improving the infrastructure that maintains, and stores treated water prior to its distribution back into the community, as well as rehabilitating surface water in reservoirs and wells.

The following charts show the distribution of Series 25 funds to CWSRF and DWSRF programs by Disadvantaged Community tiers.

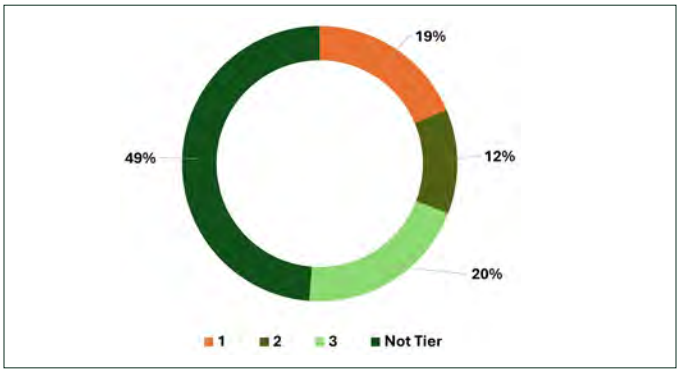
Percentage of Funding by Disadvantaged Community Tier



Percentage of CWSRF Funding by Disadvantaged Community Tier

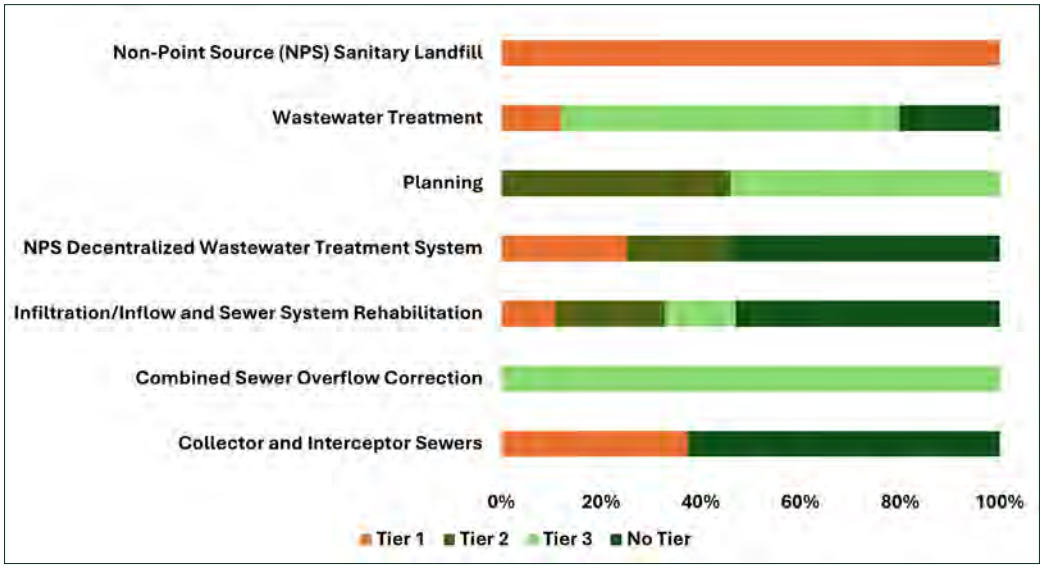


Percentage of DWSRF Funding by Disadvantaged Community Tier



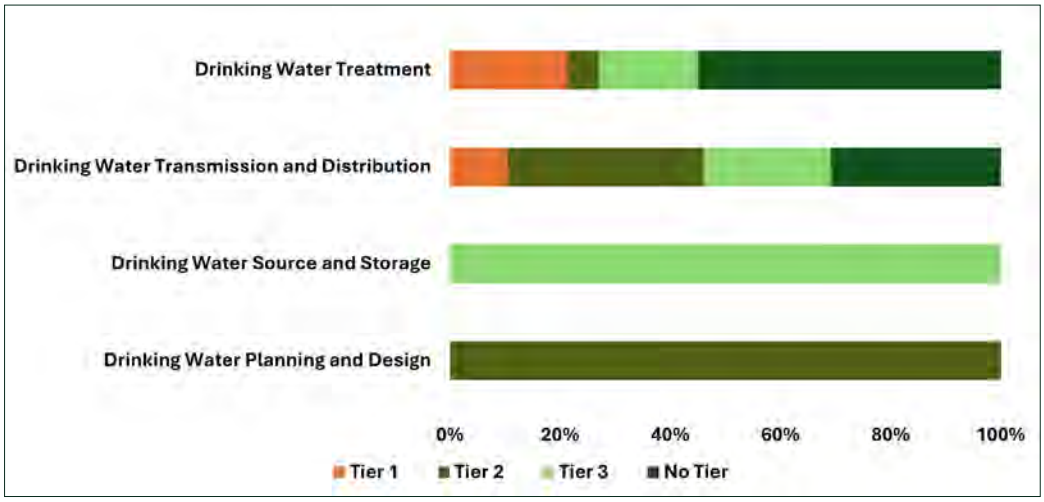
- **$296.4 million** or **64%** of all Series 25 loans went to a Disadvantaged Community.
- **$189.0 million** or **41%** of all Series 25 loans were made to Tier 3 Disadvantaged Communities.
- **$102.1 million** or **49%** of all CWSRF loans were made to Tier 3 Disadvantaged Communities.
- **$25.9 million** or **19%** of all DWSRF loans were made to Tier 3 Disadvantaged Communities.

CWSRF Percent Distribution in each Project Category by Disadvantaged Community Tier



- **$86%** of the Tier 3 allocation went to CWSRF Disadvantaged Community projects.
- **100%** of Planning, CSO and Stormwater project funding went to Disadvantaged Communities.
- **47%** of I/I and Sewer System Rehabilitation project funding went to Disadvantaged Communities.

DWSRF Percent Distribution in each Project Category by Disadvantaged Community Tier



- Approximately **29%** of Disadvantaged Community funding was allocated to DWSRF projects, but this is proportionate to the size of the DWSRF portfolio.
- **51%** of total DWSRF loan funds went to Disadvantaged Communities.
- **45%** of Drinking Water Treatment project funding went to Disadvantaged Communities.
- **69%** of Drinking Water Transmission and Distribution went to Disadvantaged Communities.
- **100%** of Drinking Source and Storage project funds went to Tier 3 Disadvantaged Communities. These projects are intended for drinking water improvement in densely populated neighborhoods in Tier 3 Disadvantaged Communities.

Wastewater Treatment Projects

Wastewater treatment projects are eligible for SRF assistance under the Clean Water Act for facilities that provide, or are being upgraded to provide, secondary or advanced wastewater treatment. Water treatment facility upgrades or improvements can vary widely depending on the age of the infrastructure in question. These facilities are governed under the National Pollutant Discharge Elimination System (NPDES), which determines the level of water treatment required to discharge wastewater. Many of the upgrades help facilities meet environmental and public health requirements. Upgrades include replacing inefficient mechanical equipment, upgrading pollutant removal systems, or updating water storage facilities to reduce odor.

Wastewater Treatment Projects			
Total Amount in Dollars ($)	**Total Number of Projects**	**Total Series 25 Amount in Dollars ($)**	**Total Number of Series 25 Projects**
$2,981,795,578	354	$147,270,584	13

Series 25 Wastewater Treatment Impact

- Adams, Barnstable, Northampton, Orleans, and Taunton have implemented modern systems to replace outdated treatment plants or building treatment for the first time, which will reduce operating expenses and replace crucial components nearing or past their useful life
- Adams, Pittsfield, Spencer, Springfield Water and Sewer Commission (SWSC), and Taunton improved discharge systems to achieve compliance with current NPDES permit requirements.

Borrower	Project Description	Amount
Adams	**Wastewater Treatment Facility (WWTF) Capital Improvements** The Town of Adams' construction project includes the repair, replacement, and refurbishment of various systems of the WWTF, as defined in its 2020 capital needs assessment report to address stringent National Pollutant Discharge Elimination System permit limits, reduce nutrient discharges, and ensure the integrity of the plant. The WWTF has been in operation since 1968, with limited capital improvements occurring in 2006. The town has performed general maintenance and rebuilt equipment to maintain WWTF operation; however, many components have exceeded their anticipated life expectancy. This project serves to repair and replace aging process equipment and infrastructure to allow the WWTF to continue serving the community and reliably protecting the environment in the future.	$6,548,006
Barnstable	**Solids Handling Upgrade Project** This project includes upgrades and modifications to the existing Water Pollution Control Facility (WPCF). These improvements include the addition of two gravity belt thickening units to improve operational efficiency at the facility as well as the replacement of other aged systems that have exceeded their useful life. Specifically, the project will replace or rehabilitate sludge pumps, the dry polymer system, the sludge holding tanks and blowers, the odor control system, the instrumentation systems as appropriate, and other architectural and mechanical systems.	$8,111,998
Chicopee	**Solids Handling Improvements Project** This project included improvements to the Chicopee's Water Pollution Control Facility (WPCF) and Wastewater Pump Station (PS) Improvements. The WPCF improvements included the demolition and replacement of a belt filter press with a centrifuge, the installation of a redundant sludge cake pump, and upgrades to the primary clarifier, including replacement of the mechanisms, cross collector, scum collector pipe, and associated electrical upgrades. The improvements increased reliability of the solids handling process, and increased solids handling capabilities at the WPCF. The Jones Ferry PS is considered the most critical PS in the City, because it pumps most of the flow that is conveyed to the WPCF in the Connecticut River Interceptor. The PS improvements included the replacement of wastewater pumps with submersible pumps and the replacement of entry doors, roof, grating in the wet well, slide gates, fuel storage tank, and motor control center. Facility upgrades included the ventilation system, oil furnace, unit heaters, and monorail system, and the installation of a sewage grinder, variable frequency drives, rock catcher, and magnetic flow meter.	$4,471,798

Section II • Series 25 Clean Water State Revolving Fund Projects

Borrower	Project Description	Amount
Northampton	**Northampton Wastewater Treatment Plant (WWTP) Upgrades** The project was the first phase of a plan to upgrade and modernize the Northampton WWTP. These construction activities were based on a long-term wastewater planning study that recommended improvements to the WWTP to extend its lifespan and ensure long-term functionality and federal and state permit compliance.	$9,581,648
Orleans	**Downtown Area Collection System and Wastewater Treatment Facility (WWTF)** The construction Project included a new collection system, Pump Station (PS), WWTF and effluent disposal for the Downtown Area consisting of about 1,087 users to address water quality in the various estuaries. In general, the project included a WWTF (influent screening and flow measurement; flow equalization; biological process (SBR); effluent filters; post equalization; effluent pumps; ultra violet disinfection; odor control; septage receiving and processing; and solids storage and thickening); effluent disposal (wicks); about 30,800 linear feet (LF) of 8" to 12" galvanized steel piping and connections, about 2,000 LF of 1-1/2" to 2-1/2"lined pipe systems and appurtenances, about 9,200 LF of 8" effluent force main, 3 PS, and about 9,200 LF of 6" and 8"force main and appurtenances for the estimated flow of 250,000 gallons-per-day.	$29,704,600
Pittsfield	**Wastewater Treatment Plant (WWTP) Nutrient Removal** This project is to upgrade the WWTP to achieve compliance with National Pollutant Discharge Elimination System permit limits and an Administrative Consent Order (ACO) issued by the Environmental Protection Agency. The project will optimize the nitrogen removal process, resulting in reductions of phosphorus and aluminum discharges to the Upper Housatonic River Area, an area of critical environmental concern, and remediate documented nutrient enrichment in the downstream Wood's Pond impoundment. Four major component projects are necessary to achieve compliance: tertiary treatment upgrade, sludge dewatering upgrade, nitrogen removal upgrade (Phase I), and secondary clarifier upgrade. The project components are consistent with the plant needs and energy efficiency improvements identified in the recently updated WWTP facilities plan.	$508,975
Spencer	**Wastewater Treatment Facility (WWTF) Upgrades Project** Spencer's project involves essential upgrades to the WWTF to address stringent phosphorus and copper limits, achieve nitrogen removal goals, and replace aging infrastructure. An Administrative Consent Order (ACO) and the current National Pollutant Discharge Elimination System permit require compliance with phosphorus and copper limits by December 2024. The project also includes abandoning use of constructed wetlands, and the construction of new septage receiving equipment, upgraded influent screening and odor control systems, improved grit removal, new submersible influent pumps, nitrogen removal, renovations to create lab space, the addition of a secondary clarifier, a new tertiary treatment building for phosphorous removal, ultraviolet disinfection, and new sludge thickening equipment.	$40,116,057
Springfield Water and Sewer Commission (SWSC)	**Nutrient Removal Upgrade and Related Facility Improvements** The Springfield Water and Sewer Commission's project includes upgrades to the Biological Nutrient Removal (BNR) Process – Hybrid BNR mixed liquor recycle pumping, replacing the diffused aeration distribution system, upgrades to the plant electrical system, and rehabilitation of the ventilation system in the grit and screenings building. The objective of these improvements is to increase the effectiveness of the wastewater treatment facility to continue meeting its current and anticipated future National Pollutant Discharge Elimination System permit limits and to replace and increase the reliability of critical infrastructure onsite.	$27,829,703
Taunton	**Wastewater Treatment Facility (WWTF) - Solids Handling Improvements** This project was for a complete upgrade of the Taunton WWTF. Improvements were made to meet the requirements of the new National Pollutant Discharge Elimination System discharge permit. In addition, the facility was expanded hydraulically to accept higher flows from the new Main Lift Pumping Station, which reduces the size and frequency of combined sewer overflows. This project was specifically for solids handling improvements with multiple phases to be implemented over multiple years.	$5,406,000
Taunton	**Wastewater Treatment Facility (WWTF) Upgrade- Phase 1** This project is part of a complete upgrade of the Taunton WWTF that is necessary to meet the requirements of the new National Pollutant Discharge Elimination System discharge permit. The facility will expand hydraulically to reduce combined sewer overflows. This project encompasses solids handling improvements.	$14,991,799

Highlight Project | Spencer

Project: Town of Spencer Wastewater Treatment Facility Upgrades Project
Series 25B Loan Amount: $40,116,057
Disadvantaged Community: Tier 3
UNSDG Alignment: 3, 6, 9, 10, 11, 12, 14

Background
Spencer's wastewater treatment facility (WWTF) serves around 1,600 residential and commercial connections with a capacity of 1.08 MGD. Built in 1946 and upgraded in the 1960s and 1980s, the plant uses constructed wetlands for tertiary treatment before discharging into the Cranberry River. Concerns have been raised about the impact of these discharges on downstream water quality, including Lake Quacumquasit and Quaboag Pond. The aging WWTF cannot meet the stricter discharge requirements of the 2019 NPDES permit, particularly for phosphorus and copper, leading to an EPA administrative order. Future nitrogen requirements are also anticipated. Spencer must comply with these new standards by December 2024.

The Project
This project aims to upgrade the WWTF to meet more stringent phosphorus and copper permit requirements, achieve nitrogen removal goals, improve safety for plant workers, and upgrade aging infrastructure. The project involves abandoning the constructed wetlands discharge process for more modern and effective treatment processes, installing upgraded influent screening and grit removal systems to increase solid materials removal and screening capacity during high flow events, and replacing the current influent four-pump system with a more efficient and dynamic two-pump system. A new tertiary treatment building will be constructed to house rapid mix tanks for chemical addition, chemical storage facilities, disc filters, ultraviolet disinfection, and flow meters. Existing infrastructure will be reused to provide flow measurement capabilities, add septage screening, separate storage tanks for septage and industrial/brewery waste, and adequate storage for multiple days of septage acceptance. Two abandoned primary clarifier tanks will be repurposed for septage storage with removable covers for odor control.

Environmental Impact and Public Health Impact
Elevated levels of phosphorus negatively impact aquatic life by accelerating algal growth, which affects water quality, aquatic food resources, habitats, and decreases oxygen availability for fish and other aquatic life. Some algal blooms produce elevated toxins and bacteria growth that can make humans and animals sick. High concentrations of copper produced by the plant can also be toxic to aquatic life. Improvements at the WWTF will enhance water quality by limiting nutrient discharges and bypass events. Occasional secondary treatment bypass events result in untreated wastewater being lost to groundwater, posing a public health risk to residents on private wells and those downstream on Quaboag Pond and Quacumquasit Pond. Fishing activity along the Cranberry River and downstream waterbodies will also benefit from the reduced public health risk due to improved water quality.

Economic Impact
The total projected cost of the WWTF upgrade is approximately **$47 million.** By utilizing the Trust's financing, Spencer will save around **$23.6 million** in total debt service. Through the CWSRF program, Spencer benefits from two key savings programs. First, Spencer received approximately **$6.6 million** in loan forgiveness, with **$3.8 million** due to its Tier 3 Disadvantaged Community designation and **$2.8 million** from ARPA funds. Second, the project qualifies for the **0%** Interest Rate Nutrient Enrichment Reduction loan program, saving Spencer **$17.0 million** in interest costs over the thirty-year loan term.

Source: *Tighe & Bond, Spencer WWTP*

NPS Decentralized Wastewater Treatment Systems

The NPS decentralized wastewater treatment systems projects are comprised of the Community Septic Management Program (CSMP). The CSMP provides loans to the Commonwealth's cities and towns for assisting homeowners in the repair or replacement of failed septic systems. These projects help eliminate contamination from failing septic systems which are a leading source of groundwater pollution that causes contaminated drinking water, tainted shellfish beds, weed choked lakes and ponds, and polluted beaches. With the CSMP, the Trust issues low-interest rate loans to communities who, in turn, issue loans directly to homeowners for up to 20 years. Loans to homeowners are secured through a betterment on their properties. This program allows municipalities to provide access to capital for home septic repair or replacement at a subsidized interest rate. The program is funded within the CWSRF program as NPS projects.

Community Septic Management Projects			
Total Amount in Dollars ($)	**Total Number of Projects**	**Total Series 25 Amount in Dollars ($)**	**Total Number of Series 25 Projects**
$139,530,605	440	$3,859,934	10

Series 25 Community Septic Management Program Impact

- Repair and replacement of failing septic systems can be a vital component for reducing pollution. This is especially important to communities with little wastewater infrastructure. For example, Cape Cod contains roughly 145,000 developed parcels. 74% of these homes and businesses are not connected to a wastewater treatment system and utilize septic systems. Septic Nitrogen loading accounts for roughly 80% of the water quality degradation of Cape Cod.

Community Septic Management Program	
Borrower	**Amount**
Bellingham	$600,000
Cohasset	$50,000
Easton	$500,000
Essex	$307,944
Ipswich	$300,000
Medway	$95,265
Middleborough	$500,000
Nantucket	$833,574
Norton	$373,151
Stoughton	$300,000

Section II • Series 25 Clean Water State Revolving Fund Projects

Infiltration/Inflow (I/I) and Sewer System Rehabilitation Projects

These projects correct sewer system infiltration and inflow problems. Infiltration includes water, usually groundwater, penetrating a sanitary or combined sewer system from the ground through defective pipes or utility access holes. Inflow includes controlling the penetration of water, usually stormwater, into a system from sump pumps, drains, storm sewers, and other improper entries. Sewer system rehabilitation projects maintain, reinforce, or reconstruct deteriorating or undersized sewer systems. Corrective actions are necessary to maintain the functional integrity of the system.

Infiltration/Inflow (I/I) and Sewer System Rehabilitation Projects			
Total Amount in Dollars ($)	**Total Number of Projects**	**Total Series 25 Amount in Dollars ($)**	**Total Number of Series 25 Projects**
$1,057,761,880	365	$55,981,334	12

Series 25 Infiltration/Inflow (I/I) and Sewer System Rehabilitation Project Impact

- Abington, Haverhill, Lawrence, Millbury, and Quincy have repaired and rehabilitated existing infrastructure by addressing system deficiencies and replacing system parts that have exited their useful life.
- Millbury, Orange, Quincy, and Revere have implemented cost effective measures to evaluate the amount of Infiltration and Inflow (I/I) in their systems which will improve their ability to address I/I levels and develop strategies to reduce them.
- Abington, Barnstable, and Massachusetts Water Resources Authority (MWRA) have utilized projects to help address environmental conservation efforts and environmental degradation and erosion concerns.

Borrower	Project Description	Amount
Abington	**St. Force Main Replacement Project** The Town of Abington's New Sewer Force Main project is constructing a new 11,000 linear foot sewer force main for providing system redundancy as well as accommodating future average daily flow demands. The existing 30-year-old 16-inch ductile iron force main, which transported all wastewater from the Town to Brockton for treatment, has experienced two breaks due to corrosion. The most recent failure, near a wetland area, was caused by corrosive soil destroying the pipe from the outside. The previous break was at a high point in the pipeline where hydrogen sulfide caused the pipe failure. This project protects the environment and public health as it will safely convey wastewater flows in a new corrosion resistant pipeline.	$5,490,763
Barnstable	**Wastewater Pump Station (PS) Improvements Project** Barnstable has 27 wastewater PSs. Many of them have equipment that is well over its useful life and requires replacement to prevent anticipated major failures, which impact public health and the environment. All 27 PSs were evaluated in advance of the issuance of the 2019 Wastewater PS Asset Management Plan (AMP). PS improvement projects over the next 20 years were identified in the AMP. Several factors contributed to the recommendations for improvements in year 1 including the end of service life of equipment, coastal resiliency, and energy improvements/ electrical upgrades.	$576,776
Haverhill	**Sewer System Improvements** The City of Haverhill's project will repair and rehabilitate the historic sewer system by addressing structural deficiencies and/or operational and maintenance deficiencies identified during recent inspections.	$7,948,783
Lawrence	**Sewer and Drainage System Improvements** Lawrence's project rehabilitated and replaced sewer system defects, and operational and maintenance issues identified in the 2019 Sewer System Evaluation Survey (SSES) report. The sewer and drainage system improvements will address structural pipe failures, reduce infiltration and inflow sources, and abate illicit cross-connections to the Small Municipal Separate Storm Sewer System (MS4) areas.	$2,168,250

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Borrower	Project Description	Amount
Millbury	**Year 1 to 4 Sewer Rehabilitation Project** Millbury's sewer system rehabilitation project removes infiltration and inflow (I/I) and addresses structural defects. This project implements the recommendations from the Sewer System Evaluation Survey (SSES) to remove cost-effective I/I and rehabilitate sewer pipes and manholes with structural defects. The project includes chemically root treating 2,417 linear feet (LF) of sewer; cleaning, inspecting, testing, and sealing 5,340 LF of sewer; installing 60 LF of structural short liner; installing 8,830 LF of structural cured-in-place pipe; performing 2 spot repairs; testing and grouting 18 service connections; installing 7 lateral liners; chemically root treating 17 manholes; cementitious lining of 1,350 vertical feet of manholes; and other related tasks.	$859,000
Massachusetts Water Resources Authority (MWRA)	**Nut Island HW Odor Control & HVAC - Contract 7548** The Nut Island Headworks is a preliminary treatment facility serving 22 communities that provides screening and de-gritting of wastewater prior to the wastewater receiving primary and secondary treatment and disinfection at MWRA's Deer Island Treatment Facility. This project replaces the odor control and Heating, Ventilation, and Air Conditioning (HVAC) systems at the Nut Island Headworks to maintain reliable operation of the systems, meet requirements of their air quality permit, and maintain an environment within the facility that is safe for workers and suitable for equipment. The project will also replace other equipment at the headworks that is approaching the end of its lifecycle to ensure reliable operation of this critical wastewater treatment facility.	$29,658,241
Orange	**North Main Street Water and Sewer Replacement** The Town of Orange recently completed a three-year flow monitoring program to evaluate the amount of infiltration and inflow (I/I) throughout the collection system. Additionally, a 2013 long-term planning study (CWMP) recommended inflow and infiltration (I/I) removal projects based on current recommendations and investigations. Based on the results of this program and recommendations from the CWMP, the Town replaced sanitary sewer mains located in North Main Street prior to a road reconstruction project in the same location. Water mains located on North Main Street were also replaced as part of this project.	$1,161,236
Quincy	**Quincy FY22 Sewer Improvements** Quincy's project implemented the recommendations from the 2020 Sewer System Evaluation Survey to cost effectively remove infiltration and inflow (I/I) and rehabilitate approximately 3.25 miles of sewer pipe in the city through open cut repairs and cured-in-place pipe lining. This project will reduce I/I to the system, supporting the regional I/I reduction program and reducing the risk of sanitary sewer overflows and backups.	$3,541,594
Revere	**Phase 12 Construction- Inflow and Infiltration (I/I), Illicit Discharge Detection and Elimination (IDDE), Pump Station (PS) & Drainage** Revere's Phase 12 Construction Project will include the removal of I/I from the City's sewer system. Construction will include the redirection of public and private I/I sources discovered during Phase 12 field investigations, IDDE source removal, and drainage improvements. Illicit connections, including sump pumps and roof leaders, were removed from the City's sewer system to remove I/I and increase wastewater capacity. Construction will also include PS improvements (both stormwater and wastewater), Cured-in-Place Pipe (CIPP) lining, sewer spot repairs, replacements, new sewer lines, cleaning, and additional wastewater metering.	$4,576,691

Collector and Interceptor Sewers Projects

According to the EPA, millions of gallons of human and industrial waste are sent through complex underground collections systems. These systems operate all day, every day. Most municipal sewer systems are at least 60 years old. Collection systems consist of pipelines, conduits, pumping stations, force mains, and other components to collect wastewater and convey it to treatment facilities before being discharged into the environment. Design, operation, and maintenance are critical for system efficiency and public health. System expansions can be used to mitigate issues with combined sewer overflows and septic systems. New collector sewers are projects associated with new pipes used to collect and carry wastewater from a sanitary or industrial wastewater source to an interceptor sewer that will convey the wastewater to a treatment facility. New interceptor sewers and pumping stations are being built to convey wastewater from collection sewer systems to a treatment facility or to another interceptor sewer. This category includes costs for relief sewers, which are designed to handle the excess capacity of an existing system.

Collector and Interceptor Sewer Projects			
Total Amount in Dollars ($)	**Total Number of Projects**	**Total Series 25 Amount in Dollars ($)**	**Total Number of Series 25 Projects**
$1,237,370,142	364	$64,808,322	9

Series 25 Collector and Interceptor Sewers Projects Project Impact

- Barnstable's Yarmouth Road Intersection project, Barnstable's Strawberry Hill Road project, and Chatham have constructed large expansionary projects that will greatly increase the capacity of their systems and expand access to more residents of the Commonwealth.
- Barnstable's Strawberry Hill Road project, Barnstable's Route 28 East project, and Nantucket have constructed pump improvements that will greatly increase the capacity and efficiency of their systems.
- Chatham and Nantucket improved, repaired, or expanded their wastewater collection systems to reduce the amount of untreated wastewater being discharged into the environment.

Borrower	Project Description	Amount
Barnstable	**Strawberry Hill Road Sewer Expansion** The Strawberry Hill Road Sewer Expansion Project is installing approximately 19,000 liner feet (LF) of gravity sewer, 9,300 LF of sewer force main and 1 new pump station (PS). The project will provide a significant portion of the sewer infrastructure needed to address the wastewater needs of the Centerville River Watershed. The project was identified in the Town's Wastewater Plan and involves the installation of sewer infrastructure to accommodate future sewer expansion. The scope of work includes the installation of gravity sewer along Route 28 and a sewer force main in Yarmouth Road to connect the future "Old Yarmouth Road" sewer expansion to the existing collection system, and multiple force mains within Route 28. Barnstable has 27 wastewater PSs. Many of them have equipment that is well over its useful life and requires replacement to prevent anticipated major failures, which impact public health and the environment. Further, this project includes upgrades and modifications to the existing water pollution control facility, with the addition of two gravity belt thickening units as well as the replacement of other aged systems that have exceeded their useful life. The project will replace or rehabilitate sludge pumps, dry polymer system, sludge holding tanks and blowers, odor control system, instrumentation systems, and other architectural and mechanical systems.	$9,797,085
Barnstable	**Route 28 and Yarmouth Road Intersection Sewer** The project involves the installation of sewer infrastructure to accommodate future sewer expansion identified in the Town's wastewater plan. The Town is partnering with the Massachusetts Department of Transportation to include the installation of sewer infrastructure while the agency completes intersection improvements. The Town's scope of work includes the installation of gravity sewer along Route 28 for future sewer expansion, a sewer force main in Yarmouth Road which will connect the future "Old Yarmouth Road" sewer expansion to the existing collection system and multiple force mains within Route 28 that could accommodate a potential future wastewater partnership with the Town of Yarmouth.	$1,241,494
Barnstable	**Route 28 East Sewer Expansion Project** This project includes construction of approximately 11,000 linear feet of gravity sewer and a new pump station. Once operational, the new infrastructure will handle approximately 1.5 million gallons per day (MGD) of average daily flow. This project is a critical element of building an extensive wastewater collection system that will eventually serve more than 7,000 properties during the town's thirty-year phased comprehensive wastewater management plan.	$13,145,127

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Borrower	Project Description	Amount
Chatham	**Sewer Extension** This project includes extending sewers to serve portions of the Taylors Pond/Mill Creek, Pleasant Bay and Stage Harbor watersheds. The project consists of multiple construction contracts. These sewer extensions will allow Chatham to continue implementing their approved Comprehensive Wastewater Management Plan (CWMP) and addressing nitrogen loading from septic systems by extending the wastewater collection system to serve properties within the watersheds impacting the Town's coastal estuaries.	$13,104,638
Nantucket	**Sea St. Pump Station (PS) Force Main No. 3** The Sea Street PS pumps flow from Nantucket's collection system to the Surfside Wastewater Treatment Plant (WWTP) through one of two force mains. There is a 20-inch ductile iron force main and a cast iron force main, rehabilitated with a 16-inch polyethylene pipe. In January 2018, the rehabilitated pipe suffered a failure leading to a sanitary sewer overflow (SSO) and discharge of at least 2 million gallons of untreated sewage into Nantucket Harbor. Since the force main break, the Town has determined that due to the age and condition of the existing force mains, a new pipeline should be constructed to mitigate the risk of future SSO's and provide needed system resilience.	$27,519,978

Combined Sewer Overflow (CSO) Correction Projects

CSOs are events where a combined sewer system fails to collect rainwater, domestic sewage, and industrial wastewater in the same pipe as intended. When these systems exceed their capacity, untreated water can discharge directly into a water body. CSO correction projects are associated with measures used to achieve water quality objectives by preventing or controlling periodic discharges that occur when the capacity of a sewer system is exceeded during a wet weather event.

Combined Sewer Overflow (CSO) Correction Projects			
Total Amount in Dollars ($)	**Total Number of Projects**	**Total Series 25 Amount in Dollars ($)**	**Total Number of Series 25 Projects**
$1,653,804,533	165	$49,982,948	2

Series 25 Combined Sewer Overflow Correction Project Impact

- Lynn Water and Sewer Commission (LWSC) and Springfield Water and Sewer Commission (SWSC) have implemented methods of protecting public resources by installing and repairing systems that mitigate CSO.
- SWSC took extraordinary measures to reduce CSOs by tunneling under the Connecticut River to provide more capacity and backup handling for wet weather events.

Borrower	Project Description	Amount
Lynn Water and Sewer Commission	**West Lynn Sewer Separation** The Lynn Water and Sewer Commission has entered a third modified consent decree with the Environmental Protection Agency to implement a long-term control plan to reduce combined sewer overflow (CSO) discharges to local receiving waters. The West Lynn Sewer Separation project is the first of several projects included in the plan to mitigate CSO discharges into the Lynn Harbor.	$48,333,235
SWSC	**York Street Pump Station (PS) and Connecticut River Crossing** Consistent with the SWSC's Integrated Wastewater Plan, the York Street PS and Connecticut River Crossing project will increase the wet weather flow to the Springfield Regional Wastewater Treatment Facility (WWTF), substantially reducing the volume and frequency of Combined Sewer Overflow (CSO) events from multiple regulators across the Connecticut River CSO system. The project includes a new 62 million gallons per day wastewater pumping station and screening facility, 3 new pipes crossing under the Connecticut River to the Springfield Regional WWTF, and modification to the Springfield Regional WWTF influent structure.	$1,649,713

Non-Point Source (NPS) Sanitary Landfill Project

NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff water moves, it picks up and carries away natural and human-made pollutants, finally depositing them into ground and surface waters. Ensuring that landfills are properly capped, maintained, and monitored is necessary to avoid water contaminants leaks into local waters. NPS landfill projects can include purchase, installation, and repair of capping systems (gas venting layer, geosynthetics, barrier layer, top cover, etc.), leachate collection, storage, and treatment systems (onsite or off-site), side slope seepage prevention and control systems, gas condensation systems, monitoring wells and equipment, and stormwater runoff controls.

Non-Point Source (NPS) Sanitary Landfill			
Total Amount in Dollars ($)	**Total Number of Projects**	**Total Series 25 Amount in Dollars ($)**	**Total Number of Series 25 Projects**
$89,421,336	37	$873,885	1

Series 25 Non-Point Source (NPS) Sanitary Landfill Project Impact

- Barnstable County installed capping to the stormwater systems to prevent Per- and Polyfluoroalkyl Substances (PFAS) from penetrating the system. This was a rare example of the CWSRF utilizing funds to reduce PFAS spread and exposure, which normally, and predominantly, falls under the DWSF.

Borrower	Project Description	Amount
Barnstable County	**Emergency Site Capping - Per- and Polyfluoroalkyl Substances (PFAS) Treatment** The County constructed a capping system and stormwater improvements to reduce infiltration from stormwater and runoff into PFAS-contaminated soil at the Barnstable County Fire and Rescue Training Academy (BCFRTA) facility, and thereby mitigated leaching of PFAS from soil to the underlying groundwater located within several Hyannis municipal wells.	$873,885

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Planning Projects

Projects in this category are for developing plans to address water quality and water quality-related public health problems. Planning projects can consist of multiple types of investigations. Field investigations are used to view the state of current water infrastructure assets to identify and prioritize design, maintenance, and replacement activities. Sensor and field analysis can be used as part of a larger analysis that consists of plans to adopt best management practices and capital improvements. These projects assist municipalities with determining environmental issues that may be affecting local water sources or endangering public health.

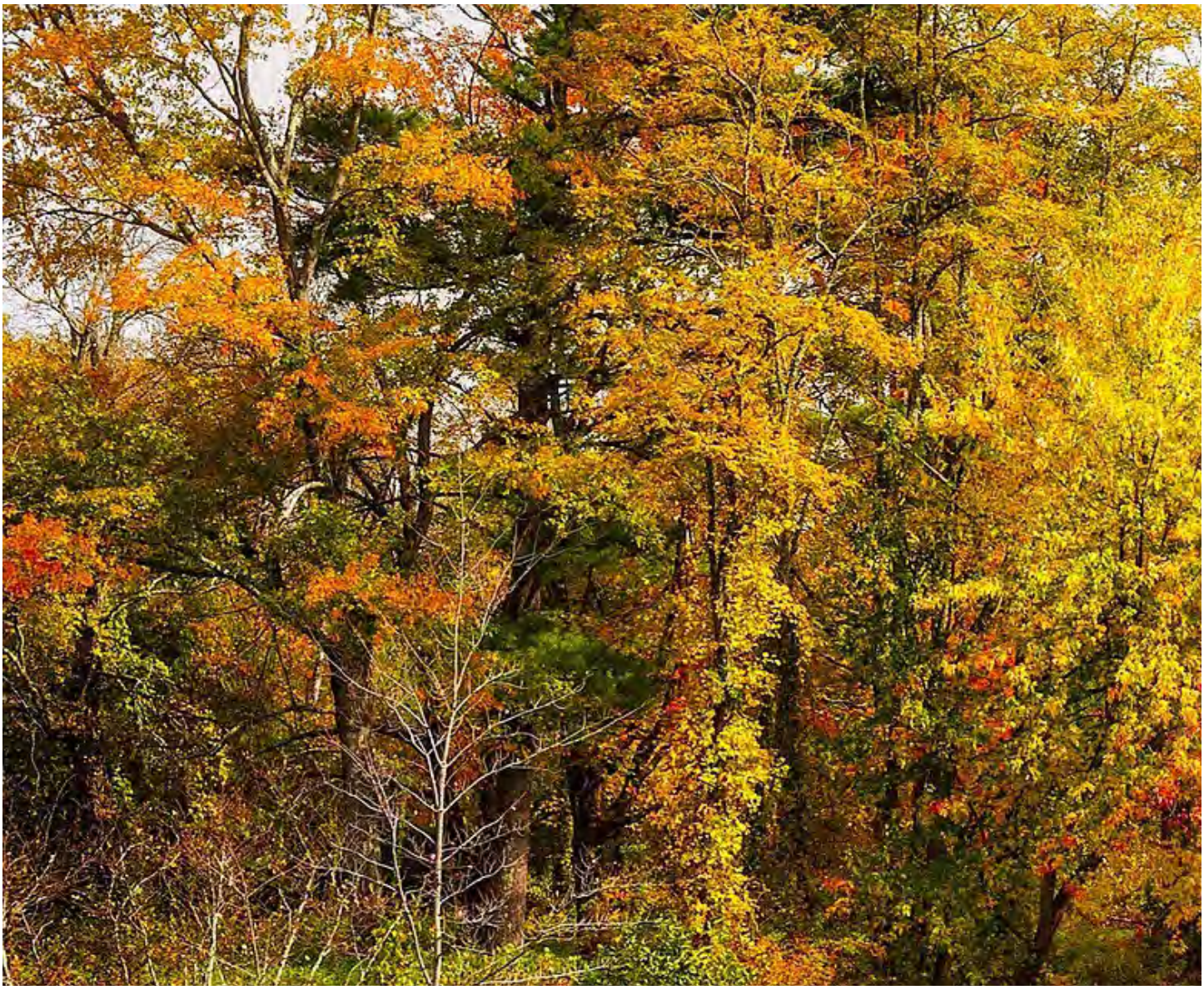
Planning Projects			
Total Amount in Dollars ($)	**Total Number of Projects**	**Total Series 25 Amount in Dollars ($)**	**Total Number of Series 25 Projects**
$372,627,036	360	$8,006,700	6

Series 25 Planning Projects Impact

- Millbury, New Bedford, Quincy, and Revere initiated investigations into Illicit Discharge and installed Illicit Discharge detection systems which will help mitigate the effects of illegal discharge into their sewer systems by sump pumps, roof ladders, and other illicit sources.
- Fall River and Fitchburg implemented data collection systems that will better investigate and inform replacement decisions which is a cost savins for their system maintenance.

Borrower	Project Description	Amount
Fall River	**Asset Management Planning (AMP) Loan** This AMP project conducted an asset inventory, condition assessment, and criticality/risk evaluation of the City's wastewater treatment facility. The information gathered was used to develop data driven renewal and replacement decisions and was imported to the City's integrated (drinking water, wastewater, and stormwater) asset management software system.	$28,000
Fitchburg	**Combined Sewer Overflow (CSO) 010, 032, 045, 083 Separation/Rehabilitation** The City's Wastewater Treatment Facility (WWTF) Improvements project is the second phase of a complete WWTF rehabilitation/upgrade for reliable National Pollutant Discharge Elimination System compliance and to address water quality and public health and safety issues.	$1,048,700
Millbury	**Municipal Separate Storm Sewer System (MS4) Permit Compliance** The project will assist Millbury in complying with the requirements of their MS4 Permit, which regulates stormwater discharges. The project focuses on tasks related to improving water quality where the impairment is phosphorus or bacteria. This includes the development of a phosphorus control plan for Brierly Pond, Dorothy Pond, Howe Reservoir, and Pondville Pond; the development of a phosphorus source identification report for the Blackstone River, illicit discharge detection and elimination investigations in high priority areas, and wet weather outfall screening and sampling of outfalls that discharge directly to the Blackstone River.	$500,000
New Bedford	**Sewer and Stormwater System Illicit Discharge Detection and Elimination (IDDE) Program** This project facilitated progress of the city's IDDE program, to meet requirements of the 2017 Massachusetts Municipal Separate Storm Sewer System Permit and draft administrative order that was being negotiated. The city had screened 50 percent of stormwater outfalls for signs of illicit discharges. This project consisted of two phases 1) screening the remaining outfalls and 2) performing upstream investigations (dry weather manhole testing, dye testing, closed caption TV, etc.) of systems that indicated potential illicit discharges during screening	$1,750,000

Borrower	Project Description	Amount
Quincy	**Stormwater Drainage and Management Planning Study** Quincy evaluated its drainage system capacity to determine the causes of flooding identified in the Drainage Capital Improvement Study. Geographic information system (GIS) data, field visits, and surveys will be used to develop conceptual mitigation measures that can be implemented as capital improvements to reduce flooding frequency, duration, and/or extents, along with potential water quality improvements. The Study also focused on improving water quality of receiving water bodies by evaluating past and future projects to comply with the City's Small Municipal Separate Storm Sewer System (MS4) Permit Year 4 and 5 requirements. This planning study included an illicit discharge investigation that integrates sewer/drain improvements and generates prioritized water quality improvement projects for consideration as capital improvement programs.	$3,180,000
Revere	**Phase 13 Investigations- Inflow and Infiltration (I/I) and Illicit Discharge Detection and Elimination (IDDE)** The City of Revere's Phase 13 Field Investigations, IDDE, and Illicit Connections and sump pump investigation programs included common investigative elements such as: closed-circuit television of drains and sewers throughout the city, dye testing, smoke testing, wastewater and storm water pump station inspections, and inspections of private homes and businesses to identify sources of I/I from sump pumps, roof leaders, roof drains, driveway drains, yard drains and other sources of I/I. The findings of these investigations will be incorporated in future construction projects to address the identified deficiencies.	$1,500,000



Section III • Series 25 Drinking Water State Revolving Fund Projects

Drinking Water Treatment Projects

Treatment projects include the construction, expansion and rehabilitation of drinking water infrastructure that reduces contamination through various treatment processes. Such processes aim to condition water or remove contaminants. Treatment processes include filtration of surface water, pH adjustment, softening, disinfection, waste handling, and other treatment needs (i.e., granular activated carbon which filters out chemicals, particularly organic chemicals, aeration, and iron and manganese removal) along with chemical storage tanks.

Upgrades and maintenance to water treatment plants leads to improved water quality and system efficiency. Replacing equipment that has reached the end of its useful life along with upgrading filtering and purifying equipment makes these facilities less susceptible to failures that could endanger public health. Additionally, system improvements such as corrosion control help keep the public safe from issues related to older cast iron pipes and lead service lines. Upgraded equipment generally leads to more efficient facilities that consume less power and improves worker safety.

Drinking Water Treatment Projects			
Total Amount in Dollars ($)	**Total Number of Projects**	**Total Series 25 Amount in Dollars ($)**	**Total Number of Series 25 Projects**
$1,340,119,325	254	$101,087,101	11

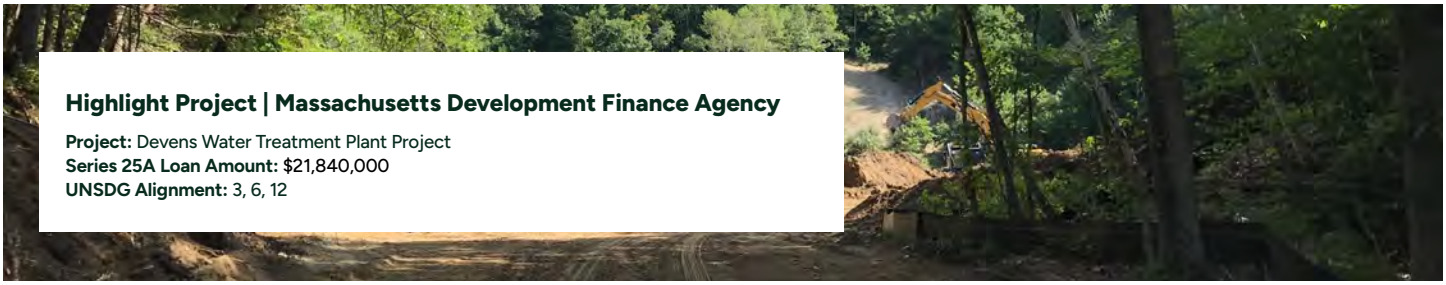
Series 25 Drinking Water Treatment Impact

- Burlington, Hudson, Littleton, Mansfield Massachusetts Development Finance Agency, North Attleborough, and Westfield implemented projects that will reduce the levels of Per- and Polyfluoroalkyl Substances (PFAS) found within their drinking water systems including well water systems, improving public health.
- Leominster and SWSC improved and replaced backwash systems and granular activated carbon systems to stay in compliance with the Stage two Disinfection By-Product Rule.
- Dracut Water Supply District implemented measures to reduce iron and manganese levels in wells to below the secondary maximum contaminant levels and MassDEP's Office of Research and Standards Guidelines limits.

Borrower	Project Description	Amount
Burlington	**Mill Pond Water Treatment Plant - Per- and Polyfluoroalkyl Substances (PFAS)** The town constructed a new system at the Mill Pond Treatment Plant to remove or mitigate existing PFAS concentrations within the Town's water supply system.	$10,567,762
Dracut Water Supply District	**Water System Improvements** This project is intended to reduce iron and manganese levels in the District's Tyngsborough wells to below the secondary maximum contaminant levels and MassDEP's Office of Research and Standards Guidelines limits. The project also includes a new sole transmission main and a water storage tank to increase capacity to meet current demands and create redundancies.	$9,611,848
Hudson	**Chestnut Street Per- and Polyfluoroalkyl Substances (PFAS) Treatment System** The Town of Hudson's Chestnut Street PFAS Treatment System project involved expanding the existing temporary PFAS removal system at the Chestnut Street Water Treatment Plant (WTP) to include a third treatment train in addition to the two existing trains in response to elevated levels of PFAS in the Town's groundwater supply. The third treatment train included an additional two ion-exchange vessels in a lead-lag configuration. The resulting system consists of three treatment trains, each with a design capacity of 50% of the plant's maximum flow, and all appurtenant piping and valves. The treatment process expansion included piping modifications, expansion of the existing concrete support slab and foundation, and installation of a building with all associated electrical, lighting, and HVAC systems.	$4,116,611
Leominster	**Notown and Fallbrook Water Treatment Plant (WTP) Upgrades** The City of Leominster has changing raw water quality that has resulted in elevated levels of disinfection by-products (DBPs). This project incorporates activated carbon at the Notown WTP and the replacement of the existing granular activated carbon system at the Fallbrook WTP to reduce DBPs.	$5,691,997

Section III • Series 25 Drinking Water State Revolving Fund Projects

Borrower	Project Description	Amount
Littleton	**Iron, Manganese, and Per- and Polyfluoroalkyl Substances (PFAS) Water Treatment Plant (WTP)** The Town's WTP project included installation of piping water from Spectacle Pond to Whitcomb Ave and a new combined WTP, rather than two separate WTPs at Spectacle Pond and Whitcomb Ave. The WTP includes biological filtration for iron and manganese removal and granular activated carbon (GAC) filters for PFAS removal. The two largest source waters operated by Littleton are currently limited by pumping capacity and water quality. The Spectacle Pond well has elevated levels of iron, manganese, and PFAS above the regulatory limits. This is the town's largest source of water and can only currently be operated through blending. The existing Spectacle Pond WTP was outdated and in need of repair. The Whitcomb Avenue wells also have elevated levels of iron and manganese and detectable levels of PFAS.	$19,627,950
Mansfield	**Walsh Well Per- and Polyfluoroalkyl Substances (PFAS) Treatment System and Well Upgrades** Mansfield installed new gravel pack wells to replace the existing wellfield and reduce maintenance requirements and constructed of a new granular activated carbon based PFAS treatment system to allow the source to distribute water meeting all regulatory criteria. The project involved installation and testing of new groundwater wells, construction of a new water filtration facility, upgrades to existing electrical and controls systems to replace aging infrastructure and accommodate the new wells and treatment building, and associated site improvements.	$4,787,791
Mansfield	**Cate Springs Well Per- and Polyfluoroalkyl Substances (PFAS) Treatment System** The Town's Cate Springs Well PFAS Treatment System project involved the construction of a PFAS removal treatment system including granular activated carbon (GAC) pressure vessels at the Cate Springs Well site. The treatment system included 4-6 GAC pressure vessels and included piping modifications, upgrades to the existing building at the site (utilized for hydrant, valve, and other parts inventory storage) including associated electrical and lighting and heating, ventilation, and air conditioning systems necessary for the new treatment system. Instrumentation and controls system upgrades were included to ensure the new system was fully integrated into the existing treatment process which previously only included chemical addition treatment.	$3,522,274
Massachusetts Development Finance Agency	**Devens Water Treatment Plant (WTP) Project** The Town of Devens' project consists of constructing two 1.44 million gallons a day WTPs for iron and manganese removal and Per- and Polyfluoroalkyl Substances (PFAS) treatment for Devens' existing wells. The project includes a GreensandPlus™ pressure filtration system, Granular Activated Carbon filters, Ion Exchange contact chambers, chemical feed systems, backwash recycling system, settled solids waste system, baffled clearwell and ancillary equipment and controls at both WTPs. Also included is the construction of a new finished water main for the Patton WTP, new raw water, finished water mains for the Shabokin WTP, and site restoration and miscellaneous work and cleanup necessary to provide complete and fully operational water treatment plants.	$21,840,000
North Attleborough	**Adamsdale Well Per- and Polyfluoroalkyl Substances (PFAS) Treatment Facility** North Attleborough constructed a PFAS removal treatment system including granular activated carbon pressure vessels at the Adamsdale Well site. The new system includes two pressure vessels and piping modifications, construction of a new pre-engineered building with associated electrical, lighting, and heating, ventilation, and air conditioning systems. Instrumentation and control systems upgrades were included to fully integrate the new system into the existing treatment process, which previously included only chemical addition. Concurrently, the addition of a sodium fluoride chemical feed system was coordinated with the PFAS treatment system.	$3,106,417
SWSC	**Clearwell and Backwash Pump Station (PS) Replacement** A new 1 million-gallon a day (MGD) clearwell and associated backwash PS replaced old, failing facilities that were needed to maintain reliable operation of the 60 MGD water production. The failing facilities were adversely impacting water quality being produced, contributing to maximum contamination level exceedances of haloacetic acids that have resulted in non-compliance with the Stage 2 Disinfection By-Products Rule.	$8,567,159
Westfield	**Dry Bridge Road Per- and Polyfluoroalkyl Substances (PFAS) Water Treatment Plant (WTP)** Westfield's Dry Bridge Road PFAS WTP project included construction of a new treatment plant with four granular activated carbon contactors and three chemical storage and feed systems, upgrades to Wells 1 and 2, interconnecting raw water pipelines from Wells 1 and 2, and the installation of a new treated water main from the WTP to the distribution system. This project allows Westfield to reduce PFAS found within its drinking water sources below levels of concern. PFASs have been detected in Westfield's production Wells 1, 2, 7, and 8.	$9,647,292



Highlight Project | Massachusetts Development Finance Agency

Project: Devens Water Treatment Plant Project
Series 25A Loan Amount: $21,840,000
UNSDG Alignment: 3, 6, 12

Background
The Devens Regional Enterprise Zone (Devens) is a 4,400-acre former military facility located in north-central Massachusetts, bordering Worcester and Middlesex Counties, 30 miles northwest of Boston, and situated near the Nashua River. The Massachusetts Development Finance Agency (MassDevelopment) is responsible for the reuse, redevelopment, and operation of Devens, providing all municipal services to a drinking water population of approximately 6,100 people. The Devens water system serves residential, commercial, industrial, and municipal users and includes approximately 354 service connections.

The Project
Initial studies have shown that Greensand Plus filtering media effectively removes high concentrations of iron and manganese, while PFAS treatment systems using Granular Activated Carbon (GAC) and Ion Exchange (IX) contact chambers successfully eliminate PFAS from source water. The project involves constructing two 1.44 million gallons per day (MGD) water treatment plants (WTPs) at the Patton and Shabokin well sites. The Patton WTP will treat water from the existing well, and the Shabokin WTP will treat water from both the existing Shabokin Well and the future Sheridan Well. The new facilities will include new Greensand Plus pressure filtration systems for iron and manganese removal, GAC filters followed by IX contact chambers for PFAS removal, new chemical feed systems, a backwash recycling system, a settled solids waste system, a baffled Clearwell, and the necessary ancillary equipment and controls. Additionally, the project includes constructing new water mains for both WTPs, site restoration, and miscellaneous work to ensure fully operational facilities.

Environmental Impact and Public Health Impact
The project will implement energy efficiency measures, including new water-saving fixtures, variable frequency drive pumps, energy-efficient heating, ventilation, and air conditioning equipment, energy-efficient lighting, and optimized chemical feed systems. These improvements will result in energy savings and reduce the overall carbon footprint of the water distribution system. By constructing new WTPs to remove iron, manganese, and PFAS concentrations, public health and safety will be significantly improved. Elevated levels of manganese pose a public health risk, as identified by MassDEP's recent Office of Research & Standards guideline, which closely follows the EPA Health Advisory for manganese. Humans exposed to high levels of PFAS may experience adverse health effects, including hepatic, cardiovascular, endocrine, immune, reproductive, and developmental effects. Studies have also found that exposure to elevated levels of PFAS may cause developmental effects in fetuses during pregnancy and in breast-fed infants.

Economic Impact
The Devens water treatment project is estimated to cost just over **$27.0 million**. To help manage these costs, the project is eligible for two incentive programs. First, it will receive **20%** loan forgiveness through the American Rescue Plan Act (ARPA), saving nearly **$5.5 million**. Second, the project qualifies for a **0%** PFAS Mitigation Loan program, which will save approximately **$6.0 million** in loan interest over twenty years. These incentives make it easier for public water providers to address serious public health dangers while minimizing the financial impact on residents.

Source: *MassDevelopment, Devens Water Treatment Plant*

Drinking Water Transmission and Distribution Projects

These projects are for installing, replacing, or rehabilitating transmission lines that carry drinking water from the source to the treatment plant or from the treatment plant to the consumer. Items such as pipes for raw and finished water transmission, service lines, valves, backflow prevention, water meters, and pumping stations may be components of these projects.

Replacing or repairing transmission lines improves water quality, system pressure, and reliability. Additionally, the replacement and relocation of lines may be needed to improve the overall efficiency of a system that was designed for a smaller and less expansive community. The older practice of grouping transmission lines can lead to water distribution issues if one begins to leak and causes physical damage to the surrounding soil and adjacent transmission lines. Replacement of lead service lines reduces the risk of lead exposure and removes a public safety risk.

Drinking Water Transmission and Distribution Projects			
Total Amount in Dollars ($)	**Total Number of Projects**	**Total Series 25 Amount in Dollars ($)**	**Total Number of Series 25 Projects**
$930,209,684	341	$28,803,893	7

Series 25 Drinking Water Transmission and Distribution Projects Impact

- Brockton, Dighton Water District, and Orange have constructed broad improvement projects that have replaced hydrants that were beyond their useful life contributing to improved public safety.
- Dighton Water District, Eastham, Lowell, and MWRA have initiated projects that span large distances (up to 11 miles) to increase redundancy of their current systems and improve access to their systems for residence of the Commonwealth.
- Somerset replaced booster pump stations which are crucial to a system's ability to pump water long distances and to higher elevations. This will reduce dead water withing the system and reduces water age, increasing system longevity and preserving public health.

Borrower	Project Description	Amount
Brockton	**Transmission Main Valve Replacement Project Phase 2** This project will work on twin 24-inch transmission mains and a 36-inch transmission main from Brown's Crossing to the City limits. The work will include replacement of crossover piping and valves, replacement of transmission main gate valves and installation of hydrants.	$1,179,951
Dighton Water District	**Main Street Water Main Replacement** The Dighton Water District's project includes installation of approximately 11,600 linear feet (LF) of 12-inch ductile iron (DI) water main 100 LF of 10-inch DI water main and 60 LF of 8-inch DI water main including hydrants, gate valves and service connections along Main Street between Williams Street and the intersection with Pleasant Street and Somerset Avenue.	$3,018,400
Eastham	**Eastham Water System- Phase 2D** The Town of Eastham's Water System - Phase 2D project consists of constructing the third well field at District H and installation of 11 miles of water main for the newly built Town-wide municipal water system.	$9,310,036
Lowell	**Transmission Main Connection** The City of Lowell's transmission main connection project involves installation of approximately 4,000 linear feet of transmission main as an extension to a previously installed water main needed to provide redundancy from the Water Treatment Facility to the existing distribution system.	$4,831,501
Massachusetts Water Resources Authority (MWRA)	**Weston Aqueduct Supply Main Rehabilitation** The Weston Aqueduct Supply Main 3 (WASM 3) is an existing 10-mile, 56-inch to 60-inch diameter, steel water main that supplies the communities of Waltham, Watertown, Belmont, Arlington, Lexington, Bedford and Winchester. In addition, the pipe conveys flow to the MWRA's Intermediate High, Northern High, and Northern Extra High-pressure systems. The pipe was built in the 1920's and needed repair due to frequent leaks and aging valves and appurtenances. It serves as a primary means of backup supply within the MWRA's distribution system in the event of a failure along the City Tunnel and City Tunnel Extension.	$8,885,025

Section III • Series 25 Drinking Water State Revolving Fund Projects

Borrower	Project Description	Amount
Orange	**North Main Street Water Main Replacement** The Work consists of replacement of approximately 2,300 linear feet of existing water mains with new ductile iron pipe along North Main Street. Included with this work is replacement of water services, valves, hydrants, and similar appurtenances associated with the project.	$674,815
Somerset	**Booster Pump Station (PS) and High Service Area Rehabilitation** Somerset replaced a booster PS to re-establish the high service area in the Town's distribution system. The previous booster PS was no longer operable and required the distribution system to operate at one pressure zone. The replacement of the booster PS allowed the re-establishment of the high service zone, which reduces the total dead water storage within the distribution system and lowers the water age. A total trihalomethanes (TTHM) removal system was also added to the tanks within the low service area to address disinfection by-products exceedances.	$904,165

Drinking Water Source and Storage Projects

This project category is for developing or improving sources of water used in public water systems. Project costs include those for constructing or rehabilitating surface water intake structures, drilled wells, wellhead pumps, and spring collectors. Having multiple sources of raw water is a standard precaution to make sure that water supplies are not endangered or cut off. Source protection and testing are necessary to confirm that raw water quality can be properly purified at the intended water treatment plant. Excessive amounts of toxins or pollutants in raw water can cause efficiency issues once raw water reaches a water treatment plant. Pumping, well maintenance, and water extraction must be monitored to ensure that water quality at the source is not impacted by these activities.

Storage projects in this category aim to provide finished water storage for public water systems. Examples may include systems involving elevated and ground level storage for treated water and covers for existing storage. Storage tanks and the systems they employ are vital components of a water distribution system. Tanks are used to ensure the water supply when there may be issues with supply lines or when maintenance is being performed. Upgraded systems that chlorinate water or monitor water quality are more efficient with advanced systems. This means that water quality is more consistent and requires less human maintenance.

Drinking Water Source and Storage Projects			
Total Amount in Dollars ($)	**Total Number of Projects**	**Total Series 25 Amount in Dollars ($)**	**Total Number of Series 25 Projects**
$243,029,206	128	$1,986,600	1

Series 25 Drinking Water Source and Storage Projects Impact

- Fitchburg replaced an existing half million gallons water storage tank addressing system deficiencies, while maintaining functional and current storage levels.

Borrower	Project Description	Amount
Fitchburg	**Oak Hill Water Storage Tank Replacement** The City of Fitchburg replaced an existing 0.5-million-gallon water storage tank and coating rehabilitation for two additional water storage tanks within the City's water distribution system. The storage tank replacement addressed an existing Administrative Consent Order. The project addressed deficiencies within the existing storage tanks and maintains the existing storage capability and operations of the water distribution system.	$1,986,600

Drinking Water Planning and Design Projects

These projects involve the activities needed to plan for design and/or study drinking water infrastructure. Planning and design projects are essential for maintaining and improving the key infrastructure that protects public health and water quality. These activities may include using geographic information services (GIS) to map infrastructure, develop asset management plans to better track capital cost, and system maintenance. Additionally, these projects may be used to determine system improvement needs related to water loss, emerging contaminants, and numerous other issues that may affect the effectiveness of a system's ability to provide safe drinking water to a community.

Drinking Water Source and Storage Projects			
Total Amount in Dollars ($)	**Total Number of Projects**	**Total Series 25 Amount in Dollars ($)**	**Total Number of Series 25 Projects**
$11,808,047	22	$220,000	1

Series 25 Drinking Water Transmission and Distribution Projects Impact

- East Brookfield investigated implementation of a new sole water storage and treatment plant which included in-depth site analysis and system performance analysis, implementation of which will develop strategies necessary to improve water quality.

Borrower	Project Description	Amount
East Brookfield	**Planning for Systemwide Water Quality Improvements** This project included the preliminary planning, and investigations required for the design of a new sole water storage tank and sole Water Treatment Plant (WTP) to meet the requirements of the Administrative Consent Order issued by MassDEP. Tasks for the WTP included preliminary site analysis, treatment pilot for iron and manganese removal, and conceptual floor plan designs. A new water storage tank is necessary to maintain minimum pressure throughout the system and provide more usable storage. Tasks for the tank included preliminary site analysis, tank style analysis, and hydraulic evaluation. Additionally, a Unidirectional Flushing Program was developed using the Town's hydraulic model to improve water quality in the distribution system.	$220,000

Appendix A - Series 25 Projects - Projects associated with Series 25 Sustainability Bonds are highlighted in light green.

Borrower	Loan Number	Project Name	Amount	Percentage Completed[1]	Program	Category	DC Tier	UN SDG
Abington	CWP-21-01	Summer St. Force Main Replacement Project	$5,490,763	70%	CW	Infiltration/Inflow and Sewer System Rehabilitation	1	3, 6, 14
Adams	CWP-21-24	Wastewater Treatment Facility (WWTF) Capital Improvements	$5,951,006	92%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Adams	CWP-21-24-A	Wastewater Treatment Facility (WWTF) Capital Improvements	$597,000	90%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Barnstable	CWP-20-23	Strawberry Hill Road Sewer Expansion	$9,458,635	63%	CW	Collector and Interceptor Sewers	1	3, 6, 14
Barnstable	CWP-20-23-A	Strawberry Hill Road Sewer Expansion	$338,450	50%	CW	Collector and Interceptor Sewers	1	3, 6, 15
Barnstable	CWP-20-24	Route 28 and Yarmouth Road Intersection Sewer	$1,241,494	12%	CW	Collector and Interceptor Sewers	1	3, 6, 14
Barnstable	CWP-20-18	Wastewater Pump Station (PS) Improvements Project	$576,776	89%	CW	Infiltration/Inflow and Sewer System Rehabilitation	1	3, 6, 14
Barnstable	CWP-20-43	Solids Handling Upgrade Project	$7,346,134	82%	CW	Wastewater Treatment	1	3, 6, 12
Barnstable	CWP-20-43-A	Solids Handling Upgrade Project	$765,864	96%	CW	Wastewater Treatment	1	3, 6, 12
Barnstable	CWP-21-49-A	Route 28 East Sewer Expansion Project	$908,504	85%	CW	Collector and Interceptor Sewers	1	3, 6, 14
Barnstable	CWP-21-49	Route 28 East Sewer Expansion Project	$12,236,623	48%	CW	Collector and Interceptor Sewers	1	3, 6, 14
Barnstable County	CWP-20-44	Emergency Site Capping - Per- and Polyfluoroalkyl Substances (PFAS) Treatment	$873,885	100%	CW	Non-Point Source (NPS) Sanitary Landfill	1	3, 6, 12, 14
Bellingham	CWT-19-13	Community Septic Management Project	$600,000	100%	T5	NPS Decentralized Wastewater Treatment System	1	3, 6, 12, 14
Brockton	DWP-20-24	Transmission Main Valve Replacement Project Phase 2	$1,179,951	51%	DW	Drinking Water Transmission and Distribution	3	3, 6, 9, 10, 11, 12
Burlington	DW-22-03	Mill Pond Water Treatment Plant - Per- and Polyfluoroalkyl Substances (PFAS)	$10,567,762	95%	DW	Drinking Water Treatment		3, 6, 12
Chatham	CW-19-47	Sewer Extension	$11,152,091	46%	CW	Collector and Interceptor Sewers		3, 6, 14
Chatham	CW-19-47-A	Sewer Extension	$1,952,547	44%	CW	Collector and Interceptor Sewers		3, 6, 14
Chicopee	CWP-20-32	Solids Handling Improvements Project	$4,471,798	89%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Cohasset	CWT-17-07-A	Community Septic Management Project	$50,000	100%	T5	NPS Decentralized Wastewater Treatment System		3, 6, 12, 14
Dighton Water District	DWP-21-17	Main Street Water Main Replacement	$3,018,400	94%	DW	Drinking Water Transmission and Distribution	1	3, 6, 12
Dracut Water Supply District	DWP-20-18-A	Water System Improvements	$9,611,848	92%	DW	Drinking Water Treatment	1	3, 6, 12
East Brookfield	DW-21-09	Planning for Systemwide Water Quality Improvements	$220,000	100%	DW	Drinking Water Planning and Design	2	3, 6, 12
Eastham	DWP-21-10	Eastham Water System- Phase 2D	$9,310,036	51%	DW	Drinking Water Transmission and Distribution	2	3, 6, 12
Easton	CWT-21-10	Community Septic Management Project	$500,000	100%	T5	NPS Decentralized Wastewater Treatment System		3, 6, 12, 14
Essex	CWT-17-31	Community Septic Management Project	$307,944	100%	T5	NPS Decentralized Wastewater Treatment System		3, 6, 12, 14
Fall River	CWA-20-26	Asset Management Planning (AMP) Loan	$28,000	100%	CW	Planning	3	3, 6, 9, 10, 11, 12, 14
Fitchburg	CW-21-07	Combined Sewer Overflow (CSO) 010, 032, 045, 083 Separation/Rehabilitation	$1,048,700	92%	CW	Planning	3	3, 6, 9, 10, 11, 12, 14
Fitchburg	DWP-22-40	Oak Hill Water Storage Tank Replacement	$1,986,600	96%	DW	Drinking Water Source and Storage	3	3, 6, 9, 10, 11, 12
Haverhill	CWP-21-40-A	Sewer System Improvements	$753,965	65%	CW	Infiltration/Inflow and Sewer System Rehabilitation	2	3, 6, 14
Haverhill	CWP-21-40	Sewer System Improvements	$7,194,818	54%	CW	Infiltration/Inflow and Sewer System Rehabilitation	2	3, 6, 14
Hudson	DWP-21-04	Chestnut Street Per- and Polyfluoroalkyl Substances (PFAS) Treatment System	$4,116,611	92%	DW	Drinking Water Treatment	1	3, 6, 12
Ipswich	T5-11-0200-B	Community Septic Management Project	$300,000	100%	T5	NPS Decentralized Wastewater Treatment System		3, 6, 12, 14
Lawrence	CWP-21-25	Sewer and Drainage System Improvements	$2,168,250	76%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Leominster	DWP-20-26	Notown and Fallbrook Water Treatment Plant (WTP) Upgrades	$5,691,997	90%	DW	Drinking Water Treatment	2	3, 6, 12
Littleton	DW-21-01	Iron, Manganese, and Per- and Polyfluoroalkyl Substances (PFAS) Water Treatment Plant (WTP)	$19,627,950	73%	DW	Drinking Water Treatment		3, 6, 12
Lowell	DWP-21-14	Transmission Main Connection	$4,831,501	55%	DW	Drinking Water Transmission and Distribution	3	3, 6, 9, 10, 11, 12
Lynn Water and Sewer Commission	CWP-20-50	West Lynn Sewer Separation	$48,333,235	84%	CW	Combined Sewer Overflow Correction	3	3, 6, 9, 10, 11, 12, 14
Mansfield	DWP-22-02	Walsh Well Per- and Polyfluoroalkyl Substances (PFAS) Treatment System and Well Upgrades	$4,787,791	100%	DW	Drinking Water Treatment	1	3, 6, 12
Mansfield	DWP-21-02	Cate Springs Well Per- and Polyfluoroalkyl Substances (PFAS) Treatment System	$3,522,274	100%	DW	Drinking Water Treatment		3, 6, 12
Massachusetts Development Finance Agency	DW-21-05	Devens Water Treatment Plant (WTP) Project	$21,840,000	91%	DW	Drinking Water Treatment		3, 6, 12

Footnotes

[1] Series 25: All Amount and Percentage Completed sections are accurate as of June 30, 2024.

Appendix A - Series 25 Projects - Projects associated with Series 25 Sustainability Bonds are highlighted in light green.

Borrower	Loan Number	Project Name	Amount	Percentage Completed[1]	Program	Category	DC Tier	UN SDG
Medway	CWT-16-06	Community Septic Management Project	$95,265	100%	T5	NPS Decentralized Wastewater Treatment System		3, 6, 12, 14
Middleborough	CWT-22-03	Community Septic Management Project	$500,000	100%	T5	NPS Decentralized Wastewater Treatment System	2	3, 6, 12, 14
Millbury	CW-20-16	Municipal Separate Storm Sewer System (MS4) Permit Compliance	$500,000	68%	CW	Planning	2	3, 6, 12, 14
Millbury	CWP-21-21	Year 1 to 4 Sewer Rehabilitation Project	$859,000	84%	CW	Infiltration/Inflow and Sewer System Rehabilitation	2	3, 6, 14
Massachusetts Water Resources Authority (MWRA)	CW-21-56	Nut Island HW Odor Control & HVAC - Contract 7548	$29,658,241	100%	CW	Infiltration/Inflow and Sewer System Rehabilitation		3, 6, 14
MWRA	DW-21-28	Weston Aqueduct Supply Main Rehabilitation	$8,885,025	100%	DW	Drinking Water Transmission and Distribution		3, 6, 12
Nantucket	CW-20-42-A	Sea St. Pump Station (PS) Force Main No. 3	$2,367,871	52%	CW	Collector and Interceptor Sewers		3, 6, 14
Nantucket	CW-20-42	Sea St. Pump Station (PS) Force Main No. 3	$25,152,107	45%	CW	Collector and Interceptor Sewers		3, 6, 14
Nantucket	CWT-19-01-A	Community Septic Management Project	$833,574	100%	T5	NPS Decentralized Wastewater Treatment System		3, 6, 12, 14
New Bedford	CW-20-20	Sewer and Stormwater System Illicit Discharge Detection and Elimination (IDDE) Program	$1,750,000	91%	CW	Planning	3	3, 6, 9, 10, 11, 12, 14
North Attleborough	DWP-22-01	Adamsdale Well Per- and Polyfluoroalkyl Substances (PFAS) Treatment Facility	$3,106,417	76%	DW	Drinking Water Treatment	1	3, 6, 12
Northampton	CWP-19-38	Northampton Wastewater Treatment Plant (WWTP) Upgrades	$9,581,648	100%	CW	Wastewater Treatment	1	3, 6, 12
Norton	CWT-18-02	Community Septic Management Project	$373,151	100%	T5	NPS Decentralized Wastewater Treatment System	1	3, 6, 12, 14
Orange	CWP-21-52	North Main Street Water and Sewer Replacement	$1,161,236	100%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Orange	DWP-22-04	North Main Street Water Main Replacement	$674,815	100%	DW	Drinking Water Transmission and Distribution	3	3, 6, 9, 10, 11, 12
Orleans	CW-19-33-A	Downtown Area Collection System and Wastewater Treatment Facility (WWTF)	$29,704,600	93%	CW	Wastewater Treatment		3, 6, 12
Pittsfield	CWP-18-12-D	Wastewater Treatment Plant (WWTP) Nutrient Removal	$508,975	98%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Quincy	CWP-21-37	Quincy FY22 Sewer Improvements	$3,219,087	71%	CW	Infiltration/Inflow and Sewer System Rehabilitation	2	3, 6, 14
Quincy	CWP-21-37-A	Quincy FY22 Sewer Improvements	$322,507	100%	CW	Infiltration/Inflow and Sewer System Rehabilitation	2	3, 6, 14
Quincy	CW-21-09	Stormwater Drainage and Management Planning Study	$3,180,000	85%	CW	Planning	2	3, 6, 12, 14
Revere	CWP-21-35	Phase 12 Construction- Inflow and Infiltration (I/I), Illicit Discharge Detection and Elimination (IDDE), Pump Station (PS) & Drainage	$3,853,941	75%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Revere	CWP-21-35-A	Phase 12 Construction- Inflow and Infiltration (I/I), Illicit Discharge Detection and Elimination (IDDE), Pump Station (PS) & Drainage	$722,750	94%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Revere	CW-21-34	Phase 13 Investigations- Inflow and Infiltration (I/I) and Illicit Discharge Detection and Elimination (IDDE)	$1,500,000	99%	CW	Planning	3	3, 6, 9, 10, 11, 12, 14
Somerset	DWP-22-43	Booster Pump Station (PS) and High Service Area Rehabilitation	$904,165	86%	DW	Drinking Water Transmission and Distribution	2	3, 6, 12
Spencer	CWP-21-48-A	Wastewater Treatment Facility (WWTF) Upgrades Project	$3,249,800	67%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Spencer	CWP-21-48	Wastewater Treatment Facility (WWTF) Upgrades Project	$36,866,257	41%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Springfield Water and Sewer Commission (SWSC)	CWP-18-18-C	York Street Pump Station (PS) and Connecticut River Crossing	$1,649,713	98%	CW	Combined Sewer Overflow Correction	3	3, 6, 9, 10, 11, 12, 14
SWSC	CWP-21-11	Nutrient Removal Upgrade and Related Facility Improvements	$27,829,703	78%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
SWSC	DWP-21-03	Clearwell and Backwash Pump Station (PS) Replacement	$8,567,159	89%	DW	Drinking Water Treatment	3	3, 6, 9, 10, 11, 12
Stoughton	CWT-20-01	Community Septic Management Project	$300,000	100%	T5	NPS Decentralized Wastewater Treatment System	2	3, 6, 12, 14
Taunton	CWP-20-19	Wastewater Treatment Facility (WWTF) - Solids Handling Improvements	$5,406,000	93%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Taunton	CWP-20-21-A	Wastewater Treatment Facility (WWTF) Upgrade- Phase 1	$14,991,799	82%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Westfield	DWP-21-06	Dry Bridge Road Per- and Polyfluoroalkyl Substances (PFAS) Water Treatment Plant (WTP)	$9,647,292	81%	DW	Drinking Water Treatment	3	3, 6, 9, 10, 11, 12

Footnotes

[1] Series 25: All Amount and Percentage Completed sections are accurate as of June 30, 2024.

Appendix B - Series 24 Projects - Projects associated with Series 24 Sustainability Bonds are highlighted in light green.

Borrower	Loan Number	Project Name	Amount	Percentage Completed[1]	Program	Category	DC Tier	UN SDG
Ayer	DWP-20-04	Spectacle Pond Wellfield Per- and Polyfluoroalkyl Substances (PFAS) Treatment	$5,253,989	100%	DW	Drinking Water Treatment	2	3, 6, 12
Barnstable	DW-20-16	Wells Treatment Pilots, Conceptual Plans, and Layouts	$547,542	99%	DW	Drinking Water Planning and Design	1	3, 6, 12
Barnstable Fire District	DWP-20-30	Per- and Polyfluoroalkyl Substances (PFAS) Interim Rehabilitation of Well Pump Station 1	$1,362,187	96%	DW	Drinking Water Treatment	1	3, 6, 12
Billerica	CWP-19-09	Wastewater Treatment Facility (WWTF) and Pump Station (PS) Upgrades	$9,907,371	100%	CW	Wastewater Treatment	1	3, 6, 12
Billerica	CWP-19-09-A	Wastewater Treatment Facility (WWTF) and Pump Station (PS) Upgrades	$1,078,360	100%	CW	Wastewater Treatment	1	3, 6, 12
Blackstone	DWP-20-20	Blackstone Groundwater Treatment	$5,390,280	98%	DW	Drinking Water Treatment	2	3, 6, 12
Bourne	CWP-19-07	Buzzards Bay Wastewater Treatment Facility (WWTF)	$3,341,513	100%	CW	Wastewater Treatment	1	3, 6, 12
Bridgewater	CWT-20-37	Community Septic Management Program	$400,000	100%	T5	NPS Decentralized Wastewater Treatment Systems	2	3, 6, 12
Bridgewater	DWP-19-17	New High Street Water Treatment Facility (WTF)	$12,198,813	99%	DW	Drinking Water Treatment	2	3, 6, 12
Brockton	CWP-18-42-A	Wastewater Treatment Facility (WWTF) Upgrade	$939,000	96%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Brockton	CWP-19-34	2019 Sewer Rehabilitation Project	$2,264,248	75%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Brockton	CWP-19-34-A	2019 Sewer Rehabilitation Project	$332,919	53%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Brockton	CWP-20-17	Sewer Rehabilitation Project	$1,221,060	91%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Brockton	CWP-20-17-A	Sewer Rehabilitation Project	$249,577	69%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Chatham	CW-18-24	Phase 1D - Chatham/Harwich Regionalization	$5,800,258	100%	CW	Collector and Interceptor Sewers	-	3, 6, 14
Chicopee	CWP-19-42	Blue Bird Acres Sewer Pump Station (PS) and Force Main	$1,823,094	86%	CW	Collector and Interceptor Sewers	3	3, 6, 9, 10, 11, 14
Chicopee	CWP-20-31	Jones Ferry Wastewater Pump Station PS Phase II Improvements	$3,537,236	88%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Chicopee	CWP-20-31-A	Jones Ferry Wastewater Pump Station PS Phase II Improvements	$320,450	100%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Chicopee	DW-16-04-A	Redundant Water Transmission Main	$123,260	100%	DW	Drinking Water Transmission and Distribution	3	3, 6, 9, 10, 11, 12
Concord	T5-05-1243-E	Community Septic Management Program	$300,000	100%	T5	NPS Decentralized Wastewater Treatment Systems	-	3, 6, 12
Dartmouth	DWP-18-05	Action Plan to Reduce Total Trihalomethane (TTHM) Levels	$1,174,616	100%	DW	Drinking Water Treatment	1	3, 6, 12
Deerfield Fire District	DWP-20-09	Greenfield Road Water Main Replacement Project	$688,291	99%	DW	Drinking Water Transmission and Distribution	1	3, 6, 12
Dracut Water Supply District	DWP-20-18	Water System Improvements	$8,343,085	100%	DW	Drinking Water Treatment	1	3, 6, 12
Dudley	CWP-20-14	Dudley Infiltration and Inflow I/I Mitigation Construction Project	$863,107	90%	CW	Infiltration/Inflow and Sewer System Rehabilitation	2	3, 6, 14
Dudley	DWP-20-25	Dudley Drinking Water System Improvements Project	$4,059,754	91%	DW	Drinking Water Transmission and Distribution	2	3, 6, 12
East Brookfield	DWP-20-22	Water Main Replacement and Wellhouse Upgrades	$3,472,000	100%	DW	Drinking Water Transmission and Distribution	2	3, 6, 12
Eastham	DWP-19-06	Phase 2B of Town-Wide Water System	$9,722,989	100%	DW	Drinking Water Transmission and Distribution	2	3, 6, 12
Eastham	DWP-20-23	Eastham Water System - Phase 2C	$11,938,889	100%	DW	Drinking Water Transmission and Distribution	2	3, 6, 12
Easton	CW-18-25	Easton Five Corners Sewer	$10,720,026	100%	CW	Collector and Interceptor Sewers	-	3, 6, 14
Easton	CWT-20-10	Community Septic Management Program	$500,000	100%	T5	NPS Decentralized Wastewater Treatment Systems	-	3, 6, 12
Fall River	CWP-19-23	South End Sewer Pump Station (PS) Replacement	$2,911,987	98%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Fall River	CWP-19-23-A	South End Sewer Pump Station (PS) Replacement	$513,570	100%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Fall River	DWA-19-23	Fall River Asset Management Plan (AMP)	$150,000	100%	DW	Drinking Water Planning and Design	3	3, 6, 9, 10, 11, 12
Fall River	DWP-19-14	Phase 19 - Water System Improvements	$1,862,773	98%	DW	Drinking Water Transmission and Distribution	3	3, 6, 9, 10, 11, 12
Fall River	DWP-20-13	Water Main Rehabilitation - Phase 20	$1,875,518	96%	DW	Drinking Water Transmission and Distribution	3	3, 6, 9, 10, 11, 12
Fitchburg	CWP-20-03	Combined Sewer Overflow (CSO) 007, 011, 039, 048 Separation and Rehabilitation	$6,756,066	100%	CW	Combined Sewer Overflow Correction	3	3, 6, 9, 10, 11, 12, 14
Fitchburg	CWP-20-03-A	Combined Sewer Overflow (CSO) 007, 011, 039, 048 Separation and Rehabilitation	$1,054,170	100%	CW	Combined Sewer Overflow Correction	3	3, 6, 9, 10, 11, 12, 14
Gloucester	CW-20-38	Gloucester Comprehensive Wastewater Management Plan (CWMP)	$180,000	83%	CW	Planning	2	3, 6, 12, 14
Hanson	CWT-18-01-A	Community Septic Management Program	$200,000	100%	T5	NPS Decentralized Wastewater Treatment Systems	1	3, 6, 12
Harwich	CWP-18-23	Harwich Sewer Collection System - Phase 2	$16,092,328	100%	CW	Collector and Interceptor Sewers	2	3, 6, 14

Footnotes

[1] Series 24: All Amount and Percentage Completed sections are accurate as of June 30, 2024.

Appendix B - Series 24 Projects - Projects associated with Series 24 Sustainability Bonds are highlighted in light green.

Borrower	Loan Number	Project Name	Amount	Percentage Completed[1]	Program	Category	DC Tier	UN SDG
Holyoke	CWP-19-04	Jackson Street Area Sewer Separation Project	$7,254,309	75%	CW	Combined Sewer Overflow Correction	3	3, 6, 9, 10, 11, 12, 14
Holyoke	CWP-19-04-A	Jackson Street Area Sewer Separation Project	$769,997	94%	CW	Combined Sewer Overflow Correction	3	3, 6, 9, 10, 11, 12, 14
Holyoke	DWP-20-11	Phase 2A Water Main Replacement Project	$2,104,387	92%	DW	Drinking Water Transmission and Distribution	3	3, 6, 9, 10, 11, 12
Kingston	CWP-19-46	Kingston Wastewater Treatment Plant (WWTP) Expansion	$15,955,530	92%	CW	Wastewater Treatment	1	3, 6, 12
Kingston	DWP-19-20	Manganese Removal Facility for GH and 1-86 Wells	$7,723,970	97%	DW	Drinking Water Treatment	1	3, 6, 12
Kingston	T5-97-1211-F	Community Septic Management Program	$200,000	100%	T5	NPS Decentralized Wastewater Treatment Systems	1	3, 6, 12
Lakeville	CWT-22-01	Community Septic Management Program	$960,000	100%	T5	NPS Decentralized Wastewater Treatment Systems	1	3, 6, 12
Lawrence	CW-19-21	Sanitary Sewer Evaluation Survey (SSES) Phases VI through VIII	$3,000,000	99%	CW	Planning	3	3, 6, 9, 10, 11, 12, 14
Lawrence	DWP-19-01	Water Valve Replacement Project	$2,193,753	82%	DW	Drinking Water Transmission and Distribution	3	3, 6, 9, 10, 11, 12
Lawrence	DWP-19-12	Marston Street Pump Station (PS) Replacement	$1,502,938	100%	DW	Drinking Water Transmission and Distribution	3	3, 6, 9, 10, 11, 12
Leominster	CWP-19-26	Aeration Basin and Secondary Clarifier Upgrade	$11,649,712	100%	CW	Wastewater Treatment	2	3, 6, 12
Leverett	CW-20-07	Connection to Amherst Waterline	$1,182,752	100%	CW	NPS Sanitary Landfill	-	3, 6, 12, 14
Lowell	CWP-16-15-A	Capital Improvement Program (CIP) Phase – Wastewater Treatment Facility (WWTF) and Infrastructure Upgrades	$1,921,168	100%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Lowell	CWP-16-15-B	Capital Improvement Program (CIP) Phase – Wastewater Treatment Facility (WWTF) and Infrastructure Upgrades	$2,200,000	100%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Lynn Water & Sewer Commission	CWP-19-27	West Lynn Sewer Separation	$10,017,036	97%	CW	Combined Sewer Overflow Correction	3	3, 6, 9, 10, 11, 12, 14
MWRA	CW-20-46	Nut Island HW Odor Control & HVAC - Contract 7548	$8,986,259	100%	CW	Infiltration/Inflow and Sewer System Rehabilitation	-	3, 6, 14
Middleborough	CWT-20-04	Community Septic Management Program	$500,000	100%	T5	NPS Decentralized Wastewater Treatment Systems	2	3, 6, 12
Millville	CWT-19-02	Community Septic Management Program	$160,410	100%	T5	NPS Decentralized Wastewater Treatment Systems	1	3, 6, 12
MWRA	DW-20-33	Northern Intermediate High Section 89 Replacement	$9,798,686	100%	DW	Drinking Water Transmission and Distribution	-	3, 6, 12
Nahant	CW-20-13	Sewer Collection System – Repair and Replacement	$9,767,852	94%	CW	Infiltration/Inflow and Sewer System Rehabilitation	-	3, 6, 14
Nantucket	CW-19-32	Surfside Road Area Sewer System Improvements	$6,995,000	84%	CW	Collector and Interceptor Sewers	-	3, 6, 14
New Bedford	CWP-20-22	Wastewater Collection System Improvements	$3,666,070	82%	CW	Combined Sewer Overflow Correction	3	3, 6, 9, 10, 11, 12, 14
New Bedford	CWP-20-22-A	Wastewater Collection System Improvements	$212,366	100%	CW	Combined Sewer Overflow Correction	3	3, 6, 9, 10, 11, 12, 14
New Bedford	DWP-19-24	Highway Bridge Crossing Replacement Project	$819,581	100%	DW	Drinking Water Transmission and Distribution	3	3, 6, 9, 10, 11, 12
Orleans	CW-19-33	Downtown Area Collection System and Wastewater Treatment Facility (WWTF)	$14,852,300	100%	CW	Wastewater Treatment	-	3, 6, 12
Peabody	DWP-19-15	Winoma and Coolidge Water Treatment Plant (WTP) Improvements	$8,680,000	100%	DW	Drinking Water Treatment	2	3, 6, 12
Peabody	DWP-20-10	Winoma and Coolidge Water Treatment Plant (WTP) Improvements	$10,152,825	99%	DW	Drinking Water Treatment	2	3, 6, 12
Pittsfield	CWP-18-12-B	Wastewater Treatment Plant (WWTP) Nutrient Removal	$3,100,000	84%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Pittsfield	CWP-18-12-C	Wastewater Treatment Plant (WWTP) Nutrient Removal	$2,200,640	100%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Plymouth	CWT-20-02	Community Septic Management Program	$300,000	100%	T5	NPS Decentralized Wastewater Treatment Systems	1	3, 6, 12
Quincy	CWP-19-28	The Strand Pump Station (PS) Upgrade Project	$2,724,124	100%	CW	Infiltration/Inflow and Sewer System Rehabilitation	2	3, 6, 14
Quincy	CWP-19-29	Fiscal Year (FY) 2020 Sewer Improvements	$3,184,496	100%	CW	Infiltration/Inflow and Sewer System Rehabilitation	2	3, 6, 14
Revere	CW-19-40	Phase XI Investigations	$1,500,000	100%	CW	Planning	3	3, 6, 9, 10, 11, 12, 14
Revere	CW-20-28	Phase XII Investigations	$1,300,000	100%	CW	Planning	3	3, 6, 9, 10, 11, 12, 14
Revere	CW-20-29	Alternative Wastewater Connections and Storage Evaluation	$750,000	95%	CW	Planning	3	3, 6, 9, 10, 11, 12, 14
Revere	CW-20-30	Fats, Oils, and Grease (FOG) Control and Capacity, Management, Operations and Maintenance (CMOM) Equipment Procurement	$798,214	87%	CW	Planning	3	3, 6, 9, 10, 11, 12, 14
Revere	CWP-16-17-A	Phase VII Construction – Infiltration and Inflow (I/I), Illicit Discharge Detection and Elimination (IDDE), Pump Station (PS) and Drainage	$8,556,684	75%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Revere	CWP-19-39	Phase X Construction – Infiltration and Inflow (I/I), Illicit Discharge Detection and Elimination (IDDE), Pump Station (PS) and Drainage	$3,624,587	94%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14

Footnotes

[1] Series 24: All Amount and Percentage Completed sections are accurate as of June 30, 2024.

Appendix B - Series 24 Projects - Projects associated with Series 24 Sustainability Bonds are highlighted in light green.

Borrower	Loan Number	Project Name	Amount	Percentage Completed[1]	Program	Category	DC Tier	UN SDG
Revere	CWP-20-27	Phase XI Construction - Infiltration and Inflow (I/I), Illicit Discharge Detection and Elimination (IDDE), Pump Station (PS) and Drainage	$4,290,614	86%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Revere	CWP-20-27-A	Phase XI Construction - Infiltration and Inflow (I/I), Illicit Discharge Detection and Elimination (IDDE), Pump Station (PS) and Drainage	$839,732	100%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Saugus	CWP-19-31	Lincoln Avenue Pump Station (PS) Improvements, Phase 2	$571,162	100%	CW	Infiltration/Inflow and Sewer System Rehabilitation	2	3, 6, 14
Scituate	DW-19-18	Scituate Well 17A Water Treatment Plant (WTP)	$6,586,387	100%	DW	Drinking Water Treatment	-	3, 6, 12
South Essex Sewerage District	CW-20-34	Contract No. 20-1 Danvers Siphon Rehabilitation	$1,788,940	82%	CW	Infiltration/Inflow and Sewer System Rehabilitation	1	3, 6, 14
SWSC	CWP-18-18-D	York Street Pump Station (PS) and Connecticut River Crossing	$55,044,592	100%	CW	Combined Sewer Overflow Correction	3	3, 6, 9, 10, 11, 12, 14
SWSC	CWP-18-18-E	York Street Pump Station (PS) and Connecticut River Crossing	$6,341,902	100%	CW	Combined Sewer Overflow Correction	3	3, 6, 9, 10, 11, 12, 14
SWSC	DWP-20-01	Clearwell and Backwash Pump Station (PS) Replacement	$12,030,000	100%	DW	Drinking Water Treatment	3	3, 6, 9, 10, 11, 12
Sudbury	CW-19-16	Comprehensive Wastewater Management Plan (CWMP) Update	$500,000	100%	CW	Planning	-	3, 6, 12, 14
Taunton	CWP-19-53	Main Lift Pump Station (PS) Improvements Phase 2	$3,186,512	100%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Taunton	CWP-19-53-A	Main Lift Pump Station (PS) Improvements Phase 2	$616,284	100%	CW	Infiltration/Inflow and Sewer System Rehabilitation	3	3, 6, 9, 10, 11, 14
Taunton	CWP-20-21	Wastewater Treatment Facility (WWTF) Upgrade - Phase 1	$12,023,423	100%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Taunton	CWT-21-02	Community Septic Management Program	$250,000	100%	T5	NPS Decentralized Wastewater Treatment Systems	3	3, 6, 9, 10, 11, 12
Taunton	DWP-18-07	2018 Water Main Improvements Project	$3,228,606	99%	DW	Drinking Water Transmission and Distribution	3	3, 6, 9, 10, 11, 12
Tyngsborough	CW-18-17	Phase 2 Middlesex Road North	$10,246,968	100%	CW	Collector and Interceptor Sewers	-	3, 6, 14
Tyngsborough	CWP-20-11	Infiltration and Inflow (I/I) Rehabilitation	$450,677	99%	CW	Infiltration/Inflow and Sewer System Rehabilitation	1	3, 6, 14
Wareham	CWP-20-09	Process Upgrades at the Wareham Pollution Control Facility (WPCF)	$8,109,000	100%	CW	Wastewater Treatment	3	3, 6, 9, 10, 11, 12
Water Supply District of Acton	DW-19-16	Manganese Removal Water Treatment Plant	$11,796,097	100%	DW	Drinking Water Treatment	-	3, 6, 12
West Boylston Water District	DWP-19-27-A	North Main Street and Laurel Street Water Main Replacement	$108,065	88%	DW	Drinking Water Transmission and Distribution	2	3, 6, 12
West Boylston Water District	DWP-20-17	Manganese Removal Treatment at Oakdale Well	$7,603,680	97%	DW	Drinking Water Treatment	2	3, 6, 12
West Springfield	CWP-19-41	Birnie Avenue and Piper Road Area Sewer Project	$5,821,644	93%	CW	Collector and Interceptor Sewers	2	3, 6, 14
West Springfield	CWP-19-41-A	Birnie Avenue and Piper Road Area Sewer Project	$967,830	100%	CW	Collector and Interceptor Sewers	2	3, 6, 14
West Springfield	DWP-17-13-A	Drinking Water System Improvements Project	$245,835	100%	DW	Drinking Water Source and Storage	2	3, 6, 12
Westport	CWT-18-33	Community Septic Management Program	$500,000	100%	T5	NPS Decentralized Wastewater Treatment Systems	1	3, 6, 12
Winthrop	CWP-19-05	Town Center - Sewer and Drainage Improvements	$7,272,545	93%	CW	Infiltration/Inflow and Sewer System Rehabilitation	2	3, 6, 14

Footnotes

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2024 Annual Green Bonds and Sustainability Bonds Report

MASSACHUSETTS
CLEAN WATER TRUST