

STATE REVOLVING FUND

ANNUAL REPORT 2012



MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
MASSACHUSETTS WATER POLLUTION ABATEMENT TRUST

Message from the Chairman

September 28, 2012

The Massachusetts Water Pollution Abatement Trust (the Trust) is pleased to submit its Clean Water and Drinking Water State Revolving Fund (SRF) Annual Report for state fiscal year 2012.

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. Since its inception in 1989, the Trust has used nearly \$1.96 billion in federal grants and state matching funds to fund \$5.68 billion in clean water and drinking water construction projects throughout the Commonwealth.

While we continue to see improvement in our economy, the need for cost savings at the local and statewide level is as important as ever. The Trust continues to do its part, in 2012 providing approximately \$284 million in commitments for low interest rate loans to cities and towns all over the Commonwealth. In addition to these loans, the Trust distributed over \$33 million in funding to ongoing and new projects for additional subsidization—money not required to be repaid—for the purpose of creating jobs, jump-starting our economy, and promoting Massachusetts’ “Green” infrastructure. This funding provides vast benefit 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 is honored to serve as a national model and to stand out as the Commonwealth’s only statewide municipal issuer to maintain a coveted AAA rating from all three major ratings agencies.

We are proud of our accomplishments and continue to focus on providing benefits to citizens of the Commonwealth and serving as a model for efficiency in government. Over the past year, we have implemented enhancements to the program that will allow for even greater levels of assistance. We look forward to building on our successes and continuing to serve as a center of innovation in the field of infrastructure financing.

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 EPA Region 1 for all of their efforts during 2012. 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 their continued support of the State Revolving Fund program in fiscal year 2012, providing \$55.2 million to subsidize Clean Water borrowers and \$9.8 million to subsidize Drinking Water borrowers through the Commonwealth’s Contract Assistance payments.

Sincerely,



Steven Grossman
Chairman

Massachusetts Water Pollution Abatement Trust
www.mass.gov/treasury

1. Introduction

The Massachusetts Water Pollution Abatement Trust (the Trust) in partnership with the Massachusetts Department of Environmental Protection (MassDEP) provides low interest loans to municipalities and other governmental entities to finance water quality improvement and public health related projects. This is accomplished through two programs – the Clean Water State Revolving Fund (SRF) and the Drinking Water State Revolving Fund. The Environmental Protection Agency (EPA) requires reporting on both 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 State Fiscal Year 2012.

Since its inception in 1989, the SRF loan program has provided nearly \$4.5 billion in Clean Water loans and nearly \$1.2 billion in Drinking Water loans to almost 300 Massachusetts communities and water districts. In FY 2012, the Trust provided funding commitments for 47 clean water projects totaling \$164.7 million and 35 additional drinking water projects totaling \$119.7 million.

The SRF loan program receives funding from the EPA in the form of an annual grant, supplemented by state matching funds and funds paid back by previous borrowers. The Trust, in turn, leverages these funds through the sale of bonds, resulting in a much larger pool of money to loan to borrowers.



In February 2009 the US Congress passed the American Recovery and Reinvestment Act of 2009, ("ARRA"). The Trust received \$185 million in ARRA funds of which nearly \$178 million was allocated to construction projects and \$7.4 million was allocated for administrative expenses. As of June 30, 2012, 98.8% of the Clean Water grant and 99.8% of the Drinking Water grant funds have been expended.

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 EPA. This IUP establishes the Commonwealth's project priorities for the upcoming year.



2. Clean Water SRF Annual Report

2.1 2012 Clean Water Program Results

This report covers the State Fiscal Year ending June 30, 2012.

In 2012, the Trust continued to expand its program by providing new commitments of \$164.7 million in funding for 47 loans, to communities across the Commonwealth. Table 1 provides a summary of the financial results of the Clean Water SRF program.

Series 16/2012 Bond Issue

The Trust is authorized to issue bonds, secured by reserves or adequate cash flows to provide subsidized financing for water quality improvement projects. This security is funded by a combination of new federal grants, Commonwealth matching funds and recycled funds paid back by previous borrowers. In June 2012, the Trust issued its Series 16 Pool Program Bonds, which provided for \$289.7 million in 66 clean water loans through a combination of bond proceeds and equity funded loans that act as security for the bonds. Once loans are permanently financed, borrowers have two years to completely expend the project funds. Alongside this deal, the Trust also issued its Series 2012 Refunding Bonds. Using the proceeds of these bonds as well as certain investment proceeds, the Trust was able to use this refunding to not only enhance the credit quality of its investment portfolio, but also achieve \$21.6 million gross debt service savings. Additionally, \$36.7 million in commitments were financed throughout the year as direct loans.

Interim Loans

The Trust recognizes the need for construction funds to be available to borrowers year round. This need is addressed by making funds available to eligible projects through the Interim Loan Program. Projects on the IUP can enter into a loan agreement with the Trust and request interim financing. At the end of June 2012, the Trust had 38 clean water interim loans outstanding in the amount of \$137.6 million (a large portion consisting of ARRA “Green” loans not intended for permanent financing) that had drawn a total of \$38.5 million within the fiscal year. These interim loan disbursements were funded with \$23 million in SRF funds, \$1.3 million of which went to

additional subsidization for Environmental Justice (EJ) communities, and \$15.2 million in ARRA funds, primarily for 11 green projects. While the rate applied to interim loans fluctuates quarterly, as of June 30, 2012, the rate charged was 0.13% for commitments made within the quarter, accruing only on drawn funds, and only on the non-ARRA, non-EJ portion of the draws.

Community Septic Management Program Loans

The Community Septic Management Program (CSMP) provides zero percent interest funding to Massachusetts’ cities and towns to assist homeowners in the repair of failed septic systems. At the end of June 2012, the Trust had 35 Community Septic Interim Loans outstanding with total loan amounts of \$29.0 million, of which \$7.9 million had been drawn. Due to certain regulations the Trust is only able to include a maximum of \$5 million in loans in any particular tax-exempt debt issuance. The Trust included \$4.3 million in CSMP loans in its Series 16 issue.

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 2012, the Trust disbursed \$262.6 million for clean water projects to various governmental entities through the pool program, direct loans, and interim loans. Of this amount, \$24.3 million was disbursed in the form of additional subsidy with repayment not required to both renewable energy projects and “Environmental Justice” communities.

Administrative Expenses

For FY 2012, \$3.1 million of annual Clean Water SRF grant administration funds were spent by MassDEP. This consisted of \$2.6 million in federal funds and \$0.5 million in state matching funds. These costs were associated with construction management of the Clean Water SRF program. An additional amount of \$1.8 million was transferred to MassDEP from the Trust’s

Administrative Fund to supplement administrative costs for both the clean and drinking water programs.

2.2 2012 Clean Water Leveraged Program

The Trust program is leveraged by issuing bonds to provide construction proceeds for loans. Federal and state grants are used to fund reserves and/or pledged loans which provide security for the bonds. Trust loans issued since 2002 have a borrower rate of 2%. 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 repayments at 2%, interest earnings on the debt service reserve funds/pledged loans, and subsidy payments provided by the Commonwealth, known as Contract Assistance.

Loan 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 FY 2012, borrower payments accounted for approximately 67% of debt service, totaling \$180.0 million.

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 2012 the Trust held \$1.2 billion in clean water reserve funds invested in guaranteed investment contracts, US Treasury and Agency obligations, and pledged loans. Earnings on these investments are applied to pay a portion of the debt service on the related series of SRF bonds. In FY 2012, reserve fund earnings specifically applied to current debt service payments accounted for approximately 13% of debt service, totaling \$35.4 million. As bonds are repaid, reserve funds are released proportionately. In FY 2012, \$65.6 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 \$752.7 million in Clean Water Contract Assistance with a future commitment of \$387.6 million, for a total commitment by the Commonwealth of \$1.1 billion. In FY 2012, Commonwealth Contract Assistance accounted for approximately 20% of debt service, totaling \$52.5 million in assistance applied.

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	2011	2011-ARRA	2012	2012-ARRA
Federal Clean Water SRF Grant	69,177,000		50,136,000	
Required State Matching Funds	13,835,400		9,597,000	
Total Federal & State Funding	83,012,400		60,163,200	
Interest earnings not for bond repayments	1,039,050		944,935	
Binding loan commitments issued	182,005,335		164,735,812	
Number of binding loan commitments issued	31		47	
Clean Water interim loan funds	75,883,520	33,108,786	23,264,249	15,197,210
Number of Clean Water interim loans	30	12	27	11
Community Septic Management interim loans	6,534,837		7,862,473	
Number of CSMP interim loans	36		35	
Number of CSMP binding loan commitments issued	11		14	
Project funds disbursed	260,826,965	51,526,312	247,401,946	15,197,210
Financial Results from Program Inception				
Total funding to date, federal & state funds	1,258,969,753	133,057,300	1,319,132,953	133,057,300
Total Clean Water Assets	4,531,395,298		4,642,775,983	
Total permanent financing to date	4,054,560,958		4,426,449,947	

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2.3 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.

The following are four featured projects that embody the goals of the SRF program.

MWRA – Deer Island Wastewater Treatment Plant Improvements



This project ensures that all of the structures and equipment installed at Deer Island Treatment Plant remain in good working condition, or are replaced when needed. Work consists of: removal and replacement of Primary and Secondary Clarifier Sludge Collection System; repair of concrete construction joints; repair of spalled and cracked concrete inside primary clarifiers; and removal and replacement of secondary clarifier head shafts. The SRF program has provided over \$50 million in funding for this \$81 million project over the last four years.

Palmer – Sewer Separation Project



The project work eliminates the remaining six Combined Sewer Overflows (CSOs) by constructing a total of 23,000 feet of new sanitary sewer collection systems within each of the drainage areas. The water quality of adjacent and downstream river segments will improve as a result of the project. This \$5.8 million project is the final phase in a four phase project developed by the 1999 Long Term CSO Control Plan.

Mattapoisett – Water Pollution Control Improvements

This project is an extension of the sewer system into the Mattapoisett Neck area of Town. The project will serve over 200 existing homes that have septic system concerns because of small lots and high groundwater. Most of the lots also have drinking water wells. The project includes an upgrade of the existing Eel Pond pumping station and construction of a new pump station at Mattapoisett Neck. The project will address nitrogen concerns in the coastal waters. Project financing of \$6.1 million was provided for this project.



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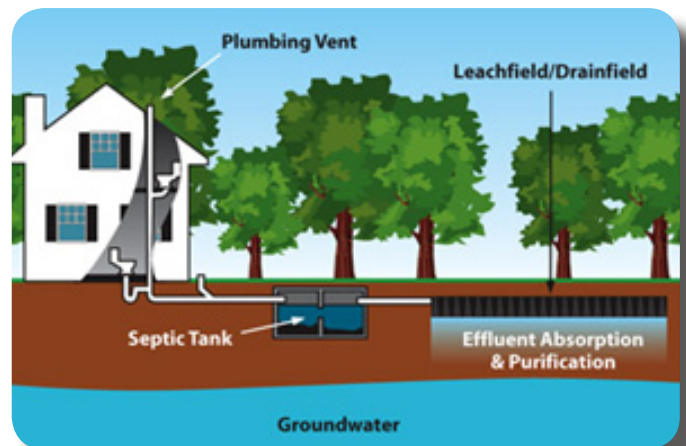
Fitchburg – Chemically Enhanced Primary Treatment Upgrade

This \$7.4 million project is the upgrade of the Easterly Wastewater Treatment Facility (WWTF) to add chemically enhanced primary treatment. 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. This proposed work will significantly improve discharge permit compliance and will improve the water quality of the Nashua River. As an Environmental Justice community, Fitchburg will receive an additional subsidy on this project in the form of principal forgiveness.



In 1996, the Massachusetts Legislature appropriated \$30 million to fund this program with the intent of providing an ongoing source of financing for septic system repairs. Using the same leveraging principles as the Clean Water SRF, the Trust has been able to finance over \$71 million in loans since the program's inception, resulting in approximately 6,500 septic systems repairs. To date, 145 Massachusetts communities have participated in this program.

During FY 2012, loans to the CSMP communities resulted in the repair or replacement of over 500 septic systems at an average cost of \$13,000.



2.4 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 loans to communities at 0% interest and the communities, in turn, loan the funds directly to homeowners generally at 5% interest for up to 20 years. The interest charged to homeowners may be used by the community to offset program costs. Loans to homeowners are secured through a betterment on the property. Through this program, municipalities can help provide low cost funding to homeowners, while having little to no effect on municipal finances.

3. Drinking Water SRF Annual Report

3.1 2012 Drinking Water Program Results

This report covers the State Fiscal Year ending June 30, 2012.

In 2012, the Trust continued to expand its program by providing new commitments of \$119.7 million in funding for 35 loans to communities across the Commonwealth. Table 2 provides a summary of the financial results of the Drinking Water SRF program.

Series 16/2012 Bond Issue

The Trust is authorized to issue bonds, secured by reserves or adequate cash flows to provide subsidized financing for water quality improvement projects. This security is funded by a combination of new federal grants, Commonwealth matching funds and recycled funds paid back by previous borrowers. In June 2012, the Trust issued its Series 16 Pool Program Bonds, which provided for \$98.8 million in 25 drinking water loans through a combination of bond proceeds and equity funded loans that act as security for the bonds. Once the loans are permanently financed, borrowers have two years to completely expend the project funds. Alongside this deal, the Trust also issued its Series 2012 Refunding Bonds. Using the proceeds of these bonds as well as certain investment proceeds, the Trust was able to use this refunding to not only enhance the credit quality of its investment portfolio, but also achieve \$21.6 million gross debt service savings. In addition to the debt issuance, in June 2012 the Trust permanently financed \$31.2 million in previous commitments as direct loans.

Interim Loans

The Trust recognizes the need for construction funds to be available to borrowers year round. This need is addressed by making funds available to eligible projects through the Interim Loan Program. Projects on the IUP can enter into a loan agreement with the Trust and request interim financing. In June 2012, the Trust had 27 active drinking water interim loans outstanding in the amount of \$58.1 million (a large portion consisting of ARRA "Green" loans not intended for permanent financing) that had drawn a total of \$8.1 million during the fiscal year. These interim loan disbursements were funded with \$7.0 million in SRF funds and \$1.1 million in ARRA

funds, with the ARRA funding being applied to 10 Green projects. Included in the SRF funding was \$0.77 million disbursed in the form of additional subsidization to renewable energy projects and Environmental Justice (EJ) communities. While the rate applied to interim loans fluctuates quarterly, as of June 30, 2012, the rate charged was 0.13% for commitments made within that quarter, accruing only on drawn funds, and only on the non-ARRA, non-EJ portion of the draws.

Disbursements

During 2012, the Trust disbursed \$99.2 million for drinking water projects to various governmental entities through the pool program, direct loans, and interim loans. Of this amount, all but \$1.1 million in ARRA funding came from SRF funds.

3.2 2012 Drinking Water Leveraged Program

The Trust program is leveraged by issuing bonds to provide construction proceeds for loans. Federal and state grants are used to fund reserves to secure the bonds. Trust loans issued since 2002 have a borrower rate of 2%. 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 repayments at 2%, 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.

Loan Repayments

Each borrower is obligated to repay the principal amount of its loan at a subsidized interest rate of 2% or less. In FY 2012 borrower payments accounted for approximately 68% of debt service. In FY 2012 borrower payments totaled \$57.0 million.

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 2012

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the Trust held \$303.5 million in drinking water reserve funds invested in guaranteed investment contracts, US Treasury and Agency obligations, and pledged loans. Earnings on these investments are applied to pay a portion of the debt service on the related series of SRF bonds. In FY 2012 Reserve fund earnings specifically applied to current debt service payments accounted for 20% of debt service. In FY 2012 investment earnings on reserve funds applied to debt service totaled \$16.6 million. As bonds are repaid, reserve funds are released proportionately. In FY 2012, \$17.6 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 \$97.3 million in Drinking Water Contract Assistance with a future commitment of \$108.3 million, for a total commitment by the Commonwealth of \$205.6 million. In FY 2012 Commonwealth Contract Assistance accounted for approximately 12% of debt service. In FY 2012 Contract Assistance applied to debt service totaled \$9.9 million.

	2011	2011-ARRA	2012	2012-ARRA
Federal Drinking Water SRF Grant	25,303,000		17,278,000	
Required State Matching Funds	5,060,600		3,346,400	
Total Federal & State Funding	30,363,600		20,733,600	
Drinking Water Set Aside Amount	7,842,930		5,356,180	
Interest earnings not for bond repayments	273,220		202,089	
Binding loan commitments issued	63,175,729		119,655,218	
Number of binding loan commitments	18		35	
Drinking Water interim loan funds	25,472,816	11,038,397	7,024,318	1,118,168
Number of Drinking Water interim loans	3	12	17	10
Project funds disbursed	122,633,808	18,155,285	98,122,398	1,118,168
Financial Results from Program Inception				
Total funding to date, federal & state funds	432,048,120	52,216,000	452,781,720	52,216,000
Total Drinking Water Assets	1,217,315,553		1,250,723,251	
Total permanent financing to date	1,064,104,313		1,219,914,583	

3.3 Drinking Water Set-Asides

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

4% SET-ASIDE: Administration

MassDEP uses eight (8) full time equivalent (FTE) staff members to administer the Drinking Water SRF program. Program selection criteria, application ranking and rating, project development, construction inspections, invoice payment, data management and administrative support functions are all accomplished by staff that utilizes the 4% funding.

2% SET-ASIDE: Small System Technical Assistance

MassDEP continues to provide training and technical assistance to small systems through MassDEP staff (3 FTEs) and through the Massachusetts Coalition for Small System Assistance (MCSSA). The coalition consists of five service providers with distinct roles: New England Water Works Association provides coordination and group trainings; Sarian Inc., Massachusetts Rural Water Association and RCAP Solutions provide site visits; and Massachusetts Water Works Association operates the mentoring program. Technical support is provided in the following areas:

- Group Trainings – Nine (9) training events were held that focused on a variety of topics including Very Small System Exam Review, Asset Management and Water Quality Complaints.
- One-on-one Site Visits – The technical assistance provider assists with monitoring and reporting problems, public notification, compliance, and enforcement issues and/or systems with a known public health threat among other issues. Thirty one (31) one-on-one visits were conducted and three reports were issued.
- Mentoring – Twelve (12) mentoring sessions were held that consisted of a meeting/training between neighboring public water systems in an effort to establish and strengthen relationships. Topics included Ground Water Rule, Revised Total Coliform Rule, and Very Small System Operator Review and chemical safety.

- Internships - Ten (10) interns were placed in public water systems. Interns are trained in the operations of running a public water system.

10% SET-ASIDE: State Program Management

MassDEP administers the state drinking water program through sixteen (16) FTE staff members. Set-aside money is used primarily for Public Water System support including; Sanitary Survey Program, Source & Wellhead Protection, Emergency Response, Capacity Development and Operator Certification program. Some highlights of the programs in 2012 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 four hundred and fifty (450) evaluations on existing systems. The following chart presents a breakdown of the evaluations:

MassDEP Public Water System Reviews SFY 2011	
Type of Public Water System	Number of Existing Systems Evaluated
Community Systems	172
Non-transient Non-community Systems	62
Transient Non-community System	216
Totals	450

- Operator Certification - The plan developed for certification and training of Massachusetts' operators under SRF-funding in the Drinking Water Program has been implemented since 2002. MassDEP continued to use the SRF-funded FTE and supported various related duties, concentrating on small public water systems.
- Wellhead Protection Program – Technical assistance was provided to over 150 water supply

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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 one thousand eight hundred and twenty (1,820) technical, financial or managerial deficiencies. 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 continues to use the 15% local assistance set aside to fund Twenty-three (23) FTEs. This set-aside is also used to fund a number of contracted studies and grants. Some program highlights from FY 2012 include:

Capital Improvement Planning Grants - MassDEP funded the completion of fifty-three (53) short term capital improvement plans for medium to large public water systems listed below.

Delineation and Assessment - Several studies are currently in progress by USGS through Cooperative Agreements. These studies include:

- **Nashoba**
The study is currently focused on providing regional bedrock aquifer characteristics and a conceptual hydro geologic model of the Nashoba Terrane.
- **Arsenic**
This study is assessing arsenic and uranium concentrations in ground water of the bedrock aquifers of east-central Massachusetts.
- **Refinement and Further Evaluation of the Massachusetts Firm-Yield-Estimator Model**

This project will produce a Firm Yield Estimator (FYE) Model, Version 2, incorporating recent research findings and expanded model options.

Adams Fire District	Georgetown	North Adams
Ashburnham	Gloucester	North Raynham
Ashland	Groveland	Norwell
Attleboro	Hadley	Norwood
Barnstable Fire District	Hamilton	Onset Water District
Barnstable DPW	Hanson	Palmer
Barre	Hatfield WD	Paxton
Bellingham	Holliston	Plainville
Bridgewater	Hopedale	Scituate
Buzzards Bay	Lawrence	Somerset
Centerville/Marston Mills	Leominster	Southwick
Clinton	Lincoln	Sterling
Dartmouth	Lunenburg	Taunton
Dedham/Westwood	Mansfield	West Springfield
Dennis	Maynard	Westminster
Dighton	Middleborough	Whitinsville
Duxbury	Millis	
E. Longmeadow	New Bedford	
Fall River		

3.4 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/rehabilitation of drinking water treatment plants, replacement of aging water mains and the construction of drinking water storage facilities.

The following are four featured projects that embody the goals of the SRF program.

MWRA – Lower Hultman Aqueduct Rehabilitation

The rehabilitation of the Hultman Aqueduct will for the first time provide redundancy to the water supply for the Metropolitan Boston area. The Hultman Aqueduct was in service from 1939 to 2003 and was taken off-line with the opening of the Metro West Supply Tunnel. 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. When completed, the aqueduct and the Metro West Tunnel can be used interchangeably. The Trust has provided over \$22 million in funding over the last five years. The total project cost is \$53 million.



Hultman Aqueduct Construction circa 1934

Springfield Water and Sewer Commission – Water Main Replacement Connecticut River Crossing

This project replaces the existing 80-year old twin 36-inch steel water transmission mains that cross beneath the Connecticut River and connect to the Springfield Water Distribution System. The project includes 3,400

linear feet of 36-inch replacement water transmission main, and new gate valves on the Agawam side of the river. The existing infrastructure has failed twice in the last five years, reducing water system pressures and flows for the approximate 250,000 wholesale and retail water customers connected to the system. This water transmission pipeline is a critical element in Springfield Water and Sewer Commission's water transmission system to the Springfield metropolitan area. This \$7.3 million project will receive nearly \$700,000 in principal forgiveness.

Salisbury – Water Storage Tank Replacement

This project replaced the existing 300,000 gallon elevated steel “Beach” Storage Tank with a new 500,000-gallon composite elevated tank. Built in 1950, the last inspection of the tank in 2003 revealed a long list of operational and safety hazards, and recommended that the tank be replaced or undergo extensive repairs.

In addition to correcting the previously noted list of deficiencies, the new tank will provide better protection against organic contaminants. This \$2.9 million project was partially funded by the American Recovery and Reinvestment Act (ARRA).



Mansfield – Water Treatment Plant and Well Improvements

This \$11.3 million project consists of the construction of a greensand filtration plant to reduce iron and manganese concentrations from the existing wells, construction of 150,000 gallon concrete storage tank for the removal of viruses to comply with EPA groundwater rule, and upgrades to the Walsh Wellfield Water Treatment Plant. All of these improvements include energy efficiency upgrades.



APPENDICES

Series 16 Financed CW Loans

Loan #	Government Entity	Term	Permanently Financed in Series 16 (SRF)	Additional Subsidization (EJ)	Total Loan
CW-04-31-B	Barnstable	8	539,860		539,860
CWS-09-07-A	Barnstable	20	5,348,080		5,348,080
CW-10-04	Cambridge	10	10,083,572	2,769,981	12,853,553
CWS-09-16-A	Chatham	20	7,518,952		7,518,952
CWP-10-27	Chicopee	30	1,820,346	500,054	2,320,400
CWP-10-28	Chicopee	30	1,317,955	362,045	1,680,000
CWS-09-02-A	Chicopee	30	6,890,247		6,890,247
CW-06-31	Cohasset	18	12,945,501		12,945,501
CW-10-05	Easton	20	302,000	302,000	302,000
CW-07-04-B	Fall River	26	1,259,180		1,259,180
CWP-10-18	Framingham	20	1,353,197	371,727	1,724,924
CWP-10-17	Framingham	20	392,248	107,752	500,000
CWS-09-17-A	Framingham	20	21,902,317		21,902,317
CW-08-26	Framingham	20	525,000		525,000
CW-06-45	Gloucester	18	619,730		646,275
CW-05-17	Haverhill	18	938,380		978,574
CWS-06-37-A	Hopkinton	20	4,112,473		4,112,473
CW-07-14-A	Hudson	26	213,864		213,864
CW-10-09	Ipswich	20	1,952,534		1,952,534
CWS-09-20-A	Leominster	20	11,835,720		11,835,720
CW-07-23-A	Lowell	26	1,392,971		1,392,971
CW-08-16	Lowell	30	7,466,242		7,466,242
CWS-08-24-A	Lowell RWU	30	11,963,379		11,963,379
CWP-10-16	Malden	20	392,248	107,752	500,000
CW-10-07	Mansfield	20	1,100,000		1,100,000
CW-03-09-D	Marion	23	372,280		372,280
CWS-08-25-A	Marlborough	30	19,990,942		19,990,942
CW-10-10	Medfield	20	400,000		400,000
CWP-10-19	Methuen	20	452,604	100,601	553,205
CW-10-06	MWRA	30	17,774,444		17,774,444
CW-10-30	MWRA	14	19,274,800		19,274,800
CW-10-29	MWRA	10	1,000,000		1,000,000
CW-10-13	MWRA	30	6,000,000		6,000,000
CW-05-32	N. Attleborough	18	111,724		130,020
CW-10-31	N. Attleborough	30	14,250,000		14,250,000
CWP-10-14	Northampton	20	706,047	193,953	900,000
CW-10-02	Norwood	20	1,600,000		1,600,000
CW-09-37	Orange	20	350,000		350,000
CW-10-39	Pembroke	20	2,560,257		2,560,257
CWP-10-15	Revere	20	588,373	161,627	750,000
CWP-10-22	Revere	30	5,295,354	1,454,646	6,750,000
CW-10-03	Saugus	20	2,680,566		2,680,566
CWS-08-36-A	SWSC	20	6,200,000		6,200,000

CWP-10-37	Taunton	20	3,676,954	823,046	4,500,000
CWP-10-36	Taunton	20	5,786,098	1,172,933	6,959,031
CW-09-38	Taunton	20	4,500,000		4,500,000
CWS-09-18-A	UBWPAD	20	20,929,326		20,929,326
CW-06-47	Waltham	20	275,491		275,491
CWS-07-37-A	Wareham	20	4,668,271		4,668,271
CWS-07-19-A	Westborough	20	29,358,537		29,358,537
CW-10-08	Westborough	20	1,424,000		1,424,000
CWP-10-12	Worcester	20	965,564	265,243	1,230,807

285,377,628

293,854,023

Series 16 Financed Title V Clean Water Loans

T5-97-1036-C	Bellingham	20	200,000		200,000
T5-97-1024-E	Bridgewater	20	400,000		400,000
T5-05-1243-A	Concord	10	296,830		296,830
T5-97-1040-D	Dartmouth	20	160,000		160,000
T5-97-1161-I	East Bridgewater	20	400,000		400,000
T5-04-001	Gloucester	15	1,050,000		1,050,000
T5-97-1211-D	Kingston	20	334,648		334,648
T5-97-1142A	Lynnfield	20	200,000		200,000
T5-97-1077-H	Middleborough	20	300,000		300,000
T5-97-1199-F	Pembroke	20	400,000		400,000
T5-97-1029-E	Plymouth	10	200,000		200,000
T5-98-1020-C	Shutesbury	20	76,797		76,797
T5-97-1056-D	Southborough	20	250,000		250,000
T5-97-1082-B	Wakefield	20	46,100		46,100

4,314,375

4,314,375

Series 16 Financed DW Loans

Loan #	Government Entity	Term	Permanently Financed in Series 16 (SRF)	Additional Subsidization (EJ)	Total Loan
DWS-08-20	Amesbury	20	10,142,147	2,564,623	12,706,770
DW-09-02	Barnstable	20	910,707		910,707
DW-08-14	Bridgewater	20	480,456	1,589	482,045
DWP-10-01	Brockton	20	4,324,170	2,323,652	6,647,822
DW-01-04-A	Charlton	18	617,500		650,000
DW-04-07-A	Cohasset	18	6,304,828		6,574,884
DW-10-02	Danvers	20	20,378,227		20,378,227
DWP-10-04	Fall River	20	2,039,154	1,095,767	3,134,921
DW-07-18-A	Lowell	16	417,875		417,875
DWS-07-18-B	Lowell	20	3,151,632		3,151,632
DWP-10-07	Malden Water Dept.	20	3,688,616	1,982,128	5,670,744
DW-10-13	MWRA	20	1,000,000		1,000,000
DW-10-14	MWRA	20	1,000,000		1,000,000
DW-10-12	MWRA	20	4,588,628		4,588,628
DW-10-11	MWRA	20	2,000,000		2,000,000
DWS-09-23	New Bedford	20	1,910,778	483,175	2,393,953
DW-09-12	Quincy	20	1,087,640		1,087,640
DWS-09-12-A	Quincy	20	3,527,955		3,527,955
DW-10-16	Randolph	20	5,315,000		5,315,000
DW-06-13-B	Randolph	18	1,662,278		1,733,479
DWWP-10-01	Stow	12	670,000		670,000
DWP-10-06	SWSC	20	2,066,298	1,110,353	3,176,651
DWP-10-10	Taunton	20	2,417,360	1,078,999	3,496,359
DW-08-16	Westford	18	262,913		274,174
DW-06-12-A	Weymouth	20	18,810,000		18,810,000
			\$98,774,162		\$109,799,466

FY 2012 Direct Loans

Loan #	Government Entity	Term	Financed Amount	Additional Subsidization (EJ/ARRA*)	Total Loan
<u>Clean Water Direct Loans</u>					
CW-08-30	Belmont	20	1,579,600		1,579,600
CW-10-01	Dracut	20	3,517,290		3,517,290
CW-07-25-B	Framingham	16	6,466		6,466
CW-08-05	Ludlow	20	921,027		921,027
CWS-08-31-A	Maynard	20	4,252,635		4,252,635
CWS-09-12-A	New Bedford	30	10,409,184		10,409,184
CWS-09-10-A	Newburyport	20	6,108,082		6,108,082
CWS-09-06	Scituate	20	348,667	46,292*	394,959
CW-07-20-A	Southbridge	16	47,925		47,925
CW-07-34-A	Southbridge	16	345,435		345,435
CWS-09-09-A	Sturbridge	20	9,026,495		9,026,495
CW-07-32-A	Waltham	6	108,702		108,702
Total			\$36,671,508		\$36,717,800

Loan #	Government Entity	Term	Financed Amount	Additional Subsidization (EJ)	Total Loan
<u>Drinking Water Direct Loans</u>					
DW-05-01C	Lawrence	16	3,733,006		3,733,006
DWS-08-12-A	Leominster	20	2,100,349		2,100,349
DW-10-05	Mansfield	20	6,000,000		6,000,000
DW-10-09	Newburyport	20	8,248,550		8,248,550
DW-09-11	Northampton	20	119,412		119,412
DW-10-03	Sheffield Water Co	20	1,035,671		1,035,671
DW-07-22	Southbridge	20	160,425		160,425
DW-11-01	SWSC	20	6,609,138	695,562	7,304,700
DW-06-11-B	Taunton	16	215,824		215,824
DW-08-26-A	Taunton	20	964,290		964,290
DWS-08-19-A	Woburn	20	2,035,158		2,035,158
Total			\$31,221,823		\$31,917,385

FY2012 Clean Water Commitments

PRA#	Government Entity	Agreement Date	Project Description	Commitment Amount
CW-04-33B	SOUTHBRIDGE	2/23/2012	WWTF Upgrade	353,488.00
CW-11-04	MWRA	5/1/2012	Electrical Upgrades	3,300,000.00
CW-11-07	MWRA	5/1/2012	Wastewater Treatment Plant and Sewer Improvements	1,500,000.00
CW-11-05	MWRA	5/1/2012	Deer Island Treatment Plant Improvements	13,000,000.00
CW-08-24	LOWELL RWWU	12/1/2011	WWTF & Collection System Improvements Phase 1	1,287,964.00
CW-08-33	GLOUCESTER	12/1/2011	Wastewater Treatment Plant Improvements	13,289,716.00
CW-08-28A	HAVERHILL	9/1/2011	Planning Landfill Closure Phase II	71,925.00
CW-09-26	PITTSFIELD	3/1/2012	WWTP Improvement	79,131.00
CW-09-08	PALMER	8/1/2011	Sewer Separation Project	172,750.00
CW-09-02	CHICOPEE	8/1/2011	Combined Sewer Overflow Projects	5,722,394.00
CW-09-16	CHATHAM	3/2/2012	Collection System Improvements	2,256,265.00
CW-09-13	TAUNTON	2/21/2012	Sewer Extensions & Septic Sys. Replacement	613,889.00
CW-09-10	NEWBURYPORT	3/1/2012	WWTF Improvements	13,611,357.00
CW-09-22	PITTSFIELD	3/1/2012	Energy Efficiency, Photovoltaic & CHP Installation	677,334.00
CW-09-27	FAIRHAVEN	11/1/2011	Fairhaven Green Energy projects	716,000.00
CW-10-35	MATTAPOISETT	8/26/2011	Water Pollution Control Improvements	6,097,990.00
CW-10-42	BRISTOL COUNTY	8/8/2011	Sewer Extension	1,100,000.00
CW-10-20	EVERETT	12/1/2011	Stormwater/Wastewater Capital Improv.	2,838,033.00
CW-10-11	WELLFLEET	12/2/2011	CWMP	250,000.00
CW-10-34	HARVARD	9/28/2011	Low-Pressure Sewer & WWTF Upgrade	2,213,917.00
CW-10-40	SHREWSBURY	12/5/2011	Sewer Interceptor Improvements & PS Rehab	956,875.00
CW-10-24	BILLERICA	3/1/2012	Phase I PS Upgrade	1,515,186.00
CW-10-07A	MANSFIELD	3/8/2012	MFN Regional Wastewater District Land Treatment	1,100,000.00
CW-10-33	PLAINVILLE	9/15/2011	Sewer Expansion Phase I	2,688,192.00
CW-10-38	CRPCD	7/18/2011	WWTF Upgrade	3,495,575.00
CWP-11-14	GLSD	4/1/2012	New Force Main for Riverside PS	10,970,144.00
CWP-11-13	GLSD	4/1/2012	WWTP improvements	2,704,383.00
CW-11-01	SAUGUS	11/1/2011	Sewer System Rehabilitation	2,387,235.00
CW-11-24	ANDOVER	2/1/2012	Ledge Road Landfill Closure Planning	500,000.00
CWP-11-23	FRAMINGHAM	4/1/2012	Pump Station Replacements	3,142,896.00
CWP-11-25	REVERE	2/1/2012	SSES Phase 3 and SWSMP	1,500,000.00
CW-11-08	DRACUT	10/1/2011	Sewer Extension	4,431,671.00
CWP-11-26	REVERE	4/1/2012	SSES Phase 2 Construction	5,897,436.00
CW-11-11	NEEDHAM	12/1/2011	Replacement of Reservoir B Sewer Pump Station	6,034,290.00
CW-11-06	MWRA	5/1/2012	CSO Phase 12	22,000,000.00
CW-11-09	MWRA	5/1/2012	DITP Digester and Cryogenics Upgrade	100,000.00
CW-11-10	MWRA	5/1/2012	DITP Electrical and Plant Upgrades	100,000.00
CWP-11-19	DARTMOUTH	3/26/2012	I/I and SSES	450,000.00
CWP-11-17	TAUNTON	2/28/2012	Phases 8 - 9 SSES and Pump Station Upgrades	5,705,665.00
CW-11-02	EASTON	3/1/2012	WWTP and Collection System	3,048,999.00
CW-11-22	CLINTON	11/30/2011	Stormwater Management Plan	285,000.00
CW-11-20	MEDWAY	12/8/2011	IWRMP	500,000.00
CWP-11-15	WEBSTER	12/7/2011	Storm Water Management Plan	434,231.00
CW-11-12	NORWOOD	3/1/2012	Westover Area Sewer Rehabilitation	2,175,000.00
CW-11-03	MONROE	7/1/2011	WWTF Repairs	200,000.00
CWP-12-01	FITCHBURG	6/1/2012	Combined Sewer Separation	5,813,257.00
CWP-12-02	FITCHBURG	5/9/2012	Chemically Enhanced Primary Treatment Upgrade	7,447,624.00
Total				\$164,735,812.00

FY2012 Drinking Water Commitments

PRA#	Government Entity	Agreement Date	Project Description	Commitment Amount
DW-08-27	Abington/Rockland JWW	11/22/2011	Residuals Handling Facilities	\$510,745.00
DW-08-25	Abington/Rockland JWW	11/22/2011	Residuals Handling Facilities	\$510,745.00
DWP-11-10	BARNSTABLE	11/21/2011	New Water Storage Tank	\$621,000.00
DWP-11-09	BARNSTABLE	2/29/2012	Water Main Replacement	\$1,050,000.00
DW-11-15	BARRE	5/23/2012	Well #3 Evaluation	\$63,800.00
DWP-10-01A	BROCKTON	3/16/2012	Water System Improvement Program	\$1,665,666.00
DW-10-02	DANVERS	9/1/2011	Water Treatment Plant Phase II Upgrades	\$20,378,227.00
DWP-11-14	FALL RIVER	3/16/2012	Water System Improvements Phase 11 & Storage Tank	\$4,535,500.00
DWP-11-19	GLOUCESTER	4/1/2012	Water System Improvements	\$10,926,426.00
DW-09-32A	GLOUCESTER	10/1/2011	Water Treatment Plant Upgrade	\$249,108.00
DW-05-10A	HAVERHILL	9/1/2011	WTF & Distribution Improvements	\$2,570,705.00
DW-11-11	HOLLISTON	6/29/2012	Well No. 4 Replacement and Treatment Plant Upgrade	\$2,500,000.00
DW-05-01C	LAWRENCE	12/1/2011	Water Treatment Plant and System Improvements	\$3,733,006.00
DWP-11-17	LOWELL	4/1/2012	Water Main Replacement & Valve/Hydrants Install.	\$2,405,979.00
DWP-11-21	LOWELL	4/1/2012	WTF and Pump Station Improvement & PV Installation	\$1,927,676.00
DWP-11-16	MALDEN	2/1/2012	Water Distribution System Planning	\$300,000.00
DWP-11-18	MALDEN	4/1/2012	Water Main Replacement Projects	\$6,750,000.00
DW-10-05A	MANSFIELD	2/1/2012	Water Treatment Plant and Well Improvements	\$5,300,898.00
DW-11-07	MWRA	5/1/2012	Blue Hills Covered Storage	\$3,026,100.00
DW-11-02	MWRA	5/1/2012	Lower Hultman Aqueduct Rehabilitation	\$2,850,000.00
DW-11-03	MWRA	5/1/2012	New Connecting Mains	\$500,000.00
DW-11-06	MWRA	5/1/2012	NHS - Revere & Malden Pipeline	\$2,000,000.00
DW-11-04	MWRA	5/1/2012	Northern Low Service Area Rehabilitation	\$750,000.00
DW-11-08	MWRA	5/1/2012	Southern Spine Distribution Mains	\$3,026,100.00
DW-11-05	MWRA	5/1/2012	Weston Aqueduct Supply Main 3	\$400,000.00
DW-10-09-A	NEWBURYPORT	5/1/2012	WTF Upgrade & Water Distribution System	\$6,356,650.00
DW-11-20	ROWLEY	6/1/2012	New WTF and Raw Water Main	\$10,997,000.00
DW-07-09	SALISBURY	5/1/2012	Water Storage Tank Replacement	\$111,262.00
DW-10-03	SHEFFIELD WATER COMPANY	10/1/2011	New Storage Tank and System Upgrades	\$1,035,671.00
DW-08-28	South Grafton Water District	10/19/2011	Pump Station Upgrade for Filtration	\$450,000.00
DWP-11-22	SPRINGFIELD WSC	4/1/2012	Chicopee River Main Crossing	\$2,100,305.00
DWP-11-01	SPRINGFIELD WSC	7/1/2011	Water Main Replacement Connecticut River Crossing	\$7,304,700.00
DW-06-07A	SWANSEA WATER DISTRICT	5/18/2012	New WTF / Palmer River Desalination Project	\$273,023.00
DWP-10-10A	TAUNTON	12/7/2011	Water System Improvements	\$2,981,660.00
DWP-11-23	WEST SPRINGFIELD	4/1/2012	Water Transmission Main and Wellfield	\$9,493,266.00
Total				\$119,655,218.00

Outstanding, Non-Financed CSMP Commitments

Loan #	Government Entity	Project Description	Commitment Amount
05-1685-D	Barnstable Co	Community Septic Mgmt Program	4,000,000
05-1685-E	Barnstable Co	Community Septic Mgmt Program	3,000,000
05-1685-F	Barnstable Co	Community Septic Mgmt Program	5,000,000
05-1685-G	Barnstable Co	Community Septic Mgmt Program	5,000,000
97-1036-D	Bellingham	Community Septic Mgmt Program	300,000
T5-97-1024-F	Bridgewater	Community Septic Mgmt Program	400,000
08-1041	Carlisle	Community Septic Mgmt Program	200,000
11-0202	Cohasset	Community Septic Mgmt Program	3,000,000
05-1243-B	Concord	Community Septic Mgmt Program	2,000,000
97-1040-F	Dartmouth	Community Septic Mgmt Program	400,000
97-1041-A	Dighton	Community Septic Mgmt Program	200,000
97-1161-J	E Bridgewater	Community Septic Mgmt Program	400,000
97-1161-K	E Bridgewater	Community Septic Mgmt Program	400,000
97-1026-A	Easton	Community Septic Mgmt Program	200,000
T5-98-1026-B	Easton	Community Septic Mgmt Program	500,000
97-1043-A	Foxborough	Community Septic Mgmt Program	600,000
97-41E	Gloucester	Community Septic Mgmt Program	1,700,583
97-1140A	Hanover	Community Septic Mgmt Program	300,000
02-1001-D	Hanson	Community Septic Mgmt Program	500,000
T5-11-0204	Hopedale	Community Septic Mgmt Program	200,000
11-0200	Ipswich	Community Septic Mgmt Program	1,000,000
97-1142B	Lynnfield	Community Septic Mgmt Program	300,000
T5-12-1132	Marshfield	Community Septic Mgmt Program	200,000
T5-11-0203	Mendon	Community Septic Mgmt Program	400,000
97-1077-I	Middleborough	Community Septic Mgmt Program	200,000
98-1008-D	Millville	Community Septic Mgmt Program	200,000
99-1022	N Attleborough	Community Septic Mgmt Program	200,000
97-1148A	Nantucket	Community Septic Mgmt Program	1,000,000
97-1020-G	Norton	Community Septic Mgmt Program	198,498
97-1051-B	Norwell	Community Septic Mgmt Program	71,813
97-1199-G	Pembroke	Community Septic Mgmt Program	200,000
97-1029-F	Plymouth	Community Septic Mgmt Program	200,000
97-1029-G	Plymouth	Community Septic Mgmt Program	200,000
97-1029-H	Plymouth	Community Septic Mgmt Program	400,000
97-1175-C	Rowley	Community Septic Mgmt Program	750,000
97-1170-A	Shirley	Community Septic Mgmt Program	400,000
97-1077-H	Stoughton	Community Septic Mgmt Program	350,000
T5-97-1201-B	Stoughton	Community Septic Mgmt Program	350,000
97-1057-F	Taunton	Community Septic Mgmt Program	250,000
97-1057-G	Taunton	Community Septic Mgmt Program	250,000
97-1091-C	Templeton	Community Septic Mgmt Program	400,000
T5-98-1023-A	Tisbury	Community Septic Mgmt Program	200,000
02-1201-B	W Bridgewater	Community Septic Mgmt Program	459,116
97-1019-E	Wareham	Community Septic Mgmt Program	200,000
T5-12-1149	Westport	Community Septic Mgmt Program	250,000
T5-97-1154-B	Whitman	Community Septic Mgmt Program	86,785
Total			37,016,795

CONTACT INFORMATION

Massachusetts Water Pollution Abatement Trust

3 Center Plaza
Boston, MA 02108

Susan Perez, Executive Director
(617) 367-9333 Ext. 816
sperez@tre.state.ma.us

W. Drew Smith, Treasurer
(617) 367-9333 Ext. 501
dsmith@tre.state.ma.us

Massachusetts Department of Environmental Protection

Division of Municipal Services
One Winter Street, 5th Floor
Boston, MA 02108

Steven McCurdy, Director
Division of Municipal Services
(617) 292-5779
steven.mccurdy@state.ma.us

Joseph Delaney
(617) 292-5808
joseph.delaney@state.ma.us



MA Department of Environmental Protection, One Winter Street ☿ Boston, MA 02108 ☿ 617 292•5500 ☿ www.mass.gov/dep

MA Water Pollution Abatement Trust, 3 Center Plaza ☿ Boston, MA 02108 ☿ 617 367•9333 ☿ www.mass.gov/treasury