MASSACHUSETTS
CLEAN WATER TRUST

2015 Annual Report

Office of the State Treasurer
Executive Office of Administration and Finance
Massachusetts Department of Environmental Protection

MassDEP
Massachusetts Department of Environmental Protection

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MESSAGE FROM THE CHAIR

September 30, 2015

The Massachusetts Clean Water Trust (the Trust) is pleased to submit its Clean Water and Drinking Water State Revolving Fund (SRF) Annual Report for State Fiscal Year (SFY) 2015.

The Trust is a collaborative effort between the Treasurer's Office, the Executive Office for Administration and Finance, and the Massachusetts Department of Environmental Protection (MassDEP). Our leveraged financing program enables us to maximize the impact of our efforts throughout the Commonwealth. To date, the Trust has used approximately $2.2 billion in federal grants and state matching funds to finance nearly $6.3 billion in clean water and drinking water construction projects.

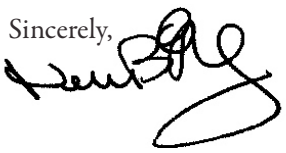
As our water infrastructure continues to age, now is the time for municipalities to invest in protecting both the health of their citizens and the environment, while supporting economic development in their communities. Easy access to financing is essential in order to achieve these goals. The Trust continues to do its part by providing subsidized loans backed by its AAA credit. In SFY 2015 the Trust provided approximately $327.0 million in commitments for low interest rate loans to cities and towns across the state. The commitment amount will support an estimated 1,960 construction and engineering jobs. This financing provides vast benefits to the quality of the state's waterways. The funding also protects public health through projects such as combined sewer overflow removal, wastewater treatment plant upgrades, sewer system construction and rehabilitation, septic system repairs, drinking water treatment facilities, treated water storage and water main replacement and rehabilitation.

The Trust continues to be a leader in the SRF arena. In January, the Trust was one of the first SRFs to issue Green Bonds. The sale of $228 million of Green Bonds went to finance water and wastewater projects and provided the Trust with an opportunity to showcase the vital work being done by our cities and towns. The Trust led the SRF industry with its Green Bond disclosure, which has been used by other SRFs that issued Green Bonds. The Annual Report provides an update to the disclosure in the Appendix as to the use of proceeds.

I would like to thank the staff of the Trust and our partners at MassDEP. We wish to also acknowledge the excellent work of everyone at the Environmental Protection Agency Region One for all of their efforts this year. Without the combined efforts of these organizations, our state's innovative economic and environmental initiatives would not be possible.

Finally, I would like to thank our borrowers, the cities and towns within the Commonwealth. Their dedication to protecting the environment and the public health of their citizens drives our program's success. My office looks forward to serving as an accessible partner in this vital work.

Sincerely,



Deborah B. Goldberg
Chair
Massachusetts Clean Water Trust
www.mass.gov/treasury

INTRODUCTION

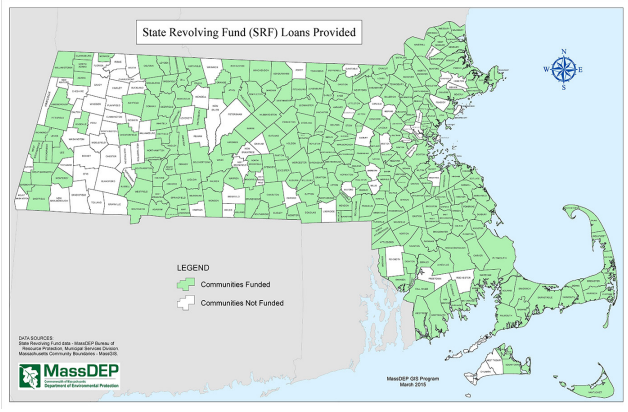
This report covers the State Fiscal Year ending June 30, 2015

The Massachusetts Clean Water Trust (the Trust), in partnership with the Massachusetts Department of Environmental Protection (MassDEP) provides cities and towns of the Commonwealth with low interest rate loans for water infrastructure projects. MassDEP manages project development and approval while the Trust manages the flow of money to the communities. Each year, MassDEP prepares the Intended Use Plan (IUP) of projects as required by the Environmental Protection Agency (EPA). The IUP establishes the Commonwealth's project priorities for the upcoming year. This is accomplished through two programs – the Clean Water State Revolving Fund (SRF) and the Drinking Water SRF. The EPA requires reporting on both of the programs through the Clean Water SRF Annual Report and the Drinking Water SRF Biennial Report. These reports have been combined into this report, which covers the State Fiscal Year (SFY) ending June 30, 2015.

An estimated 97% of Massachusetts citizens have benefited from these essential projects. In SFY 2015, the Trust provided binding commitments for 40 clean water projects, including the Community Septic Management Program (CSMP), totaling over $246.2 million and 25 drinking water projects totaling $81.0 million.

The SRF loan program receives funding from the EPA in the form of an annual grant, supplemented by state matching grants and the repayment of loans from borrowers. In addition, the Trust issues bonds guaranteed by pledged assets that are funded by federal and state grants. The Trust's lending and bond issuance programs are structured in such a way that ensure adequate cash flows to fund its loans and to repay its bonds to maturity. The Trust's bonds are secured by a combination of pledged sources which include loan repayments, contract assistance from the Commonwealth and interest earnings on debt service reserve funds. The "Financial Summary" section provides additional details on the financial management activities and most recent bond issue of the SRF program.

Since its inception in 1989, the SRF loan program has provided over $6 billion in loans to nearly 300 borrowers to improve and maintain the quality of water in the Commonwealth.



The Clean Water SRF provided $246.2 million of project financing to create an estimated 1,477 construction and engineering jobs.

The Drinking Water SRF provided $81.0 million of project financing to create an estimated 486 construction and engineering jobs.

Clean Water SRF Annual Summary

Massachusetts continues to finance projects that focus on rehabilitation of wastewater infrastructure which promotes sustainability and smart growth principles. The SRF program provides additional subsidy to designated low income Environmental Justice Communities and continues to perform outreach activities to help borrowers realize opportunities to implement energy efficiency/alternative energy projects.

2015 Clean Water Program Results

In 2015, the Trust continued to expand its program by providing new commitments of over $246.2 million in financing for 40 loans to communities across the Commonwealth. Of the 40 loans, 4 were provided to the Community Septic Management Program (CSMP). The CSMP provides low interest financing to Massachusetts' cities and towns to assist homeowners in the repair of failed septic systems.

Clean Water Grant Awards		
	SFY 2015 Grant Awards	Program to date Grant Awards
Federal	$47,603,000	$1,373,250,761
State	9,520,600	248,038,692
Total	$57,123,600	$1,621,289,453

Interim Loans

The Trust makes funds available to eligible projects on the IUP through its Interim Loan Program year round. Borrowers can enter into a short term loan that enables projects to proceed prior to a Trust bond sale. The Trust is capable of funding a project prior to a bond sale by extending the use of program equity funds as a source of capital. The interest is accrued monthly on the basis of the balance drawn on the construction account. The interest rate is set at one-half of the one year Massachusetts Municipal Depository Trust (MMDT) rate. The average interest rate charged in SFY 2015, accruing only on drawn funds, was 0.10%. During SFY 2015, 97 projects had drawn $119.5 million of interim loan funds.

Extended Term Financing

As in previous years, the Trust continues to offer extended term financing up to 30 years to its participants. Extended term financing is available for Clean Water projects that can demonstrate that the project's useful life is at least as long as the term of the loan. The term can be extended to a maximum of thirty years.

Disbursements

During 2015, the Trust disbursed $207.2 million for Clean Water projects to various local governmental entities through the program project funds and interim loans. Of this amount, $0.9 million was disbursed in the form of additional subsidy with repayment not required, to either "Renewable Energy" projects or projects in "Environmental Justice" communities. These projects have already received $2.7 million in subsidies.

SFY 2015 Clean Water Disbursements		
	Amount	# of Loans
Interim Loans	$119,450,441	97
Program Project Funds	87,772,403	57
Total	$207,222,844	154

Administrative Expenses

For SFY 2015, $1.4 million of annual Clean Water SRF grant administration funds were spent by MassDEP. This consisted of $1.0 million in federal funds and $0.4 million in state matching funds. These costs were associated with construction management of the Clean Water SRF program. An additional amount of $4.3 million was spent from the Trust's Administrative Fund to supplement MassDEP administrative costs for both the Clean

and Drinking Water programs as well as fund the administrative costs of the Trust. The Trust also provided the final payment of the total $3.5 million commitment, funding $0.5 million to the Cape Cod Commission in SFY 2015 to help with the overall costs in developing a regional wastewater management plan called for under the federal Clean Water Act. The plan has since been finalized and approved by the state and federal government.

American Iron and Steel

MassDEP has incorporated the American Iron and Steel (AIS) requirements into its Loan Application and Plans and Specifications Package. The necessary language has also been added into the Project Regulatory Agreement and the Financing Agreement. AIS reviews are being conducted as part of routine construction inspections and are being documented in inspection reports.

Federal Funding Accountability and Transparency Act

In compliance with the Federal Funding Accountability and Transparency Act (FFATA), the Trust reports recipient or sub-recipient awards for any amount equaling $25,000 or greater in the FFATA Subaward Reporting System (FSRS) at www.fsrs.gov. The loans used by the Trust for FFATA Reporting can be found in the Appendices to this report.

Green Project Reserve

For the 2014 CWSRF Federal Grant, the Trust was required to provide $4.8 million in financing to projects that were identified as Green Projects. In its 2014 IUP, MassDEP identified 15 projects totaling $171.6 million that are considered to be either entirely or partially Green. Since all of the Green Projects that advanced to construction are only partially green and have just recently started construction, MassDEP is now working with the project consultants to review the schedules of values to extract the green portions of the projects. Once these values are calculated, they will be entered into the Clean Water Benefits Reporting System (CBR).

For the 2013 grant, $4.5 million was required for the Green Project Reserve. To date, a total of $3.6 million or 7.9% of the grant has been reported in the CBR. A significant number of projects from the 2013 Intended Use Plan (IUP) that were identified as Green, did not proceed to construction, resulting in this reduced dollar value of Green projects. There are several projects from the 2013 IUP that are proceeding that may be considered Green with a business case. MassDEP is evaluating these projects further to see if they qualify as Green projects. If they qualify as Green, they will be entered into CBR. MassDEP will update this section of the Annual Report in 2016 to reflect any changes that may occur to the Green Project Reserve numbers for the 2013 grant.

Additional Subsidy

Massachusetts provided $3.5 million in additional subsidy from the 2014 grant, which is within the $2.6 to $3.9 million range required by the federal grant. This additional subsidy is dedicated to communities that would not otherwise be able to afford the projects. Massachusetts chose to apply these funds to communities that meet the Environmental Justice (EJ) income threshold of below 65% of the state's median household income and for renewable energy projects. This targets the subsidy to lower income communities across the Commonwealth as well as providing subsidy for renewable energy projects that would typically have lengthy payback periods without the subsidy. Massachusetts provides the subsidy to the communities in the form of principal forgiveness. During the reporting period, the subsidy was given to twelve Clean Water projects. Each project received an equivalent of 2.6% of the project cost as additional subsidy.

The funds used as additional subsidy are the first dollars drawn against the project. As of the date of this report, $2.7 million of the additional subsidy from the 2014 grant has been disbursed. The remaining funds should be disbursed within the next few months. As a follow up to 2014 Annual Report, all of the additional subsidy funds from the 2013 grant have been fully expended.

2014 Federal Grant Projects Receiving Additional Subsidy

Borrower	Project	Loan #	Project Cost	Principal Forgiveness	Expended Amount
Boston	Gardner St. Landfill Closure	CWP-14-02	$15,777,800	$412,532	$412,532
Saugus	SSO Reduction Subsystem 5	CWP-14-08	2,109,614	74,267	55,159
Revere	Collection System Improvements	CWP-14-12	10,982,142	287,143	287,143
Haverhill	CSO Improvements, WWTF and Sewer System	CWP-14-15	6,464,500	169,023	-
New Bedford	CSO Abatement	CWP-14-19	8,279,605	216,481	216,481
Falmouth	WWTF Upgrade	CWP-14-22	4,400,000	115,044	115,044
Falmouth	Sewer Extension and New Recharge Site	CWP-14-23	32,869,482	859,417	859,417
Taunton	SSES Phases 10-12	CWP-14-26	4,129,082	107,960	107,960
Springfield WSC	Dickinson Siphon/Main Interceptor Rehab	CWP-14-27	20,148,628	526,813	-
Montague	Pump Station Replacements	CWP-14-28	1,951,059	51,013	-
Brockton	Sewer System Rehab	CWP-14-30	1,750,000	45,756	45,756
Middleborough	WWTF Upgrades	CWP-14-32	25,000,000	653,659	653,659
Total			**$133,861,912**	**$3,500,000**	**$2,753,151**

2015 Clean Water Leveraged Program

The Trust program is leveraged by issuing bonds to increase capacity to be able to issue more loans. Federal and state grants are pledged to secure the bonds by either funding reserve funds or pledged direct loans or a combination of both. Since 2002, the Trust has provided loans to communities at a 2% interest rate. As the effective market interest rate on the bonds is higher than the 2% loan rate, borrowers receive a subsidy equal to the difference between the rates. Debt service on the Trust's SRF Bonds is paid from a combination of three sources: borrower loan principal and interest repayments, interest earnings on the debt service reserve funds, and subsidy payments provided by the Commonwealth, known as contract assistance. Further discussion of the trust's leveraged financing program can be found in the "The Financial Summary" sections.

Borrower Repayments

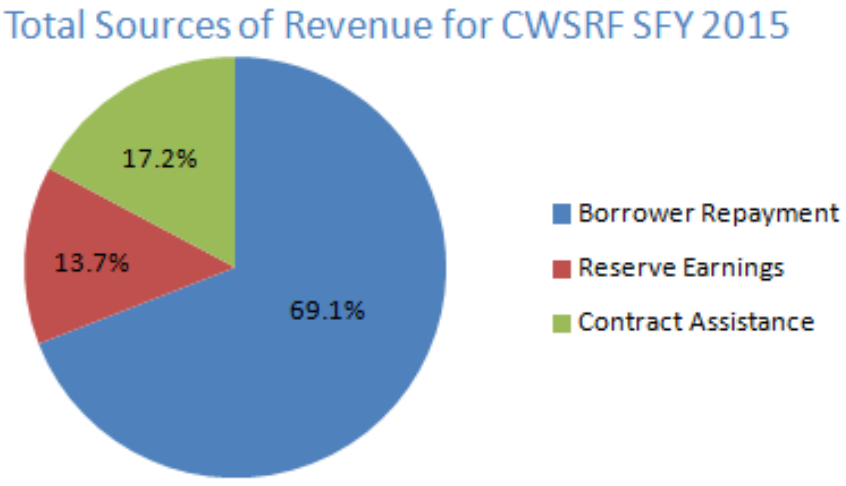
Each borrower is obligated to repay the principal amount of its loan at a subsidized interest rate of 2% or less. However, those with extended term financing, greater than 20 years, may have a subsidized interest rate somewhat higher than 2%. In SYF 2015, borrower principal and interest loan repayments accounted for approximately 69.1% of debt service, totaling $200.8 million. Since 2012, the Trust has pledged certain direct loans that it makes from its program equity funds as additional security for its series of revenue bonds, rather than utilizing a traditional reserve fund. The interest the Trust receives from the pledged direct loans is used to pay a portion of debt service, while the principal payments received are available as additional security and recycled back to SRF program funds after debt service obligations have been met. As of June 30, 2015, the Trust has $228.6 million of pledged direct loans outstanding.

Reserve Fund Interest Earnings

Reserve funds, or pledged direct loans, are held as security for all Trust bonds at an amount between 33% and 50% of the outstanding principal. As of June 2015, the Trust held $745.0 million in Clean Water reserve funds invested in guaranteed investment contracts (GIC), and US Treasury and Agency obligations. Earnings on these investments are applied to pay a portion of the debt service on the related series of SRF Bonds. In SFY 2015, reserve fund earnings applied to current debt service payments accounted for 13.7% of debt service, totaling $39.9 million. As bonds are repaid, reserve funds are released and returned to the Clean Water Equity Fund. In SFY 2015, $74.7 million was released to the Clean Water Equity Fund, and made available for new loans.

Commonwealth Contract Assistance

The Commonwealth has entered into an agreement with the Trust for contract assistance payments to subsidize debt service on the SRF Bonds. Contract assistance is appropriated annually in the Commonwealth's operating budget. To date the Trust has received $910.1 million in Clean Water contract assistance with a future commitment of $285.8 million, for a total commitment by the Commonwealth of $1.2 billion. In SFY 2015 Commonwealth contract assistance accounted for approximately 17.2% of debt service, totaling $49.8 million in assistance applied.



Clean Water Projects

The Massachusetts SRF program continues to meet the goals established in the annual IUP. As outlined in the IUP, all SRF projects are subject to the rigorous environmental review procedures of the Massachusetts Environmental Policy Act.

The Clean Water SRF provides loans for a wide variety of projects. The primary recipients of Clean Water loans have been combined sewer overflow, wastewater treatment and wastewater collection projects. Although other projects such as drainage improvements, landfill closures, brownfields remediation, renewable energy projects, and other non-point source projects are eligible for funding.

Great Barrington - Wastewater Treatment Facility Upgrade and I/I Removal

This $4 million project includes upgrades to the Wastewater Treatment Facility (WWTF) and improvements to the collection system to reduce Inflow and Infiltration (I/I). The treatment plant upgrades are replacing or repairing aging equipment, improving system reliability, achieving higher levels of phosphorus removal, and preparing for nitrogen removal upgrades. The WWTF upgrade includes installation of a reliable system to reduce total phosphorus loads to the Housatonic River, resulting in a reduction of eutrophication potential in the river and its ultimate receiving body, Long Island Sound.

Boston – Gardner Street Landfill Closure

This project completes the closure of the former Gardner Street Landfill located in the West Roxbury neighborhood of Boston. The project includes the construction of a landfill cap and gas collection system, which allows for the site to be re-used by the West Roxbury Education Complex as an athletic field. The construction of the landfill cap will help reduce rainwater infiltration, which should lessen the generation of leachate under the site and help reduce the exposure of groundwater to buried wastes. The Trust provided nearly $15.8 million in project financing including $412,000 in principal forgiveness.

Middleborough – Wastewater Treatment Facility Upgrade

This $25 million project is to upgrade the Wastewater Treatment Facility to address more stringent discharge permit limits, reduce nutrient discharges and protect the impaired receiving water downstream, specifically impacts to the Taunton River estuary as well as Mount Hope Bay and Narragansett Bay. The current plant was constructed in 1977 and has not undergone a major upgrade since then. This project is eligible to receive 0% interest rate financing for the nutrient reduction portion of the project and is also receiving nearly $654,000 in principal forgiveness.

Dracut – Sewer Extensions

This project involves the construction of new sanitary sewers that will mitigate the migration of leachate from failing septic systems into tributaries of the Merrimack River. In addition, the project will eliminate several direct sewage connections to the local stormwater system and mitigate impacts to natural resources, town conservation land and private drinking water supplies. The project will install approximately 11,000 linear feet of 8-inch diameter gravity sewer, approximately 1,000 linear feet of small diameter pressure sewers, approximately 2,100 linear feet of force mains and two submersible pumping stations within town roads and cross country areas. $4.7 million in project financing is being provided by the Clean Water Trust to the Town of Dracut.

Drinking Water SRF Annual Summary

Massachusetts continues to support protection of public health by ensuring that all its Public Water Suppliers have the necessary technical, financing and managerial capacity to maintain compliance with the current and foreseeable Safe Drinking Water Act requirements. The program continues to promote the completion of cost-effective projects that maximize protection of public heath.

2015 Drinking Water Program Results

In 2015, the Trust continued to expand its program by providing new commitments of approximately $81.0 million in funding for 25 loans to communities across the Commonwealth.

Drinking Water Grant Awards		
	SFY 2015 Grant Awards	Program to date Grant Awards
Federal	$16,441,000	$478,868,100
State	3,288,200	85,294,020
Total	$19,729,200	$563,980,120

amount, $3.9 million was disbursed in the form of additional subsidy with repayment not required to either "Renewable Energy" projects or "Environmental Justice" communities.

SFY 2015 Drinking Water Disbursements		
	Amount	# of Loans
Interim Loans	$58,547,738	33
Program Project Funds	24,227,038	47
Total	$82,774,776	80

Interim Loans

The Trust makes funds available to eligible projects on the IUP through the Interim Loan Program year round. Borrowers can enter into short term loans that enables projects to proceed during the time prior to a Trust bond sale. The Trust is capable of funding a project prior to a bond sale by extending the use of program equity funds as a source of capital. The interest is accrued monthly on the basis of the balance drawn on the construction account. The interest rate is set at one-half of the one year Massachusetts Municipal Depository Trust (MMDT) rate. The average interest rate charged in SFY 2015, accruing only on drawn funds, was 0.10%. During SFY 2015, 33 projects had drawn $58.5 million of interim loan funds.

Disbursements

During 2015, the Trust disbursed $82.8 million for Drinking Water projects to various local governmental entities through the program project funds and interim loans. Of this

American Iron and Steel

As with the Clean Water Program, MassDEP has incorporated the American Iron and Steel (AIS) requirements into its Loan Application and Plans and Specifications Package. The necessary language has also been added into the Project Regulatory Agreement and the Financing Agreement. AIS reviews are being conducted as part of routine construction inspections and are being documented in inspection reports.

Federal Funding Accountability and Transparency Act

In compliance with the Federal Funding Accountability and Transparency Act (FFATA), the Trust reports recipient or sub-recipient awards for any amount equaling $25,000 or greater in the FFATA Subaward Reporting System (FSRS) at www.fsrs.gov. The loans used by the Trust for FFATA Reporting can be found in the Appendices to this report.

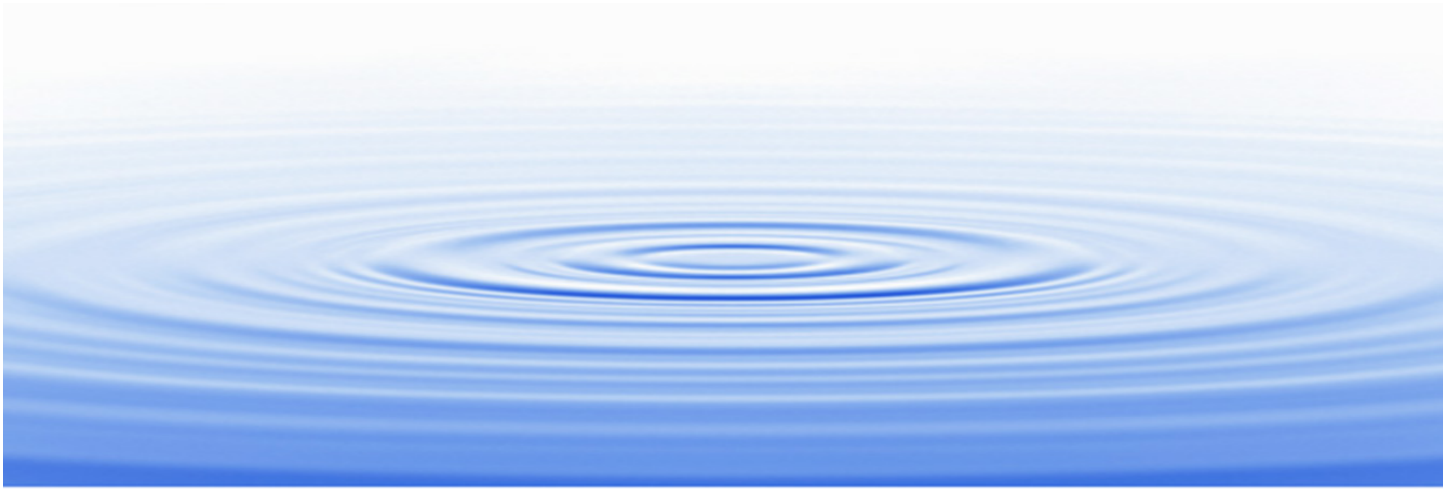
Small Systems

For a number of years, the Trust has been providing financing to small systems in the amount of at least 15% of the federal grant, with the concurrence of EPA Region 1. During 2014, the EPA changed its interpretation of the small systems requirement from 15% of the federal grant to 15% of the total amount of assistance provided. This change in interpretation has a large effect on the Massachusetts program. When the 2014 IUP was prepared, MassDEP was working under the earlier interpretation of 15% of the grant amount. The IUP identified $3.6 million of small system projects, with 15% of the grant amount totaling $3.2 million. With an IUP in excess of $126.0 million, 15% of the total assistance comes to $19.0 million. In response to this change, MassDEP elevated all of the small systems on the Project Priority List to the IUP, which still only resulted in a total of $5.0 million. Of those projects, only two proceeded to construction totaling $3.0 million, well below the required $19.0 million.

For the 2015 IUP, MassDEP received small system applications from 7 communities totaling $20.0 million. One large project (Eastham) made up $16.0 million of this total. 15% of the $106.0 million IUP is just under $16.0 million. Based on this calculation Massachusetts should meet the 15% threshold for the 2015 IUP, however, at this point, it is unclear how many of the projects will proceed towards construction. The Eastham project has started construction and is expected to reach the $16.0 million cap established in the IUP, so that project alone should satisfy the small system requirement. Eastham is establishing a water distribution system for the first time, with an expected overall cost in excess of $125.0 million. The first phase of this project is $45.0 million to be funded over a three year period. This should provide Massachusetts with a cushion to meet the small system requirement for the next several years.

Absent a large project like this, Massachusetts will almost always have difficulty meeting the small systems requirement. A survey of small systems indicated that federal cross cutting requirements such as Davis Bacon, American Iron and Steel and Disadvantaged Business Enterprise rules discourage them from coming to the SRF for financing unless the project is of sufficient size to overcome these additional costs. In addition, the current low interest rate environment has borrowers opting to get their own financing rather than meeting SRF requirements. Even if Massachusetts is able to include the requisite amount of projects in the IUP, there is no guarantee the projects will ultimately be built. Often times a community is unable to secure debt authorization, identifies another source of financing (such as rural development) or otherwise determines that a project should not go forward resulting in a high level of project attrition.

Going forward, the Trust will attempt to comply with the new interpretation of the small systems requirement. The MassDEP Drinking Water program does significant outreach to small systems throughout the Commonwealth through the 2% Small Systems Technical Assistance set aside, which stresses the availability and use of the SRF as a low cost source of financing. In the last year, the Drinking Water program held a series of workshops for small systems to identify grant and loan opportunities for those systems. Even with these efforts to reach and recruit small systems, the Trust is concerned that in many years, there may not be sufficient applications to make up 15% of the total assistance provided.



Additional Subsidy

Massachusetts was required to provide a minimum of $3.3 million in additional subsidy from the 2014 grant. This additional subsidy is provided to communities that would not otherwise be able to afford the project. Massachusetts chose to apply these funds to projects in communities that meet the Environmental Justice (EJ) income threshold of below 65% of the state's median household income and for renewable energy projects. This targets the subsidy to lower income communities across the Commonwealth as well as providing subsidy for renewable energy projects that would typically have lengthy payback periods without the subsidy. Massachusetts provides the subsidy to the communities in the form of principal forgiveness. During this reporting period, Massachusetts provided the required minimum amount of subsidy to four drinking water projects. Each project received an equivalent of about 5.7% of the project cost as additional subsidy. The funds used as additional subsidy are the first dollars drawn against the project. As of the date of this report, $3.2 million of the additional subsidy from the 2014 grant has been disbursed. The remaining funds should be disbursed within the next few months. As a follow up to 2014 Annual Report, all of the additional subsidy funds from the 2013 grant have been fully expended.

2014 Federal Grant Projects Receiving Additional Subsidy

Borrower	Project	Loan #	Cost	Principal Forgiveness	Expended Amount
Falmouth	Long Pond WTF	DWP-14-04	$43,258,900	$2,473,793	$2,473,793
New Bedford	Transmission Main Improvements	DWP-14-05	9,323,792	533,188	533,188
Fall River	Water Main Improvements PH 14	DWP-14-08	3,361,301	192,219	192,219
Barnstable	Pipe Replacement and Maher WTP Upgrade	DWP-14-09	1,556,339	89,000	-
Total			$57,500,332	$3,288,200	$3,199,200

2015 Drinking Water Leveraged Program

The Trust program is leveraged by issuing bonds to increase capacity to be able to issue more loans. Federal and state grants are pledged to secure the bonds by either funding reserve funds or pledged direct loans or a combination of both. Since 2002, the Trust has provided loans to communities at a 2% interest rate. As the interest rate on the bonds is higher than the 2% loan rate, borrowers receive a subsidy equal to the difference between the rates. Debt service on the Trust's SRF Bonds is paid from a combination of three sources: borrower loan principal and interest repayments, interest earnings on the debt service reserve funds, and subsidy payments provided by the Commonwealth, known as contract assistance. Currently, all Drinking Water loans have a maximum term of 20 years; however, the Trust is working to implement an extended term financing program similar to the Clean Water program. The extended term financing is expected to be in place by the end of the calendar year.

Borrower Repayments

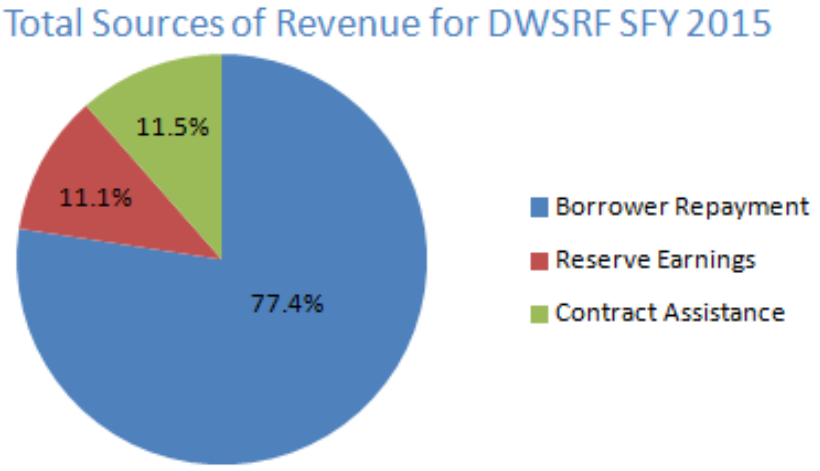
Each borrower is obligated to repay the principal amount of its loan at a subsidized interest rate of 2% or less. In SFY 2015, borrower principal and interest loan repayments accounted for approximately 77.4% of debt service, totaling $65.6 million. Since 2012, the Trust has pledged certain direct loans that it makes from its program equity funds as additional security for its series of revenue bonds, rather than utilizing a traditional reserve fund. The interest the Trust receives from the pledged direct loans is used to pay a portion of debt service, while the principal payments received are available as additional security and recycled back to SRF program funds after debt service obligations have been met. As of June 30, 2015, the Trust has $81.3 million of pledged direct loans outstanding.

Reserve Fund Interest Earnings

Reserve funds, or pledged direct loans, are held as security for all Trust bonds at an amount between 33% and 50% of the outstanding principal. As of June 2015, the Trust held $178.6 million in Drinking Water reserve funds invested in guaranteed investment contracts and US Treasury and Agency obligations. Earnings on these investments are applied to pay a portion of the debt service on the related series of SRF Bonds. In SFY 2015 reserve fund earnings applied to current debt service payments accounted for 11.1% of debt service, totaling $9.4 million. As bonds are repaid, reserve funds are released and returned to the Drinking Water Equity Fund. In SFY 2015, $20.9 million was released to the Drinking Water Equity Fund, and made available to be applied to new loans.

Commonwealth Contract Assistance

The Commonwealth has entered into an agreement with the Trust for contract assistance payment to subsidize debt service on the SRF Bonds. Contract assistance is appropriated annually in the Commonwealth's budget. To date the Trust has received $127.0 million in Drinking Water contract assistance with a future commitment of $80.5 million, for a total commitment by the Commonwealth of $207.5 million. In SFY 2015, Commonwealth contract assistance accounted for approximately 11.5% of debt service, totaling $9.7 million in assistance applied.



Drinking Water Set-Asides

MassDEP continues to use set-aside funds as outlined in the annual IUP. The following sections describe the basic programs and accomplishments.

4% Set-Aside: Administration

MassDEP uses eight (8) full time equivalent (FTE) staff members to administer the Drinking Water SRF program. These FTEs utilize 4% set-aside funding to accomplish the following tasks: developing program selection criteria, application ranking and rating, project development, construction inspections, invoice payment, data management and administrative support functions.

2% Set-Aside: Small System Technical Assistance

Municipal Services Support - MassDEP uses two (2) FTEs to support Municipal Services. These FTEs provide training and technical assistance (compliance and operational issues) to small systems throughout Massachusetts. During this past year MassDEP also worked with training and technical assistance providers; Massachusetts Rural Water Association, United States Department of Agriculture, (Rural Development), US EPA Environmental Finance Center (New Mexico), Texas A & M Engineering Extension School (TEEX) to provide trainings to Public Water System (PWS). Topics included leak detection, pump and motor maintenance, rate setting, board training, public relations, disinfection, sampling and exam review.

10% Set-Aside: State Program Management

MassDEP used approximately nineteen (19) FTEs to administer the state Drinking Water program. These FTEs utilize 10% set-aside funding for Public Water System support including the following programs: Sanitary Survey, Source & Wellhead Protection, Emergency Response, Capacity Development, Operator Certification, Consumer Confidence Report assistance, adoption and implementation of new regulations, evaluation and maintenance of existing federal rules, planning, outreach, data management, engineering and construction supervision, compliance supervision and other drinking water program activities. Some highlights of the programs in SFY 2015 includes:

Sanitary Survey Program – MassDEP Drinking Water staff is responsible for evaluating the technical, financial and managerial capability of Community, Non-Transient Non-Community and Transient Non-Community PWS. During the last year the Drinking Water staff has completed 387 evaluations on existing systems. See Figure 1 below for breakdown of system types.

Figure 1:

MassDEP Sanitary Surveys Completed SFY 2015	
Type of Public Water System	**Total # of Surveys Completed**
Community Systems	186
Non-Transient Non Community Systems	37
Transient Non Community System	164
Totals	**387**

Operator Certification - MassDEP has a very active operator certification program. The program activities have been integrated into daily activities of staff. Program activities range from chairing the Board of Certification of Drinking Water Operators to providing general and specialized training of and guidance for drinking water operators at all levels.

Wellhead Protection Program – Technical assistance was provided to water supply systems for wellhead protection compliance, the development of protection plans, and for determining monitoring waiver eligibility.

Capacity Development - During the course of conducting sanitary surveys on public water systems, MassDEP staff identified 1,337 technical, financial or managerial deficiencies and provided corrective action assistance to ensure compliance. MassDEP's Capacity Development strategy focuses on improving the technical, financial, and managerial operations of both new and existing public water systems in the Commonwealth.

15% Set-Aside: Local Assistance

MassDEP used seventeen (17) FTEs from the 15% local assistance set-aside to support the Public Water System Supervision programs including; sanitary surveys, adoption and implementation of new regulations, registration of new systems, evaluation and maintenance of existing federal rules, planning, outreach, data management, engineering and construction supervision etc. Some highlights of the programs in 2015 include:

Source Protection Support - Work includes the registration of new public water systems (see Figure 2), implementing and monitoring the chemical monitoring waiver program which provides incentive to do source protection as well as promoting preparedness and sustainability. Source protection technical assistance is provided during the 448 sanitary surveys that were completed throughout the year.

Figure 2:

MassDEP Registration of New Small Public Water Systems SFY 2015	
Type of Public Water System	**Total # of Systems**
Community Systems	1
Non-Transient Non Community Systems	0
Transient Non Community System	16
Totals	**17**

Contract Services - MassDEP has contracted fund Information Technology (IT) staff to assist with data management support for public water systems and implementation of the Safe Drinking Water Act programs. Key activities include reporting, program evaluation and database maintenance and improvement.

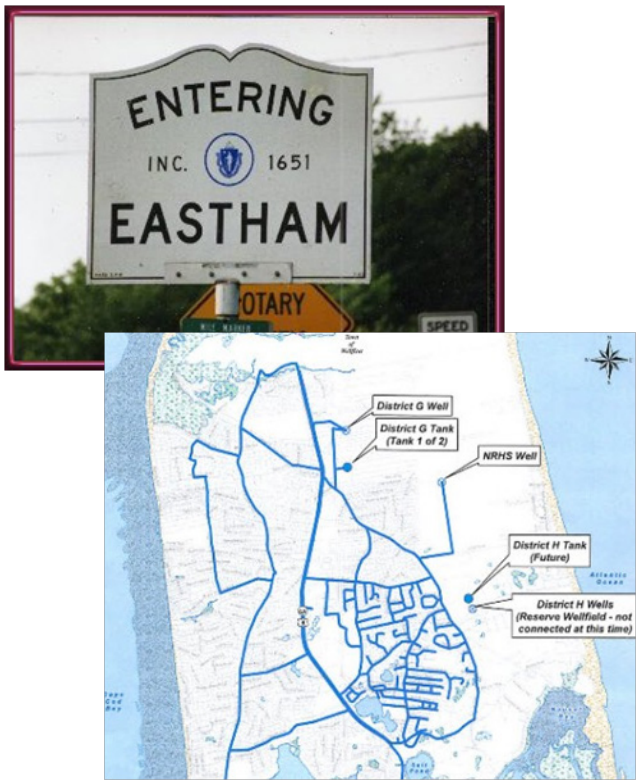
Drinking Water Projects

The Massachusetts Drinking Water SRF program continues to meet the goals established in the annual IUP. As outlined in the IUP, all SRF projects are subject to the rigorous environmental review procedures of the Massachusetts Environmental Policy Act.

Drinking Water projects typically involve construction and, or, rehabilitation of drinking water treatment plants, replacement of aging water mains and the construction of drinking water storage facilities.

Eastham – Water Supply System

The Town of Eastham does not currently have a public water supply system. Drinking water is supplied by small community public water systems and individual private wells. A number of private wells near the closed town landfill were found to be contaminated with 1,4-dioxane and there is an ongoing problem with nitrate concentrations in drinking water wells throughout town. Due to these contamination issues and their associated public health concerns, the town decided to pursue the construction of a town-wide water distribution system. This $45 million project is the first phase of the water distribution system consisting of the construction of two well fields, a water storage tank and 45 miles of water distribution piping.



Paxton – Maple Street Elevated Tank

This $1.4 million project involves the replacement of the Maple Street elevated water tank with a new 210,000 gallon glass fused steel water storage tank and the demolition of the existing storage tank. Paxton has two water storage tanks, and the replacement of the Maple Street tank provides the necessary redundancy in the system that allows the town to take one tank offline for routine or emergency maintenance and still have adequate storage for the system. In addition to providing redundant storage, the new tank will be equipped with a booster chlorination system to improve water quality. Paxton is considered a small system as it serves a population of less than 10,000. The EPA requires that at least 15% of the assistance provided by the Drinking Water SRF go to small systems.

MWRA – Low Service Storage

This project is for the construction of a 20 million gallon potable water storage tank in the Town of Stoneham at its terminal reservoir at the northeastern extremity of the MWRA water service to metropolitan Boston. The project will provide not only improved storage but will also provide surge relief, protecting MWRA and community mains; allow more efficient use of the existing MWRA distribution system; and, provide emergency backup to 21 communities in the Northern Intermediate High and Northern High systems. The total project cost is $67.9 million. The Trust has provided $10.5 million in project financing over the last three years

SRF Financial Summary

The following discussion provides additional details on the financing management activities of the SRF loan program.

Leveraged Financing Model

The Trust's SRF loan program receives funding from the EPA in the form of an annual grant, supplemented by state matching grants and the repayment of funds from previous borrowers ("SRF Program Funds"). The Trust's SRF Program utilizes a "leveraged" financing model, under which federal grants and state matching grants are used as a source of security for revenue bonds ("SRF Bonds") issued by the Trust. The proceeds from the SRF Bonds are used to fund loans to local governmental units for eligible project costs.

The leveraged structure of the Trust's program permits the Commonwealth to substantially increase the amounts available to fund eligible project costs. Each federal grant and associated state matching grant dollar contributed to the program results in at least two to three dollars of project cost financing while assuring the perpetual nature of the revolving fund.

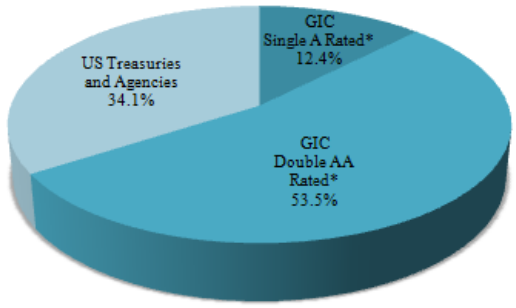
The Trust's lending and bond issuance programs are structured to ensure adequate cash flows to fund its loans and to repay its bonds to maturity. Depending on the type of projects being financed, the terms of the loans to borrowers, and the subsidy levels to which the borrowers are entitled, the Trust applies its SRF Program Funds to fund either direct loans to local governmental units or, invest in reserve funds, or a combination of both, which are then pledged as a source of payment and security for the SRF Bonds.

Pledged Direct Loans

Under the pledged direct loan approach, the Trust pledges as additional security for a series of its SRF Bonds, direct loans ("Pledged Direct Loans") that it has made or is making concurrently with the issuance of such SRF Bonds from its SRF Program Funds to eligible borrowers for Clean Water and Drinking Water projects. The Trust applies the interest payments on such Pledged Direct Loans to pay a portion of the debt service on the related series of SRF Bonds, thereby supplementing the loan repayment obligations of the borrowers of the Leveraged Loans funded by such SRF Bonds. Principal payments on the Pledged Direct Loans are pledged as further security for the related series of SRF Bonds. The Trust used the Pledged Direct Loan approach for its Series 18 SRF Bonds. The bonds are the third series of Trust SRF Bonds issued under the Pledged Direct Loan approach. As of June 30, 2015, the Trust has $310.0 million in Pledged Direct Loans.

Reserve Funds

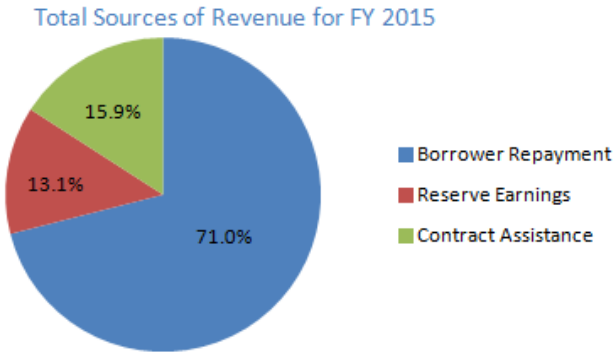
In the past, the Trust has applied a portion of its Program Equity Funds to establish reserve funds to secure a series of its SRF Bonds. Those investment earnings are then applied to pay a portion of the debt service on the related SRF Bonds, thereby supplementing the loan repayment obligation of the borrowers of the Leveraged Loans funded by such SRF Bonds. As of June 30, 2015, the Trust has $923.6 million in DSRF reserve funds invested in guaranteed investment contracts (GIC) and US Treasury and Agency Obligations.



* based on highest rating

Commonwealth Contract Assistance Payments

The Commonwealth makes assistance payments on behalf of certain loans to borrowers to be used to pay a portion of debt service on the related series of the Trust's SRF Bonds, thereby reducing the borrower's loan repayment obligation. The obligation of the Commonwealth to make such payments to the Trust is a general obligation of the Commonwealth, for which its full faith and credit are pledged.

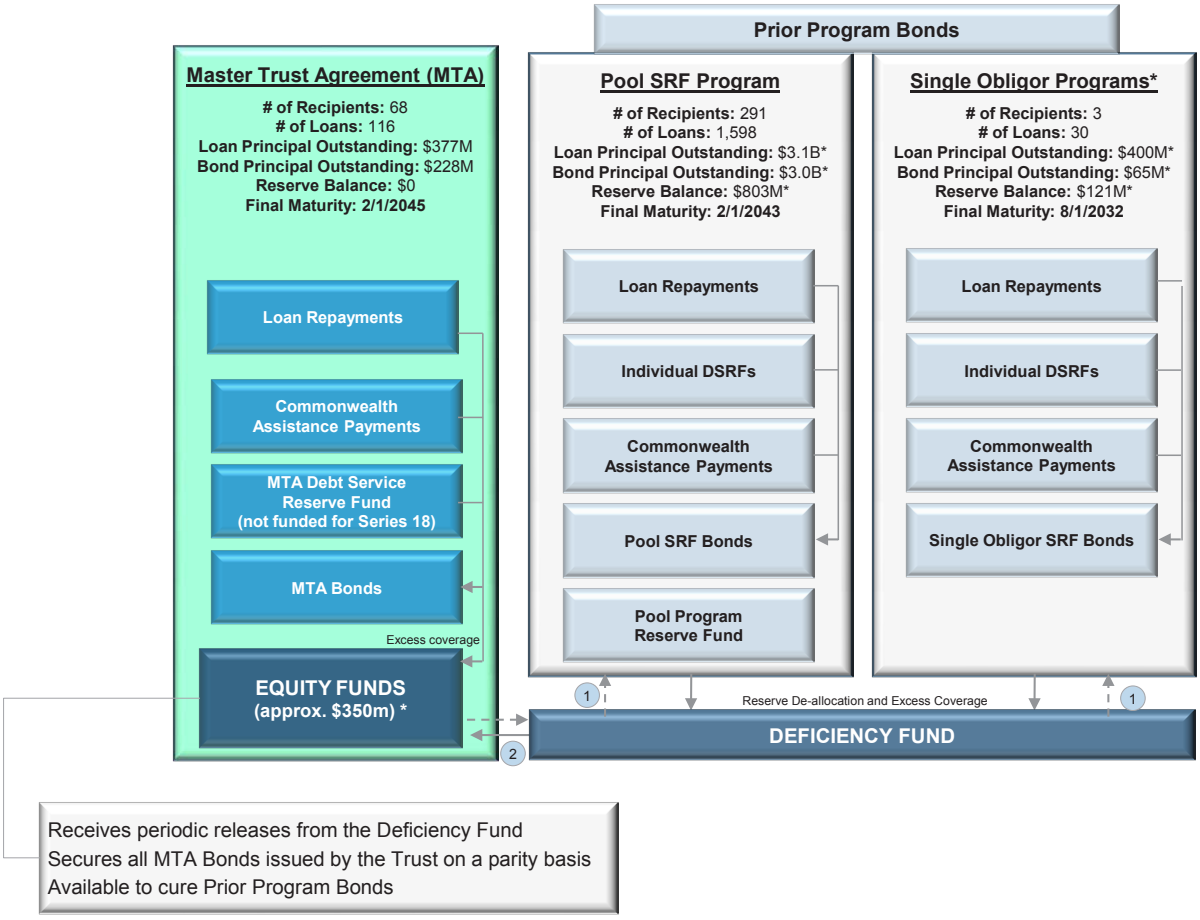


SRF Bonds Sources of Repayment

Principal and interest payments on the Trust's SRF Bonds are made from the following sources: (1) loan repayments from borrowers (2) earnings on the federal grants and state matching grants pledged as security to the SRF Bonds, including, as applicable, interest earning on reserve funds and interest payments on direct loans pledged to secure such bonds and (3) subsidy payments provided by the Commonwealth, known as contract assistance.

The Commonwealth has pledged over $430.1 million in current and future assistance payments on behalf of program borrowers. The Commonwealth is currently rated "AA+/Aa1/AA+".

Security and Structure



* As of June 30, 2015

MASSACHUSETTS CLEAN WATER TRUST

Deallocation of Funds

For all bond series issued prior to Series 18, on each date that the Trust pays down the principal amount of a series of SRF Bonds, or borrowers pay down the principal amount of the related pledged loans, the amount held in the related reserve fund is reduced proportionately. The amounts released from each reserve fund are transferred either to the Pool Program Reserve Fund and then to the Deficiency Fund or directly to the Deficiency Fund. These funds are available to cure shortfalls in any bond series. If not needed to cure a shortfall, the released funds are transferred to the Program Equity Funds which assures the perpetual nature of the revolving fund.

Beginning with Series 18, the Bonds will be governed by the new Master Trust Agreement (MTA). The MTA simplifies the flow and deallocation of funds. As depicted on the chart above, the MTA deallocates funds in the same method as prior bond series but when the funds release they flow directly to the Program Equity Fund. The Program Equity Fund is then available to cure shortfalls in all bond series governed by the MTA and prior bond series. Once it has been determined there no shortfalls, the funds are then available to be disbursed to new loans, thus assuring the perpetual nature of the revolving fund.

Series 18 Green Bonds

On January 7, 2015 the Trust issued $228.0 million in Green Bonds to fund 78 loans to 45 unique borrowers which was secured by 38 pledged direct loans totaling $108.0 million to an additional 33 borrowers. The Trust was able to borrow these funds at the true interest cost of 3.20% due to its AAA rating by all three rating agencies and the credit strength of its borrowers. The bond series was also one of the first Green Bonds issued by a SRF program in the nation and the Green Bond disclosure has since been used by other SRF programs. By designating the bond series as Green Bonds the Trust was able to attract nine new investors in Trust bonds and five new investors to the Green Bond market. In the Appendix to the Annual Report the Trust is providing an update to the Green Bond Disclosure in the Series 18 Official Statement as to the use of Green Bond proceeds. The Trust will continue to report on the use of proceeds until the full amount has been expended.

Appendices

Clean Water SRF	2015		2014	
Annual Grant Awards				
Federal Clean Water SRF Grant	$47,603,000		$45,328,000	
State Matching Funds	9,520,600		9,065,600	
Total Federal & State Grant Awards	$57,123,600		$54,393,600	
Annual Binding Commitments				
	$ Committed	# of Loans	$ Committed	# of Loans
Binding Loan Commitments Issued	$246,200,432	40	$175,348,175	38
Interest Earnings not for bond repayments	$1,116,496		$1,119,428	
Annual Disbursements				
	$ Disbursed	# of Loans	$ Disbursed	# of Loans
Clean Water Interim Loans	$119,450,441	97	$124,091,583	83
Pool Program Project Loans	87,772,403	57	44,024,128	47
Total Disbursements	**$207,222,844**	**154**	**$168,115,711**	**130**
Financial Results From Program Inception				
Federal Clean Water SRF Grant	$1,373,250,761		$1,325,647,761	
State Matching Funds	248,038,692		238,518,092	
Total Federal & State Grant Awards	$1,621,289,453		$1,564,165,853	
TOTAL Clean Water Assets	**$4,396,020,000**		**$4,360,261,000**	
TOTAL Loans Financed	**$4,984,826,956**		**$4,702,806,493**	

Drinking Water SRF	2015		2014	
Annual Grant Awards				
Federal Drinking Water SRF Grant	$16,441,000		$15,699,000	
State Matching Funds	3,288,200		3,139,800	
Total Federal & State Grant Awards	$19,729,200		$18,838,800	
Annual Binding Commitments				
	$ Committed	# of Loans	$ Committed	# of Loans
Binding Loan Commitments Issued	$81,034,279	25	$118,696,488	28
Interest Earnings not for bond repayments	$187,348		$148,392	
Annual Disbursements				
	$ Disbursed	# of Loans	$ Disbursed	# of Loans
Drinking Water Interim Loans	$58,547,738	33	$44,343,676	27
Pool Program Project Loans	24,227,038	47	22,130,322	29
Total Disbursements	**$ 82,774,776**	**80**	**$66,473,998**	**56**
Financial Results From Program Inception				
Federal Drinking Water SRF Grant	$478,686,100		$462,245,100	
State Matching Funds	85,294,020		82,005,820	
Total Federal & State Grant Awards	$563,980,120		$544,250,920	
TOTAL Drinking Water Assets	**$1,256,933,000**		**$1,217,177,000**	
TOTAL Loans Financed	**$ 1,337,244,100**		**$ 1,248,875,836**	

SFY 2015 Clean Water Commitments				
PRA#	**Government Entity**	**Agreement Date**	**Project Description**	**Commitment Amount**
CW-12-18-B	BILLERICA	05/01/2015	WWTF Improvements	$ 160,182
CW-14-20	BILLERICA	06/01/2015	Contract 35 Sewers	4,826,666
CWP-14-02	BOSTON	07/01/2014	Gardner St. Landfill Closure	15,777,800
CW-12-06	BRIDGEWATER	12/01/2014	Water Resource Management Plan	181,190
CWP-14-30	BROCKTON	04/01/2015	Sewer System Rehab	1,750,000
CW-12-21-A	CHATHAM	01/01/2015	Collection System Extension and Improvements	133,464
CW-13-10	CHATHAM	07/01/2014	Collection System Extension and Improvements	3,336,119
CW-14-05*	CHICOPEE	09/01/2014	CSO	25,478,178
CW-13-24	DRACUT	02/01/2015	Contract #32 Sewer Extensions	4,693,582
CW-14-13	EASTHAMPTON	03/01/2015	IWRMP	1,100,000
CW-14-24	EVERETT	12/01/2014	Storm Water/Sewer Evaluation	500,000
CW-14-14	FALL RIVER	12/01/2014	Integrated Wastewater & Stormwater Plan	2,999,619
CWP-14-22	FALMOUTH	04/01/2015	WWTF Upgrades	4,400,000
CWP-14-23	FALMOUTH	04/01/2015	Sewer Extensions and New Recharge Site	32,869,482
CW-12-23	GREAT BARRINGTON	07/01/2014	WWTF Upgrade and I/I Removal	3,930,130
CW-14-18	HAVERHILL	05/01/2015	Revised PH 2 CSO LCTP (Planning Project)	3,283,090
CWP-14-15	HAVERHILL	04/01/2015	CSO Improvements, WWTF and Sewer System	6,464,500
CW-13-13	LAWRENCE	08/01/2014	CMOM and SSES	3,840,000
CW-10-41-A	LEOMINSTER	11/01/2014	WPCF Upgrades	2,500,000
CW-14-29	LUNENBURG	06/01/2015	Sewer Extensions	1,521,653
CWP-15-01	LWSC	06/01/2015	WWTP Incinerator Upgrade & Chlorine Gas Conversion	5,268,266
CW-14-31	MANCHESTER-BY-THE-SEA	05/01/2015	CWMP	250,000
CW-11-21-B	MARLBOROUGH	07/01/2014	Marlborough Easterly WWTP Upgrades	12,681,920
CWP-14-32	MIDDLEBOROUGH	04/01/2015	WWTF Upgrades	25,000,000
CWP-14-28	MONTAGUE	04/01/2015	Pump Station Replacements	1,951,059
CW-13-30	MWRA	10/01/2014	Nut Island Headworks Electrical & Conveyor Improvement	840,982
CW-13-32	MWRA	10/01/2014	CSO Phase 14	21,000,000
CW-11-11-A	NEEDHAM	08/01/2014	Replacement of Reservoir B Sewer Pump Station	175,004
CWP-14-19	NEW BEDFORD	04/01/2015	CSO Abatement	8,279,605
CW-14-11	REVERE	05/01/2015	CWMP/CSMP Supplemental Plan	1,200,000
CW-14-25	REVERE	02/01/2015	Collection System Improvements	700,000
CWP-14-12*	REVERE	04/01/2015	Illicit Connection Detection Program (Planning Project)	10,982,142
CWP-14-08	SAUGUS	12/01/2014	Marblehead Replacement Crossing Sewer	2,109,614
CW-13-33	SESD	12/01/2014	SSO Reduction Subsystem 5	10,588,475
CWP-14-27*	SPRINGFIELD WSC	04/01/2015	Dickinson Siphon/Main Interceptor Rehab	20,148,628
CWP-14-26	TAUNTON	04/01/2015	SSES Phases 10-12	4,129,082
CWT-14-07	ATHOL Board of Health	08/06/2014	Community Septic Management Program	200,000
CWT-14-09	MIDDLEBOROUGH	08/28/2014	Community Septic Management Program	400,000
CWT-14-10	PLYMOUTH	08/28/2014	Community Septic Management Program	300,000
CWT-15-05	TAUNTON	05/27/2015	Community Septic Management Program	250,000
Total				$ 246,200,432

**Loans used for FFATA Reporting*

SFY 2015 Drinking Water Commitments				
PRA#	**Government Entity**	**Agreement Date**	**Project Description**	**Commitment Amount**
DW-14-01	AUBURN WATER DISTRICT	01/01/2015	West Street WTF Upgrade	$2,688,952
DWP-14-09	BARNSTABLE	04/01/2015	Pipe Replacement and Maher WTP Upgrade	1,556,339
DWP-12-26A	BROCKTON	06/01/2015	Water System Improvement Program	275,500
DWP-15-01	EASTHAM	05/01/2015	Water System Phase 1	2,979,493
DWP-14-08*	FALL RIVER	04/01/2015	Water Main Improvements and WTP Residual Handling	3,361,301
DWP-14-04	FALMOUTH	04/01/2015	Long Pond WTF	18,600,000
DWP-15-02	FALMOUTH	04/01/2015	Long Pond WTF	16,000,000
DWP-11-19A	GLOUCESTER	01/01/2015	Water System Improvements	173,574
DWP-12-02A	GLOUCESTER	01/01/2015	Water Treatment Plant Upgrade	474,127
DW-13-12	HOLDEN	07/01/2014	Water Main Installation and SCADA Improvements	525,000
DW-10-08A	IPSWICH	07/01/2014	Water Main Replacement	1,581,427
DW-13-19	LWSC	06/01/2015	Low Service Reservoir Improvements	1,398,337
DW-14-02*	MARLBOROUGH	01/01/2015	Millham WTP Improvements	4,809,184
DW-13-13A	MEDWAY	05/01/2015	Water Main Replacement	1,722,600
DW-12-14	MERRIMAC WATER DEPARTMENT	10/01/2014	Water Main Replacement	981,402
DW-13-21	MWRA	10/01/2014	Southern Spine Distribution Mains	3,000,000
DW-13-22	MWRA	10/01/2014	Lower Hultman Aqueduct Rehabilitation	1,800,000
DW-13-23	MWRA	10/01/2014	New Connecting Mains	666,666
DW-13-24	MWRA	10/01/2014	Low Service Storage	2,500,000
DW-13-20	MWRA	10/01/2014	Blue Hills Covered Storage	1,800,000
DWP-14-05	NEW BEDFORD	04/01/2015	Transmission Main Improvements	5,000,000
DWP-15-03	NEW BEDFORD	04/01/2015	Transmission Main Improvements	4,323,792
DW-14-07	PAXTON	05/01/2015	Maple Street Elevated Tank	1,434,000
DW-14-12	UXBRIDGE	06/29/2015	Rt. 122 Water Main Replacement	3,186,000
DWP-13-15A	WEBSTER	05/01/2015	Water Main	196,585
DWP-13-15	WEBSTER	4/1/2014	Water Main	1,729,415
DWP-11-23-A	WEST SPRINGFIELD	9/1/2013	Water Transmission Main and Wellfield	566,384
Total				$ 81,034,279

**Loans used for FFATA Reporting*

Series 18 Green Bond Project Descriptions
Projects Financed with Green Bond Proceeds

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
Town of Barre	**DW**	$63,800	Well #3 Evaluation- The project is a planning study to provide the Town of Barre with more flexibility in operating their water supply system. While the town is not looking to increase their Water Management Act (WMA) approved rate, they are looking to increase their withdrawal rate from Well #3. In Spring 2010, Well #1 tested positive for coliform bacteria and the town was issued a NON by DEP to begin permanent disinfection at Well #1. Because the water from Well #1 has a high iron concentration, installing disinfection at the site will likely result in other water quality problems. Well #3 does not have a high iron concentration.	94.48%
Town of Belmont	**CW**	2,300,000	Illicit Connection Elimination- This project will eliminate sanitary sewer illicit connections entering the storm drain system's tributary to Alewife Brook, Little Pond and Blair Pond. The objective of this project is to protect public health and improve water quality in area brooks and ponds in the Mystic River Watershed.	95.72%
Town of Billerica	**CW**	1,515,186	Phase I Pump Station Upgrade- This project will result in sewer pump station improvements/upgrades to all of the pump stations in the town that are in immediate need of repair or replacement due to imminent failure or safety hazard. The pump station improvements are the result repairs necessary for operator safety, proper alarms and back-up power be implemented. The elimination of the Bertha Circle and Poe Road Pump Stations and bypass with gravity sewer will be done as part of Phase I. In addition to the Category 3 repairs, Phase I includes instituting a SCADA system, completion of the remaining upgrades to the Roger and Brown Pump Stations and compete upgrade to the Middlesex Turnpike Pump Station.	98.85%
Town of Billerica	**CW**	9,000,000	Sewer Extension and Pump Station Improvements- This project includes a sewer extension in East Billerica and improvements, upgrades, and/or elimination of several sewer pump stations in the town. The project includes installation of approximately 5 miles of sewer in the highest priority area identified in the Comprehensive Wastewater Management Plan. The pump station improvement project includes elimination of the Bertha Circle, Poe Road and Marshall Street Pump Stations and improvements to the Nashua Road, Ilford Road and Monson Pump Station.	78.48%
Town of Billerica	**CW**	4,468,535	Waste Water Treatment Facilities (WWTF) Improvements- This project will increase the physical and biological capacity of the Letchworth Avenue WWTF, which is very close to reliably treating wastewater. The project will achieve this through the implementation of the portions of the Capital Improvements Plan (CIP) which addresses capacity concerns. Improvements to the WWTF will help remediate well documented environmental impacts to the Concord River.	88.97%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
Town of Billerica	**CW**	6,892,829	Waste Water Treatment Facilities (WWTF) Improvements- This project will increase the physical and biological capacity of the Letchworth Avenue WWTF, which is very close to reliably treating wastewater. The project will achieve this through the implementation of the portions of the Capital Improvements Plan (CIP) which addresses capacity concerns. Improvements to the WWTF will help remediate well documented environmental impacts to the Concord River.	100.00%
City of Brockton	**DW**	1,912,312	Water System Improvement Program- This project includes multiple contracts. The project includes a contract which will replace residential water meters and implement city-wide Automatic Meter Reading (AMR). An additional contract will eliminate lead service connections on West Elm Street while another contract will update GIS program for implementation of AMR; replace air relief valves on 24" transmission mains from Silver Lake; West Elm Street service connections upgrade; install solar photovoltaic cells at Silver Lake water treatment facility and upgrade original 1950's booster station. A major reason for the meter work is an effort to comply with an Interbasin Transfer Act requirement to reduce unaccounted-for-water to 10% or less.	79.76%
Town of Chatham	**CW**	3,847,853	Collection System Extension and Improvements- This sewer Collection System Extension and Improvement Project will address nitrogen loading concerns by further extending the wastewater collection system. The project is the third phase of implementing nitrogen mitigation efforts that began in 2010. The project will include sewering additional sections of Chatham and constructing two pump stations capable of handling a total of 68,000 gallons per day of sewage. The mitigation of nitrogen will help protect the health of salt and fresh water bodies in the town.	100.00%
Cherry Valley & Rochdale Water District	**DW**	556,038	Modifications to Water Treatment Plant- This project will be done in two phases. The work in Phase I consists of replacing valves and sand media at the Grindstone WTF. Phase I also includes a pilot study for the proposed upgrades to the WTF, an update to the existing feasibility study and a Capacity Assessment Report. Phase 2 consists of the construction of modifications to the existing WTF. Modifications will include installing a Miex system for TOC removal, a continuous monitoring system for the Groundwater rule, re-piping of the backwash system, spillway modifications and replacement of high lift pumps in the existing clearwell. The completion of this project will significantly improve the quality of water supplied to the Cherry Valley and Rochdale Water District including the chief goal of removal of TOC's.	74.42%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
City of Chicopee	**CW**	14,845,991	Combined Sewer Overflow (CSO)- This project includes CSO separation of Call Street area and Montgomery Street/Sheridan Street. These areas represent Phase 2 of the eight phase plan presented in Chicopee's Final Long Term Control Plan and Final Environmental Impact Report (FLTCP/FEIR). The project will separate over 400 acres and eliminate the CSO's in these areas. In most cases sewer separation for these sewer separation projects will be achieved by providing a new sanitary sewer pipe and utilizing the existing combined sewer pipe for the conveyance of stormwater. The elimination of CSO discharge to the Chicopee River and the creation of additional interceptor capacity downstream to accommodate combined sewer flows from other areas within the city will contribute to improve water quality.	92.02%
City of Chicopee	**CW**	3,008,860	Wastewater, Waste Water Treatment Facility (WWTF) and Stormwater Improvements- The Integrated Municipal Stormwater and Wastewater Resource Management Plan will serve as a planning basis for future phases of CSO abatement and infrastructural renewal work. Significant portions of the Integrated Plan will be devoted to collecting data and modeling to document the actual CSO reduction progress that has been made by the already completed sewer separation projects, evaluating the effectiveness of those projects and re-assessing whether or not to continue full implementation of the currently proposed CSO Long Term Control Plan recommendations.	80.99%
Town of Clinton	**CW**	120,000	Stormwater Management Plan- The project is a planning study to develop specific recommendations and improvements for the storm drain system infrastructure and associated surface waters under the Phase II NPDES requirements for the Town of Clinton. The project will substantially mitigate problems associated with stormwater contamination.	100.00%
Town of Dartmouth	**CW**	288,057	Inflow and Infiltration (I/I) and Sewer System Evaluation Survey (SSES)- This project will consist of I/I and SSES for areas of town that are tributary to the South Dartmouth and Clarence pumping stations. These areas of the town have been experiencing excessive infiltration and inflow leading to sewer back-ups and sanitary sewer overflow. The project will be conducted in accordance with DEPs 1993 Guidelines for performing (I/I) and SSES. The project will identify the sources of the excessive I/I and recommend measures to address the deficiencies.	100.00%
Town of Dartmouth	**CW**	9,847,478	Waste Water Treatment Facilities (WWTF) Upgrades- This project includes upgrades and improvements to the (WWTF) and four pump stations. Most of the facilities/processes are 20 years old and upgrades warranted to continue to meet the current and future NPDES permit. Upgrades will include odor control upgrades, addition of tertiary filtration system and replacement of pumping systems. The completed project will eliminate sewer system overflows at south main pumping station, eliminate odor related complaints from residents, decrease fecal coliform and enterococci concentrations and TSS in the effluent. The project will improve water quality discharged to the watershed area and to the Buzzards Bay area.	94.86%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
Town of Dracut	**CW**	9,559,545	Collection Sewers- The objective of the project is to improve water quality in the area by reducing the amount of untreated wastewater entering the environment from failed septic systems and direct sewerage connections to the local storm water system. This project will provide sewer service to the Methuen Street and Wheeler Road Areas which are located in the eastern and southeastern sections of Dracut. The project includes the construction of approximately 40,000 lf of sanitary gravity sewer, force main and pressure sewer and one pumping station.	94.49%
City of Everett	**CW**	661,967	Stormwater/Wastewater Capital Improvement- The objective of the Everett and Chelsea Stormwater/Wastewater Capital Improvements Project is to address the critical need for replacement of the failing Market Street culvert and the regulatory requirements for rehabilitation/replacement of the Behan Street area wastewater and stormwater infrastructure. Ultimately these projects will serve to protect the water bodies in the Mystic River and Boston Harbor basins. The Market Street culvert has experienced several failures since 1984 with various sections of the culvert being repaired and/or replaced over the last 25 years. Currently, there is a large section of the culvert that has partially collapsed and there is a significant concern that the culvert may completely fail. This project will implement an investigation and planning effort focused on identifying the financial and technical requirements for rehabilitation and/or replacement of the culvert. The Behan Street area is the subject of an Administrative Consent Order issued to the City of Everett by MassDEP to address several sanitary sewer overflows in these areas. The City of Everett is currently undertaking an investigation of this area to determine the nature and extent of the required corrective actions. Due to the difficulties encountered during the cleaning and CCTV inspections, the engineer is evaluating the following four options for pipeline rehabilitation/replacement: cured-in-place pipe lining, in-in replacement (pipe bursting), sliplining and excavation and replacement.	100.00%
Fairhaven	**DW**	789,846	Boston Hill Tank Rehab and Main Replacement- The project is for the painting, cleaning and rehabilitation of the Boston Hill Water Storage Tank. Installation of a new mixing system in the tank will enhance water quality and minimize the formation sediment at the bottom of the tank. The addition of security measures will reduce unauthorized access to the tank and potential contamination.	93.83%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
City of Fall River	**CW**	12,668,331	Combined Sewer Overflows (CSO) Abatement Program- The objective of this project is to abateCSO's in Fall River in order to achieve compliance with state and federal CSO regulations and to comply with a Federal Court Order. The work involves the construction of CSO controls for the President Avenue CSO outfall and other CSO outfalls to the Taunton River and Mt. Hope Bay. This project is part of a multi-year undertaking. Planned CSO control projects include several additional CSO screening and disinfection facilities and/or sewer separation projects The City of Fall River has a combined system with 19 CSO outfalls that discharge to the Mt. Hope Bay, Taunton River or Quequechan River. These CSO outfalls discharge untreated stormwater runoff and sewage with associated fecal coliform, floatables, suspended solids, nutrients, and other contaminants during wet weather to their respective receiving waters.	81.74%
City of Fall River	**DW**	112,499	Water System Master Plan Update- This project will update the 2002 Water System Master Plan. The plan will address system improvements completed since 2002. The Hydraulic Model will be updated and recommendations will be made for continued system improvements. Updating the plan will include analyzing the overall system including water mains, tanks and water treatment plants the Water System Master Plan will help assist the city in planning, future funding and prioritization of projects as well as identifying any existing environmental or public health issues in the water system.	100.00%
City of Fall River	**DW**	2,403,940	Water Main Improvements, Phase 12- This project is for the replacement of water mains and lead services on various streets in Fall River and for water main improvements at Wattuppa Pond. The project includes the evaluation and refurbishment of the transmission mains between the water treatment plant and the Bedford Street Tanks. The work will also include new drainage infrastructure along Bedford Street in the vicinity of the Water Department facilities to better protect North Wattuppa Pond from washouts of surrounding roadways. The city is currently under Administration Order due to violations of the lead and copper rule. The water main improvements at Wattuppa Pond will help continue protection of the water supply and continue to provide safe and reliable water supply to the city.	99.17%
City of Fitchburg	**CW**	5,575,799	Combined Sewer Separation (CSS)- This project is the continuation of the city's program to separate combined sewers to eliminate raw sewage discharges during storm events. The project eliminates combined sewers by constructing new drainage pipes adjacent to sewer pipes to convey stormwater, which will allow the city to close several Combined Sewer Overflows (CSOs). The project will realize health and safety benefits from reduced odors, improved aesthetics and better water quality in the Nashua River and affected tributaries, and allow the city to comply with the Administrative Consent Order issued by the EPA.	98.01%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
City of Fitchburg	**CW**	7,143,406	Chemically Enhanced Primary Treatment Upgrade- This project is the upgrade of the Easterly Wastewater Treatment Facility (WWTF) to add chemically enhanced primary treatment. The facility receives all the wastewater flows from the city as well as contributions from Westminster and Lunenburg. The facility discharges its treated effluent to the North Branch of the Nashua River. The facility has exceeded its allowable discharge limits under its NPDES permit, particularly in the amount of phosphorous and ammonia discharged. The EPA has issued an Administrative Order for Compliance to the city for the violation of the effluent limits in the permit. This proposed work will significantly improve discharge permit compliance and will improve the water quality of the Nashua River.	100.00%
Town of Framingham	**CW**	3,515,998	East Framingham Sewer Improvements- Phase 1 of this project includes the elimination of three existing pumping stations and approximately 22,000 feet of existing force main by combining two separate major pumping stations into one and by redirecting flow by gravity from the tributary areas of two other pumping stations to a new interceptor sewer installed at a lower depth. This project represents the central project in a series of proposed projects that are recommended in the recently completed CWMP.	100.00%
City of Gloucester	**DW**	4,482,909	Water Treatment Plant (WTP) Upgrade-The purpose of the WTP Upgrades is to improve reliability, redundancy and energy efficiency at the city's West Gloucester facility. Proposed improvements include replacement of much of the mechanical and electrical equipment which has reached the end of its useful life and is also inefficient. The upgrade will include a backwash water recycle system which will significantly reduce wastewater discharged to the Gloucester sewer system (specifically the Essex Ave Sewer and Banjo Pump Station) potentially reducing the frequency and severity of potential future SSO's. In addition, safety equipment will be updated and/or installed at both the West Gloucester and Babson WTP's. All the improvements at the West Gloucester WTP will improve reliability of the WTP's ability to provide a constant supply of drinking water especially if there is raw water contamination and/or mechanical failure at the Babson WTP.	100.00%
City of Gloucester	**DW**	9,866,524	Water System Improvements- The project is split into three contracts. Contract 1 is for the cleaning and painting of the 0.6 MG Blackburn Water Storage Tower and the 1.0 MG Plum Cove Water Storage Tank. There will also be the instillation of hydraulic mixing systems for these tanks and the 6.0 MG Bond Hill Reservoir. This contract will also include operational updates to the Fuller Booster Pump Station. Contract 2 will include replacing approximately 2-1/2 miles of cast iron water main along Western Avenue. Contract 3 includes replacing approximately 4 miles of water main in the Commonwealth Avenue neighborhood.	100.00%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
City of Gloucester	**DW**	2,522,368	Water Transmission Improvements- This project consists of relocating approximately 2,100 feet of 20-inch water main from the Bond Hill Tank to Western Avenue to make it accessible for routine and emergency maintenance. A second aspect of the project is to relocate the two 20-inch water mains under the Blyman Canal from the Western Avenue utility tunnel to the area directly under Annesquam River.	82.74%
Greater Lawrence Sanitary District	**CW**	2,296,515	Waste Water Treatment Plant Improvements- The project is Phase 1 of the District's "Final Long Term Combined Sewer Overflow (CSO) Control Plan and Environmental Impact Report" and includes: primary clarifier enhancements to improve removal efficiency under high flow conditions, addition of a fifth aeration blower and additional aeration tank diffusers, modifications and improvements to the secondary treatment system influent flow gates and aeration system, relocation of the existing ferric chloride system to allow expansion of the plant sodium hypochlorite system and further study of proposed improvements to the Riverside Pump Station and force main. The district anticipates the project will further reduce the number of CSO overflows and increase capture of wet weather flows.	86.23%
Greater Lawrence Sanitary District	**CW**	721,415	New Force Main for Riverside Pump Station- The project is Phase 3 of the District's "Final Long Term Combined Sewer Overflow (CSO) Control Plan and Environmental Impact Report" and includes construction of approximately 1/2 miles of new force main from the Riverside Pump (the District's main pumping station) to the District's wastewater treatment facility (WWTF) and modifications to the force main header. The existing force main has been identified as subject to premature failure due to breakage of the pre-stressing wire. Acoustic monitoring of the pipe confirms that the wire breaks are occurring on this pipe. Replacement will eliminate the threat of a catastrophic pipe failure which poses a direct threat to the Merrimack River, nearby residents, and the adjacent MBTA railroad line. The District anticipates that this project will provide the conveyance capacity necessary to fully implement the district's CSO Control Plan. Full implementation of the plan will reduce the number of CSO overflows and will increase capture of wet weather flows.	76.09%
City of Haverhill	**CW**	5,176,671	Combined Sewer Overflow/Flood Control Improvements- The project includes the purchasing of three mobile 10.5 MGD trailer mounted pumps and improvements to the sewer collection system, on the Merrimack River Floodwall and the Little River Conduit. The trailer mounted pumps will be used as a backup to the Marginal Pump Station during high flow events. Collection system improvements include upgrades to seven diversion gates to allow flow to be diverted away from the middle sewer interceptor and Marginal Pump Station. Improvements to the Merrimack Floodwall consist of repairs to the existing floodwall; improvements to the Little River Conduit include concrete repairs, repairing expansion joints, re-pointing piers, and related work to mitigate stormwater impacts on the conduit.	74.40%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
Town of Holliston	**DW**	2,500,000	Well No. 4 Replacement and Treatment Plant Upgrade- The Town of Holliston Well No. 4 currently experiences evaluated concentrations of iron, manganese and organic material. This project will reduce the amount of organic material in the raw water through the installation of a replacement well. The existing Well 4 Water Treatment Facility will be upgraded to address the new water quality from the replacement well. The upgrade to the Water Treatment facility will remove one of the precursors of disinfection by products (DBPs). DBPs are the result of the combination of the organic material and disinfectant. The well uses sodium hypochlorite for disinfection in the finished water of the treatment plant and with the elevated concentrations of organic material DBPs exceeding the regulatory limits may form in the distribution system. The elevated levels of iron in the distribution system may also lead to iron bacteria creating a public health theat. The project upgrades will reduce the amount of iron in the finished water preventing the formation of iron bacteria.	100.00%
Town of Ipswich	**CW**	2,246,791	Wastewater Solids & UV Disinfection Upgrades- This project will rehabilitate and improve the existing solids handling equipment and the existing UV disinfection system. The solids handling system upgrades are intended to replace worn out equipment, improve solids handling system performance and capacity and improve efficiency. Improved solids handling systems will also reduce performance impacts on the ultraviolet light disinfection system. The UV Disinfection System upgrades are intended to promote compliance with the effluent characteristics listed under the NPDES Permit, expressly related to fecal coliform exceedances. Based on the 2009 Wastewater Solids Handling Study, the proposed solids handling upgrades include a new 40 foot diameter thickener, refurbished sludge storage tank, new centrifuge, new dewatering solids conveyors, new truck loading hopper, and new septage receiving system.	100.00%
Town of Kingston	**DW**	4,482,474	Trackle Pond Water Treatment Facility (WTF)- This project includes the construction of a new WTF to reduce manganese concentrations at the Trackle Pond Well. The new WTF will include LayneOx Filtration System, UV disinfection, PLC and SCADA system, solar panel installation, and replacement of existing well pumps. The completed project will reduce high manganese concentrations that are affecting taste and color of the drinking water. The project will also eliminate health concern for infants and young children.	95.59%
City of Lawrence	**DW**	1,589,827	Valve Replacement- This project will repair and replace broken and malfunctioning valves in a significant number of locations in the Lawrence Water Distribution System. Over 90 valves, ranging in size from 6" to 12", have been identified needing repair or replacement in the distribution system. As a result of this project, the city will be able to implement a unidirectional flushing program and a valve exercise program which will allow the city to isolate water main sections during repairs or in the case of emergencies.	99.32%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
City of Lawrence	**DW**	3,318,458	Water Meter Replacement- This project involves replacing approximately 10,700 existing meters in residential, commercial and municipal structures and implementing a meter reading system. The project will enable the city to recover costs of under-registering meters and reduce the amount of unaccounted for water.	88.12%
Lynn Water and Sewer Commission	**CW**	907,374	Wind Turbine Project- The project will construct a wind turbine with a minimum rated capacity of 600 kW at the Regional Water Pollution Control Facility in Lynn. The LWSC WWTF consumes approximately 12,000,000 kWh of electricity per year and the estimated net energy production for the turbine is 993,400 kWh annually.	100.00%
City of Malden	**CW**	3,844,078	Sewer Improvements- This sewer line improvement project was initiated in response to an Administrative Consent Order negotiated with MassDEP and the US EPA. The construction project will reduce infiltration and inflow (I/I) and sanitary sewer overflows from occurring within the City of Malden's wastewater collection system which is being treated at the Deer Island Sewage Treatment Plant unnecessarily. The project includes cured-in-place pipe liner (CIPPL) for approximately 28,000 feet of 8-inch to 10-inch pipe. Approximately 80 manholes have also been identified as being in need of monolithic cementitious liner. Further, approximately 1,200 service lateral liners are proposed to mitigate infiltration from entering the sewer mains at service lateral connections.	88.08%
City of Malden	**DW**	270,899	The project will update the lead service line replacement program required as part of the administrative consent order (ACO-BO-06-5D001) to remove lead services throughout the system. This planning project consists of a new water distribution model and Capital Improvements Plan (CIP) and will allow the City to develop a computer model that will help stimulate existing conditions of the system and evaluate the conditions of the system. The CIP be based on system deficiencies identified in the hydraulic model. The project will provide the city with technical resources to complete development of GIS data and base for the existing Drinking Water distribution system.	100.00%
City of Malden	**DW**	6,065,116	Water Distribution System Planning- The project will update the lead service line replacement program required as part of the administrative consent order to remove lead services throughout the system. This planning project consists of a new water distribution model and Capital Improvements Plan (CIP) and will allow the city to develop a computer model that will help stimulate existing conditions of the system and evaluate the conditions of the system. The CIP be based on system deficiencies identified in the hydraulic model. The project will provide the city with technical resources to complete development of GIS data and base for the existing Drinking Water distribution system.	95.75%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
City of Malden	**DW**	918,658	This project will include the replacement of old unlined cast iron water mains with larger cement lined ductile iron water mains to enhance the carrying capacity and quality of water. The project will also include the removal of several lead service lines in compliance with an ACO issued by the state in response to drinking water samples that exceeded the action level for lead.	38.55%
Town of Marion	**CW**	3,147,400	Wastewater and Stormwater Improvement- The objective of this Wastewater Collection System and Drainage System Improvements project is to improve water quality in coastal receiving waters and to improve the operations of the Town's wastewater collection system and treatment plant by reducing the volume of infiltration and inflow (I/I) entering the collection system, and improving the water quality of storm water discharges through the removal of illicit connections to the sewer system and through the construction of Best Management Practices. The project will provide the foundation for the reduction of pathogen discharges to Sippican Harbor and Buzzards Bay as well as significantly reduce the volume of public and private I/I entering the collection system.	76.11%
City of Marlborough	**CW**	20,000,000	Marlborough Easterly Waste Water Treatment Plant (WWTP) Upgrades- These projects consist of the improvements to the Easterly WWTP to reduce effluent phosphorus, replace aging infrastructure and improve energy efficiency and secondly to conduct an infiltration/inflow study of the wastewater collection system to identify, characterize and prioritize deficiencies in the system to reduce peak flows. The upgrades are primarily intended to reduce the phosphorus loads discharged from the facility to help remediate documented nutrient enrichment of the receiving waters and the downstream Sudbury River. The project is consistent with the Comprehensive Wastewater Management Plan and regional nutrient reduction goals. The project will also improve the energy efficiency of the facility and is expected to include the installation of renewable energy systems at the site.	100.00%
Town of Medway	**DW**	1,501,102	Water Main Replacement- This project addresses the replacement of aging water mains and appurtenances in various streets in the community. The replacement of these old mains will help improve water quality with respect to disinfection, circulation, volume and fire protection.	75.39%
Town of Monroe	**CW**	200,000	Waste Water Treatment Facility (WWTF) Repairs- As a result of damage sustained by the WWTF during the winter of 2010, the town has requested and received approval for use of emergency funds to make temporary emergency repairs/modifications to the existing facility and to start design of a replacement WWTF. The design will be done in accordance with the recommendations outlined in an approved engineering report dated December 2010.	79.73%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
Massachusetts Water Resources Authority	**CW**	2,000,000	Nut Island Headworks & Converyor Improvements- The project will replace all embedded electrical components below high-tide level and will replace key components of the screening and grit conveyor system at the Nut Island Headworks (NIH). Tidally-influenced groundwater infiltration has caused corrosion of the electrical wiring, conduits and panels that are embedded in or mounted on the walls and/or slabs and this project will correct the problem with ceiling- and surface- mounted components and have concrete surfaces treated to prevent infiltration. To improve the operation of the girt and screenings conveyor, the project will replace the belt scrapers, enclose the vertical belts with covers, add a redundant screenings conveyor, and install wider drip pans. The project will significantly improve the operations, reliability, and efficiency of these systems, particularly during wet weather and maintain the performance and reliability of the NIH as an important component of MWRS's long-term asset protection initiatives and management projects to preserve operating assets.	100.00%
Massachusetts Water Resources Authority	**CW**	1,977,802	Electrical Upgrades- The Deer Island Sewer Treatment Plant, which treats sewage from 43 communities including Boston, was affected by two power outages at NSTAR substations that provide power to treat sewage. The outages occurred on April 3, 2004 and April 11, 2004, as a result of control problems with the Deer Island electrical backup systems approximately 2 ½ hours and 2 hours delay before power was fully restored. Both these events resulted in sanitary sewer overflows; the largest of the system overflows lasted for several hours on April 11th. MWRA also conducted ongoing condition monitoring assessment work to identify equipment replacement needs. The electrical system reliability project will include the replacement of transformers, bus duct with cable duct, and variable frequency drive units. The electrical reliability project is designed to overhaul, upgrade, or replace equipment systems and is not routine CEP plant operations and maintenance needs.	100.00%
Massachusetts Water Resources Authority	**CW**	2,912,188	Wastewater Treatment Plant and Sewer Improvements- This project includes upgrades to the Deer Island Treatment Plant automation and central control systems as well as improvements and upgrades to several existing interceptors and pump stations that are in need of replacement and/or modernization. The project is intended to extend current asset life and improve system operability.	100.00%
Massachusetts Water Resources Authority	**CW**	5,113,812	Deer Island Treatment Plant Improvements- This project is included in the Deer Island Treatment Plant Asset Protection Program, in order to ensure that all of the structures and equipment installed at Deer Island remain in good working condition and/or are replaced with needed.	100.00%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
Massachusetts Water Resources Authority	**CW**	840,982	Nut Island Headworks Electrical & Conveyor Improvement- The project will replace all embedded electrical components below high-tide level and will replace key components of the screenings and grit conveyor system at the Nut Island Headworks (NIH). Tidally-influenced groundwater infiltration has caused corrosion of the electrical wiring, conduits and panels that are embedded in or mounted on the walls and/or slabs and this project will correct the problem with ceiling- and surface-mounted components and have concrete surfaces treated to prevent infiltration. To improve the operation of the grit and screenings conveyors, the project will replace the belt scrapers, enclose the vertical belts with covers, add a redundant screenings conveyor and install wider drip pans. The project will significantly improve the operations, reliability, and efficiency of these systems, particularly during wet weather and maintain the performance and reliability of the NIH as an important component of MWRA's long-term asset protection initiatives and management projects to preserve operating assets.	100.00%
Massachusetts Water Resources Authority	**CW**	15,000,000	Combined Sewer Overflow (CSO) Phase 14- The primary objective of the CSO control plan is to bring CSO discharges in Boston Harbor and its tributaries into compliance with state and federal requirements. This component of the plan will involve nine sewer separation projects. All the projects will be accomplished by constructing new storm drains and allowing the existing combine sewers to function as separate sanitary sewers, or by constructing new sanitary sewers and allowing the existing combined sewer to serve as storm drains. The project will result in the elimination of CSO discharges at several outfalls.	100.00%
Massachusetts Water Resources Authority	**DW**	5,000,000	Low Service Storage- This project is for the construction of a 20 million gallon potable water storage tank in the Town of Stoneham at its terminal reservoir at the northeastern extremity of the MWRA water service to metropolitan Boston. The project will provide improved storage (16-20 million gallons) but will also provide surge relief, protecting MWRA and community mains; allow more efficient use of the existing MWRA distribution system; and, provide emergency backup to 21 communities in the Northern Intermediate High and Northern High systems.	100.00%
Massachusetts Water Resources Authority	**DW**	600,000	Northern High Service(NHS)- Revere & Malden Pipeline- The project work includes the NHS improvements in Revere and Malden.	100.00%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
Massachusetts Water Resources Authority	**DW**	600,000	Northern Low Service (NLS) Area Rehabilitation- This project involves the rehabilitation of the NLS area, which consists of the replacement of a portion of Section 8; rehabilitation of Sections 37 and 46; and construction of Section 97A. Section 8, an unlined pipeline was installed between 1897 and 1920 and is currently functioning at approximately 45% of its original capacity due to the build-up of rust deposits and other matter along the pipeline wall and has experienced leaks at an above average rate. Excavations for the installation of new valves along portions of section 8 have indicated possible severe external corrosion on the pipe wall, which could affect the structural stability of the pipeline. Rehabilitations of Sections 37 and 46 will improve the service to East Boston and will allow the shutdown of Section 8 for rehabilitation.	100.00%
Massachusetts Water Resources Authority	**DW**	1,000,000	New Connecting Mains- This project involves the construction of new connecting mains within the MWRA Distribution System between Weston Aqueduct Supply Mains 3 and 4 and the City Tunnel. These connecting mains in the Intermediate High, Northern High, Northern Extra High and Southern High service areas provide transport of water from the City Tunnel and the City Tunnel Extension to municipal meters along an 11-mile pipeline, which currently has no connecting mains and no other means available to adequately supply communities.	100.00%
Massachusetts Water Resources Authority	**DW**	1,600,000	Lower Hultman Aqueduct Rehabilitation- The work includes the construction of interconnections between the Metro West Tunnel and the Hultman Aqueduct; as well as rehabilitation of the aqueduct that includes replacement or repair of air relief structures, blow-off valves, culverts beneath the aqueduct; and replacement of existing valves.	100.00%
Massachusetts Water Resources Authority	**DW**	240,342	Southern Spine Distribution Mains- This project requires cleaning, rehabilitation and repair of the 20 miles of old water mains which are currently functioning at 50% of their original capacity. In addition, there is need to replace many inoperable values in the system. The mains begin in Brookline and end at the Blue Hills Reservoir in Quincy. The mains serve the Southern High and Southern Extra High System communities of Boston, Brookline, Milton, Quincy, Norwood and Canton.	100.00%
Massachusetts Water Resources Authority	**DW**	1,800,000	Lower Hultman Aqueduct Rehabilitation- This work includes construction of interconnections between the Metro West Tunnel and the Hultman Aqueduct, as well as rehabilitation of the aqueduct that includes replacement or repair of air relief structures, blow-off valves, culverts beneath the aqueduct; and the replacement of existing valves.	100.00%
Massachusetts Water Resources Authority	**DW**	666,666	New Connecting Mains- This project involves the construction of new connecting mains within the MWRA Distribution System between Weston Aqueduct Supply Mains 3 and 4 and the City Tunnel. These connecting mains in the Intermediate High, Northern High, Northern Extra High and Southern High service areas provide transport of water from the City Tunnel and the City Tunnel Extension to municipal meters along an 11-mile pipeline, which currently has no connecting mains and no other means available to adequately supply communities.	100.00%

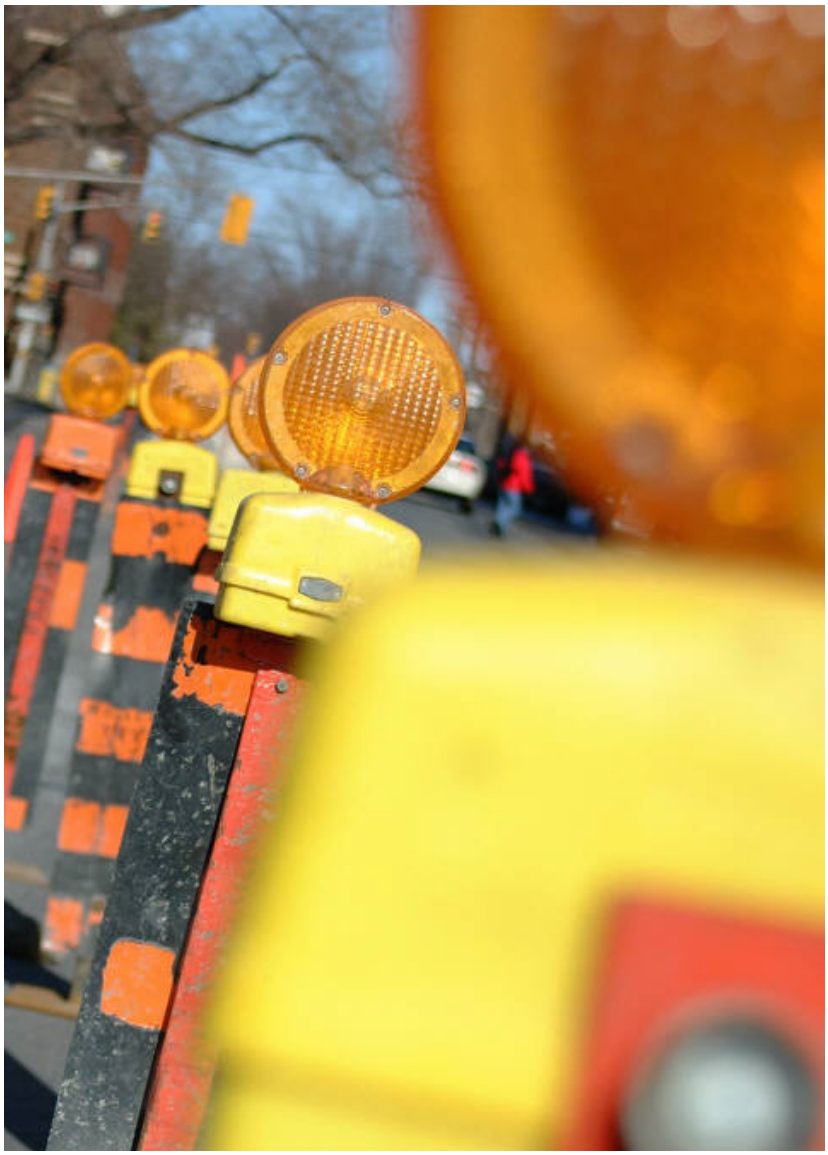
Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
Massachusetts Water Resources Authority	**DW**	2,500,000	Low Service Storage- This project is for the construction of a 20 million gallon potable water storage tank in the Town of Stoneham at its terminal reservoir at the northeastern extremity of the MWRA water service to metropolitan Boston. The project will provide improved storage (16-20 million gallons) but will also provide surge relief, protecting MWRA and community mains, allow more efficient use of the existing MWRA distribution system and provide emergency backup to 21 communities in the Northern Intermediate High and Northern High systems.	100.00%
Town of Nantucket	**CW**	4,999,200	Sewer Replacement for Inflow and Infiltration (I/I) Removal- This project is for the rehabilitation of a portion of Nantucket's sewer system in downtown Nantucket to remove excessive infiltration. This portion of the sewage collection system is a significant contributor of the stormwater inflow and groundwater infiltration found throughout the collection system. Illicit connections to the sanitary sewer system, backups, and overflows are all problems caused by I/I. As a direct result of overload in the Surfside Wastewater Treatment Facility, plant effluent may negatively affect area parklands, beaches and other coastal locations. The project includes instillation of sewers, installation of dead end manholes and installation of in-line manholes. The rehabilitation work will assist in maintaining compliance levels at the WWTF and fulfill the commendations in the Comprehensive Wastewater Management Plan.	99.65%
City of Newburyport	**DW**	300,000	Water Treatment Facility (WTF) Upgrade and Water Distribution System- The project, which includes three contracts, will upgrade the Newburyport WTP by constructing a new WTP with dissolved air floatation clarification and will install new water mains to address low pressure areas and dead ends within the water distribution system. The new WTP will allow the plant to better meet the peak flow rate for which the plant is capable and to meet the turbidity requirements. WTP improvements also include upgrade of the existing WTP building, construction of a new clearwell and pump station to house the finished water and backwash water pumps, and upgrade of the residuals handling system to provide recycle of the filter backwash water and discharge of residuals to the existing lagoon. The Water Distribution System Improvements project would address low pressure problems in two locations: the streets surrounding the interconnection between the City of Newburyport and the Town of West Newbury by replacing the existing force main crossing over Route 95 and the portion of the system that supplies water to the Town of Newbury by replacing approximately one-mile of force main with an increased size pipe. The Water Distribution project will also address the elimination of dead-ends by installing new force mains on five streets including Bowlen Avenue, Finnigan Way, Goldsmith Drive, Hope Avenue, and Tracey Street.	84.82%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
Town of North Attleborough	**CW**	11,416,000	Waste Water Treatment Facility (WWTF) Upgrade and Inflow and Infiltration (I/I) Removal- WWTF will be upgraded to remove nitrogen and phosphorus in response to a new NPDES permit and EPA Administrative Order. The work will improve the discharge to the Ten Mile River to improve water quality. The project also initiates a five-year (I/I) removal program throughout the city. The I/I project includes collection system rehabilitation and replacement and disconnecting storm system connections form the sewer system. Reducing I/I from the treatment plant will reduce the volume of water to be treated, resulting in operational and energy savings.	93.81%
Town of Pembroke	**CW**	98,393	Capping of Hobonock Street Landfill- The proposed project consists of properly capping the Hobomock Street Landfill to prevent the spread of heavy metals and other pollutants into the groundwater and neighboring waterways. The completed project will provide a location for renewable energy facility.	100.00%
City of Pittsfield	**CW**	4,100,000	Energy Efficiency, Photovoltaic & Combined Heat and Power (CHP) Installation- The City of Pittsfield operates an advanced, nutrient-removal treatment facility that processes approximately 10.8 million gallons of wastewater per day. The facility treats municipal and industrial wastes from Pittsfield, Dalton, Hinsdale, Lanesborough and North Lenox. The green energy upgrades to the plant will include: Upgrading the existing single-speed mechanical mixing system to a fine bubble aeration system, performing heating and lighting upgrades; Upgrading the existing anaerobic sludge digestion system by installing a 195 kW biomass (sludge) cogeneration system for on-site electric power generation; Installing up to a 1,575 kW solar photovoltaic system (roof and ground-mounted); In total, over $647,000 (89%) in annual energy savings, 1,770 kW of green power generation (solar photovoltaic & CHP), and approximately 3,252 tons of carbon dioxide emission reductions will result annually from these green investments. Construction of the CHP project revealed significant electrical overload conditions in the Motor Control Center (MCC) and associated transformer, and non-compliant electrical and building code conditions. The replacement of the existing MCC, transformer, stand-by power systems and associated electrical upgrades are necessary to ensure the safe, uninterrupted operation of the Waste Water Treatment Plant.	100.00%
Town of Randolph	**DW**	2,933,623	Water System Improvements- This project addresses the requirements set forth in the consent order, by identifying and repairing water mains in need of rehabilitation, to provide improvements to the water distribution system.	66.87%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
City of Revere	**CW**	1,273,774	SSES Phase 3 and Storm Water System Management Plan (SWSMP)- The project includes planning identified and required by a consent decree. The project scope will include the following: sewer flow metering, flow isolation, television inspection, dye testing, and smoke testing (as required) to complete the evaluation of the wastewater collection system along with support for ongoing assessment of the stormwater system including illicit discharge underway in the city.	100.00%
City of Revere	**CW**	5,856,307	Sewer System Construction- The project consists of the improvements to the most deficient sewer piping in the Phase 3 area, as well as improvements identified during previous investigations. The project will primarily reduce infiltration and sources of extraneous inflow and will also reduce the amount of storm water entering the city's wastewater collection system, contributing to sanitary sewer overflows (SSO's) that are unnecessarily being treated at the Deer Island Wastewater Treatment Plant.	93.07%
City of Revere	**CW**	1,891,406	Winthrop Ave Emergency Sewer Replacement- On August 28, 2013 during the process of performing maintenance on the Winthrop Avenue trunk sewer, an approximate 20 foot long section of sewer collapsed. The collapse occurred at the approximate mid-point of a 160 foot long, 18 foot deep, vitrified clay (VC) sewer segment, located below two MWRA water mains running from the Elm Street intersection easterly to the downstream manhole. Several alternatives to address the collapsed pipe have been considered. Previous performed hydraulic modeling showed that the existing 18-inch trunk sewer in Winthrop Avenue is undersized and should be replaced with a 36-inch sewer to address surcharging/flooding issues in this area related to capacity of the trunk sewer. Since the collapsed trunk sewer is scheduled for eventual replacement/upsizing in the next few years and sewer segments upstream and downstream of the collapse are in poor condition, the city intends to install approximately 900 feet of 36-inch replacement sewer from the interceptor in Revere Beach Parkway up to Victoria Avenue.	92.16%
Town of Saugus	**CW**	439,369	Sewer System Rehabilitation- This project includes sewer system rehabilitation in subsystem 6B, which represents continued work to reduce extraneous water in the wastewater system to decrease the likelihood of system surcharges. Rehabilitation of subsystem 6B includes approximately 3-1/2 miles of CIPP lining, installation of approximately 250 lining systems to improve service to mainline connections, rehabilitation of approximately 150 manholes, and removal and/or re-directing private inflow base on those properties confirmed to have inflow sources during the town-wide house-to-house inspection program. This project also includes upgrades and rehabilitation to the Lincoln Avenue Pump Station.	82.49%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
Town of Saugus	**CW**	1,543,200	Sewer System Overflow (SSO) Reduction Subsystem 6- This project involves the rehabilitation of pipelines, manholes and the removal of private inflow sources in Subsystem 6 of the Saugus Sewer System as a means to eliminate infiltration and inflow (I/I) from the system and significantly reduce or eliminate sewer system overflows at the Lincoln Avenue Pumping Station. The project also includes the installation of a wet weather pump station (Saville Street pumping Station) to mitigate the SSO's in the Innis and Elm Street area. This project is part of an ongoing program to eliminate excessive I/I in the Saugus Sewer System from causing sewer overflows to Rumney Marsh and the Saugus River and surcharging to the Lynn Sewer System.	89.01%
Town of Shrewsbury	**CW**	4,146,710	Sewer Interceptor and Pump Station- This project is a three-phased construction to replace or line Shrewsbury sewer Interceptor, and upgrade existing six pump stations. The proposed project will eliminate sewer back-ups and overflows.	87.72%
City of Taunton	**CW**	4,688,669	Phases 8-9 Sewer System Evaluation Survey (SSES) and Pump Station Upgrades - This project is for repair and replacement of sewer mains and service laterals, removal of stormwater connections to the sanitary sewer, removal of roof leaders and sump pump connections from the sewer system, separation of combined manholes, and upgrade of vital pump stations. The project will eliminate potential public health threats and nuisances resulting from sewage discharge to the receiving waters and reduce the risk of sewer overflows.	100.00%
City of Taunton	**CW**	552,881	Winthrop St. Sewer Extensions - The project will extend sewer service to needs areas identified by the city's Comprehensive Wastewater Management Plan (CWMP). The project includes constructing a new sewage pumping station. The work will allow balancing of flows between pump stations to prevent overtaxing the Warner Boulevard pump station.	90.99%
Town of Webster	**DW**	1,657,267	Water Main Construction- The project includes the construction of approximately 4,500 feet new water main along Rawson Road Reservoir Access Road, Rawson Road to Gore Road, and section of Gore Road, installation of approximately 75 linear feet cured-in-pipe liner, and installing a Tideflex Mixing System for the Rawson Road Water Tank. The project will reduce the probability of future failures and thus reduce the risk of system contamination, iron and manganese water quality disturbances and the loss of water from storage.	100.00%
Town of Wellfleet	**CW**	200,000	Comprehensive Wastewater Management Plan (CWMP)- The Town of Wellfleet proposes to create a CWMP to address town-wide wastewater management concerns. Much of the town's Central District has small lots with septic systems that have led to documented elevated nitrate levels in the groundwater and Wellfleet Harbor. The plan will identify the options available to reduce the pollution and improve water quality in the area.	100.00%

Borrower	Program	Amount to be Financed	Project Description	Percentage of Loan Drawn
Town of West Springfield	**DW**	566,384	Water Trasmission Main and Wellfield- The project involves the complete replacement (about 5 miles) of the transmission main from Well #4 at the Southwick Wellfield to an existing main located on Dewey Street in West Springfield's distribution system. The existing transmission main is unreliable (installed in 1938), undersized, and follows a mostly cross-country route that greatly limits accessibility. Due to this, the Town is not able to utilize the Southwick Wellfield to its permitted capacity. The Southwick Wellfield provides approximately 80% of the Town's water supply. Due to the increased carrying capacity of the proposed transmission main, the project will also necessitate improvements at the Southwick Wellfield, including new well screens, installation of VFDs, and the installation of two additional carbon absorbers at the treatment facility. Improving the carrying capacity of the transmission main from the Southwick Wellfield will reduce the Town's reliance on the Bear Hole Reservoir, which is the Town's other source of water. The Town has had past episodes of taste and odor problems resulting from algae and turnover issues in the reservoir. The Bear Hole Reservoir WTP utilizes open slow sand filters that have no backwash capability. The project will also install variable frequency drives at each of the wells.	92.73%
Town of Westborough	**CW**	98,280	An Infiltration/Inflow (I/I) Analysis and Sewer System Evaluation Survey (SSES) will attempt to reduce the volume of I/I in the Westborough Sewerage System, to the Westborough WWTF, and finally to the Assabet River; thereby attempting to protect the river from negative impacts. The Town of Westborough proposes to perform the I/I Analysis and SSES in the downtown area, the west end of Town, the east end of Town, the former Lyman School for Boys, and the State Hospital. These areas are the most densely populated and oldest areas of the sewer system.	100.00%
City of Westfield	**DW**	2,352,248	Water Main Replacement- This project replaces an undersized deteriorated 14-inch raw water transmission main installed in 1895. The pipeline's hydraulic capacity has declined to less than 3 MGD, which prevents the City of Westfield from utilizing the full capacity of 4 MGD from the Sackett Water Treatment Plant. The new transmission main will restore long-term system reliability and full use of the treatment plant. The project also incorporates on-site energy generation using an in-line turbine to capture excess hydraulic head to generate much of the energy needed to run the plant.	96.49%
City of Worcester	**CW**	561,500	Lake Ave Sewer Inflow and Infiltration (I/I)- This project will implement the recommendations from the Lake Avenue Area Sewer System Evaluation Survey (SSES) to remove cost effective I/I from the Lake Avenue Area that contributes to surcharging and overflows into Lake Quinsigamond.	100.00%



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