



CLEAN WATER AND DRINKING WATER STATE REVOLVING FUND LOAN PROGRAM

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



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MESSAGE FROM THE CHAIRMAN

September 30, 2014

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 2014.

The Trust is a collaborative effort between the Office of the State Treasurer, the Executive Office for Administration and Finance, and the Massachusetts Department of Environmental Protection (MassDEP). Through our leveraged financing program we are able to maximize the impact of our efforts throughout the Commonwealth. To date, the Trust has used just over \$2.0 billion in federal grants and state matching funds to finance nearly \$6.0 billion in clean water and drinking water construction projects throughout the Commonwealth.

As our water infrastructure continues to age, there is no better time for municipalities to invest in protecting the health of their citizens, the environment and allow for economic development of their communities. In order to be able to achieve these goals, easy access to financing is essential, and the Trust continues to do its part by providing subsidized loans backed by its AAA credit. In fiscal 2014 the Trust provided approximately \$294 million in commitments for low interest rate loans to cities and towns all over the Commonwealth. This commitment amount will support an estimated 1,750 construction and engineering jobs. This financing provides vast benefits to the quality of the state's waterways and the protection of public health through such projects 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 operate as a national model for state revolving funds and demonstrated this through the sale of their Series 2014 Refunding Bonds. By identifying favorable market conditions and refunding opportunities in previous bond series, the Trust successfully sold \$565 million in refunding bonds, locking in a total interest cost of 2.13% and generating \$73.3 million in future debt service savings that will help provide future loans to borrowers.

On behalf of our partners at MassDEP and the staff at the Trust, I would like to take this opportunity to thank the staff of Environmental Protection Agency Region 1 for all of their efforts during 2014. I would also like to thank the staff of the Trust and at MassDEP for a job well done. Without the combined efforts of these organizations, the great things we are doing in the Commonwealth would not be possible. Finally, I would like to thank the Governor and Legislature for demonstrating their strong commitment to water infrastructure by passing Senate Bill 2342, An Act Improving Drinking Water and Wastewater Infrastructure. The bill now allows the Trust to provide additional subsidies beyond the low 2% interest rate. This crucial change will help to convince municipalities that now is the time to move forward with water infrastructure improvements to keep Massachusetts a great place to live and work.

Sincerely,

Steven Grossman Chairman

Massachusetts Clean Water Trust

www.mass.gov/treasury



INTRODUCTION

This report covers the State Fiscal Year ending June 30, 2014

The Massachusetts Clean Water Trust (the Trust), formally known as the Massachusetts Water Pollution Abatement 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). This IUP establishes the Commonwealth's project priorities for the upcoming year. This is accomplished through two

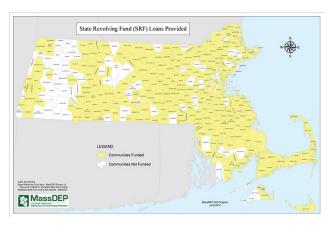
programs – the Clean Water State Revolving Fund (SRF) and the Drinking Water State Revolving Fund. The EPA requires reporting on both of the programs through the Clean Water SRF Annual Report and the Drinking Water SRF Biennial Report. These reports have been combined into this report, which covers the State Fiscal Year ending June 30, 2014 (SFY).

state matching funds and the repayment of funds from previous borrowers. In addition, the Trust issues bonds, guaranteed by debt service reserve funds that are funded by federal and state grants. The Trust's lending and bond issuance programs are structured in such a way as to ensure adequate cash flows to fund its loans and to repay its bonds to maturity. The Trust's bonds are secured by a

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

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.

An estimated 97% of Massachusetts citizens have benefited from these essential projects. In SFY 2014, the Trust provided binding commitments for 38 clean water projects, including the Community Septic Management Program (CSMP), totaling over \$175 million and 28 drinking water projects totaling just under \$119 million. The SRF loan program receives funding from the EPA in the form of an annual grant, supplemented by



The Clean Water SRF provided \$175 million of project financing to create 1,050 construction and engineering jobs.

The Drinking Water SRF provided \$119 million of project financing to create 700 construction and engineering jobs.

CLEAN WATER SRF ANNUAL SUMMARY

Massachusetts continues to finance projects that focus on rehabilitation of wastewater infrastructure that 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 identify the focus on and eligibility of energy efficiency/alternative energy projects.

2014 Clean Water Program Results

In 2014, the Trust continued to expand its program by providing new commitments of over \$175 million in financing for 38 loans to communities across the Commonwealth. Of the 38 commitments, 8 were awarded 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.

Grant Awards		
	SFY 2014 Grant Awards	Program to date Grant Awards
Federal	\$45,328,000	\$1,325,647,761
State	9,065,600	238,518,092
Total	54,393,600	1,564,165,853

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 to enable projects to proceed prior to a Trust bond sale. The Trust is capable of funding a project from 60 days to 1 year 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 2014, accruing only on drawn funds, was 0.10%. During SFY 2014, 83 projects had drawn \$124.1 million of interim loan funds.

Extended Financing

As in previous years, the Trust continues to offer extended financing to its participants. Extended financing is offered for projects whose life expectancy is demonstrated to be at least 30 years.

Disbursements

During 2014, the Trust disbursed \$168.1 million for clean water projects to various local governmental entities through the pool program, direct loans, and interim loans. Of this amount, \$3.5 million was disbursed in the form of additional subsidy with repayment not required, to either "Renewable Energy" projects or "Environmental Justice" communities.

SFY 2014 Clean Water Disbursements			
	Amount	# of Loans	
Interim Loans	\$124,091,583	83	
Pool Program Project Funds	44,024,128	47	
Total	168,115,711	130	

Administrative Expenses

For SFY 2014, \$2.6 million of annual Clean Water SRF grant administration funds were spent by MassDEP. This consisted of \$2.2 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 \$5.7 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 funding of \$2.1 million to the Cape Cod Commission to help with the overall costs in developing a regional wastewater management plan called for under the federal Clean Water Act.

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 Loan Commitment. No projects during the reporting period were subject to the AIS requirements because all projects had Plans and Specifications submitted on or before January 17, 2014 and approved by April 15, 2014.

<u>Federal Funding Accountability and Transparency Act</u>

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 2013 CWSRF Federal Grant, the Trust was required to provide \$4.5 million in financing to projects that were identified as Green Projects. In its 2013 IUP, MassDEP identified 10 projects totaling \$124.4 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 2012 grant, \$4,798,500 was required for the Green Project Reserve. A total of \$5,673,333 was reported in CBR or 11.8% of the grant.



Additional Subsidy

Massachusetts was required to provide a minimum of \$2,135,142 in additional subsidy from the 2013 grant. This additional subsidy is dedicated to communities that would not otherwise be able to afford the project. 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, Massachusetts provided the minimum amount of subsidy to twelve clean water projects. Each project received an equivalent of 2.4% 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, \$2,034,422 of the additional subsidy from the 2013 grant has been disbursed. The remaining funds should be disbursed within the next few months. As a follow up to 2013 Annual Report, all of the additional subsidy funds from the 2012 grant have been fully expended.

2013 Federal Grant Projects Receiving Additional Subsidy				
Borrower	Project	Loan #	Project Cost	Principal Forgiveness
Cambridge	Huron B Sewer Separation Project	CWP-13-03	\$27,801,071	\$669,681
Chicopee	Wastewater, WWTF and Stormwater Improvements	CWP-13-21	3,083,127	74,267
Fall River	CSO Abatement Program	CWP-13-02	12,981,022	312,691
Fitchburg	Combined Sewer Separation Area 4D	CWP-13-01	13,553,330	326,477
Malden	Sewer Improvements	CWP-13-25	3,938,961	94,883
Norwood	Meadowbrook Area Sewer Rehab	CWP-13-19	2,534,364	61,048
Palmer	Sewer Replacement	CWP-13-23	5,807,685	139,897
Quincy	Fort Square Pumping Station Rehab	CWP-13-26	2,957,392	71,239
Revere	Collection System Improvements	CWP-13-16	6,627,721	159,651
Saugus	SSO Reduction Subsystem 6	CWP-13-05	1,581,291	38,091
Taunton	SSES Phases 10 - 12	CWP-13-18	6,548,241	157,736
Worcester	Lake Ave Sewer I/I	CWP-13-20	1,223,881	29,481
TOTAL			\$88,638,086	\$2,135,142

2014 Clean Water Leveraged Program

The Trust program is leveraged by issuing bonds to provide construction proceeds for loans. Federal and state grants are pledged to secure the bonds by either funding reserve funds or pledged 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. Although those with extended term financing, greater than 20 years, may have a subsidized interest rate somewhat higher than 2%. In SFY 2014, borrower principal and interest loan repayments accounted for approximately 67.6% of debt service, totaling \$202.4 million. The Trust pledges certain direct loans that it makes from its SRF program funds as additional security for its series of revenue bonds rather than utilizing the 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, 2014, the Trust has \$152.6 million of pledged direct loans outstanding.

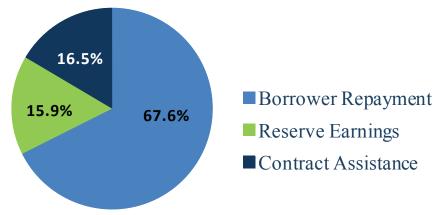
Reserve Fund Interest Earnings

Reserve funds are held as security for all Trust bonds at an amount between 33% and 50% of the outstanding principal. As of June 2014, the Trust held \$821.6 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 2014, reserve fund earnings applied to current debt service payments accounted for approximately 15.9% of debt service, totaling \$47.7 million. As bonds are repaid, reserve funds are released. In SFY 2014, \$66.6 million was released to the Clean Water SRF, and made available for new loans.

Commonwealth Contract Assistance

The Commonwealth has entered into an agreement for contract assistance to make payments to the Trust to directly subsidize debt service on the SRF bonds. Contract assistance is appropriated annually in the Commonwealth's budget. To date the Trust has received \$858.0 million in clean water contract assistance with a future commitment of \$315.3 million, for a total commitment by the Commonwealth of \$1.2 billion. In SFY 2014, Commonwealth contract assistance accounted for approximately 16.5% of debt service, totaling \$49.2 million in assistance applied.

Total Sources of Revenue for CWSRF SFY2014



CLEAN WATER PROJECTS

The Massachusetts SRF program continues to meet the goals established in the annual Intended Use Plan (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.

<u>Billerica – Wastewater Treatment Facility</u> <u>Improvements</u>

This \$11.4 million project will increase the physical and biological capacity of the Letchworth Avenue Wastewater Treatment Facility (WWTF), which is very close to its capacity to reliably treat wastewater. The project will achieve this through the implementation of the portions of the Capital Improvements Plan (CIP) which addresses capacity concerns. The work generally consists of replacement of the mechanical, electrical, and control components of three existing 60-foot diameter secondary clarifiers and construction of a fourth 60-foot diameter secondary clarifier. Improvements to the WWTF will help remediate well documented environmental impacts to the Concord River.



Letchworth Avenue Wastewater Treatment Facility Billerica, MA

<u>Chicopee – Wastewater and Stormwater Improvements</u>

This sewer and storm drain improvement project consists of sewer separation projects, storm drain and slope stabilization and repairs to the Water Pollution Control Facility's secondary clarifier. The sewer separation projects will address the public health and environmental impacts caused by combine sewer overflows in the Connecticut and Chicopee Rivers.

The storm drain and slope stabilization projects will address serious erosion problems occurring in the Connecticut River tributaries and wetlands. The repairs to the secondary clarifier are a preventative measure to ensure the continued reliable operation of the treatment plant. This will reduce the risk of an unplanned shut down of the treatment facility due to mechanical failure. This \$3.1 million project is receiving \$74,000 in principal forgiveness.



Fitchburg - Combined Sewer Separation

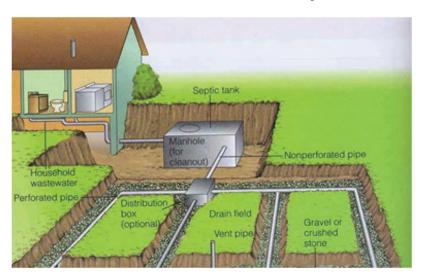
The City of Fitchburg is under an Administrative Order with the MassDEP and EPA to reduce the amount of combined sewer overflows (CSOs) into the Nashua River. The Nashua River is currently being studied for excessive nutrient levels and is also a tributary for both the Lowell and Lawrence drinking water supplies. Therefore, the City has undertaken a series of projects to separate its sanitary sewers from its storm drainage system. The general scope of work for this \$13.5 million project consists of separating approximately 24,000 linear feet of combined sewers by installing new drainage pipe (or sanitary sewer pipe), connecting existing catch basins to the separate storm sewer, replacing existing catch basins, and rehabilitating existing combined sewers and manholes as necessary. This will reduce the frequency and duration of CSOs thereby improving the water quality of the Nashua River. The City will receive over \$326,000 in principal forgiveness for this project.



Community Septic Management Program

The Community Septic Management Program (CSMP) provides loans to Massachusetts' communities to assist homeowners in repairing failed septic systems. The Trust makes low interest rate loans to communities who, in turn, loan the funds directly to homeowners for up to 20 years. Loans to homeowners are secured through a betterment on the property. This program allows municipalities to provide access to capital for home repair at a subsidized interest rate. Prior to SFY 14, this program was funded through a separate appropriation of the State Legislature. Those funds were fully expended last year and the program has now been rolled into the Clean Water SRF as a non-point source project. During SFY 14, eight loans were made to Massachusetts' communities totaling \$3.05 million.

Through these new loans and the remaining loans from the earlier program, 536 septic systems were repaired or replaced during the reporting period at an average cost of \$14,500. Since the program's inception, approximately 7,500 septic systems have been repaired or replaced in 145 communities throughout Massachusetts.



DRINKING WATER SRF ANNUAL SUMMARY

Massachusetts continues to support protection of public health by ensuring that all Massachusetts 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.

2014 Drinking Water Program Results

In 2014, the Trust continued to expand its program by providing new commitments of just under \$119 million in funding for 28 loans to communities across the Commonwealth.

Grant Awards		
	SFY 2014 Grant Awards	Program to date Grant Awards
Federal	\$15,699,000	\$462,245,100
State	3,139,800	82,005,820
Total	18,838,800	544,250,920

Interim Loans

The Trust makes funds available to eligible projects on the IUP through the Interim Loan Program year round. Borrowers can enter into a short term loan to enable projects to proceed during the time prior to a Trust bond sale. The Trust is capable of funding a project from 60 days to 1 year 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 2014, accruing only on drawn funds, was 0.10%. During SFY 2014, 27 projects had drawn \$44.3 million of interim loan funds.

Disbursements

During 2014, the Trust disbursed \$66.5 million for drinking water projects to various local governmental entities through the pool program, direct loans, and interim loans. Of this

amount, \$4.1 million was disbursed in the form of additional subsidy with repayment not required to either "Renewable Energy" projects or "Environmental Justice" communities.

SFY 2014 Drinking Water Disbursements			
	Amount	# of Loans	
Interim Loans	\$44,343,676	27	
Pool Program Project Funds	22,130,322	29	
Total	66,473,998	56	

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 Loan Commitment. No projects during the reporting period were subject to the AIS requirements because all projects had Plans and Specifications submitted on or before January 17, 2014 and approved by April 15, 2014.

<u>Federal Funding Accountability and Transparency Act</u>

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 this reporting period, 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.

For the 2013 grant period, this increased the required small systems assistance from \$2.35 million to \$18.13 million. The 2013 Intended Use Plan (IUP) listed three small system projects totaling \$2.71 million, which met the earlier interpretation of the 15% small systems requirement. Being listed on the IUP does not necessarily mean that the project will ultimately be built. Often times a community is unable to secure debt authorization or otherwise determines that a project should not go forward. Of the three projects listed on the 2013 IUP, two of them did not proceed. Offers were made to small system projects further down on the Project Priority List (PPL), but none of the systems accepted the financing. The total value of the one project that went to construction was \$828,674.

Similarly, the 2014 IUP was released before the change in interpretation of the small systems requirement. The 2014

IUP listed four projects totaling \$3.58 million, which was in excess of 15% of the federal grant. Taking into account the projects on the extended PPL, the total value of all small systems applications was \$5.14 million. With a total IUP cost of \$126.4 million, the 15% small systems requirement is \$18.96 million. Even if every project on the PPL proceeded to construction, the 15% requirement cannot be met.

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. Even with these efforts to reach and recruit small systems, the Trust is concerned that in most years, there may not be sufficient applications to make up 15% of the total assistance provided.

Green Project Reserve

The 2012 and 2013 Drinking Water SRF Grants do not require the funding of Green Projects. The Trust, however, continues to allow Green projects to be financed through the Drinking Water SRF. While it is not a requirement, when Massachusetts identifies particular Green projects, they will be identified in the Drinking Water Project Benefits Reporting System (PBR).



Additional Subsidy

Massachusetts was required to provide a minimum of \$3,139,800 in additional subsidy from the 2013 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 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 thirteen drinking water projects. Each project received an equivalent of about 4.2% 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, \$1,451,034 of the additional subsidy from the 2013 grant has been disbursed. The remaining funds should be disbursed within the next few months. As a follow up to 2013 Annual Report, all of the additional subsidy funds from the 2012 grant have been fully expended.

2013 Federal Grant Projects Receiving Additional Subsidy				
Borrower	Project	Loan #	Cost	Principal Forgiveness
Barnstable	Hyannis Water System Improvements	DWP-13-01	\$2,523,837	\$105,290
Fall River	Airport Road High Service Area Improvements	DWP-13-06	4,180,577	174,406
Harwich	Water Treatment Plan	DWP-13-02	1,960,000	81,768
Lawrence	Water Main Replacement	DWP-13-05	9,585,972	399,910
Lowell	Meter Replacement and AMR System	DWP-13-03	10,105,055	421,565
Lowell	Redundant Transmission Main	DWP-13-04	4,739,222	197,712
Malden	Water Distribution Systems Improvements	DWP-13-18	2,911,527	121,464
Randolph	Water System Improvements	DWP-13-14	3,061,336	127,713
Revere	Water Meters AMR System	DWP-13-09	4,807,743	200,570
Springfield WSC	South Water Transmission Main Replacement	DWP-13-16	22,587,589	942,314
Taunton	Pump Station and Water Main Replacement	DWP-13-07	6,241,138	260,369
Turners Falls	Hannegan Brook Well Pump Station	DWP-13-17	828,674	34,571
Webster	Pump Station	DWP-13-15	1,729,415	72,148
TOTALS			\$75,262,085	\$3,139,800

2014 Drinking Water Leveraged Program

The Trust program is leveraged by issuing bonds to provide construction proceeds for loans. Federal and state grants are pledged to secure the bonds by either funding reserve funds or pledged 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. All Drinking Water loans have a maximum term of 20 years.

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 2014, borrower principal and interest loan repayments accounted for approximately 75.3% of debt service, totaling \$65.1 million. The Trust pledges certain direct loans that it makes from its SRF program funds as additional security for its series of revenue bonds rather than utilizing the 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, 2014, the Trust has \$57.6 million of pledged direct loans outstanding.

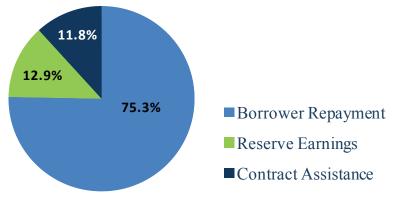
Reserve Fund Interest Earnings

Reserve funds (or specially pledged loans) are held as security for all Trust bonds at an amount between 33% and 50% of the outstanding principal. As of June 2014 the Trust held \$193.5 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 2014 reserve fund earnings applied to current debt service payments accounted for 12.9% of debt service, totaling \$11.2 million. As bonds are repaid, reserve funds are released. In SFY 2014, \$20.7 million was released to the Drinking Water SRF, and made available to be applied to new loans.

Commonwealth Contract Assistance

The Commonwealth has entered into an agreement for contract assistance to make payments to the Trust to directly subsidize debt service on the SRF bonds. Contract assistance is appropriated annually in the Commonwealth's budget. To date the Trust has received \$117.3 million in drinking water contract assistance with a future commitment of \$88.3 million, for a total commitment by the Commonwealth of \$205.6 million. In SFY 2014 Commonwealth contract assistance accounted for approximately 11.8% of debt service, totaling \$10.2 million in assistance applied.





Drinking Water Set-Asides

MassDEP continues to use set-aside funds as outlined in the annual Intended Use Plans. 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 uses approximately seventeen (17) 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 2014 include:

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 448 evaluations on existing systems. See Figure 1 below for breakdown of system types.

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. Figure 1:

MassDEP Sanitary Surveys Completed SFY 2014			
Type of Public Water System	Total # of Surveys Completed		
Community Systems	190		
Non-Transient Non Community Systems	63		
Transient Non Community System	195		
Totals	448		

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 2,353 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 twenty-one (21) FTEs from the 15% local assistance set-aside to support the PWS 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 2014 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 2014		
Type of Public Water System	Total # of Systems	
Community Systems	3	
Non-Transient Non Community Systems	0	
Transient Non Community System	23	
Totals	26	

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 Intended Use Plan (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.

Acton Water Supply District - New Water **Treatment Plant**

This \$13.5 million project includes the construction of a new water treatment facility and water mains at the Christofferson, Lawsbrook, and Scribner wells in accordance with an Administrative Consent Order (ACO). new water treatment facility will include a membrane filtration system, aeration tower, an additional building, new emergency back-up power, and replacement of existing well pumps. The completed project will improve drinking water quality by reducing high manganese and iron concentrations and eliminate microbiological contaminations.



Acton Water Treatment Facility



MWRA Spot Pond Storage Facility

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 \$7.5 million in project financing over the last two years.

<u>Springfield Water and Sewer Commission –</u> South Water Transmission Main Replacement

This \$22.6 million project replaces the existing 83 year old steel finished water transmission main which provides water to the city of Springfield and the towns of Agawam, Longmeadow and East Longmeadow. This project is critical for improving the integrity and reliability of this transmission main since it is near the end of its useful life and recent inspections have uncovered significant internal and external pipeline corrosion. This project received \$942,000 in principal forgiveness.



Taunton – Pump Station and Water Main Replacement



This project involves the replacement of approximately 10,000 linear feet of water main throughout the City of Taunton water distribution system. It also involves the construction of a new pumping station on Harris Street to replace the original station constructed in 1876. These improvements will result in improved water quality and system reliability. This \$1.4 million project received over \$260,000 in principal forgiveness.

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 funds 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 in such a way as 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.

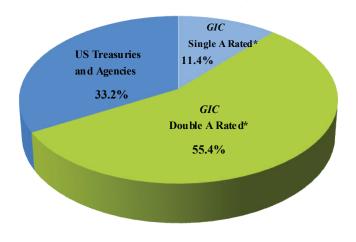
Pledged Direct Loans

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 water pollution abatement 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 17 SRF Bonds. The bonds are the second series of Trust SRF Bonds issued under the Pledged Direct Loan approach. As of June 30, 2014, the Trust has \$210.2 million in Pledged Direct Loans.



Reserve Funds

In the past, the Trust has applied a portion of its SRF Program 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, 2014, the Trust has \$1.0 billion in DSRF reserve funds invested in guaranteed investment contracts (GIC) and US Treasury and Agency Obligations.



* based on highest rating

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.

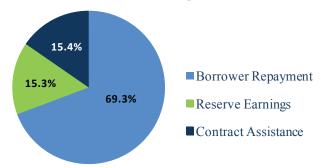
Commonwealth Contract Assistance Payments

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, and thereby reduced 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.

Deficiency Fund

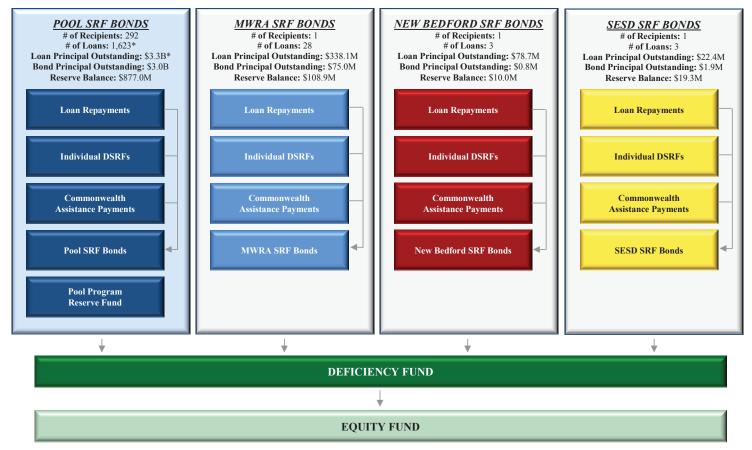
On each date that the Trust pays down the principal amount of a series of SRF Bonds, or borrowers pay down the principal amount of the related pledged loans, the amount held in the related reserve fund is reduced proportionately, and the amounts released from each reserve fund are transferred either to the Pool Program Reserve Fund and then to the Deficiency Fund or directly to the Deficiency Fund and are available to cure defaults in any bond series. If not needed to cure a default, the released funds are transferred to the SRF Program Funds which assures the perpetual nature of the revolving fund.

Total Sources of Revenue for FY 2014



The Commonwealth has pledged over \$466.1 million in current and future assistance payments on behalf of program borrowers. The Commonwealth is currently rated "AA+/Aa1/AA+".

Financing Flow of Funds



^{*} Includes pledged direct loans

Series 2014 Refunding Bond Issue

On June 12, 2014, the Trust issued \$565.6 million Series 2014 SRF Refunding Bonds (at a true interest cost of 2.13%) which mature in years 2015 - 2028. The Trust used bond proceeds from the refunding bonds in addition to \$140.8 million of proceeds received from liquidating a debt service reserve fund to defease \$739.9 million of outstanding bonds. This bond refinancing will result in present value savings of \$73.3million which will allow the trust to fund additional essential water infrastructure projects across the Commonwealth.

The Series 2014 SRF Refunding Bonds received a AAA bond rating from all three rating agencies. By receiving ratings higher than the average underlying ratings of the participating local communities, the Trust consistently delivers lower borrowing costs to the Commonwealth and its communities.

Appendices

Clean Water SRF	2014	2013
	Annual Grant A	wards
Federal Clean Water SRF Grant	\$45,328,000	\$47,985,000
State Matching Funds	9,065,600	9,597,000
Total Federal & State Grant Awards	54,393,600	57,582,000

Annual Binding Commitments						
\$ Committed # of Loans \$ Committed # of Lo						
Binding Loan Commitments Issued	\$175,348,175	38	\$186,760,187	46		
Interest Earnings not for bond repayments	1,119,428		1,013,674			

Annual Disbursements							
	\$ Disbursed	# of Loans	\$ Disbursed	# of Loans			
Clean Water Interim Loans	\$124,091,583	83	\$118,028,541	79			
Pool Program Project Loans	44,024,128	47	83,852,319	60			
Direct Loan Projects	112,926	1					
Total Disbursements	168,115,711	130	201,993,787	140			

Financial Results From Program Inception					
Federal Clean Water SRF Grant	\$1,325,647,761	\$1,280,319,761			
State Matching Funds	238,518,092	229,452,492			
Total Federal & State Grant Awards	1,564,165,853	1,509,772,253			
TOTAL Clean Water Assets	4,335,152,000	4,600,053,000			
TOTAL Loans Financed	4,702,806,493	4,702,806,493			

Drinking Water SRF	2014	2013
	Annual Grant Awar	ds
Federal Drinking Water SRF Grant	\$15,699,000	\$17,012,000
State Matching Funds	3,139,800	3,402,400
Total Federal & State Grant Awards	18,838,800	20,414,400

Annual Binding Commitments						
	\$ Committed # of Loans \$ Committed # of Loans					
Binding Loan Commitments Issued	\$118,696,488	28	\$35,461,695	15		
Interest Earnings not for bond repayments	148,392		126,452			

Annual Disbursements							
	\$ Disbursed # of Loans \$ Disbursed # of Loa						
Drinking Water Interim Loans	\$44,343,676	27	\$46,617,051	35			
Pool Program Project Loans	22,130,322	29	37,962,551	34			
Direct Loan Projects			2,489,962	4			
Total Disbursements 66,473,998 56 87,069,564							

Financial Results From Program Inception						
Federal Drinking Water SRF Grant \$462,245,100 \$446,546,100						
State Matching Funds	82,005,820	78,886,020				
Total Federal & State Grant Awards	544,250,920	525,412,120				

TOTAL Drinking Water Assets	1,242,285,000	1,303,954,000	
TOTAL Loans Financed	1,248,875,836	1,248,875,836	

	n Water Commit	1	I	la
PRA#	Government Entity	Agreement Date	Project Description	Commitment Amount
CW-12-18*	BILLERICA	10/1/2013	WWTF Improvements	\$11,361,364
CWP-13-03*	CAMBRIDGE	2/11/2014	Huron B Sewer Separation Project	27,801,071
CWP-13-21	CHICOPEE	4/1/2014	Wastewater, WWTF and Stormwater Improvements	3,083,127
CW-13-22	CHICOPEE	4/1/2014	IMSWRMP	558,800
CW-13-09	CRPCD	4/1/2014	WWF Improvements Phase C	21,741,935
CWP-13-02*	FALL RIVER	7/15/2013	CSO Abatement Program	12,981,022
CWP-13-01*	FITCHBURG	8/22/2013	Combined Sewer Separation Area 4D	13,553,330
CWP-11-14-A	GLSD	1/1/2014	New Force Main for Riverside PS	721,415
CW-08-05-A	LUDLOW	12/1/2013	Combined Sewer Overflow	503,676
CWP-13-25	MALDEN	5/1/2014	Sewer Improvements	3,938,961
CW-13-07	MARION	9/26/2013	Wastewater and Stormwater Improvement	3,147,400
CW-12-10	MWRA	7/1/2013	Nut Island Headworks & Conveyor Improvements	2,000,000
CW-12- 19*A,B,C,D	MWRA	7/1/2013	CSO Phase 13	25,000,000
CW-12-24*	MWRA	7/1/2013	Electrical Upgrades	2,100,000
CW-12-25*	MWRA	7/1/2013	Wastewater Treatment Plant and Sewer Improvements	3,200,000
CW-12-26*	MWRA	7/1/2013	Deer Island Treatment Plant Improvements	6,700,000
CW-13-04	NEW BEDFORD	7/29/2013	Phase II WW and Stormwater Plan	1,995,000
CWP-13-19	NORWOOD	4/1/2014	Meadowbrook Area Sewer Rehab	2,534,364
CW-11-12-A	NORWOOD	6/1/2014	Westover Area Sewer Rehab	125,000
CWP-13-23	PALMER	4/1/2014	Sewer Replacement	5,807,685
CWP-13-26	QUINCY	4/1/2014	Fort Square Pumping Station Rehab	2,957,392
CW-13-14	REVERE	12/1/2013	CMOM Program	300,000
CW-13-17	REVERE	1/1/2014	Field Investigations & Illicit Connection Detection	1,500,000
CW-13-08	REVERE	4/1/2014	Winthrop Ave Emergency Sewer Replacement	1,891,406
CWP-13-16	REVERE	5/1/2014	Collection System Improvements	6,627,721
CWP-13-05	SAUGUS	12/1/2013	SSO Reduction Subsystem 6	1,581,291
CWP-11-17-A	TAUNTON	3/1/2014	Phases 8-9 SSES and Pump Station Upgrades	252,593
CWP-13-18	TAUNTON	4/1/2014	SSES Phases 10-12	6,548,241
CW-13-06	WORCESTER	3/1/2014	Lake Ave SSES	561,500
CWP-13-20	WORCESTER	4/1/2014	Lake Ave Sewer I/I	1,223,881
CWT-14-04	EASTON	4/2/2014	Community Septic Management Program	500,000
CWT-14-03	GLOUCESTER	4/2/2014	Community Septic Management Program	1,000,000
CWT-14-01	LITTLETON	3/5/2014	Community Septic Management Program	300,000
CWT-14-06	WESTPORT	6/4/2014	Community Septic Management Program	250,000
Total				\$174,348,175

^{*}Loans used for FFATA Reporting

PRA#	Government Entity	Agreement Date	Project Description	Commitment Amount
DW-12-19	ACTON WATER DISTRICT	10/1/2013	New Water Treatment Plant	\$13,470,767
DWP-13-01	BARNSTABLE	4/1/2014	Hyannis Water System Improvements	2,523,837
DW-13-11*	BELLINGHAM	4/1/2014	New Water Treatment Plants	11,762,875
DWP-13-06	FALL RIVER	4/1/2014	Airport Road High Service Area Improvements	4,180,577
DWP-13-02	HARWICH	4/1/2014	Water Treatment Plant	1,960,000
DWP-13-05	LAWRENCE	4/1/2014	Water Main Replacement	9,585,972
DWP-13-03	LOWELL	4/1/2014	Meter Replacement and AMR System	10,105,055
DWP-13-04	LOWELL	4/1/2014	Redundant Transmission Main	4,739,222
DWP-13-18	MALDEN	5/1/2014	Water Distribution Systems Improvements	2,911,527
DW-13-13	MEDWAY	6/1/2014	Water Main Replacement	1,501,102
DW-12-17	MWRA	7/1/2013	Low Service Storage	5,000,000
DW-12-20	MWRA	7/1/2013	NHS- Revere & Malden Pipeline	600,000
DW-12-21	MWRA	7/1/2013	Northern Low Service Area Rehabilitation	600,000
DW-12-22*	MWRA	7/1/2013	New Connecting Mains	1,000,000
DW-12-23*	MWRA	7/1/2013	Lower Hultman Aqueduct Rehabilitation	1,600,000
DW-12-24- A,B,C*	MWRA	7/1/2013	Southern Spine Distribution Mains	3,000,000
DW-12-25-A	MWRA	7/1/2013	Blue Hills Covered Storage	3,000,000
DW-10-09-B	NEWBURYPORT	6/1/2014	WTF Upgrade & Water Distribution System	300,000
DW-09-12-A	QUINCY	5/1/2014	Water System Infrastructure Rehab	233,275
DWP-13-14	RANDOLPH	4/1/2014	Water System Improvements	3,061,336
DWP-13-09	REVERE	5/1/2014	Water Meters AMR System	4,807,743
DW-13-08	REVERE WATER DEPT.	12/1/2013	Water Distribution System & Hydraulic Model	550,000
DW-13-10	REVERE WATER DEPT.	12/1/2013	GIS Implementation of AMR Program	250,000
DWP-13-16*	SWSC	4/1/2014	South Water Transmission Main Replacement	22,587,589
DWP-13-07	TAUNTON	4/1/2014	Pump Station and Water Main Replacement	6,241,138
DWP-13-17	TURNER'S FALLS FIRE DISTRICT	4/1/2014	Hannegan Brook Well Pump Station	828,674
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				\$118,696,488

^{*}Loans used for FFATA Reporting

300,000

\$1,000,000

Outstanding Non-Financed CSMP Commitments							
PRA #	Government Entity	Agreement Date	Project Description	Commitment Amount			
T5-97-1036-E	BELLINGHAM	7/18/2013	Community Septic Management Program	\$300,000			
T5-13-1037	HARVARD	11/14/2013	Community Septic Management Program	300,000			
Т97-1020-Н	NORTON	7/18/2013	Community Septic Management Program	100,000			

Community Septic Management Program

7/18/2013

T5-13-1172

Total

WESTMINSTER



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