

As of and for the Years Ended  
June 30, 2017 and June 30, 2016 and  
Independent Auditors' Report

# COMPREHENSIVE ANNUAL FINANCIAL REPORT

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MASSACHUSETTS  
CLEAN WATER TRUST

A Component Unit of the Commonwealth of Massachusetts

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# *Drinking Water Projects*

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*The Massachusetts Drinking Water SRF program continues to meet the goals established in the annual IUP. As outlined in the IUP, all SRF projects are subject to the rigorous environmental review procedures of the Massachusetts Environmental Policy Act. Drinking Water projects typically involve construction and/or rehabilitation of drinking water treatment plants, replacement of aging water mains, and construction of drinking water storage facilities.*

## ***Dedham Westwood Water District Bridge St Water Treatment Plan Upgrades***

The Bridge Street Water Treatment Plant (BSWTP) has performed reliably for the District for over one hundred years, but is in need of significant rehabilitation and updating to continue to protect the safety and reliability of the water supply to customers of the District. This project will include renovations to the existing treatment facility along with the addition of a new multi-purpose treatment building. \$8.8 million in project financing is being provided by the Trust for these upgrades.



# Massachusetts Clean Water Trust

*Comprehensive Annual Financial Report as of and for the Years Ended  
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# *Castle Island*



Comprehensive Annual Financial  
Report as of and for the Years Ended  
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# I — INTRODUCTORY SECTION

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MASSACHUSETTS  
CLEAN WATER TRUST

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# Message from the Chair

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December 29, 2017

The Massachusetts Clean Water Trust (the Trust) is pleased to submit our Clean Water and Drinking Water State Revolving Fund (SRF) Comprehensive Annual Financial Report for State Fiscal Year (SFY) 2017.

The Trust is a collaborative effort between the State Treasurer's Office, the Executive Office for Administration and Finance, the Massachusetts Department of Environmental Protection (MassDEP) and borrower communities across the Commonwealth. To date, approximately \$2.3 billion in federal grants and state matching funds have supported nearly \$7 billion in clean water and drinking water planning and construction projects through a leveraged financing program.

Local leaders rely on easy access to below-market rate financing to maintain and improve water infrastructure. The Trust continues to do our part by providing subsidized loans backed by AAA credit. This year, we achieved exceptionally competitive pricing as we closed our Series 20 bonds – our third Green Bond series overall.

In SFY 2017, the Trust provided cities and towns approximately \$350 million in commitments for low interest rate loans, including \$7.6 million in principal forgiveness to 24 projects, which will support an estimated 2,102 construction and engineering jobs. The financing will help improve waterway quality and promote public health through projects such as combined sewer overflow removal, wastewater treatment plant upgrades, sewer system construction, septic system repairs, improvements to drinking water treatment facilities, treated water storage and water main replacement and rehabilitation.

Additionally, I am pleased to report the completion of the first round of the Assistance Program for Lead and Copper in School

Drinking Water, which the Trust funded to identify contamination in public schools. Our Board of Trustees approved \$2.75 million to help support public outreach, technical assistance and water fixture sampling in any school that applied. As we start the second round of testing, I challenge the Trust and MassDEP to continue developing innovative solutions that will allow us to maintain our status as a national leader on these issues.

I would like to take this opportunity to thank the staff of the Environmental Protection Agency Region 1 for their efforts during SFY 2017. I also would like to congratulate the staff of the Trust and MassDEP for a job well done. Finally, I would like to thank the cities and towns in Massachusetts. Without the dedication of all involved, our program would not be a success.

I look forward to continuing this critical work together.

Sincerely,



Deborah B. Goldberg  
Chair  
Massachusetts Clean Water Trust  
[www.mass.gov/treasury](http://www.mass.gov/treasury)

December 29, 2017

**To the Board of Trustees of the Massachusetts Clean Water Trust:**

I am pleased to submit the Comprehensive Annual Financial Report (CAFR) of the Massachusetts Clean Water Trust (the “Trust”) for the fiscal year ended June 30, 2017. This year’s CAFR is presented on a comparative basis with the fiscal year ended June 30, 2016, and is submitted under Article VII, Section 2 of the by-laws of the Trust. This report has been prepared in conformity with generally accepted accounting principles (“GAAP”), thereby satisfying applicable federal and state laws, program regulations, and other Trust agreements.

This data presented is accurate in all material aspects and is reported in a manner that fairly presents the financial position and results of operations of the Trust. All disclosures necessary to enable the reader to gain an understanding of the Trust’s activities have been included. The information contained within this report is the responsibility of management.

### ***Reporting Entity***

The Trust is reported as a component unit in the Commonwealth’s Combined Annual Financial Report. Pursuant to its enabling statute, the Trust also submits its independently audited financial statements to the Commonwealth’s Senate and House of Representatives, the Office of the Comptroller, and other interested parties. Also, as an entity receiving federal funding, the Trust is required to undergo an annual single audit to conform with the requirements of the Single Audit Act of 1984, as amended, and the Regulations of the U.S. Office of Management and Budget.

The Trust is governed by a three-member board of trustees chaired by State Treasurer and Receiver General, Deborah B. Goldberg. The Secretary of the Executive Office for Administration and Finance, Michael Heffernan, and Commissioner of the Department of Environmental Protection (MassDEP), Martin Suuberg, serve as members of the Board. The Trust operates under the direction of the Executive Director, Susan Perez, and is administered by employees of the State Treasurer. A list of Trust management and an organization chart follow this transmittal letter.

### ***Profile of the Massachusetts Clean Water Trust***

The Trust is a public instrumentality of the Commonwealth of Massachusetts which was established in 1989 to administer the Massachusetts Water Pollution Abatement Revolving Fund, pursuant to Title VI of the Federal Clean Water Act. Its enabling statute, Chapter 29C of the Massachusetts General Laws, was amended in 1998 to provide that the Trust would also administer the provisions of Title XIV of the Federal Safe Drinking Water Act establishing the Drinking Water State Revolving Fund. We estimate that 97% of the population of the Commonwealth is served by one of approximately 300 entities that have borrowed funds through the Trust.

The Trust administers loan programs that provide funding to cities, towns, other governmental units and certain eligible private entities to finance improvements to drinking water and wastewater infrastructure. To qualify for a loan, the project must be approved by the MassDEP.

### ***Information Useful in Assessing the Economic Condition of the Massachusetts Clean Water Trust***

The Financial Section of this report provides information on the economic condition of the Trust. Please see Management’s Discussion and Analysis in the Financial Section for a presentation of the Trust’s financial condition. To assess the Trust’s financial condition, it is essential to understand the Trust’s loan programs.

### ***Loan Programs of the Trust***

The Trust administers two loan programs. The Clean Water State Revolving Fund (CWSRF), primarily finances wastewater infrastructure projects, including the Community Septic Management Program (CSMP), which finances improvements to private homeowner

septic systems. The Drinking Water State Revolving Fund (DWSRF), primarily finances drinking water infrastructure projects. The Trust lends to cities, towns, other governmental units such as water and sewer authorities, and private water system operators. Since its inception the SRF loan program has provided nearly \$7 billion in loans to approximately 300 borrowers to improve and maintain the quality of water in the Commonwealth. To fund its operations, the Trust charges an administrative fee of 0.15% of principal outstanding per year on Clean Water and Drinking Water loans.

### ***Clean Water Program***

The Trust finances projects that focus on the development and rehabilitation of wastewater infrastructure while promoting sustainability, energy efficiency and green infrastructure. The CWSRF program provides additional subsidies to designated low income Affordability Communities, and continues to perform outreach activities to help borrowers realize opportunities to implement energy efficiencies and alternative energy projects. Primary recipients of CWSRF 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. Additionally, the CWSRF program provides additional subsidies to nutrient enrichment prevention projects. Currently, the standard loan offer is for a term of 20 years at a subsidized loan rate of 2%. The Trust may also provide an extended term for up to 30 years.

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.

### ***Drinking Water Program***

The Trust continues to support protection of public health by ensuring that all its public water suppliers have the necessary technical, financial, and managerial capacity to meet 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 health. The DWSRF projects typically involve construction and, or, rehabilitation of drinking water treatment plans, replacement of aging water mains and the construction of drinking water storage facilities. Currently, the standard loan offer is for a term of 20 years at a subsidized loan rate of 2%.

### ***Interim Loan Program***

Through the Trust's Interim Loan Program, funds are available to eligible projects on the IUP year round to provide construction financing, similar to a bond anticipation note. Borrowers can enter into a short term loan that enables projects to proceed prior to the Trust's bond sale. The Trust can operate this program by extending the use of program equity funds, funds that have revolved back from loan repayments, as a source of capital. In an effort to make Trust financing even more appealing to borrowers, the Board of Trustees removed the interim loan interest rate and any associated fees in 2016. This change to the program makes interim loans from the Trust the least expensive access to capital possible for local communities. Only 16 interim loans still carried an interest rate, and that average interest rate charged to borrowers was 0.12% in SFY 2017. In the SFY 2017, 97 projects had drawn \$237.8 million of interim loan funds.

## ***Fiscal Year 2017 Program Disbursements***

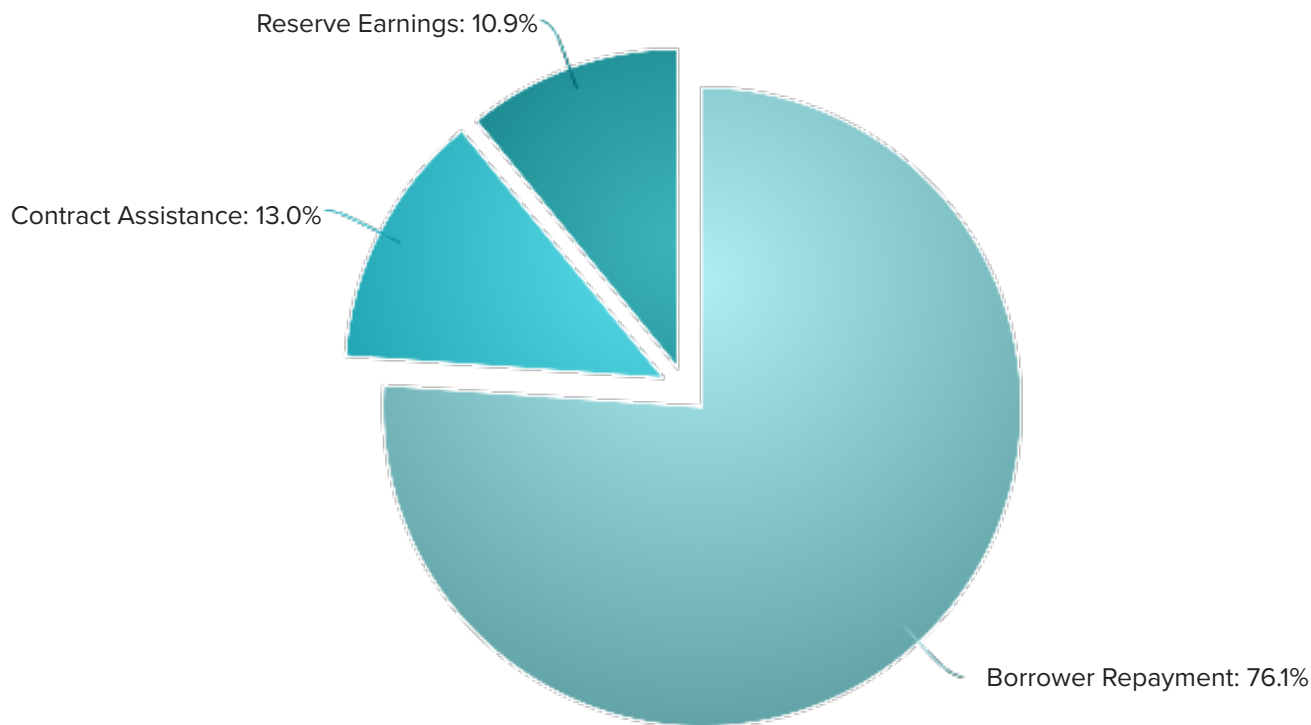
	CWSRF Dollar Amount	CWSRF Number of Loans	DWSRF Dollar Amount	DWSRF Number of Loans	Total Dollar Amount	Total Number of Loans
Interim Loans	\$186,632,960	74	\$51,147,312	23	<b>\$237,780,272</b>	97
Pool Program Project Funds	36,787,125	54	39,369,165	31	<b>76,156,290</b>	85
<b>Total</b>	<b>\$223,420,085</b>	<b>128</b>	<b>\$90,516,477</b>	<b>54</b>	<b>\$313,936,562</b>	<b>182</b>

## *Trust's Financing Model*

### ***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 loans from 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.

### *Total Source of Revenue for FY 2017*



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 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.

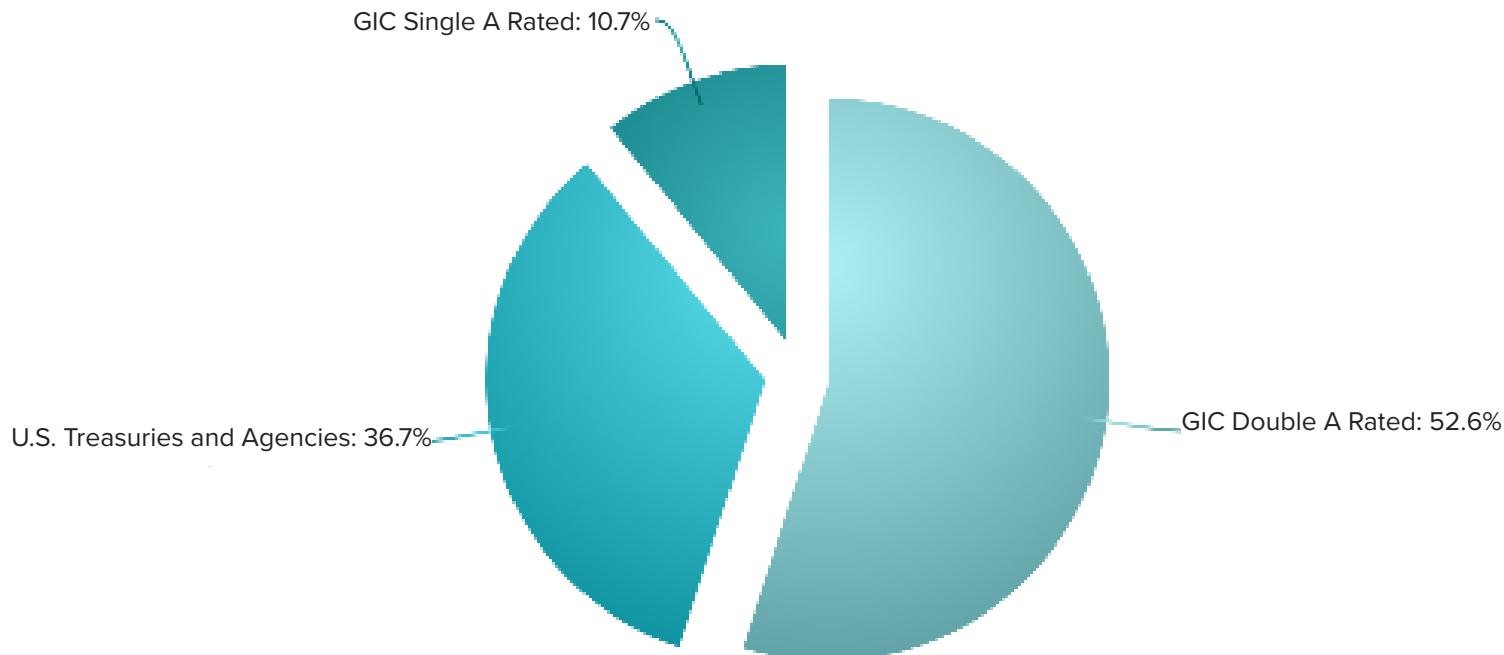
### ***Pledged Direct Loans***

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 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 two most recent series of SRF Bonds. As of June 30, 2017, the Trust has \$470.3 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, 2017, the Trust has \$762.9 million in debt service reserve funds (DSRF) invested in guaranteed investment contracts (GIC) and US Treasury and Agency Obligations.

### DSRF Investment Breakdown



While economic factors have not affected the Trust's current financial position, macroeconomic stresses pose risks to the Trust's long-term investment portfolio. Over the past few years, a number of institutions providing guaranteed investment contracts (GICs) to the Trust have experienced downgrades by various rating agencies. These actions did not result in a downgrade to the Trust as the Trust has multiple providers which reduce concentration risk and contract provisions for collateralization upon credit downgrades. At this time, these factors have had no real effect on the Trust, as the overall credit quality of the Trust's investment portfolio remains strong as shown in the table.

As a result of the diversity of its loan portfolio, the size of its debt service reserve funds, and its support from the Commonwealth, the Trust's bonds are rated AAA/Aaa/AAA by Fitch, Moody's Investor Service, and S&P Global Ratings, respectively.

## Federal Capitalization Grants and State Matching Funds

In order to provide security to its bonds, the Trust pledges federal and state capitalization grant funds. The Trust has received significant federal and Commonwealth support. The Trust has received total combined support of \$2.3 billion to date which has provided funding for nearly \$7 billion in clean water and drinking water construction projects.

### Federal Capitalization Grant and State Matching Funds

	Clean Water	Drinking Water	Total Awards
<b>Federal FY 2016 Grant Awards</b>			
Federal Grant	\$45,363,000	\$15,451,000	\$60,814,000
State Grant	9,072,600	3,090,200	12,162,800
<b>Total</b>	<b>\$54,435,600</b>	<b>\$18,541,200</b>	<b>\$72,976,800</b>
<b>Program to Date Grant Awards</b>			
Federal Grant	\$1,465,973,761	\$510,470,100	\$1,976,443,861
State Grant	266,583,292	91,650,820	358,234,112
<b>Total</b>	<b>\$1,732,557,053</b>	<b>\$602,120,920</b>	<b>\$2,334,677,973</b>

The Trust's recent federal capitalization grant awards have included requirements to provide defined levels of subsidization (i.e., money not required to be repaid). The additional subsidy is dedicated to communities that would not otherwise be able to afford the project. As of the 2016 federal grant, Massachusetts chose to apply these funds to communities that were deemed Affordability Communities based upon per capita income, population trend from 2000-2010 and employment rate. Each community is ranked against the state average and sorted into tiers, Tier 3 is 60% and below, Tier 2 is 61% to 80% and Tier 1 is 81% to 100%. Tier 3 receive a share and a half of subsidy, Tier 2 receives one share and Tier 1 receives a half a share. The table below provides the details of subsidization provided to date by grant.

Subsidization Provided (dollars in millions)	Clean Water	Drinking Water	Total
2009 ARRA Grant	\$127.7	\$50.1	\$177.8
2010 Grant	10.4	7.6	18.0
2011 Grant	4.6	5.2	9.8
2012 Grant	2.7	3.3	6.0
2013 Grant	2.1	3.1	5.2
2014 Grant	3.5	3.3	6.8
2015 Grant	3.5	3.3	6.8
2016 Grant	4.5	3.1	7.6
2017 Grant	4.5	3.1	7.6
<b>Total Subsidization</b>	<b>\$163.5</b>	<b>\$82.1</b>	<b>\$245.6</b>

## ***Long-Term Financial Planning***

Relative to its long-term financial position, one of the most important issues facing the Trust is the status of future federal support for the CWSRF and DWSRF. It is the policy of the Trust to allow MassDEP to approve projects only to the Trust's lending capacity. If federal funding declines, the Trust's ability to maintain or increase its lending activities will be limited without additional state support or increased contribution from the borrowers. While this does not affect the financial health of the Trust, it will affect the program administered by the Trust.

The Trust's financial capacity is adequate to fund those projects currently approved by MassDEP, however, future growth in capacity of the Trust is dependent on federal appropriations to the State Revolving Fund programs, shown on the Trust's Financial Statements, footnote (6), as "Capitalization Grants." Additionally, because MassDEP's program administration is funded in part through a 4% administrative charge on federal grants, a reduction in federal grants would result in decreased funding for MassDEP. For the Trust's programs to continue, funding would need to be provided to MassDEP either by the Commonwealth or additional funding from the Trust's administrative fees.

## ***Economic Factors Affecting the Trust***

As a result of the Trust's highly-structured approach to lending and bonding, the finances of the Trust have not been dramatically affected by recent national economic stress. Although there are many current credit pressures affecting our borrowers, primarily municipalities, the project loans financed and related pledged loan repayments are primarily supported by water and sewer enterprise systems and their own user-fee or rate-based revenue. As such, they are somewhat removed from the general fiscal and expenditure pressures that can face a municipality. Furthermore, the Trust benefits from a sizeable and diversified pool of borrowers which makes it less affected by significant deterioration of any single borrower.

Demand for Trust loans is dependent on the Commonwealth's need for drinking water and wastewater infrastructure, which remains strong. For 2017, the MassDEP received applications for over \$435 million in new Clean Water projects and approved \$360 million of those projects. Additionally, MassDEP approved over \$64 million in Clean Water carryover projects and \$23 million in Clean Water planning projects. MassDEP also received applications for over \$196 million of Drinking Water projects and approved \$125 million. Demand is expected to remain strong as communities work to meet tightening environmental standards and maintain an aging infrastructure. The current record low interest rate environment has somewhat reduced the value of the subsidization resulting from the below market rate being provided to the Trust's borrowers. However, the Trust expects to continue to award additional subsidization in the form of principal forgiveness to its eligible borrowers.

## Performance Indicator

The Trust continues to be a national leader among State Revolving Fund administrators. The following is a three-year ranking of program indicator data compiled by EPA.

### Clean Water State Revolving Fund Performance Indicators\* Ranked by State for Fiscal Years 2015-2017

2015		2016		2017	
Total Loan Assistance Provided (millions of dollars)					
1 New York	\$ 14,115	1 New York	\$ 15,472	1 New York	\$ 16,176
2 California	7,674	2 California	8,594	2 California	10,034
3 Ohio	6,850	3 Ohio	7,727	3 Ohio	8,383
4 Texas	6,624	4 Texas	6,784	4 Texas	7,125
5 Massachusetts	5,815	5 Massachusetts	6,007	5 Massachusetts	6,242
National average:	2,181	National average:	2,328	National average:	2,473
Assistance Provided as a Percent of Federal Capitalization Grants					
1 Rhode Island	602%	1 Rhode Island	600%	1 Rhode Island	600%
2 Arizona	542%	2 Arizona	546%	2 Arizona	529%
3 Massachusetts	423%	3 Connecticut	446%	3 Connecticut	440%
4 Minnesota	409%	4 Massachusetts	423%	4 Massachusetts	426%
5 Connecticut	393%	5 Minnesota	401%	5 Minnesota	413%
National average:	282%	National average:	290%	National average:	300%
SRF Project Disbursements (millions of dollars)					
1 New York	\$ 13,178	1 New York	\$ 14,099	1 New York	\$ 14,955
2 Texas	6,565	2 California	6,867	2 California	7,498
3 California	6,337	3 Texas	6,725	3 Texas	7,066
4 Ohio	5,548	4 Ohio	6,036	4 Ohio	6,578
5 Massachusetts	5,089	5 Massachusetts	5,305	5 Massachusetts	5,528
National average:	1,910	National average:	2,026	National average:	2,159
Total Loan Assistance Provided for Combined Sewer Overflow Project (millions of dollars)					
1 Michigan	\$ 1,894	1 Ohio	\$ 1,896	1 Ohio	\$ 2,148
2 New York	1,735	2 Michigan	1,894	2 Michigan	1,931
3 Ohio	1,543	3 New York	1,761	3 New York	1,805
4 Massachusetts	1,310	4 Massachusetts	1,357	4 Massachusetts	1,372
5 Illinois	861	5 Illinois	948	5 Illinois	1,090
National average:	227	National average:	244	National average:	261
Total Loan Assistance Provided for Secondary Treatment Projects (millions of dollars)					
1 New York	\$ 8,237	1 New York	\$ 9,359	1 New York	\$ 9,887
2 California	3,743	2 California	3,764	2 California	3,972
3 Ohio	2,089	3 Ohio	2,285	3 Illinois	2,502
4 Illinois	2,074	4 Illinois	2,216	4 Ohio	2,477
5 Massachusetts	1,998	5 Massachusetts	2,064	5 Massachusetts	2,140
National average:	773	National average:	827	National average:	872
Total Loan Assistance Provided for New Collector System Projects (millions of dollars)					
1 Massachusetts	\$ 919	1 Massachusetts	\$ 932	1 Massachusetts	\$ 948
2 Florida	874	2 Florida	904	2 Florida	911
3 Pennsylvania	705	3 Pennsylvania	715	3 Pennsylvania	723
4 New York	562	4 New York	611	4 New York	650
5 Arizona	365	5 Arizona	429	5 Arizona	429
National average:	146	National average:	154	National average:	158
Total Loan Assistance Provided for Storm Water Projects (millions of dollars)					
1 New Jersey	\$ 204	1 New Jersey	\$ 240	1 New Jersey	\$ 249
2 Florida	199	2 Florida	205	2 Florida	210
3 Massachusetts	149	3 Massachusetts	153	3 Massachusetts	157
4 South Dakota	70	4 South Dakota	68	4 California	137
5 California	40	5 California	51	5 South Dakota	75
National average:	20	National average:	22	National average:	33

Source: Environmental Protection Agency, National Information Management System

\* All amounts in the table are cumulative from July 1, 1987

## ***Independent Audit***

The Trust's independent auditors, KPMG LLP, have performed an independent audit of the Trust for the fiscal year ended June 30, 2017. The independent auditors' report is located at the front of the Financial Section of this report.

The Trust prepares these financial statements and is responsible for the completeness and reliability of the information presented herein. To provide a reasonable basis for making these representations, the Trust has established an internal control framework that is designed to protect the Trust's assets from loss, theft or misuse and to compile sufficiently reliable information for the preparation of the Trust's financial statements in conformity with GAAP. The Trust's framework of internal controls has been designed to provide reasonable, rather than absolute, assurance that the financial statements will be free from material misstatements.

## ***Awards and Acknowledgements***

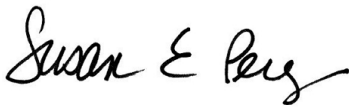
The Government Finance Officers Association (GFOA) awarded the Certificate of Achievement for Excellence in Financial Reporting to the Trust for its comprehensive annual financial report (CAFR) for the fiscal year ended June 30, 2016. The award is the Trust's twentieth consecutive citation. In order to be awarded a Certificate of Achievement, the Trust must publish an easily readable and efficiently organized CAFR that satisfies both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another citation.

The Massachusetts Clean Water Trust is a collaborative effort of the Massachusetts State Treasury, the Department of Environmental Protection, the Executive Office for Administration and Finance, and the U. S. Environmental Protection Agency. Without the hard work and strong support of the people in each of these agencies, the work of the Trust could not be accomplished. We extend our deepest gratitude to them.

The preparation of this report would not have been possible without the hard work of the entire staff of the Massachusetts Clean Water Trust. We must also acknowledge the Chair and the Board of Trustees for the confidence they have put in us, the Governor and the Legislature, and the people of the Commonwealth of Massachusetts for their continued support.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Susan E. Perez". The signature is fluid and cursive, with the first name "Susan" being the most prominent part.

Susan E. Perez  
Executive Director



MASSACHUSETTS  
CLEAN WATER TRUST

**BOARD OF TRUSTEES**



**MICHAEL HEFFERNAN**

*Secretary of the Executive Office  
for Administration and Finance*



**DEBORAH B. GOLDBERG, CHAIR**

*Massachusetts State Treasurer*



**MARTIN SUUBERG**

*Commissioner of the Department  
of Environmental Protection*

**EXECUTIVE COMMITTEE**



**RACHEL MADDEN**

*Director of Finance and Administration*



**SUSAN E. PEREZ**

*Executive Director*



**STEVEN J. MCCURDY**

*Director of Program Development*

**TRUST STAFF**



**CONTROLLER**

*General Ledger Accountant  
Staff Accountant*



**DEPUTY DIRECTOR**

*Trust Treasurer  
Treasury Specialist  
Program Associate  
Program Associate*



**SENIOR LEGAL COUNSEL**

**MASSACHUSETTS CLEAN WATER TRUST**  
**BOARD OF TRUSTEES**

Deborah B. Goldberg, Chair  
*Treasurer and Receiver General*  
*Commonwealth of Massachusetts*

James A. MacDonald  
*Designee of the Treasurer and Receiver General*

Michael Heffernan  
*Secretary of the Executive Office for Administration and Finance*  
*Commonwealth of Massachusetts*

Rachel Madden  
*Designee of the Secretary of the Executive Office for Administration and Finance*

Martin Suuberg  
*Commissioner of the Department of Environmental Protection*  
*Commonwealth of Massachusetts*

Steven J. McCurdy  
*Designee of the Commissioner of the Department of Environmental Protection*

**SENIOR MANAGEMENT**

Susan E. Perez  
*Executive Director*

Nathaniel Keenan  
*Deputy Director*

Rachel Madden  
*Director of Finance and Administration*

Steven J. McCurdy  
*Director of Program Development*



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**Massachusetts Water Pollution  
Abatement Trust**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2016**

A handwritten signature in black ink, reading "Jeffrey R. Enos". The signature is written in a cursive, flowing style.

Executive Director/CEO

Comprehensive Annual Financial  
Report as of and for the Years Ended  
June 30, 2017 and June 30, 2016 and  
Independent Auditors' Report

## II — FINANCIAL SECTION

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MASSACHUSETTS  
CLEAN WATER TRUST



KPMG LLP  
Two Financial Center  
60 South Street  
Boston, MA 02111

## **Independent Auditors' Report**

The Board of Trustees  
Massachusetts Clean Water Trust:

### **Report on the Financial Statements**

We have audited the accompanying basic financial statements of the Massachusetts Clean Water Trust (the Trust), a component unit of the Commonwealth of Massachusetts, which comprise the statements of net position as of and for the years ended June 30, 2017 and 2016, and the statements of revenues, expenses and changes in net position, and cash flows for the years then ended and the related notes to the financial statements.

### ***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### ***Auditors' Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Massachusetts Clean Water Trust as of June 30, 2017 and 2016, and the changes in its financial position and its cash flows for the years then ended, in accordance with U.S. generally accepted accounting principles.



## **Other Matters**

### *Required Supplementary Information*

U.S. generally accepted accounting principles require that the Management's Discussion and Analysis, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### *Supplementary and Other Information*

Our audit was conducted for the purpose of forming an opinion on the Trust's basic financial statements. The Introductory, Combining Financial Statements and Schedules and the Statistical sections are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Combining Financial Statements and Schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Combining Financial Statements and Schedules, as listed in the table of contents, are fairly stated in all material respects in relation to the basic financial statements as a whole.

The Introductory and Statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

**KPMG LLP**

Boston, Massachusetts  
October 2, 2017

**MASSACHUSETTS CLEAN WATER TRUST**  
(A Component Unit of the Commonwealth of Massachusetts)  
Management's Discussion and Analysis – Required Supplementary Information  
(Unaudited)  
June 30, 2017 and 2016

**Introduction**

The Massachusetts Clean Water Trust (the Trust) is a public instrumentality of the Commonwealth of Massachusetts (the Commonwealth). It was established in 1989 to administer the Massachusetts Water Pollution Abatement Revolving Fund pursuant to Title VI of the Federal Clean Water Act establishing the Clean Water State Revolving Fund (Clean Water SRF). Its enabling statute, Chapter 29C of the Massachusetts General Laws, was amended in 1998 to provide that the Trust would also administer the provisions of Title XIV of the Federal Safe Drinking Water Act, establishing the Drinking Water State Revolving Fund (Drinking Water SRF).

The Trust's Clean Water SRF and the Drinking Water SRF programs were established to accept federal grants and required Commonwealth matching funds in an amount equal to approximately 20% of the federal grants. The Trust's SRF programs utilize a "leveraged" financing model, under which federal grants and state matching grants, together with other monies available to the Trust are pledged as security for revenue bonds issued by the Trust. The proceeds of the bonds and other funds of the Trust are used to fund loans to local governmental units and other eligible borrowers for eligible project costs. In addition to loan repayments, earnings on these pledged assets are used to pay a portion of debt service on the related bonds, thereby reducing the borrowers' loan repayment obligation. As the bonds are paid, the pledged assets "revolve" and become available for new projects.

Since 2002, the Trust has provided loans to communities at a 2% interest rate; however, clean water projects that address nutrient reduction, and projects approved prior to 2002, may receive a rate below 2%. As the effective market interest rate on the Trust's bonds is higher than the 2% loan rate, the borrowers receive a subsidy equal to the difference between those rates. The Clean Water SRF and Drinking Water SRF programs are administered by the Trust in partnership with the Massachusetts Department of Environmental Protection (DEP). DEP manages project development and approval while the Trust manages the flow of funds to the communities. Subsidized financing has been an important incentive for many communities to undertake water and sewer infrastructure improvement projects. Since the enactment of Chapter 95 of the Acts of 1995 of the Commonwealth, the Trust has been the Commonwealth's primary program to finance such improvements.

The Clean Water SRF provides low cost financing to eligible borrowers for projects that reduce, eliminate, or prevent water pollution. Examples of Clean Water SRF projects include construction of new wastewater treatment facilities, upgrades to existing facilities, infiltration/inflow correction, wastewater collection systems, and nonpoint source pollution abatement projects such as landfill capping, community programs for upgrading septic systems (Title 5), brownfield remediation, pollution prevention, and storm water remediation.

The Drinking Water SRF provides low cost financing to publicly and privately owned water systems for projects that provide safe, affordable drinking water. Examples of Drinking Water SRF projects include new and upgraded drinking water treatment facilities; replacement of contaminated sources, new water treatment or storage facilities; consolidation or restructuring of water systems; projects and system activities that provide treatment, or effective alternatives to treatment for compliance with regulated health standards such as the Surface Water Treatment Rule; and installation or replacement of transmission or distribution systems.

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**Financial Highlights – Fiscal Year 2017**

- At the close of fiscal year (FY) 2017, assets and deferred outflows exceeded liabilities by \$2.38 billion, as compared to \$2.34 billion for FY 2016. Current assets increased \$94.7 million as scheduled maturities of investments in the debt service reserve funds revolved back into program equity (cash and cash equivalent), resulting in an \$93.1 million decrease in long term investments. Loan receivable increased \$56.4 million which reflects the change in assets that are pledged to the Trust's bonds away from debt service reserve funds to pledging direct loans.
- On April 13, 2017, the Trust issued State Revolving Fund Bonds Series 20 (Green Bonds) in the amount of \$207.4 million with a premium of \$32.2 million. The Trust has designated the Series 20 bonds as "Green Bonds" based on the intended use of the proceeds of the Series 20 Bonds for the financing of projects that adhere to the federal Clean Water Act and Safe Drinking Water Act, as determined by the Environmental Protection Agency (EPA). The Series 20 Bonds were issued to finance or refinance costs of certain wastewater and drinking water projects for governmental units or other eligible borrowers. Series 20 Bond proceeds in the amount of \$167.5 million were applied to fund loans for projects under the clean water SRF and \$72.1 million of proceeds were applied to fund loans for projects under the drinking water SRF. The Trust anticipates expending all the proceeds within three years. In connection with the issuance of the Series 20 bonds, the Trust pledged \$65.9 million of direct loans for projects under the clean water SRF and \$26.8 million of direct loans for projects under the drinking water SRF. The interest payments on these pledged direct loans will be used to pay a portion of the debt service due on the Series 20 bonds.
- On April 13, 2017, the Trust issued State Revolving Fund Refunding Bonds, Series 2017 in the amount of \$96.3 million with a premium of \$18.8 million. Proceeds of the Series 2017 Refunding Bonds were used, together with \$1.0 million of program equity cash to refund optimal current refunding candidates from the Trust's Series 15, 16 and the 2012 Refunding Bonds. These proceeds were deposited with an escrow agent to provide resources for all future debt service payments on the refunded bonds. As a result, the refunded bonds are considered to be defeased and the liability has been removed from the financial statements. The total debt defeased through this new issue was \$102.3 million, for a cash flow savings of \$7.9 million, resulting in an economic gain (net present value) of \$6.7 million.
- For FY 2017, the Trust recorded an operating loss of \$33.7 million as compared to an operating income of \$20.6 million in FY 2016. The \$54.3 million change was primarily attributable to a \$45.7 million decrease in interest income and contract assistance. Significant contributing factors of this decrease were the change in the fair market value year over year of \$32.2 million, as well as a \$11.7 million allocation to the Commonwealth for its portion of the FY 2012 refunding savings that are being deferred for future additional subsidy. Operating expenses were notably impacted with the increase of \$8.5 million of arbitrage expense, due to the timing of required rebate payments to the United States Treasury. These decreases in income coupled with increased operating expenses, including an additional \$1.4 million of funding provided to DEP helping to fund the testing for lead in the water of public schools, contributed to the change.
- The statement of cash flows indicates an increase in cash for the year of \$100.0 million as compared to an increase of \$34.7 million in FY 2016. The primary driver of the increase in both these fiscal years is the scheduled maturities of debt service reserve fund investments that have "revolved" back into the program equity. These maturities were offset by a \$50.0 million investment in the MMDT Short Term Bond Fund in FY 2016.

## **MASSACHUSETTS CLEAN WATER TRUST**

(A Component Unit of the Commonwealth of Massachusetts)

### **Management's Discussion and Analysis – Required Supplementary Information**

(Unaudited)

June 30, 2017 and 2016

- In FY 2017, the Trust continued to receive Capitalization Grants from the Environmental Protection Agency (EPA) for both the Clean Water SRF and Drinking Water SRF programs. The Trust received revenue of \$45.9 million from the clean water program and received \$15.7 million in the drinking water program. The Commonwealth provided a match of \$9.1 million in the clean water program and \$3.1 million in the drinking water program for these federally funded programs. The continued capitalization of the Trust, combined with the Trust's access to the bond market, has allowed the Trust to provide funding to all qualified borrowers.
- The Trust maintains the highest ratings of "Aaa," "AAA," and "AAA" from Moody's Investors Service, S&P Global Ratings, and Fitch Ratings agencies, respectively, on its recently issued bonds, allowing the Trust to continue to provide low cost funding to communities in the Commonwealth.

#### **Financial Highlights – Fiscal Year 2016**

- At the close of fiscal FY 2016, assets and deferred outflows exceeded liabilities by \$2.34 billion, as compared to \$2.24 billion for FY 2015. Included in this calculation were total loans receivable, which increased \$89.0 million to \$4.05 billion which increase was offset by a \$60.3 million decrease in long term investments, caused by scheduled maturities of debt service reserve fund investments. This reflects the change in assets that are pledged to the Trust's bonds away from debt service reserve funds (i.e., investments) to pledging direct loans.
- On February 11, 2016, the Trust issued Series 19 Green Bonds in the amount of \$207.8 million. Proceeds of the Series 19 bonds were used to finance or refinance certain wastewater and drinking water projects in 47 communities. The Trust has designated the Series 19 bonds as "Green Bonds" based on the intended use of the proceeds of the Series 19 Bonds for the financing of projects that adhere to the federal Clean Water Act and Safe Drinking Water Act, as determined by the EPA. Proceeds in the amount of \$145.7 million were applied to fund loans for projects under the clean water SRF and \$99.4 million of proceeds were applied to fund loans for projects under the drinking water SRF. The Trust anticipates expending all of the proceeds within three years. In connection with the issuance of the Series 19 bonds, the Trust made \$58.4 million of direct loans for projects under the Clean Water SRF and \$39.8 million of direct loans for projects under the Drinking Water SRF. The interest payments on these direct loans will be used to pay a portion of the debt service due on the Series 19 bonds.
- For FY 2016, the Trust recorded operating income of \$20.6 million as compared to an operating income of \$36.0 million in FY 2015. The \$15.4 million change was primarily attributable to a \$14.6 million decrease in interest income and contract assistance. Significant contributing factors of this decrease were the change in the fair market value year over year of \$13.8 million, as well as a decrease in investment income as the debt service reserve fund investments matured. These decreases in income, coupled with increased operating expenses, contributed to the change. Operating expenses were notably impacted with the provision of \$2.6 million for the programmatic support costs of DEP, including helping to fund the testing for lead in the water of public schools. Moreover, an increase of \$1.3 million of principal forgiveness expense, due to the timing of disbursements on qualifying projects, further impacted the change.
- The statement of cash flows indicates an increase in cash for the year of \$34.7 million.
- In FY 2016, the Trust continued to receive Capitalization Grants from the EPA for both the Clean Water SRF and Drinking Water SRF programs. The Trust received revenue of \$47.4 million from the clean water

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program and received \$16.4 million in the drinking water program. The Commonwealth provided a match of \$12.7 million for these federally funded programs. The continued capitalization of the Trust, combined with the Trust's access to the bond market, has allowed the Trust to provide funding to all qualified borrowers.

**Overview of Financial Statements**

The financial Section of this report consists of the following parts: management's discussion and analysis (this section), the basic financial statements, and the notes to the financial statements.

The Trust's financial statements are prepared in conformity with U.S. generally accepted accounting principles as applied to a special purpose entity engaged solely in business-type activities. Under this method of accounting, an economic resources measurement focus and an accrual basis of accounting are used. Revenue is recorded when earned, and expenses are recorded when incurred. The basic financial statements include statements of net position, statements of revenues, expenses, and changes in net position, and statements of cash flows. This report also includes notes accompanying the financial statements to fully explain the activities reported in them.

The statements of net position present information on the total assets and deferred outflows of resources, and total liabilities and deferred inflows of resources of the Trust. The difference between the two totals is net position. Over time, increases and decreases in net position may be an indicator of the strength or deterioration of the financial health of the Trust.

The statements of revenues, expenses, and changes in net position report the operating revenues and expenses and the nonoperating revenues and expenses of the Trust for the fiscal year. The difference – increase or decrease in net position – then determines the net change in net position for the fiscal year. This change in net position added to last year's net position will reconcile to the total net position for this fiscal year.

The statements of cash flows report activity of cash and cash equivalents during the fiscal year resulting from operating activities, noncapital financing activities, and investing activities. The net result of these activities is reconciled to the cash and cash equivalent balances reported at the end of the fiscal year. These statements are prepared using the direct method of presentation, which allows the reader to easily discern the amount of cash received from grantors, borrowers, and financial institutions, and how much cash was disbursed to borrowers, vendors, and bondholders.

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**Condensed Financial Information and Financial Analysis**

**Massachusetts Clean Water Trust's Net Position**  
(In thousands)

	June 30			Percentage change	
	2017	2016	2015	2017-2016	2016-2015
Current assets	\$ 1,347,414	1,252,737	1,146,898	7.6 %	9.2 %
Loans receivable, long term	3,715,507	3,664,872	3,591,902	1.4	2.0
Investments, long term	695,527	788,591	845,562	(11.8)	(6.7)
Deferred outflows	88,654	100,910	108,352	(12.1)	(6.9)
Other	1,823	1,895	1,928	(3.8)	(1.7)
Total assets and deferred outflows	<u>5,848,925</u>	<u>5,809,005</u>	<u>5,694,642</u>	<u>0.7</u>	<u>2.0</u>
Current liabilities	384,046	363,651	343,657	5.6	5.8
Liability for derivative instruments	3,604	6,461	5,642	(44.2)	14.5
Long-term debt	<u>3,084,724</u>	<u>3,102,307</u>	<u>3,105,887</u>	<u>(0.6)</u>	<u>(0.1)</u>
Total liabilities	<u>3,472,374</u>	<u>3,472,419</u>	<u>3,455,186</u>	<u>0.0</u>	<u>0.5</u>
Net position:					
Restricted	1,899,565	1,838,451	1,776,826	3.3	3.5
Unrestricted	<u>476,986</u>	<u>498,135</u>	<u>462,630</u>	<u>(4.2)</u>	<u>7.7</u>
Total net position	<u>\$ 2,376,551</u>	<u>2,336,586</u>	<u>2,239,456</u>	<u>1.7 %</u>	<u>4.3 %</u>

*Net Position*

The Trust's net position at June 30, 2017 and 2016 was \$2.38 billion and \$2.34 billion, respectively. Total assets and deferred outflows increased \$39.9 million to \$5.85 billion from \$5.81 billion at June 30, 2017. Current assets increased \$94.7 million as scheduled maturities of investments in the debt service reserve funds revolve back into program equity (cash and cash equivalent), which resulted in an \$93.1 million decrease in long term investments. Loan receivable increased \$56.4 million which reflects the change in assets that are pledged to the Trust's bonds away from debt service reserve funds to pledging direct loans.

The Trust's net position at June 30, 2016 and 2015 was \$2.34 billion and \$2.24 billion, respectively. Total assets and deferred outflows increased \$114.4 million to \$5.81 billion from \$5.70 billion at June 30. This increase was driven primarily by an \$89.0 million increase in loans receivable offset by a \$60.3 million decrease in long term investments, caused by scheduled maturities of debt service reserve fund investments. This reflects the change in assets that are pledged to the Trust's bonds away from debt service reserve funds (i.e., investments) to direct loans.

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*Bonds Payable*

The Trust issues revenue bonds (SRF Bonds) in order to fund communities' construction projects under the Clean Water and Drinking Water programs. The SRF Bonds are secured by either reserve funds or loans to borrowers that are pledged as a source of payment and security, or a combination thereof, both of which are funded by the SRF program funds. The SRF Bonds are payable from borrower loan repayments, reserve fund earnings and payments made by the Commonwealth to the Trust on behalf of the borrowers.

The following is a summary of bonds payable at June 30, 2017, 2016 and 2015 (in thousands). More detailed information can be found in note 8 to the financial statements.

	<u>2017</u>	<u>2016</u>	<u>2015</u>
Water Pollution Abatement Revenue Bonds:			
MWRA Loan Program	\$ 8,170	9,100	10,060
South Essex Sewage District Loan Program	—	285	890
New Bedford Loan Program	—	—	270
Pool Loan Program	<u>1,513,335</u>	<u>1,466,700</u>	<u>1,362,395</u>
Subtotal revenue bonds	<u>1,521,505</u>	<u>1,476,085</u>	<u>1,373,615</u>
Subordinated Revenue Refunding Bonds:			
MWRA Loan Program	54,040	54,040	54,040
Pool Loan Program	<u>1,392,855</u>	<u>1,462,805</u>	<u>1,583,935</u>
Subtotal revenue refunding bonds	<u>1,446,895</u>	<u>1,516,845</u>	<u>1,637,975</u>
Total bonds	2,968,400	2,992,930	3,011,590
Add unamortized bond premium	<u>347,809</u>	<u>335,272</u>	<u>320,762</u>
Total bonds payable, net	<u>\$ 3,316,209</u>	<u>3,328,202</u>	<u>3,332,352</u>

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A summary of the Trust's statements of revenues, expenses, and changes in net position is as follows:

**Summary of Changes in Net Position**  
(In thousands)

	<b>June 30</b>			<b>Percentage change</b>	
	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2017-2016</b>	<b>2015-2014</b>
Loan servicing fees	\$ 5,608	5,515	5,315	1.7 %	3.8 %
Loan origination fees	1,821	1,926	2,150	(5.5)	(10.4)
Interest income	90,573	133,905	147,069	(32.4)	(9.0)
Contract assistance from Commonwealth of Massachusetts	26,572	28,927	30,375	(8.1)	(4.8)
Total operating revenues	124,574	170,273	184,909	(26.8)	(7.9)
Department of Environmental Protection programmatic support costs	8,545	8,421	5,793	1.5	45.4
Principal forgiveness	5,672	6,117	4,797	(7.3)	27.5
General and administrative	5,210	4,092	5,923	27.3	(30.9)
Arbitrage rebate payments	12,328	3,785	1,538	225.7	146.1
Interest expense	126,551	127,247	130,888	(0.5)	(2.8)
Total operating expenses	158,306	149,662	148,939	5.8	0.5
Operating income	(33,732)	20,611	35,970	(263.7)	(42.7)
U.S. Environmental Protection Agency capitalization grants	61,534	63,781	63,290	(3.5)	0.8
Commonwealth of Massachusetts matching grants	12,163	12,738	12,809	(4.5)	(0.6)
Total nonoperating revenues	73,697	76,519	76,099	(3.7)	0.6
Increase in net position	39,965	97,130	112,069	(58.9)	(13.3)
Net position, beginning of year	2,336,586	2,239,456	2,127,387	4.3	5.3
Net position, end of year	\$ 2,376,551	2,336,586	2,239,456	1.7 %	4.3 %

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A summary of the Trust's interest income is as follows:

<b>Summary of Interest Income</b> (In thousands)					
	<b>June 30</b>			<b>Percentage change</b>	
	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2017-2016</b>	<b>2016-2015</b>
Loan interest income	\$ 69,294	69,102	66,929	0.3 %	3.2 %
Investment income	40,770	40,234	41,596	1.3	(3.3)
BAB subsidy income	4,144	4,266	4,395	(2.9)	(2.9)
Change in fair market value	(11,937)	20,303	34,149	(158.8)	(40.5)
Refunding savings allocated to the Commonwealth	(11,698)	—	—	(100.0)	—
Total interest income	<u>\$ 90,573</u>	<u>133,905</u>	<u>147,069</u>	<u>(32.4) %</u>	<u>(9.0) %</u>

### Results of Operations

For FY 2017, the Trust recorded operating loss of \$33.7 million as compared to an operating income of \$20.6 million in FY 2016. The \$54.3 million change was primarily attributable to a \$45.7 million decrease in interest income and contract assistance. Significant contributing factors of this decrease were the change in the fair market value year over year of \$32.2 million, as well as a \$11.7 million allocation to the Commonwealth for its portion of the FY 2012 refunding savings that are being deferred for future additional subsidy. Operating expenses were notably impacted with the increase of \$8.5 million of arbitrage expense, due to the timing of required rebate payments to the United States Treasury. These decreases in income coupled with increased operating expenses, including an additional \$1.4 million of funding provided to DEP helping to fund the testing for lead in the water of public schools, contributed to the change.

For FY 2016, the Trust recorded operating income of \$20.6 million as compared to an operating income of \$36.0 million in FY 2015. The \$15.4 million change in the Trust's operating income in FY 2016 was primarily attributable to a \$14.6 million decrease in interest income caused by the change in the fair market value year over year of \$13.8 million as well as a decrease in investment income as the debt service reserve fund investments matured. These decreases in income coupled with the increased operating expense contributed to the change. Operating expenses were notably impacted with the provision of \$2.6 million for the programmatic support costs of DEP, including helping to fund the testing of lead in the water of public schools. Moreover, an increase of \$1.3 million of principal forgiveness expense due to the timing of disbursements on qualifying projects, further impacted the change.

The Trust's operating income is negatively impacted by the inclusion of expenses such as DEP programmatic support costs of \$8.5 million, \$8.4 million, and \$5.8 million for FY 2017, FY 2016 and FY 2015, respectively, and principal forgiveness, which are funded by the capitalization grant revenue that is classified as nonoperating revenue.

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For FY 2017, the Trust's nonoperating revenue of \$73.7 million decreased slightly from \$76.5 million the year before reflecting decreases in the annual clean water and drinking water federal capitalization grants revenue and the related state matching grant. Revenue is recognized based on the funding availability schedule contained in the grant. For more information on grant revenue, refer to note 6.

**Future Economic Factors**

In August 2014, the Commonwealth enacted Chapter 286 of the Acts of 2014 of the Commonwealth, which provided for \$57.0 million in matching capitalization funds to the Clean Water SRF and Drinking Water SRF programs. As of June 30, 2017, matching capitalization funds available to the Clean Water SRF and Drinking Water SRF programs were \$33.9 million. The Trust estimates this amount to be sufficient to meet its clean water and drinking water matching needs through FY 2019, assuming current federal funding levels are maintained.

**Requests for Information**

This financial report is intended to provide an overview of the financial picture of the Massachusetts Clean Water Trust. Any further questions regarding any of the information contained within this report may be addressed via email to Sue Perez, Executive Director, [sperez@tre.state.ma.us](mailto:sperez@tre.state.ma.us) or Sally Peacock, Controller, [speacock@tre.state.ma.us](mailto:speacock@tre.state.ma.us) or mail to Massachusetts Clean Water Trust, 3 Center Plaza, Suite 430, Boston, MA 02108.

**MASSACHUSETTS CLEAN WATER TRUST**  
(A Component Unit of the Commonwealth of Massachusetts)

Statements of Net Position

June 30, 2017 and 2016

(In thousands)

	<u>2017</u>	<u>2016</u>
Assets and deferred outflows:		
Current assets:		
Cash and cash equivalents (note 3)	\$ 586,633	486,629
Short-term investments (note 5)	221,170	226,124
Project fund deposits (note 4)	66,573	50,243
Grants receivable:		
U.S. Environmental Protection Agency (note 6)	28,814	49,667
Loans receivable, net (note 7)	389,912	384,195
Accrued interest receivable	54,312	55,879
Total current assets	<u>1,347,414</u>	<u>1,252,737</u>
Noncurrent assets:		
Loans receivable, long term (note 7)	3,715,507	3,664,872
Long-term investments (note 5)	695,527	788,591
Other assets	1,823	1,895
Total noncurrent assets	<u>4,412,857</u>	<u>4,455,358</u>
Deferred outflows of resources (notes 8 and 12)	<u>88,654</u>	<u>100,910</u>
Total assets and deferred outflows of resources	<u>5,848,925</u>	<u>5,809,005</u>
Liabilities:		
Current liabilities:		
Accrued expenses and interest payable	58,268	60,307
Unearned revenue	27,270	28,086
Loan commitments and project funds payable	67,023	49,363
Long-term debt (note 8)	231,485	225,895
Total current liabilities	<u>384,046</u>	<u>363,651</u>
Noncurrent liabilities:		
Liability for derivative instruments (note 11)	3,604	6,461
Long-term debt, net (note 8)	3,084,724	3,102,307
Total noncurrent liabilities	<u>3,088,328</u>	<u>3,108,768</u>
Total liabilities	<u>3,472,374</u>	<u>3,472,419</u>
Net position:		
Restricted for program purposes (note 9)	1,899,565	1,838,451
Unrestricted (note 9)	476,986	498,135
Commitments (note 10)	—	—
Total net position	<u>\$ 2,376,551</u>	<u>2,336,586</u>

See accompanying notes to financial statements.

**MASSACHUSETTS CLEAN WATER TRUST**  
(A Component Unit of the Commonwealth of Massachusetts)  
Statements of Revenues, Expenses, and Changes in Net Position  
Years ended June 30, 2017 and 2016  
(In thousands)

	<u>2017</u>	<u>2016</u>
Operating revenues:		
Loan servicing fees	\$ 5,608	5,515
Loan origination fees	1,821	1,926
Interest income	90,573	133,905
Contract assistance from Commonwealth of Massachusetts	<u>26,572</u>	<u>28,927</u>
Total operating revenues	<u>124,574</u>	<u>170,273</u>
Operating expenses:		
Commonwealth of Massachusetts:		
Department of Environmental Protection – programmatic support costs	8,545	8,421
Principal forgiveness	5,672	6,117
General and administrative	5,210	4,092
Arbitrage rebate payments	12,328	3,785
Interest expense	<u>126,551</u>	<u>127,247</u>
Total operating expenses	<u>158,306</u>	<u>149,662</u>
Operating income	<u>(33,732)</u>	<u>20,611</u>
Nonoperating revenue:		
Capitalization grant revenue:		
U.S. Environmental Protection Agency capitalization grants (note 6)	61,534	63,781
Commonwealth of Massachusetts matching grants (note 6)	<u>12,163</u>	<u>12,738</u>
Total nonoperating revenue	<u>73,697</u>	<u>76,519</u>
Increase in net position	39,965	97,130
Net position – beginning of year	<u>2,336,586</u>	<u>2,239,456</u>
Net position – end of year	<u>\$ 2,376,551</u>	<u>2,336,586</u>

See accompanying notes to financial statements.

**MASSACHUSETTS CLEAN WATER TRUST**  
(A Component Unit of the Commonwealth of Massachusetts)

Statements of Cash Flows

Years ended June 30, 2017 and 2016

(In thousands)

	<u>2017</u>	<u>2016</u>
Cash flows from operating activities:		
Other cash received from borrowers	\$ 7,494	7,466
Cash paid to vendors	<u>(25,953)</u>	<u>(16,611)</u>
Net cash used in operating activities	<u>(18,459)</u>	<u>(9,145)</u>
Cash flows from noncapital financing activities:		
Bond proceeds	354,577	245,140
Cash used in debt refunding	(115,810)	—
Repayment of bonds	(225,895)	(226,465)
Interest paid	(140,716)	(141,504)
Proceeds from U.S. Environmental Protection Agency capitalization grants	81,666	78,367
Proceeds from Commonwealth matching capitalization grants	<u>12,067</u>	<u>12,078</u>
Net cash used in noncapital financing activities	<u>(34,111)</u>	<u>(32,384)</u>
Cash flows from investing activities:		
Loans disbursed to recipients	(329,883)	(346,507)
Cash received from borrowers	239,871	222,577
Contract assistance received – principal	24,543	27,056
Interest received	103,761	112,296
Contract assistance received – interest	26,636	30,323
Purchases of investments	(6,976)	(61,858)
Sales/maturities of investments, net	<u>94,622</u>	<u>92,386</u>
Net cash provided by investing activities	<u>152,574</u>	<u>76,273</u>
Net increase in cash and cash equivalents	100,004	34,744
Cash and cash equivalents, beginning of year	<u>486,629</u>	<u>451,885</u>
Cash and cash equivalents, end of year	<u>\$ 586,633</u>	<u>486,629</u>
Reconciliation of operating income to net cash used in operating activities:		
Operating income	\$ (33,732)	20,611
Adjustments to reconcile operating income to net cash used in operating activities:		
Reclassification of:		
Interest income	(90,573)	(133,905)
Contract assistance	(26,572)	(28,927)
Interest expense	126,551	127,247
Principal forgiveness	5,672	6,117
Changes in operating assets and liabilities:		
Other assets and liabilities, net	<u>195</u>	<u>(288)</u>
Net cash used in operating activities	<u>\$ (18,459)</u>	<u>(9,145)</u>

See accompanying notes to financial statements.

**MASSACHUSETTS CLEAN WATER TRUST**  
(A Component Unit of the Commonwealth of Massachusetts)

Notes to Financial Statements

June 30, 2017 and 2016

(Dollars in thousands, unless noted)

**(1) General**

**(a) Organization**

The Massachusetts Clean Water Trust (the Trust), is a component unit of the Commonwealth of Massachusetts (the Commonwealth). The Trust was created by Chapter 275 of the Acts of 1989, and is governed by Chapter 29C of the Massachusetts General Laws. Pursuant to an Operating Agreement between the United States Environmental Protection Agency (EPA), the Massachusetts Department of Environmental Protection (DEP), and the Trust, executed in 1993 and subsequently amended, the Trust administers the Commonwealth's Clean Water State Revolving Fund (Clean Water SRF) and Drinking Water State Revolving Fund (Drinking Water SRF) programs.

Financial and management activities of the Trust are administered by employees of the Trust who fall under the Office of the State Treasurer. Project evaluation, selection, and oversight are provided by DEP employees.

The Trust is governed by a three-member board of trustees chaired by the State Treasurer and composed of the Secretary for Administration and Finance and the Commissioner of DEP.

**(b) Description of Business**

The SRF programs, which were authorized by federal legislation – the Water Quality Act of 1987 for the Clean Water SRF and the Safe Drinking Water Act of 1996 for the Drinking Water SRF – provide low-cost financing to cities, towns, and other eligible borrowers primarily for the construction and improvement of drinking water and wastewater infrastructure. The Trust's SRF program's primary activities include providing low-cost financing for eligible projects funded by the issuance of debt in the capital markets, providing low cost interim financing for its borrowers, the investment of program funds, and the management and coordination of the programs.

SRF program capitalization grants are issued from the EPA to the Trust, for which the Commonwealth is required to provide 20% in matching funds. The Trust applies such grants and state matching funds and other monies available to the Trust to reduce financing costs by pledging assets to secure the Trust's bonds issued to fund such projects, and by applying investment earnings on such pledged assets to pay a portion of the debt service on the related bonds.

The SRF programs are called the State Revolving Fund programs because as borrowers pay down the principal balances of their loans and as the Trust pays principal on its SRF bonds, proportional amounts are released from the pledged assets securing the related SRF bonds. These funds come back to the Trust and "revolve" or are available to be pledged as a source of payment and security, for new SRF bonds or for other eligible purposes.

Funds pertaining to the SRF programs are limited to specific uses by laws and regulations as well as Grant and Operating Agreements entered into between EPA and the Commonwealth. As a result of these limitations on uses, these funds are classified as restricted on the statements of net position.

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Notes to Financial Statements

June 30, 2017 and 2016

(Dollars in thousands, unless noted)

**(2) Summary of Significant Accounting Policies**

The accounting policies of the Trust conform to U.S. generally accepted accounting principles (GAAP) as applicable to government enterprises. The following is a summary of the Trust's significant accounting policies:

**(a) Basis of Presentation**

The Trust's financial statements are prepared using the economic resources measurement focus and the accrual basis of accounting as specified by the Governmental Accounting Standards Board's (GASB) requirements for a special purpose entity engaged solely in business-type activities. The more significant account policies are described below.

**(b) Revenue Recognition**

Operating revenues, including interest income, and expenses are generated through the issuance of loans to local government units within the Commonwealth. All other revenues and expenses are reported as nonoperating revenues and expenses.

Funding from federal capitalization grants and state matching grants are recorded as nonoperating revenue. Federal capitalization revenue is recognized in accordance with funding availability schedules contained within the individual grant agreements. Revenue recognition associated with these grants is based on the standard principles of eligibility, including timing requirements.

The Trust's recent federal capitalization grants require a portion of the grant funds be provided as additional subsidization in the form of principal forgiveness, grants, or negative interest loans. The Trust provides the additional subsidization in the form of principal forgiveness, which has been recorded as an operating expense.

**(c) Cash and Cash Equivalents**

The Trust's policy is to treat all highly liquid investments with original maturities of three months or less as cash and cash equivalents.

**(d) Investments**

The Trust's investment guidelines permit investment of funds in obligations of, or guaranteed by, the United States of America or the short-term external investment pool, the Massachusetts Municipal Depository Trust (MMDT), managed by the Commonwealth, as well as in time deposits, guaranteed investment contracts, repurchase agreements, and other permitted investments such as qualified municipal obligations.

In 2016 the Trust implemented GASB 72, *Fair Value Measurement and Application*. Investments are generally carried at fair value. The investment in MMDT is valued at the share value of \$1.00 and carried at fair value. The guaranteed investment contracts (GICs) are considered nonparticipating investment contracts and therefore are recorded at contract value.

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(Dollars in thousands, unless noted)

**(e) Allowance for Uncollectible Amounts and Principal Forgiveness**

The allowance for uncollectible accounts receivables is determined principally on the basis of past collection experience as well as consideration of current economic conditions. Receivables are reported at the gross amount and an allowance for doubtful accounts would be recognized for that portion of receivables that is deemed uncollectible, based upon a review of outstanding receivables, historical collection information, and existing economic conditions and trends. Because of the absence of any delinquent loans, there is no provision for uncollectible amounts.

Loans are reported net of principal forgiveness expected to be provided upon project completion. The amount of principal forgiveness is determined by the Trust's board and is recorded on a first-in, first-out basis as disbursements are processed, up to the total amount of the principal forgiveness awarded to the individual loans.

**(f) Loan Origination Fees and Costs of Issuance**

The Trust requires payment of loan origination fees at the time of the first debt service payment. This origination fee revenue is recorded at the time of the bond closing which is when these fees are earned. Cost of issuance related to the bonds is recorded to general and administrative expenses when incurred.

**(g) Risk Financing**

The Trust is not insured for casualty, theft, tort claims, or other losses. No amounts have been accrued for such losses as they are not considered material. As discussed in note 1, all financial, management, and project oversight activities are provided by employees of the State Treasurer's Office, DEP, and the Executive Office for Administration and Finance. These employees are covered under the Commonwealth's existing employee benefit programs. The cost of these programs is allocated to the Trust, through a fringe benefit allocation. Costs in excess of this amount are borne by the Commonwealth. As a result, no liabilities for employee-related activities have been recorded by the Trust.

**(h) Bond Premium**

Bond premium, included in long-term debt, is amortized on a straight-line basis, which approximates the effective interest basis, over the life of the associated bond issue.

**(i) Use of Estimates**

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities, at the date of the financial statements and the reported amounts of revenues and expenditures during the reporting period. Actual results could differ from those estimates.

**MASSACHUSETTS CLEAN WATER TRUST**  
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June 30, 2017 and 2016

(Dollars in thousands, unless noted)

**(j) Derivatives**

Derivative instruments are reported as assets or liabilities at fair value on the statement of net position. Changes in fair value are either deferred or reported in the statement of revenues, expenses, and changes in net position, depending on whether the derivative instrument qualifies for hedge accounting.

**(k) Deferred Inflows and Outflows of Resources**

The Trust accounts for certain transactions that result in the consumption or acquisition in one period that are applicable to future periods as deferred outflows and deferred inflows of resources, respectively, to distinguish them from assets and liabilities. For fiscal years 2017 and 2016, the Trust has reported deferred outflows of resources pertaining to its hedging derivative instruments and to the net losses on its debt refunding transactions.

**(l) Reclassifications**

Certain reclassifications have been made to the FY 2016 balances to conform to the presentation used in FY 2017.

**(3) Cash and Cash Equivalents**

Cash and cash equivalent for the years ended June 30, 2017 and 2016 are as follows:

	<u>2017</u>	<u>2016</u>
Program Equity Funds	\$ 496,763	380,623
Revenue Funds	34,378	27,673
Administrative Funds	22,946	20,130
State Match Funds	12,664	16,864
Other Cash Funds	19,882	41,339
	<u>\$ 586,633</u>	<u>486,629</u>

The Trust's cash and cash equivalents primarily consist of the SRF program equity accounts. Use of these funds are governed by the Clean Water Act and Safe Drinking Water Act, and are required to be kept in perpetuity in support of the State Revolving Fund. These funds are derived from: (1) funds drawn by the Trust from federal capitalization grants and Commonwealth matching funds; (2) other amounts paid to the Trust representing financial assistance provided pursuant to the Act for purposes of deposit in the SRF programs; (3) other amounts appropriated to the Trust by the Commonwealth for purposes of the SRF programs; (4) borrower loan repayments; (5) interest earnings on investments or deposits of amounts held in the program equity accounts; (6) proportional amounts released from the pledged assets available as a result of loan repayments in accordance with the provisions specified in the applicable bond resolutions; and (7) other amounts derived from financing activities of the Trust.

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Revenue Funds are used to account for the proceeds of specific revenue sources that are restricted or committed to expenditures for specific purposes other than debt service. Administrative Funds are funded with fees received pursuant to any financing agreement, all origination fees payable to any loan, and any other amount received by the Trust for such purposes and applied to the payment of reimbursement of administrative costs of the Trust. The State Match Funds represents the net balance of the Commonwealth Matching Grant allocated to the Trust.

Cash and cash equivalents include investments in Massachusetts Municipal Depository Trust (MMDT). The Office of the Treasurer and Receiver-General (Treasury) manages MMDT, the Commonwealth's short-term external mixed investment pool. MMDT is comprised of two portfolios, a Cash Portfolio and a Short Term Bond Portfolio. The Cash Portfolio is a money market like investment pool; its investments are carried at amortized cost, which approximates fair value. The investment in MMDT is valued at the share value of \$1.00 and carried at fair value.

Investors in MMDT are not allowed to overdraw their shares. For a complete copy of MMDT's separately issued financial statements, please contact the Office of the State Treasurer's Cash Management Department, at (617) 367-9333 or download the statements from the Cash Management Section of the Office of the State Treasurer's Web site at [www.mass.gov/treasury](http://www.mass.gov/treasury). For purposes of risk categorization, MMDT shares are not categorized.

*Custodial Credit Risk* – Custodial credit risk is the risk that, in the event of a bank failure, the Trust's deposits may not be returned to it. Cash balances represent amounts held in bank depository accounts that may be subject to custodial credit risk. The Trust had no significant amount of cash on deposit with banks at June 30, 2017 and 2016.

**(4) Project Fund Deposits**

The project fund deposits are held by the Trustee and disbursed in accordance with executed loan agreements. Project fund deposits are disbursed to borrowers as needed. These funds are restricted and are to be disbursed solely for the applicable project costs associated with the applicable loan financing agreement. When all costs have been paid, any amounts remaining unexpended in the project fund deposits will normally be applied to the repayment of the applicable borrower's principal. Project fund deposits are invested as part of the MMDT Cash Portfolio. As of June 30, 2017 and 2016, the Trust had \$66,573 and \$50,243, respectively, held in project fund deposits.

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(A Component Unit of the Commonwealth of Massachusetts)

Notes to Financial Statements

June 30, 2017 and 2016

(Dollars in thousands, unless noted)

**(5) Investments**

Investments for the years ended June 30, 2017 and 2016 are as follows:

<b>June 30, 2017</b>				
	<b>Guaranteed investment contracts</b>	<b>U.S. Treasuries and agencies</b>	<b>MMDT short-term bond portfolio</b>	<b>Total investments</b>
Less than 1 year	\$ 112,538	14,301	94,331	221,170
One to five years	211,582	77,942	—	289,524
Six to ten years	156,044	68,886	—	224,930
More than ten years	56,285	124,788	—	181,073
	<u>\$ 536,449</u>	<u>285,917</u>	<u>94,331</u>	<u>916,697</u>
<b>June 30, 2016</b>				
	<b>Guaranteed investment contracts</b>	<b>U.S. Treasuries and agencies</b>	<b>MMDT short-term bond portfolio</b>	<b>Total investments</b>
Less than 1 year	\$ 119,927	13,432	92,765	226,124
One to five years	226,720	76,224	—	302,944
Six to ten years	181,703	77,004	—	258,707
More than ten years	74,577	152,363	—	226,940
	<u>\$ 602,927</u>	<u>319,023</u>	<u>92,765</u>	<u>1,014,715</u>

Investments primarily consist of debt service reserve accounts that were established as security for certain series of bonds issued by the Trust. The amount deposited in each debt service reserve account was determined at the time of the issuance of the bonds, and varied from 33% to 50% of the par amount of the bonds issued. In most cases, Debt Service Reserve Funds were funded from the SRF program equity accounts. Interest earnings on the debt service reserve accounts are used for debt service payments. The Trust's debt service reserve accounts are invested in either Guaranteed Investment Contracts (GICs) or U.S. Treasuries and Agencies.

Since 2012, the Trust has been pledging direct loans as security for its bonds rather than establishing debt service reserve funds. As a result, the debt service reserve fund investment balance continues to decline as scheduled maturities occur.

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*Custodial Credit Risk* – Custodial credit risk for investments is the risk that, in the event of a failure of the counterparty, the Trust will not be able to recover the value of the investment or collateral securities that are in the possession of an outside party. The Trust requires that all investment agreements be collateralized either upon execution of such agreement or upon the happening of certain events, and at all times thereafter, by securities or other obligations issued or guaranteed by the United States, by certain federal agencies or corporations or, in some cases, by corporate or municipal issuers rated “AAA” by S&P Global Ratings and “Aaa” by Moody’s, having a market value of not less than 102% of the amount currently on deposit or in accordance with their respective agreement.

*Credit Risk* – The majority of the Trust’s investments are in GICs or in U.S. Treasuries and Agencies. The U.S. Treasuries and Agencies are all backed by the federal government. The GICs either have collateral requirements in place upon execution of the investment agreement, or have triggered collateral requirements under which, upon a rating downgrade below a specified level, the counterparty is typically required to take one of three actions: 1) post collateral to a level sufficient to maintain an AA rating, 2) assign the investment contract to a new counterparty that has at least an AA rating, or 3) provide credit enhancement to maintain a rating on the investment contract of at least AA. MMDT and the GICs are not rated.

*Interest Rate Risk* – Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of the Trust’s investments. The Trust limits its exposure to interest rate risk by entering into guaranteed investment contracts and federally guaranteed fixed income securities for all of its long-term investments upon which the Trust relies to meet its obligations. The Trust’s U.S. Treasuries and Agencies investment portfolio was structured in its principal and interest return to support debt service on the related bonds.

*Fair Value Disclosure – Investments* – The Trust categorizes its fair value investments within the fair value hierarchy established by generally accepted accounting principles. GASB defines a certain hierarchy of inputs to valuation techniques used to measure fair value. All of the Trust’s investments in U.S. Treasuries and Agencies are categorized as Level 2.

Inputs within Level 2 of the fair value hierarchy include inputs that are directly observable, these inputs are derived principally from or corroborated by observable market data through correlation or by other means. Investments in debt securities classified as Level 2 of the fair value hierarchy are valued using matrix pricing techniques, in accordance with market quotations or valuation methodologies from reliable financial industry services.

Under existing standards, several types of investments are not required to be reported at fair value. The investment in MMDT is valued at the share value of \$1.00 and carried at fair value. The Short Term Bond Portfolio investments are carried at fair value. For purposes of risk categorization, MMDT shares are not categorized. The GICs are considered nonparticipating investment contracts and are also excluded from the Statement on fair value measurement. These investment values will continue to be measured in accordance with existing accounting standards, and are recorded at contract value.

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(Dollars in thousands, unless noted)

*Concentration of Credit Risk* – Concentration of credit risk is the risk of loss attributed to the magnitude of an entity's investment in a single issuer. The following list sets forth the guaranteed investment contract providers with which the Trust's investments exceed 5% of the Trust's total investment balance.

	<u>2017</u>		<u>2016</u>	
Provider:				
Dexia Credit Local/FSA Capital Management Services, LLC	\$	159,954	20 %	\$ 182,556
Mass Mutual Financial Group / Trinity Funding Company, LLC*		135,089	17	143,976
Natixis Funding Corp. f/k/a Ixis Funding Corp., CDC Funding Corp.		131,201	16	146,973
Citigroup Global Markets Inc.		84,130	10	91,363

\* Trinity sold to MassMutual its interests in certain investment agreements; represents MassMutual's substitution of Trinity GICs

**(6) Capitalization Grants**

The Trust is awarded clean water and drinking water grants from the EPA. These grants require that the Trust enter into binding commitments with local government units within one year of the receipt of each federal grant award to provide assistance in an amount equal to 120% (including 20% state matching grants) of each grant award. Each federal capitalization grant contains federally mandated set-asides, including a 4% administrative allowance, that result in total grant funding actually being 83.3% federal and 16.7% state.

The periodic grant draws by the Trust on its federal and state grants are based on the amount of incurred costs for certain eligible projects or activities. State matching grant revenue is recognized the year it is drawn from the Commonwealth. Federal grant revenue is recognized in accordance with the funding schedules contained within the individual grant agreements. The federal grant agreements begin October 1 and end September 30 in conformity with the federal fiscal year. Federal grant funds are made available in equal quarterly installments based on the federal fiscal year.

The following table depicts the Trust's grant receivable by program:

	<u>Clean Water Program</u>		<u>Drinking Water Program</u>		<u>Total Program</u>	
	<u>Federal</u>	<u>State</u>	<u>Federal</u>	<u>State</u>	<u>Federal</u>	<u>State</u>
Grants receivable at June 30, 2016	\$ 47,360	—	2,307	—	49,667	—
Project Grant Award/Match – FFY 2016	43,186	9,073	10,661	3,090	53,847	12,163
Admin/Set Asides Grant – FFY 2016	2,177	—	4,790	—	6,967	—
Total Grant Award/Match	45,363	9,073	15,451	3,090	60,814	12,163
Grant Funds Draw n	(65,631)	(9,073)	(16,036)	(3,090)	(81,667)	(12,163)
Grants receivable at June 30, 2017	\$ <u>27,092</u>	<u>—</u>	<u>1,722</u>	<u>—</u>	<u>28,814</u>	<u>—</u>

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	<b>Clean Water Program</b>		<b>Drinking Water Program</b>		<b>Total Program</b>	
	<b>Federal</b>	<b>State</b>	<b>Federal</b>	<b>State</b>	<b>Federal</b>	<b>State</b>
Grants receivable at June 30, 2015	\$ 52,573	—	11,767	—	64,340	—
Project Grant Award/Match – FFY 2015	45,087	9,472	11,270	3,266	56,357	12,738
Admin/Set Asides Grant – FFY 2015	2,273	—	5,063	—	7,336	—
Total Grant Award/Match	47,360	9,472	16,333	3,266	63,693	12,738
Grant Funds Draw n	(52,573)	(9,472)	(25,793)	(3,266)	(78,366)	(12,738)
Grants receivable at June 30, 2016	\$ 47,360	—	2,307	—	49,667	—

Federal capitalization revenue is recognized in accordance with funding availability schedules contained within the individual grant agreements.

The following table depicts the Trust's capitalization grant revenue by grant:

	<b>Clean Water Program</b>		<b>Drinking Water Program</b>		<b>Total Programs</b>	
	<b>2017</b>	<b>2016</b>	<b>2017</b>	<b>2016</b>	<b>2017</b>	<b>2016</b>
Federal FY 2016 grant	\$ 34,022	—	11,588	—	45,610	—
Federal FY 2015 grant	11,840	35,520	4,084	12,250	15,924	47,770
Federal FY 2014 grant	—	11,901	—	4,110	—	16,011
Total grant revenue – EPA	\$ 45,862	47,421	15,672	16,360	61,534	63,781
State match – FY 2016 grant	\$ 9,073	—	3,090	—	12,163	—
State match – FY 2015 grant	—	9,472	—	3,266	—	12,738
Total grant revenue – State Match	\$ 9,073	9,472	3,090	3,266	12,163	12,738

**(7) Loans Receivable and Bonds Purchased**

The Trust provides low-cost financing to cities, towns, and other eligible borrowers primarily for the construction and improvement of drinking water and wastewater infrastructure. These loans are provided under the Trust's Clean Water SRF, Drinking Water SRF, and Community Septic Management Programs.

Each loan to a borrower is in the form of either a loan or a bond purchase agreement, and is pursuant to a financing agreement between the Trust and the borrower. Pursuant to an agreement made with the EPA, projects financed for greater than 20 years are financed through a bond purchase agreement. Pursuant to the financing agreements, each borrower delivers its own general or special obligation bond to the Trust referred to as a "local bond," in order to secure its loan repayment obligations. The Trust may provide loans under its Clean Water SRF and Drinking Water SRF programs with terms up to 30 years, but in no event does the Trust make a loan longer than the expected useful life of the project financed or refinanced by

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such loan. The Trust's loans to borrowers are funded either through SRF bond proceeds (leveraged loans), or funded with SRF program equity funds (direct loans).

The Trust recognizes the need for construction funds to be available to borrowers throughout the year, not simply at the time of an annual Trust bond issue. This need is addressed by making funds available to eligible projects through the interim loan program. Interim loans are temporary loans provided by the Trust to local governmental units or other eligible borrowers in accordance with a financing agreement for all or any part of the cost of a project in anticipation of a leveraged or direct loan.

A summary of loan receivables as of June 30, 2017 and 2016 is as follows:

	<u><b>2017</b></u>	<u><b>2016</b></u>
Leveraged loans	\$ 3,510,721	3,527,080
Direct loans pledged for bond debt service	470,330	394,770
Other direct loans	<u>8,401</u>	<u>9,909</u>
Total permanently financed loans receivable	3,989,452	3,931,759
Interim loans	173,023	172,334
Principal forgiveness	<u>(57,056)</u>	<u>(55,026)</u>
Total loans receivable	4,105,419	4,049,067
Less current portion loans receivable	<u>389,912</u>	<u>384,195</u>
Long-term portion – loans receivable	<u><u>\$ 3,715,507</u></u>	<u><u>3,664,872</u></u>

The interim loan receivable balances were \$173,023 and \$172,334 as of June 30, 2017 and 2016, respectively. Additionally, the interim loan balances represent disbursements of construction funds of \$57,056 and \$55,026, respectively, to borrowers for which a subsidy was provided in the form of principal forgiveness. The subsidized interim loan amounts will be legally forgiven as the applicable projects are completed.

The Trust offers principal forgiveness to borrowers, based on eligibility criteria defined by the Trust's board. Principal forgiveness can assist borrowers in their efforts to comply with water quality standards by making projects even more affordable. Loans funded by principal forgiveness grants are advanced to local agencies on a cost reimbursement basis up to the amount of the awarded principal forgiveness. Loan agreements require repayment of the forgiven loan if all program requirements are not met.

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Interim loans totaling \$233,448 were permanently financed as part of the Trust's Series 20 bond issuance in April 2017. In connection with the issuance of the Series 20 bonds, the Trust pledged \$92,682 of its program assets. The pledged assets were loans to borrowers funded with SRF program equity funds. The interest collected on these loans will be applied to pay a portion of the debt service on the Series 20 bonds, thereby supplementing the loan repayment obligations of the local borrowers while the principal payments collected on the direct loans are pledged as further security for the Trust's bonds. The Series 20 bonds are the fifth Series of Trust SRF Bonds to use this approach. As of June 30, 2017, the Trust has \$470.3 million in direct loans pledged for the purpose of paying debt service on Trust bonds.

Aggregate principal maturities on loans receivable or bonds purchased are as follows:

	<b>Leveraged loans</b>	<b>Direct loans used for bond debt service</b>	<b>Other direct loans</b>	<b>Total permanently financed loans</b>
Years ending June 30:				
2018	\$ 252,916	20,402	627	273,945
2019	259,083	20,844	627	280,554
2020	253,639	21,277	628	275,544
2021	247,143	21,733	628	269,504
2022	233,699	22,131	629	256,459
2023-2027	1,057,361	115,043	3,149	1,175,553
2028-2032	699,129	120,043	2,113	821,285
2033-2037	377,056	80,513	—	457,569
2038-2042	97,610	29,688	—	127,298
2043-2047	33,085	18,656	—	51,741
	<u>\$ 3,510,721</u>	<u>470,330</u>	<u>8,401</u>	<u>3,989,452</u>

The Trust's loans to its borrowers are subsidized by interest earnings on its pledged assets which include Debt Service Reserve Funds, direct loans and contract assistance provided to the Trust by the Commonwealth. Although borrowers are obligated to the Trust to make scheduled payments, these subsidies are expected to be available for the duration of the loan financing agreements. The Commonwealth has committed to provide contract assistance in the amount of \$300.7 million over 30 years. This obligation of the Commonwealth to the Trust is a general obligation of the Commonwealth, for which its full faith and credit are pledged. Annual appropriations are made each year by the Commonwealth to fund the current year's obligation.

**MASSACHUSETTS CLEAN WATER TRUST**  
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**(8) Bonds Payable**

The Trust issues special obligation bonds under its SRF programs to provide low cost financing to cities, towns and other eligible borrowers primarily for the construction and improvement of drinking water and wastewater infrastructure. Coupons on the bonds range from approximately 3.0% to 6.0% and each series is payable semiannually with the latest maturity occurring in FY 2047. The financial assistance is provided pursuant to leveraged loans and bond purchase agreements between the Trust and each borrower as described in note 7.

The Series 20 Bonds and the Series 2017 Refunding Bonds, issued on April 13, 2017, were the third and fourth Series of the Trust's bonds to be issued under and secured by the Master Trust Agreement (MTA). MTA Bonds are payable solely from the funds pledged to the MTA which include repayments on all loans financed through the MTA Program, together with contract assistance payments, and earnings on certain funds held under the MTA. All other Series of Trust bonds are payable from amounts pledged pursuant to the individual Water Pollution Abatement and Drinking Water Project Bond Resolutions, which include payments by local governmental units of principal and interest on the loans, contract assistance, and earnings on amounts on deposit in the Debt Service Reserve Funds or interest received on certain direct loans made by the Trust.

Pursuant to the Commonwealth Assistance Contract (the Contract), the Commonwealth has agreed to provide contract assistance payments to the Trust to reduce the payments by local government units. The Contract is pledged as security for the bonds; and contract assistance payments, when received by the Trust are pledged as security for the bonds.

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The following is a summary of bonds payable at June 30, 2017 and 2016:

<u>Bond issue</u>	<u>Issue date</u>	<u>Final maturity</u>	<u>Balance June 30, 2016</u>	<u>Additions</u>	<u>Reductions</u>	<u>Balance June 30, 2017</u>	<u>Due within one year</u>
Water pollution abatement revenue bonds:							
MWRA Series 2002A	10/15/2002	8/1/2032	\$ 9,100	—	930	8,170	890
SESD Series 1996A	12/5/1996	8/1/2016	285	—	285	—	—
Pool loan program:							
Series 6	11/6/2000	8/1/2023	3,165	—	—	3,165	—
Series 7	7/15/2001	2/1/2023	1,530	—	—	1,530	—
Series 8	11/15/2002	8/1/2026	10,360	—	1,630	8,730	1,450
Series 9	10/10/2003	8/1/2027	15,650	—	1,700	13,950	1,535
Series 11	10/19/2005	8/1/2025	41,960	—	235	41,725	235
Series 12	12/14/2006	8/1/2026	40,980	—	18,150	22,830	—
Series 14	3/18/2009	8/1/2038	163,120	—	16,625	146,495	17,080
Series 15	7/8/2010	8/1/2040	365,860	—	35,955	329,905	18,215
Series 16 A & B	6/13/2012	8/1/2042	215,960	—	63,700	152,260	9,760
Series 17 A & B	7/22/2013	2/1/2043	179,395	—	7,400	171,995	7,680
Series 18	1/7/2015	2/1/2045	220,915	—	7,775	213,140	7,990
Series 19	2/11/2016	2/1/2046	207,805	—	7,545	200,260	8,050
Series 20	4/13/2017	2/1/2047	—	207,350	—	207,350	7,040
Subordinated revenue refunding bonds:							
MWRA 1999A	11/3/1999	8/1/2029	54,040	—	—	54,040	17,445
Pool program refunding bonds:							
Series 2004A	8/25/2004	8/1/2027	261,110	—	50,990	210,120	48,800
Series 2006	12/14/2006	8/1/2034	408,215	—	10,685	397,530	35,295
Series 2009A	7/30/2009	8/1/2029	148,330	—	13,305	135,025	560
Series 2010A	7/8/2010	2/1/2026	27,255	—	2,180	25,075	2,285
Series 2012A	6/13/2012	8/1/2032	93,020	—	46,180	46,840	500
Series 2014	6/12/2014	8/1/2028	524,875	—	42,890	481,985	46,675
Series 2017	4/13/2017	8/1/2029	—	96,280	—	96,280	—
Subtotal			2,992,930	303,630	328,160	2,968,400	231,485
Add unamortized bond premiums			335,272	50,947	38,410	347,809	—
Total bonds payable			<u>\$ 3,328,202</u>	<u>354,577</u>	<u>366,570</u>	<u>3,316,209</u>	<u>231,485</u>

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The following is a summary of bonds payable at June 30, 2016 and 2015:

Bond issue	Issue date	Final maturity	Balance June 30, 2015	Additions	Reductions	Balance June 30, 2016	Due within one year
Water pollution abatement revenue bonds:							
MWRA Series 2002A	10/15/2002	8/1/2032	\$ 10,060	—	960	9,100	930
SESD Series 1996A	12/5/1996	8/1/2016	890	—	605	285	285
New Bedford 1996A	7/10/1996	2/1/2016	270	—	270	—	—
Pool loan program:							
Series 6	11/6/2000	8/1/2023	4,085	—	920	3,165	—
Series 7	7/15/2001	2/1/2023	1,530	—	—	1,530	—
Series 8	11/15/2002	8/1/2026	12,150	—	1,790	10,360	1,630
Series 9	10/10/2003	8/1/2027	28,905	—	13,255	15,650	1,700
Series 11	10/19/2005	8/1/2025	54,680	—	12,720	41,960	235
Series 12	12/14/2006	8/1/2026	58,640	—	17,660	40,980	18,150
Series 14	3/18/2009	8/1/2038	179,380	—	16,260	163,120	16,625
Series 15	7/8/2010	8/1/2040	382,980	—	17,120	365,860	17,635
Series 16 A & B	6/13/2012	8/1/2042	225,130	—	9,170	215,960	9,415
Series 17 A & B	7/22/2013	2/1/2043	186,760	—	7,365	179,395	7,400
Series 18	1/7/2015	2/1/2045	228,155	—	7,240	220,915	7,775
Series 19	2/11/2016	2/1/2046	—	207,805	—	207,805	7,545
Subordinated revenue refunding bonds:							
MWRA 1999A	11/3/1999	8/1/2029	54,040	—	—	54,040	—
Pool program refunding bonds:							
Series 2004A	8/25/2004	8/1/2027	309,980	—	48,870	261,110	50,990
Series 2006	12/14/2006	8/1/2034	408,215	—	—	408,215	10,685
Series 2009A	7/30/2009	8/1/2029	161,890	—	13,560	148,330	13,305
Series 2010A	7/8/2010	2/1/2026	32,525	—	5,270	27,255	2,180
Series 2012A	6/13/2012	8/1/2032	105,715	—	12,695	93,020	16,520
Series 2014	6/12/2014	8/1/2028	565,610	—	40,735	524,875	42,890
Subtotal			3,011,590	207,805	226,465	2,992,930	225,895
Add unamortized bond premiums			320,762	37,335	22,825	335,272	—
Total bonds payable			<u>\$ 3,332,352</u>	<u>245,140</u>	<u>249,290</u>	<u>3,328,202</u>	<u>225,895</u>

On April 13, 2017, the Trust issued State Revolving Fund Bonds Series 20 (Green Bonds) in the amount of \$207.4 million with a premium of \$32.2 million. The Trust has designated the Series 20 bonds as “Green Bonds” based on the intended use of the proceeds of the Series 20 Bonds for the financing of projects that adhere to the federal Clean Water Act and Safe Drinking Water Act, as determined by the Environmental Protection Agency (EPA). The Series 20 Bonds were issued to finance or refinance costs of certain wastewater and drinking water projects for governmental units or other eligible borrowers. Series 20 Bond proceeds in the amount of \$167.5 million were applied to fund loans for projects under the clean water SRF and \$72.1 million of proceeds were applied to fund loans for projects under the drinking water SRF. The Trust anticipates expending all the proceeds within three years. In connection with the issuance of the Series 20 bonds, the Trust pledged \$65.9 million of direct loans for projects under the clean water SRF and \$26.8 million of direct loans for projects under the drinking water SRF. The interest payments on these pledged direct loans will be used to pay a portion of the debt service due on the Series 20 bonds.

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On April 13, 2017, the Trust issued State Revolving Fund Refunding Bonds, Series 2017 in the amount of \$96.3 million with a premium of \$18.8 million. The Series 2017 Refunding Bonds were issued, together with other funds of the Trust, to refund certain bonds previously issued by the Trust. The Trust used \$1.0 million of its program equity cash to refund optimal current refunding candidates from Series 15, 16 and the 2012 Refunding. These proceeds were deposited with an escrow agent to provide resources for all future debt service payments on the refunded bonds. As a result, the refunded bonds are considered to be defeased and the liability has been removed from the financial statements. The total debt defeased through this new issue was \$102.3 million, for a cash flow savings of \$7.9 million, resulting in an economic gain (net present value) of \$6.7 million.

On February 11, 2016, the Trust issued its State Revolving Fund Bonds, Series 19 (Green Bonds) in the amount of \$207.8 million. The proceeds of the Series 19 Bonds were used to finance or refinance certain wastewater and drinking water projects in 47 communities. The Trust designated the Series 19 bonds as "Green Bonds" based on the intended use of the proceeds of the Series 19 Bonds for the financing of projects that adhere to the federal Clean Water Act and Safe Drinking Water Act, as determined by the EPA. Proceeds in the amount of \$145.7 million were applied to fund loans for projects under the Clean Water SRF and \$99.4 million of proceeds were applied to fund loans for projects under the Drinking Water SRF. The Trust anticipates expending all of the proceeds within three years. In connection with the issuance of the Series 19 Bonds, the Trust pledged \$58.4 million of direct loans for projects under the Clean Water SRF and \$39.8 million of direct loans for projects under the Drinking Water SRF. The interest payments on these pledged direct loans will be used to pay a portion of the debt service due on the Series 19 bonds.

At June 30, 2017, debt service requirements to maturity for principal and interest are as follows:

	<b>Total debt service</b>	<b>Principal</b>	<b>Interest</b>
Year ending June 30:			
2018	\$ 368,944	231,485	137,459
2019	359,303	230,280	129,023
2020	344,048	226,295	117,753
2021	325,793	219,160	106,633
2022	297,297	201,245	96,052
2023–2027	1,252,118	914,780	337,338
2028–2032	713,591	553,480	160,111
2033–2037	331,822	272,490	59,332
2038–2042	103,941	86,485	17,456
2043–2047	36,265	32,700	3,565
Total debt service requirements	\$ <u>4,133,122</u>	<u>2,968,400</u>	<u>1,164,722</u>

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In the current year and in prior years, the Trust has deposited bond proceeds from refunding bonds with an escrow agent to provide resources for all future debt service payments on the refunded bonds. As a result, the bonds are considered to be defeased and the liability has been removed from the financial statements. The balances of bonds defeased “in substance” in the current year or prior years, and still outstanding as of June 30, 2017 are as follows:

Description	Redemption date	Outstanding principal amount	
		2017	2016
MWRA loan program:			
Series 1998A	November 3, 1999	\$ 16,720	24,660
Pool loan program:			
Pool 12	August 11, 2009	—	31,430
Pool 12	June 12, 2014	—	162,385
Pool 12	March 31, 2015	—	56,280
Pool 13	June 12, 2014	243,225	256,965
Pool 14	June 12, 2014	137,595	137,595
Pool 15	April 13, 2017	18,320	—
Pool 16	April 13, 2017	54,285	—
Series 2012 refunding	April 13, 2017	29,660	—

When the Trust refunds or advance refunds its bonds, it calculates the difference between the reacquisition price and the net carrying amount of the old debt. The resulting accounting gain or loss is then amortized generally over the life of the refunding bonds. The net unamortized excess of acquisition price and the net carrying value of the defeased bonds are recorded in deferred outflows of resources on the Statement of Net Position.

Excess of reacquisition price over net carrying value of defeased bonds (deferred outflows of resources – see note 12):

	2017	2016
Beginning balance	\$ 94,449	102,710
Additions	691	—
Reductions	(10,090)	(8,261)
Ending balance	<u>\$ 85,050</u>	<u>94,449</u>

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Notes to Financial Statements

June 30, 2017 and 2016

(Dollars in thousands, unless noted)

**(9) Net Position**

As of June 30, 2017 and 2016, the Trust has a restricted net position in the amount of \$1,899,565 and \$1,838,451, respectively, and an unrestricted net position in the amount of \$476,986 and \$498,135, respectively. Restricted net position represents capitalization grants received cumulative to date from the EPA and corresponding matching amounts received from the Commonwealth, required to revolve back to the program. The capitalization grants are restricted to provide financial assistance, but not grants, to local communities and interstate agencies for the construction of wastewater treatment works, drinking water infrastructure improvements, and other related projects as described in note 1.

**(10) Commitment**

As of June 30, 2017 and 2016, the Trust has agreed to provide loans to various local government units amounting to approximately \$135,585 and \$163,748, respectively, excluding loan amounts already disbursed, which will be funded or collateralized with grant awards received by the Trust.

**(11) Derivative Transactions**

Interest Rate Swap Agreements – \$77,255 dated November 21, 2006.

*Objective of the Interest Rate Swap* – As a means to lower its borrowings costs, when compared with fixed-rate bonds at the time of their issuance in November 2006, the Trust entered into two interest rate swap agreements in connection with its Pool Program Refunding Bonds, Series 2006 bonds. The intention of the swaps was to hedge the Trust's exposure to interest rate risk by effectively changing the Trust's variable rate bonds maturing in 2022 and 2023 to a synthetic fixed rate of 3.88% and 3.90%, respectively. The Series 2006 carry an interest rate indexed to the Municipal Consumer Price Index (Muni-CPI).

*Terms* – Under the terms of these swaps, the Trust agrees to receive a variable rate, based on the Muni-CPI, equal to the amounts due on variable rate bonds issued by the Trust concurrently with the execution of the swap agreement. The Trust agrees to pay a fixed rate to the counterparty. Payments are made semiannually, due August 1 and February 1 of each year, on the same schedule as the fixed rate bonds issued in December 2006. The counterparty is JP Morgan Chase & Co. JP Morgan Chase Bank, N.A. The terms of each swap agreement are summarized below:

	<b>2022</b>	<b>2023</b>
	<b>Termination</b>	<b>Termination</b>
Trade date	November 21, 2006	November 21, 2006
Effective date	December 14, 2006	December 14, 2006
Termination date	August 1, 2022	August 1, 2023

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(Dollars in thousands, unless noted)

	<b>2022</b>	<b>2023</b>
	<b>Termination</b>	<b>Termination</b>
Notional amount	\$ 30,650	46,605
Fair value at June 30, 2017	(1,311)	(2,293)
Fair value at June 30, 2016	(2,361)	(4,100)
Variable rate bond coupon payments	Muni-CPI* rate + 0.99%	Muni-CPI* rate + 0.99%
Variable rate payment from counterparty	Muni-CPI* rate + 0.99%	Muni-CPI* rate + 0.99%
Fixed-rate payment to counterparty	3.88 %	3.90 %
Synthetic fixed rate on bonds	3.88	3.90

\* Muni-CPI rate is equal to the quotient of (1) the Reference CPI-U for the current debt service payment date minus the prior Reference CPI-U divided by (2) the prior Reference CPI-U. Reference refers to 3 months preceding the debt service payment date. Prior Reference period refers to 15 months preceding the debt service payment date.

*Fair Value* – The swaps had an aggregate negative fair value as of June 30, 2017 and 2016, which means on the August 1, 2017 debt service payment date the Trust will make a payment to the swap counterparty. At June 30, 2017 and 2016, the fair value of these swaps is reflected as a liability for derivative instruments and deferred outflows in the accompanying financial statements. GASB defines certain hierarchy of inputs to valuation techniques used to measure fair value. Derivative instruments are classified as Level 2 of the fair value hierarchy using the zero coupon method. This method calculates the future net settlement payments/receipts required by the swap, assuming that the current forward rates implied by the yield curve correctly anticipate future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for hypothetical zero coupon bonds due on the date of each future net settlement of the swap.

*Credit Risk* – As of June 30, 2017 and 2016, the Trust is not exposed to credit risk because the swaps had a negative fair value. Prior to January 5, 2009, the swap counterparty was Bear Stearns Capital Markets, Inc. As of January 5, 2009, the counterparty is JP Morgan Chase & Co. JP Morgan Chase Bank, N.A. and is rated AA-/Aa1/AA-by S&P Global Ratings, Moody's Investors Service, and Fitch Ratings, respectively. To mitigate credit risk, the Trust has the right to terminate the swap upon a ratings downgrade by the counterparty's credit support provider below BBB-/Baa3 by S&P Global Ratings, and Moody's Investors Service, respectively.

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*Termination Risk* – The swap contract uses the International Swaps and Derivatives Association Master Agreement, which includes standard termination events, such as failure to pay and bankruptcy. In addition, the Trust may terminate upon a ratings downgrade by the counterparty, as described above. The Trust and the counterparty may terminate if either party fails to perform under the terms of the Contract. If at the time of termination, the swap has a negative fair value, the Trust would be liable to the counterparty for a payment equal to the swap's fair value. The source of funds for this payment is from "legally available funds." Legally available funds is defined as, "funds held in the Trust's Federal Clean Water State Revolving Fund or Drinking Water State Revolving Fund...only to the extent that Congress passes a law or EPA adopts a regulation or issues an opinion or other notice...making such amounts legally available to pay settlement amounts."

*Swap Payments and Hedged Debt* – In accordance with the swap agreement, the variable rate is calculated using the preceding 3 months' Muni-CPI rate with settlement payments made on the debt service payment dates of February 1 and August 1. As of June 30, 2017, the variable rate was calculated using the May 31, 2017 Muni-CPI rate. Assuming this rate remains the same, the debt service requirements of the variable rate debt and the net swap payments are presented in the table below. As the Muni-CPI rate varies, the variable rate payments on the bonds and the variable rate receipts from the swap are equal, the net debt service will remain fixed.

		<b>Variable rate bonds<sup>1</sup></b>		<b>Net swap</b>	<b>Total</b>
		<b>Principal</b>	<b>Interest</b>	<b>payments<sup>2</sup></b>	<b>debt service</b>
Fiscal year ending June 30:					
2018	\$	—	2,193	814	3,007
2019		—	2,193	814	3,007
2020		—	2,193	814	3,007
2021		—	2,193	814	3,007
2022		—	2,193	814	3,007
2023		—	2,193	814	3,007
2024		30,650	1,758	654	33,062
2025		46,605	662	247	47,514

<sup>1</sup> Calculated rate uses May 31, 2017 Muni-CPI rate to reflect debt service payment for August 1, 2017.

<sup>2</sup> A positive net swap payment requires a payment from the Trust to the counterparty.

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June 30, 2017 and 2016

(Dollars in thousands, unless noted)

**(12) Deferred Outflows of Resources**

The following is a summary of deferred outflows of resources at June 30, 2017 and 2016:

	<u>2017</u>	<u>2016</u>
Deferred outflows of resources:		
Derivative instruments (note 11)	\$ 3,604	6,461
Excess of reacquisition price over net carrying value of defeased bonds (note 8)	<u>85,050</u>	<u>94,449</u>
	<u>\$ 88,654</u>	<u>100,910</u>

# Massachusetts Clean Water Trust

COMBINING FINANCIAL STATEMENTS AND SCHEDULES  
FOR THE YEAR ENDED JUNE 30, 2017 (With Comparative Amounts as of June 30, 2016)

## Narrative

**Federally Capitalized State Revolving Fund** – is used to account for amounts received and expended from the Federally Capitalized SRF, proposed by Title VI of the Clean Water Act, along with amounts received and expended from the 20% required state matching of federal funding. The fund is also used to account for receipts and disbursements for loan and bond transactions not accounted for in the Commonwealth Capitalized SRF.

**Federally Capitalized Safe Drinking Water State Revolving Fund** – is used to account for amounts received and expended from the Federally Capitalized SRF, proposed by the Safe Drinking Water Act of 1996, along with amounts received and expended from the required state matching of federal funding.

**Commonwealth of Massachusetts Capitalized State Revolving Loan Fund** – is used to account for amounts received and expended from the Commonwealth Capitalized SRF.

**General Operations Fund** – is used to account for amounts received and expended for the general and administrative costs not applicable to the other three funds.

The following schedules contain information to help the reader understand how the Trust's financial data is broken down by the funds listed above and to provide information about the borrowers of the Trust's lending programs. Schedules included are:

Supplemental Schedules	Page
Combining Schedule of Net Position.....	36
Combining Schedule of Revenues, Expenses and Changes in Net Position.....	37
Five Year Schedule of Fifteen Largest Borrowers.....	38
Schedule of SRF Loans Outstanding by Borrower.....	39

Massachusetts Clean Water Trust  
Combining Schedule of Net Position  
June 30, 2017 (With Comparative Amounts as of June 30, 2016)  
(in thousands)

	Federally Capitalized State Revolving Fund Loan Program	Federally Capitalized Safe Drinking Water Revolving Fund Loan Program	Commonwealth of Massachusetts Capitalized State Revolving Fund Loan Program	Program for General Operations	Combined Totals 6/30/2017	6/30/2016
<b>ASSETS AND DEFERRED OUTFLOWS</b>						
<b>CURRENT ASSETS:</b>						
Cash and cash equivalents	\$ 439,283	\$ 122,715	\$ 1,544	\$ 23,091	\$ 586,633	\$ 486,629
Short - term investments	185,106	14,637	-	21,427	221,170	226,124
Project fund deposits	47,223	19,350	-	-	66,573	50,243
Grants receivable:						
U.S. Environmental Protection Agency	27,092	1,722	-	-	28,814	49,667
Loans receivable, net	301,289	88,570	-	53	389,912	384,195
Accrued interest receivable	43,252	11,055	2	3	54,312	55,879
Total current assets	1,043,245	258,049	1,546	44,574	1,347,414	1,252,737
<b>NONCURRENT ASSETS:</b>						
Loans receivable, long-term	2,803,260	911,753	-	494	3,715,507	3,664,872
Long-term investments	537,870	157,657	-	-	695,527	788,591
Other assets	-	-	-	1,823	1,823	1,895
Total noncurrent assets	3,341,130	1,069,410	-	2,317	4,412,857	4,455,358
Deferred outflows of resources from derivative instruments	70,078	18,576	-	-	88,654	100,910
<b>TOTAL ASSETS AND DEFERRED OUTFLOWS</b>	4,454,453	1,346,035	1,546	46,891	5,848,925	5,809,005
<b>LIABILITIES</b>						
<b>CURRENT LIABILITIES:</b>						
Accrued expenses and interest payable	43,468	14,566	-	234	58,268	60,307
Unearned revenue	20,343	6,927	-	-	27,270	28,086
Loan commitments and project funds payable	47,971	19,052	-	-	67,023	49,363
Long-term debt	169,163	62,322	-	-	231,485	225,895
Total current liabilities	280,945	102,867	-	234	384,046	363,651
<b>NONCURRENT LIABILITIES</b>						
Liability for derivative instruments	2,391	1,213	-	-	3,604	6,461
Long-term debt, net	2,306,141	778,583	-	-	3,084,724	3,102,307
Total noncurrent liabilities	2,308,532	779,796	-	-	3,088,328	3,108,768
<b>TOTAL LIABILITIES AND DEFERRED INFLOWS</b>	2,589,477	882,663	-	234	3,472,374	3,472,419
<b>NET POSITION</b>						
Restricted for program purposes	1,474,113	425,452	-	-	1,899,565	1,838,451
Unrestricted	390,863	37,920	1,546	46,657	476,986	498,135
<b>TOTAL NET POSITION</b>	\$ 1,864,976	\$ 463,372	\$ 1,546	\$ 46,657	\$ 2,376,551	\$ 2,336,586

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Massachusetts Clean Water Trust  
Combining Schedule of Revenues, Expenses and Changes in Net Position  
June 30, 2017 (With Comparative Amounts as of June 30, 2016)  
(in thousands)

	Federally Capitalized State Revolving Fund Loan Program	Safe Drinking Water Revolving Fund Loan Program	Federally Capitalized Water Revolving Fund Loan Program	Commonwealth of Massachusetts Capitalized State Revolving Fund Loan Program	Program for General Operations	Combined Totals 6/30/2017	Combined Totals 6/30/2016
<b>OPERATING REVENUES:</b>							
Loan servicing fees	\$ -	\$ -	\$ -	\$ -	5,608	\$ 5,608	\$ 5,515
Loan origination fees	-	-	-	-	1,821	1,821	1,926
Interest income	67,399	22,590	-	14	570	90,573	133,905
Contract assistance from Commonwealth of Massachusetts	22,407	4,165	-	-	-	26,572	28,927
Total operating revenues	89,806	26,755	14	14	7,999	124,574	170,273
<b>OPERATING EXPENSES:</b>							
Commonwealth of Massachusetts:							
Department of Environmental Protection - programmatic support costs	3,171	5,374	-	-	-	8,545	8,421
Principal forgiveness	3,269	2,403	-	-	-	5,672	6,117
General and administrative InterFund transfers	-	-	-	-	5,210	5,210	4,092
Arbitrage rebate payments	4,194	(3,919)	-	-	(275)	-	-
Interest expense	12,328	-	-	-	-	12,328	3,785
	97,136	29,415	-	-	-	126,551	127,247
Total operating expenses	120,098	33,273	-	-	4,935	158,306	149,662
<b>OPERATING (LOSS) INCOME</b>	(30,292)	(6,518)	14	14	3,064	(33,732)	20,611
<b>NONOPERATING REVENUE:</b>							
Capitalization Grant Revenue:							
U.S. Environmental Protection Agency capitalization grants	45,862	15,672	-	-	-	61,534	63,781
Commonwealth of Massachusetts matching grants	9,073	3,090	-	-	-	12,163	12,738
Total nonoperating revenues	54,935	18,762	-	-	-	73,697	76,519
<b>INCREASE IN NET POSITION</b>	24,643	12,244	14	14	3,064	39,965	97,130
<b>NET POSITION - BEGINNING OF YEAR</b>	1,840,333	451,128	1,532	1,532	43,593	2,336,586	2,239,456
<b>NET POSITION - END OF YEAR</b>	\$ 1,864,976	\$ 463,372	\$ 1,546	\$ 1,546	\$ 46,657	\$ 2,376,551	\$ 2,336,586

See Independent Auditors' Report

# MASSACHUSETTS CLEAN WATER TRUST

Five Year Schedule of Fifteen Largest Borrowers  
For fiscal years ending June 30, 2013 through June 30, 2017  
(in thousands)

BORROWER NAME	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013
	Outstanding Loan Amount	% of Loans	Outstanding Loan Amount	% of Loans	Outstanding Loan Amount
Massachusetts Water Resources Authority	\$ 1,007,016	25.24%	\$ 1,035,797	26.34%	\$ 1,042,931
City of Fall River	147,324	3.69%	148,002	3.76%	147,160
Upper Blackstone Water Pollution Abatement District	126,813	3.18%	132,646	3.37%	138,321
City of New Bedford	119,934	3.01%	114,701	2.92%	114,390
City of Chicopee	113,126	2.84%	90,196	2.29%	94,011
Springfield Water & Sewer Commission	107,523	2.70%	88,758	2.26%	70,346
City of Taunton	93,237	2.34%	94,776	2.41%	79,998
City of Lowell	83,396	2.09%	74,632	1.90%	73,851
City of Brockton	80,255	2.01%	81,643	2.08%	86,108
Town of Falmouth	78,844	1.98%	45,024	1.15%	14,657
City of Marlborough	75,097	1.88%	77,608	1.97%	59,638
City of Revere	63,419	1.59%	28,667	0.73%	19,845
City of Gloucester	60,689	1.52%	65,607	1.67%	69,931
Town of Billerica	53,702	1.35%	42,313	1.08%	45,304
City of Lawrence	52,209	1.31%	42,690	1.09%	36,197
Total all others	1,726,867	43.30%	1,768,697	44.99%	1,747,137
<b>TOTALS AS OF FISCAL YEAR END</b>	<b>\$ 3,989,452</b>	100%	<b>\$ 3,931,759</b>	100%	<b>\$ 3,839,825</b>
					<b>\$ 3,707,776</b>
					<b>\$ 3,947,704</b>

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**MASSACHUSETTS CLEAN WATER TRUST**  
**Schedule of SRF Loans Outstanding By Borrower**  
**June 30, 2017**

<b>Borrower Name</b>	<b>Loans Securing Prior Bonds</b>	<b>Loans Securing MTA Bonds</b>	<b>Loans Outstanding as of June 30, 2017</b>	<b>% of Total Loans Outstanding</b>
Abington	\$ 3,411,606	\$ -	\$ 3,411,606	0.09%
Acton	14,300,771	-	14,300,771	0.36
Acushnet	2,367,787	405,449	2,773,236	0.07
Adams	1,429,392	-	1,429,392	0.04
Adams Fire District	1,538,697	-	1,538,697	0.04
Agawam	951,844	-	951,844	0.02
Amesbury	15,443,429	-	15,443,429	0.39
Amherst	15,630	-	15,630	0.00
Andover	2,979,630	647,696	3,627,326	0.09
Aquarion Water Company of Massachusetts	1,410,000	-	1,410,000	0.04
Ashburnham	1,500,051	-	1,500,051	0.04
Ashfield Water District	125,000	-	125,000	0.00
Ashland	2,701,233	-	2,701,233	0.07
Athol	4,723,088	-	4,723,088	0.12
Attleboro	19,293,711	-	19,293,711	0.48
Auburn	223,298	-	223,298	0.01
Auburn Water District	1,350,507	2,580,181	3,930,688	0.10
Avon	619,786	-	619,786	0.02
Ayer	59,784	-	59,784	0.00
Barnstable	18,344,311	4,043,994	22,388,305	0.56
Barnstable County	13,350,000	8,764,734	22,114,734	0.55
Barre	32,085	58,582	90,667	0.00
Belchertown	5,371,349	-	5,371,349	0.14
Bellingham	627,037	13,062,003	13,689,040	0.34
Belmont	6,678,254	2,111,904	8,790,158	0.22
Berlin	34,982	-	34,982	0.00
Bernardston	19,969	-	19,969	0.00
Beverly	305,906	-	305,906	0.01
Billerica	19,576,176	34,125,665	53,701,841	1.35
Blackstone	12,441	-	12,441	0.00
Boston	2,510,000	14,743,727	17,253,727	0.43
Bourne	198,573	-	198,573	0.00
Boxford	32,565	-	32,565	0.00
Boylston	25,869	-	25,869	0.00
Brewster	111,400	-	111,400	0.00
Bridgewater	1,635,670	3,088,332	4,724,002	0.12
Bristol County	911,242	-	911,242	0.02
Brockton	71,867,401	8,387,717	80,255,118	2.01
Brockton Sewer Enterprise System	172,072	-	172,072	0.00
Brookfield	29,802	-	29,802	0.00
Buckland	117,400	-	117,400	0.00
Burlington	4,474,614	-	4,474,614	0.11
Cambridge	6,068,284	23,457,520	29,525,804	0.74
Canton	2,774,693	-	2,774,693	0.07
Centerville-Osterville-Marstons Mills Fire District	1,765,757	-	1,765,757	0.04
Charles River Pollution Control District	5,153,186	22,183,225	27,336,411	0.69
Charlton	8,042,883	-	8,042,883	0.20
Chatham	10,515,578	6,639,921	17,155,499	0.43
Chelmsford	26,585,327	-	26,585,327	0.67
Chelmsford Water District	2,321,417	-	2,321,417	0.06
Chelsea	181,487	-	181,487	0.00

See Independent Auditors' Report

<b>Borrower Name</b>	<b>Loans Securing Prior Bonds</b>	<b>Loans Securing MTA Bonds</b>	<b>Loans Outstanding as of June 30, 2017</b>	<b>% of Total Loans Outstanding</b>
Cherry Valley & Rochdale Water District	\$ 456,597	\$ 510,134	\$ 966,731	0.02%
Chesterfield	135,272	-	135,272	0.00
Chicopee	69,715,318	43,410,919	113,126,237	2.84
Clarksburg	56,400	-	56,400	0.00
Clinton	3,964,211	98,018	4,062,229	0.10
Cohasset	21,728,911	-	21,728,911	0.54
Colrain	12,636	-	12,636	0.00
Concord	8,636,434	157,966	8,794,399	0.22
Conway	8,034	-	8,034	0.00
Danvers	17,040,397	-	17,040,397	0.43
Dartmouth	13,375,576	9,306,640	22,682,216	0.57
Dedham	495,253	-	495,253	0.01
Deerfield Fire District	464,327	-	464,327	0.01
Dennis	160,000	-	160,000	0.01
Dennis Water District	4,690,394	-	4,690,394	0.12
Dighton	74,348	-	74,348	0.00
Dighton Rehoboth Regional School District	425,065	-	425,065	0.01
Dighton Water District	3,824,791	-	3,824,791	0.10
Douglas	3,127,966	-	3,127,966	0.08
Dover	41,400	-	41,400	0.00
Dracut	22,030,701	13,156,365	35,187,066	0.88
Dracut Water Supply District	238,539	-	238,539	0.01
Dudley	137,476	-	137,476	0.00
Duxbury	2,096,363	-	2,096,363	0.05
East Bridgewater	11,498,758	-	11,498,758	0.29
East Longmeadow	326,388	-	326,388	0.01
Eastham	131,400	37,131,041	37,262,441	0.93
Easthampton	3,266,898	1,100,000	4,366,898	0.11
Easton	4,341,957	1,400,000	5,741,957	0.14
Erving	2,909,725	-	2,909,725	0.07
Essex	10,800,527	-	10,800,527	0.27
Everett	2,686,494	1,168,907	3,855,401	0.10
Fairhaven	686,232	678,621	1,364,853	0.03
Fall River	120,378,331	26,945,696	147,324,027	3.69
Falmouth	12,257,659	66,586,501	78,844,160	1.98
Fitchburg	22,067,722	26,295,021	48,362,743	1.21
Foxborough	3,721,371	-	3,721,371	0.09
Framingham	42,261,643	7,639,688	49,901,330	1.25
Franklin	2,730,803	-	2,730,803	0.07
Gardner	3,668,546	4,433,242	8,101,788	0.20
Georgetown	654,261	-	654,261	0.02
Gill	6,798	-	6,798	0.00
Gloucester	43,307,935	17,380,598	60,688,533	1.52
Grafton	12,495	14,613,300	14,625,795	0.37
Great Barrington	60,000	8,619,006	8,679,006	0.22
Greater Lawrence Sanitary District	18,718,327	2,303,854	21,022,181	0.53
Greenfield	1,153,515	-	1,153,515	0.03
Greens Condominium Trust	-	105,558	105,558	0.00
Groton	3,011,294	-	3,011,294	0.08
Hadley	2,972,777	-	2,972,777	0.07
Halifax	131,400	-	131,400	0.00
Hanover	86,736	264,600	351,336	0.01
Hanson	900,000	695,000	1,595,000	0.04
Hardwick	3,701	-	3,701	0.00
Harvard	2,114,280	207,513	2,321,793	0.06
Harwich	87,199	1,802,256	1,889,455	0.05
Hatfield	180,371	-	180,371	0.00
Haverhill	21,821,422	15,134,895	36,956,317	0.93

(Continued)

<b>Borrower Name</b>	<b>Loans Securing Prior Bonds</b>	<b>Loans Securing MTA Bonds</b>	<b>Loans Outstanding as of June 30, 2017</b>	<b>% of Total Loans Outstanding</b>
Hillcrest Sewer District	\$ 1,419,507.33	\$ -	\$ 1,419,507.33	0.04%
Hingham	665,278	-	665,278	0.02
Hinsdale	1,575,000	-	1,575,000	0.04
Holbrook	7,982,361	-	7,982,361	0.20
Holden	6,635,017	503,763	7,138,780	0.18
Holland	30,000	-	30,000	0.00
Holliston	45,000	2,295,547	2,340,547	0.06
Holyoke	14,034,738	-	14,034,738	0.35
Hoosac Water Quality District	4,157,721	-	4,157,721	0.10
Hopedale	568,402	-	568,402	0.01
Hopkinton	9,290,693	140,000	9,430,693	0.24
Hudson	13,142,063	-	13,142,063	0.33
Hull	1,879,288	-	1,879,288	0.05
Ipswich	2,819,462	3,819,185	6,638,647	0.17
Kingston	23,627,014	4,004,542	27,631,556	0.69
Lakeville	95,020	-	95,020	0.00
Lancaster	48,410	-	48,410	0.00
Lanesborough Village Fire & Water District	950,000	-	950,000	0.02
Lawrence	20,654,612	31,554,088	52,208,699	1.31
Lee	11,518,114	-	11,518,114	0.29
Leicester	116,404	-	116,404	0.00
Leicester Water Supply District	197,180	-	197,180	0.00
Leominster	27,059,722	11,753,810	38,813,532	0.97
Lexington	9,518	-	9,518	0.00
Lincoln	1,475,000	-	1,475,000	0.04
Littleton	43,481	282,674	326,155	0.01
Longmeadow	2,162,360	-	2,162,360	0.05
Lowell	82,058,341	19,161,354	101,219,695	2.54
Ludlow	3,345,456	483,302	3,828,758	0.10
Lunenburg	3,920,388	1,460,101	5,380,489	0.13
Lunenburg Water District	2,931,147	-	2,931,147	0.07
Lynn Water & Sewer Commission	38,748,592	6,772,148	45,520,740	1.14
Lynnfield	382,941	-	382,941	0.01
Malden	8,475,097	12,098,552	20,573,649	0.52
Manchester-by-the-Sea	195,000	1,674,450	1,869,450	0.05
Mansfield	12,744,184	-	12,744,184	0.32
Mansfield, Foxborough, Norton Regional Water Distr	8,474,869	971,361	9,446,230	0.24
Marion	14,664,737	2,390,664	17,055,401	0.43
Marlborough	37,315,541	37,781,307	75,096,848	1.88
Marshfield	8,883,711	180,000	9,063,711	0.23
Mashpee	416,040	79,966	496,006	0.01
Massachusetts Development Finance Agency	9,044,276	-	9,044,276	0.23
Massachusetts Water Resources Authority	862,737,863	144,278,136	1,007,015,999	25.24
Mattapoisett	8,663,061	-	8,663,061	0.22
Mattapoisett River Valley Water District	8,480,159	-	8,480,159	0.21
Maynard	9,225,496	-	9,225,496	0.23
Medfield	1,071,331	-	1,071,331	0.03
Medway	38,983	2,905,396	2,944,379	0.07
Melrose	2,020,005	-	2,020,005	0.05
Merrimac	30,000	825,212	855,212	0.02
Methuen	16,214,460	-	16,214,460	0.41
Middleborough	1,099,550	25,334,341	26,433,891	0.66
Middleton	36,561	-	36,561	0.00
Millbury	17,432,575	-	17,432,575	0.44
Millville	282,624	136,844	419,468	0.01
Milton	98,121	-	98,121	0.00
Monroe	-	144,853	144,853	0.00
Monson	1,131,073	-	1,131,073	0.03

(Continued)

<b>Borrower Name</b>	<b>Loans Securing Prior Bonds</b>	<b>Loans Securing MTA Bonds</b>	<b>Loans Outstanding as of June 30, 2017</b>	<b>% of Total Loans Outstanding</b>
Montague	\$ 2,019,664	\$ -	\$ 2,019,664	0.05%
Monterey	14,694	-	14,694	0.00
Nantucket	45,367,714	5,086,309	50,454,023	1.26
Natick	2,697,336	-	2,697,336	0.07
Needham	5,956,496	39,667	5,996,163	0.15
New Bedford	98,668,633	21,265,833	119,934,466	3.01
Newbury	6,715,985	-	6,715,985	0.17
Newburyport	39,523,143	272,142	39,795,285	1.00
Newton	3,540,400	-	3,540,400	0.09
Norfolk	318,283	-	318,283	0.01
North Adams	458,515	-	458,515	0.01
North Andover	4,633,820	-	4,633,820	0.12
North Attleborough	19,249,905	10,197,605	29,447,510	0.74
North Brookfield	1,070,000	-	1,070,000	0.03
North Raynham Water District	2,757,125	-	2,757,125	0.07
North Reading	231,736	-	231,736	0.01
North Sagamore Water District	966,349	-	966,349	0.02
Northampton	15,869,691	-	15,869,691	0.40
Northborough	136,472	-	136,472	0.00
Northbridge	2,293,603	-	2,293,603	0.06
Norton	1,390,434	3,324,592	4,715,027	0.12
Norwell	102,753	-	102,753	0.00
Norwood	3,353,987	4,850,143	8,204,130	0.21
Oak Bluffs	5,565,481	-	5,565,481	0.14
Orange	329,240	-	329,240	0.01
Orleans	45,000	-	45,000	0.00
Palmer	5,944,739	5,709,415	11,654,154	0.29
Paxton	30,641	1,314,582	1,345,223	0.03
Pembroke	2,916,660	747,190	3,663,850	0.09
Pepperell	2,300,000	-	2,300,000	0.06
Phillipston	30,636	-	30,636	0.00
Pittsfield	4,572,082	3,764,697	8,336,779	0.21
Plainville	2,697,079	666,593	3,363,672	0.08
Plymouth	12,562,319	570,000	13,132,319	0.33
Plympton	12,863	-	12,863	0.00
Provincetown	10,940,582	-	10,940,582	0.27
Quincy	8,214,604	2,898,106	11,112,710	0.28
Randolph	10,615,073	1,763,571	12,378,644	0.31
Raynham	3,586,867	-	3,586,867	0.09
Reading	4,638	-	4,638	0.00
Revere	9,937,619	53,481,869	63,419,488	1.59
Richmond	2,051,780	-	2,051,780	0.05
Rockland	2,799,607	-	2,799,607	0.07
Rowley	9,676,812	385,266	10,062,078	0.25
Royalston	10,296	-	10,296	0.00
Russell	220,000	-	220,000	0.01
Rutland	20,170	-	20,170	0.00
Salem	1,283,663	-	1,283,663	0.03
Salisbury	2,116,967	-	2,116,967	0.05
Sandwich	113,536	-	113,536	0.00
Saugus	8,733,166	4,974,347	13,707,513	0.34
Scituate	12,269,589	-	12,269,589	0.31
Seekonk	1,088,547	-	1,088,547	0.03
Seekonk Water District	1,909,822	-	1,909,822	0.05
Sharon	65,272	-	65,272	0.00
Shirley	3,942,903	-	3,942,903	0.10
Shrewsbury	958,961	3,496,728	4,455,689	0.11

(Continued)

<b>Borrower Name</b>	<b>Loans Securing Prior Bonds</b>	<b>Loans Securing MTA Bonds</b>	<b>Loans Outstanding as of June 30, 2017</b>	<b>% of Total Loans Outstanding</b>
Shutesbury	\$ 146,035	\$ -	\$ 146,035	0.00%
Somerset	4,634,844	-	4,634,844	0.12
South Deerfield Water Supply District	820,000	-	820,000	0.02
South Essex Sewerage District	5,254,658	8,411,904	13,666,562	0.35
South Grafton Water District	1,305,622	-	1,305,622	0.03
South Hadley	3,472,145	-	3,472,145	0.09
South Hadley Fire District #1	535,249	-	535,249	0.01
Southampton	841,400	-	841,400	0.02
Southborough	476,383	-	476,383	0.01
Southbridge	10,565,091	-	10,565,091	0.26
Southwick	12,711	-	12,711	0.00
Spencer	5,039,815	-	5,039,815	0.13
Springfield Water & Sewer Commission	45,752,872	61,770,569	107,523,441	2.69
Sterling	613,964	-	613,964	0.02
Stockbridge	4,460,503	1,800,000	6,260,503	0.16
Stoughton	1,561,263	367,500	1,928,763	0.05
Stow	448,005	-	448,005	0.01
Sturbridge	12,906,384	-	12,906,384	0.32
Sunderland	15,189	-	15,189	0.00
Sutton	3,905,141	-	3,905,141	0.10
Swampscott	220,779	-	220,779	0.01
Swansea	165,532	-	165,532	0.00
Swansea Water District	13,100,863	-	13,100,863	0.33
Taunton	66,243,368	26,993,733	93,237,101	2.34
Templeton	3,726,992	-	3,726,992	0.09
Tewksbury	3,960,398	-	3,960,398	0.10
Tisbury	3,073,315	85,301	3,158,616	0.08
Townsend	1,088,037	-	1,088,037	0.03
Truro	41,400	-	41,400	0.00
Turners Falls Fire District	-	761,981	761,981	0.02
Tyngsborough	888,665	-	888,665	0.02
Upper Blackstone Water Pollution Abatement Trust	126,813,401	-	126,813,401	3.18
Upton	644,400	-	644,400	0.02
Uxbridge	-	3,186,000	3,186,000	0.08
Wakefield	1,018,949	-	1,018,949	0.03
Walpole	3,866,461	-	3,866,461	0.10
Waltham	2,003,239	-	2,003,239	0.05
Ware	116,500	-	116,500	0.00
Wareham	20,850,663	316,844	21,167,507	0.53
Warren Water District	115,000	-	115,000	0.00
Water Supply District of Acton	-	12,369,112	12,369,112	0.31
Wayland	234,745	-	234,745	0.01
Webster	8,351,546	4,516,631	12,868,177	0.32
Wellfleet	460,000	183,644	643,644	0.02
West Boylston	5,650,688	-	5,650,688	0.14
West Boylston Water District	714,523	-	714,523	0.02
West Bridgewater	493,106	151,614	644,720	0.02
West Groton Water Sewer District	816,217	-	816,217	0.02
West Newbury	116,080	-	116,080	0.00
West Springfield	7,139,462	520,064	7,659,526	0.19
West Stockbridge	175,000	-	175,000	0.00
Westborough	38,388,843	376,546	38,765,389	0.97
Westfield	8,932,660	2,158,634	11,091,294	0.28
Westford	6,437,346	-	6,437,346	0.16
Westport	-	225,000	225,000	0.01
Westwood	402,800	-	402,800	0.01
Weymouth	27,390,830	-	27,390,830	0.69
Whitman	2,918,671	-	2,918,671	0.07

(Continued)

<b>Borrower Name</b>	<b>Loans Securing Prior Bonds</b>	<b>Loans Securing MTA Bonds</b>	<b>Loans Outstanding as of June 30, 2017</b>	<b>% of Total Loans Outstanding</b>
Wilbraham	\$ 2,880,189	\$ -	\$ 2,880,189	0.07%
Wilmington	165,722	-	165,722	0.00
Winchendon	5,822,659	-	5,822,659	0.15
Winchester	8,011	-	8,011	0.00
Windbrook Acres	120,000	-	120,000	0.00
Woburn	10,665,735	-	10,665,735	0.27
Woodvale Condominium Trust	-	128,907	128,907	0.00
Worcester	4,975,714	4,106,453	9,082,167	0.23
Wrentham	1,639,653	-	1,639,653	0.04
Yarmouth	675,700	-	675,700	0.02
<b>Total</b>	<b>\$ 2,979,734,983</b>	<b>\$ 1,009,716,677</b>	<b>\$ 3,989,451,660</b>	<b>100%</b>
Clean Water Program			\$ 3,002,346,446	
Drinking Water Program			\$ 987,105,214	

See Independent Auditors' Report

# Clean Water Projects

*The Massachusetts SRF program continues to meet the goals established in the annual IUP. As outlined in the IUP, all SRF projects are subject to the rigorous environmental review procedures of the Massachusetts Environmental Policy Act. The Clean Water SRF provides loans for a wide variety of projects. The primary recipients of Clean Water loans have been combined sewer overflow, wastewater treatment, and wastewater collection projects. Other projects such as drainage improvement, landfill closure, brownfields remediation, renewable energy, and non-point source pollution projects are eligible for financing.*

## ***Cambridge Concord Ave CSO Project Final Surface Restoration***

The project will complete the sewer separation as required by US EPA federal court order. These contracts consist of sewer and stormwater separation. The sewer separation work includes removing existing lamp holes, transferring illicit sanitary services to the sanitary sewer, providing drain laterals for private properties with illicit storm drain service and sump pump connections, transferring driveway drain and area drain laterals from the sanitary sewer to the storm drain, and transferring catch basin laterals from the sanitary sewer to the storm drain. \$27.8 million in project financing is being provided by the Trust for the sewer and stormwater separation.



Comprehensive Annual Financial  
Report as of and for the Years Ended  
June 30, 2017 and June 30, 2016 and  
Independent Auditors' Report

## III — STATISTICAL SECTION

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MASSACHUSETTS  
CLEAN WATER TRUST

## Statistical Section — Table of Contents

(unaudited)

### FINANCIAL TRENDS

These schedules contain trend information to help the reader understand how the Trust's financial performance and fiscal health have changed over time. Schedules included are:

Ten Year Schedule of Changes in Net Position.....	1
Ten Year Schedule of Net Position Components.....	2

### REVENUE CAPACITY

This schedule contains information to help the reader assess the factors affecting the Trust's ability to provide interim loans and general operations. Schedule included is:

Ten Year Combined Schedule of Operating Revenues by Source.....	3
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### DEBT CAPACITY

These schedules present information to help the reader assess the affordability of the Trust's current levels of outstanding debt and Trust's ability to issue additional debt in the future. Schedules included are:

Ten Year Debt Schedule.....	4
Ten Year Schedule of Pledged Revenue Coverage.....	5
Ten Year Combined Schedule of Operating Expenses.....	6

### OPERATING INFORMATION

This schedule contains information to help the reader assess the factors affecting the Trust's ability to provide interim loans and general operations. Schedule included is:

Ten Year Schedule of Full Time Equivalent Employees by Program and Agency.....	7
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### DEMOGRAPHIC INFORMATION

These schedules offer demographic and economic indicators to help the reader understand the environment within which the Trust's financial activities take place and the aid provided by the Commonwealth to the Trust. Schedules included are:

Ten Year Schedule of Contract Assistance Provided by the Commonwealth of Massachusetts, Massachusetts Population and Per Capita Contract Assistance.....	8
Ten Year Schedule of Annual Civilian Labor Force, Unemployment and Unemployment Rates for Massachusetts and the United States.....	9
Ten Year Schedule of Massachusetts and United States Resident Population.....	10
Ten Year Schedule of Massachusetts and United States Resident Per Capita Net Income Calendar Years 2007 - 2016.....	11
Ten Year Schedule of Total Net Debt, Massachusetts Resident Population and Debt Per Capita.....	12
Largest Private Sector Massachusetts Employers 2017 and 2008.....	13

# MASSACHUSETTS CLEAN WATER TRUST

## Ten Year Schedule of Changes in Net Position For fiscal years ending June 30, 2008 through June 30, 2017 (in thousands)

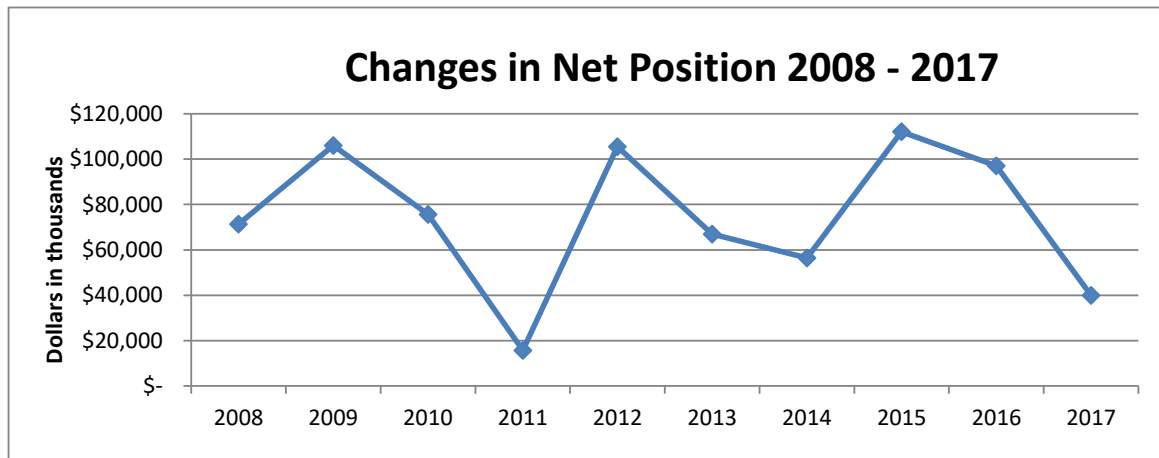
Fiscal Year		Operating Revenues	Operating Expenses	Operating Income (Loss)	Capitalization Grant	Increase in Net Position
2017	****	\$ 124,574	\$ 158,306	\$ (33,732)	\$ 73,697	\$ 39,965
2016		170,273	149,662	20,611	76,519	97,130
2015		184,909	148,939	35,970	76,099	112,069
2014		164,121	181,782	*** (17,661)	74,155	56,494
2013	**	190,947	202,622	* (11,675)	78,670	66,995
2012	**	260,252	237,858	* 22,394	83,077	105,471
2011	**	201,146	273,500	* (72,354)	88,050	15,696
2010		175,720	278,199	* (102,479)	178,096	75,617
2009		194,359	192,139	2,220	103,748	105,968
2008		195,247	186,632	8,615	62,782	71,397

\* Includes a \$7.6 million, \$12.3 million, \$33.7 million, \$71.0 million, and a \$89.6 million reserve established for the anticipated future principal forgiveness associated with the disbursement of federal capitalization grant funds, including ARRA funds for the fiscal years ended June 30, 2014, 2013, 2012, 2011 and 2010, respectively.

\*\* Fiscal Years 2013, 2012, and 2011 impacted by the implementation of GASB 65 during Fiscal Year 2013.

\*\*\* Includes \$20.8 million nonoperating expense, which represents the return to the Commonwealth of its investment in the Commonwealth Program.

\*\*\*\* Includes \$45.7 million decrease in interest income, including the change in fair market value year over year of \$32.2 million, and a \$11.7 million allocation to the Commonwealth for its portion of the Fiscal Year 2012 refunding savings.

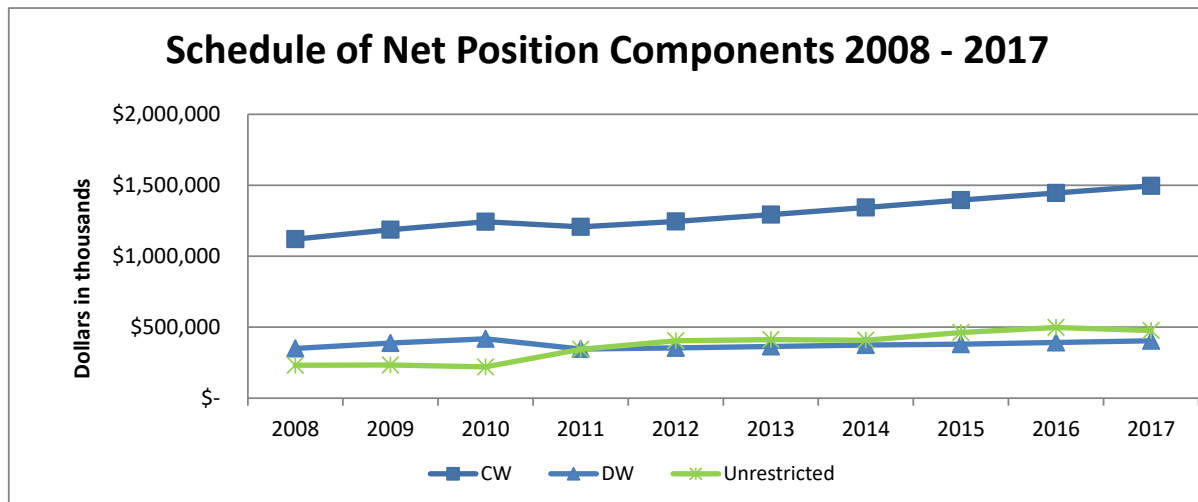


# MASSACHUSETTS CLEAN WATER TRUST

## Ten Year Schedule of Net Position Components For fiscal years ending June 30, 2008 through June 30, 2017 (in thousands)

<u>Fiscal Year</u>	<u>Restricted Clean Water</u>	<u>Restricted Drinking Water</u>	<u>Total Restricted</u>	<u>Unrestricted</u>	<u>Total</u>
2017	\$ 1,495,208	\$ 404,357	\$ 1,899,565	\$ 476,986	\$ 2,376,551
2016	1,445,703	392,748	1,838,451	498,135	2,336,586
2015	1,396,156	380,671	1,776,826	462,629	2,239,456
2014	1,342,846	375,206	1,718,052	409,335	2,127,387
2013	1,293,838	365,050	1,658,888	412,005	2,070,893
2012 **	1,245,659	354,383	1,600,042	403,856	2,003,898
2011 **	1,207,423	346,412	1,553,835	344,592	1,898,427
2010	1,243,728	418,378	1,662,106	220,624	1,882,730
2009	1,186,119	387,472	1,573,591	233,522	1,807,113
2008	1,120,509	349,333	1,469,842	231,303	1,701,145

\*\* Fiscal Years 2011 and 2012 were restated to reflect the implementation of GASB 65, in Fiscal Year 2013.



**MASSACHUSETTS CLEAN WATER TRUST**  
**Ten Year Combined Schedule of Operating Revenues by Source**  
**For fiscal years ending June 30, 2008 through June 30, 2017**  
(in thousands)

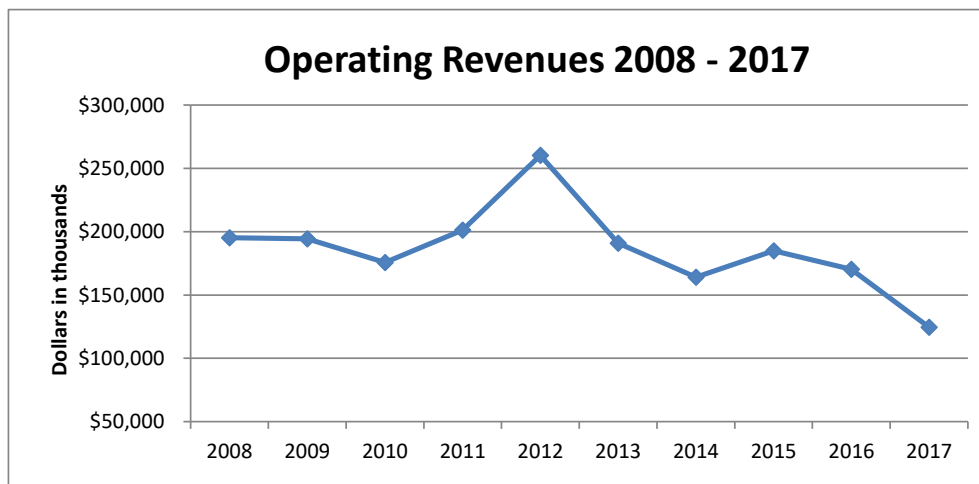
**OPERATING REVENUES**

<b>Fiscal Year</b>	<b>Loan Servicing Fees</b>	<b>Loan Origination Fees</b>	<b>Interest Income *</b>	<b>Total Operating Revenues</b>
2017	\$ 5,608	\$ 1,821	\$ 117,145 ***	\$ 124,574
2016	5,515	1,926	162,832	170,273
2015	5,315	2,150	177,444	184,909
2014	5,137	19	158,965	164,121
2013	5,288	1,698	183,961	190,947
2012	5,270	2,243	252,739 **	260,252
2011	5,209	129	195,808	201,146
2010	5,092	89	170,539	175,720
2009	1,557	165	192,637	194,359
2008	4,320	1,760	189,167	195,247

\* Includes contract assistance received from the Commonwealth of Massachusetts.

\*\* Includes \$57.7 million in gains realized on the termination of certain guaranteed investment contracts.

\*\*\* Includes \$45.7 million decrease in interest income, including the change in fair market value year over year of \$32.2 million, and a \$11.7 million allocation to the Commonwealth for its portion of the Fiscal Year 2012 refunding savings.



# MASSACHUSETTS CLEAN WATER TRUST

## Ten Year Debt Schedule

For fiscal years ending June 30, 2008 through June 30, 2017  
(in thousands)

	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013	June 30, 2012	June 30, 2011	June 30, 2010	June 30, 2009	June 30, 2008
<b>Water Pollution Abatement Revenue Bonds:</b>										
Massachusetts Water Resources Authority Loan Program	\$ 8,170	\$ 9,100	\$ 10,060	\$ 11,365	\$ 16,410	\$ 22,370	\$ 48,200	\$ 54,545	\$ 63,315	\$ 70,350
South Essex Sewerage District Loan Program	-	285	890	1,855	2,765	3,780	5,015	6,440	8,030	9,775
New Bedford Loan Program	-	-	270	785	1,515	2,405	3,440	4,605	5,890	7,280
Pool Loan Program	1,513,335	1,466,700	1,362,395	1,328,845	2,078,738	1,989,878	2,125,200	1,812,331	1,988,091	1,704,979
Subtotal Revenue Bonds	1,521,505	1,476,085	1,373,615	1,342,850	2,099,428	2,018,433	2,181,855	1,877,921	2,065,326	1,792,384
<b>Subordinated Revenue Refunding Bonds:</b>										
Massachusetts Water Resources Authority Loan Program	54,040	54,040	54,040	63,620	63,775	63,775	63,775	63,775	261,170	272,450
New Bedford Loan Program	-	-	-	-	36,460	40,850	44,935	94,935	98,500	101,845
Pool Loan Program	1,392,855	1,462,805	1,583,935	1,678,245	1,311,580	1,358,240	1,264,190	1,246,130	1,049,865	1,050,895
Subtotal Revenue Refunding Bonds	1,446,895	1,516,845	1,637,975	1,741,865	1,411,815	1,462,865	1,372,900	1,404,840	1,409,535	1,425,190
Total Bonds Payable	2,968,400	2,992,930	3,011,590	3,084,715	3,511,243	3,481,298	3,554,755	3,282,761	3,474,861	3,217,574
Add (deduct) unamortized amounts:										
Bond premium	347,809	335,272	320,762	304,295	259,765	233,905	211,862	194,122	185,723	171,664
* Net unamortized excess of reacquisition price over net carrying value of defeased bonds	-	-	-	-	-	-	-	(82,837)	(62,723)	(65,735)
<b>Total Bonds Payable, net</b>	<b>\$ 3,316,209</b>	<b>\$ 3,328,202</b>	<b>\$ 3,332,352</b>	<b>\$ 3,389,010</b>	<b>\$ 3,771,008</b>	<b>\$ 3,715,203</b>	<b>\$ 3,766,617</b>	<b>\$ 3,394,046</b>	<b>\$ 3,597,861</b>	<b>\$ 3,323,503</b>

\* Net Bonds Payable restated after the implementation of GASB 65, Items Previously Reported as Assets and Liabilities, which resulted in the write off of bond issuance costs as of July 1, 2011.

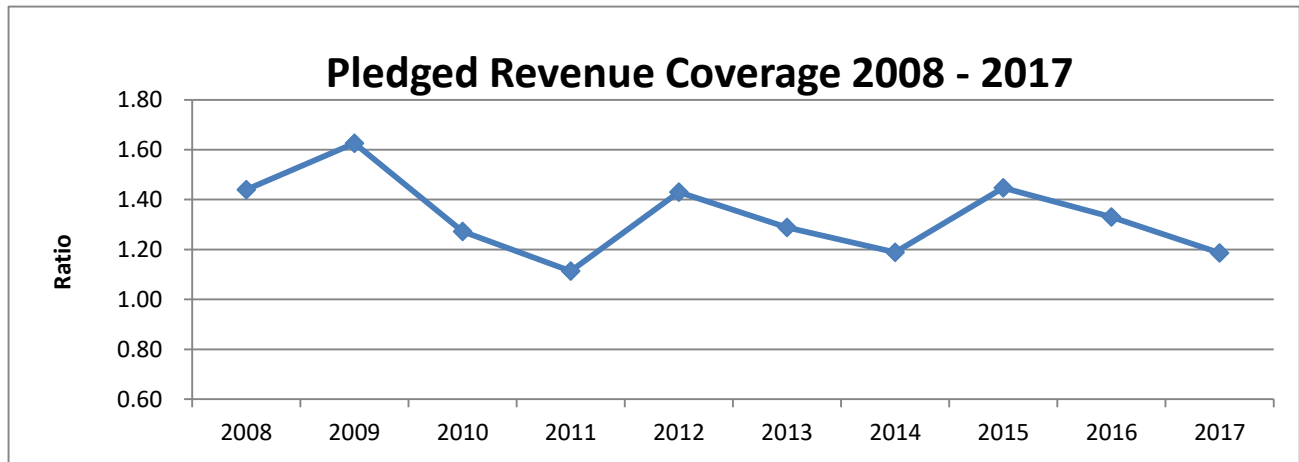
# MASSACHUSETTS CLEAN WATER TRUST

## Ten Year Schedule of Pledged Revenue Coverage For fiscal years ending June 30, 2008 through June 30, 2017 (in thousands)

Fiscal Year	Changes in Net Position	Comm of MA Contract Assistance	Principal and Interest Received from Borrowers *	Total Receivable and Revenue	Debt Service Requirements			Coverage Ratio
					Principal	Interest	Total Debt Service	
2017	\$ 39,965	\$ 51,179	\$ 343,632	\$ <b>434,776</b>	\$ 225,895	\$ 140,716	\$ <b>366,611</b>	<b>1.19</b>
2016	97,130	57,379	334,873	<b>489,382</b>	226,465	141,504	<b>367,969</b>	<b>1.33</b>
2015	112,069	61,802	318,080	<b>491,951</b>	205,540	134,400	<b>339,940</b>	<b>1.45</b>
2014	56,494	62,491	332,531	<b>451,516</b>	215,753	163,928	<b>379,681</b>	<b>1.19</b>
2013	66,995	62,811	305,125	<b>434,931</b>	172,306	165,171	<b>337,477</b>	<b>1.29</b>
2012	** 105,471	64,986	338,173	<b>508,630</b>	183,102	172,561	<b>355,663</b>	<b>1.43</b>
2011	** 15,696	66,093	296,303	<b>378,092</b>	168,319	171,296	<b>339,615</b>	<b>1.11</b>
2010	75,617	67,262	295,797	<b>438,676</b>	175,090	169,777	<b>344,867</b>	<b>1.27</b>
2009	105,968	66,856	355,589	<b>528,413</b>	152,243	172,697	<b>324,940</b>	<b>1.63</b>
2008	71,397	67,489	287,235	<b>426,121</b>	139,393	156,479	<b>295,872</b>	<b>1.44</b>

\* Includes interest received from earnings on Debt Service Reserve Funds.

\*\* Fiscal Years 2011 and 2012 were restated for the implementation of GASB 65, in Fiscal Year 2013.



# MASSACHUSETTS CLEAN WATER TRUST

## Ten Year Combined Schedule of Operating Expenses

For fiscal years ending June 30, 2008 through June 30, 2017

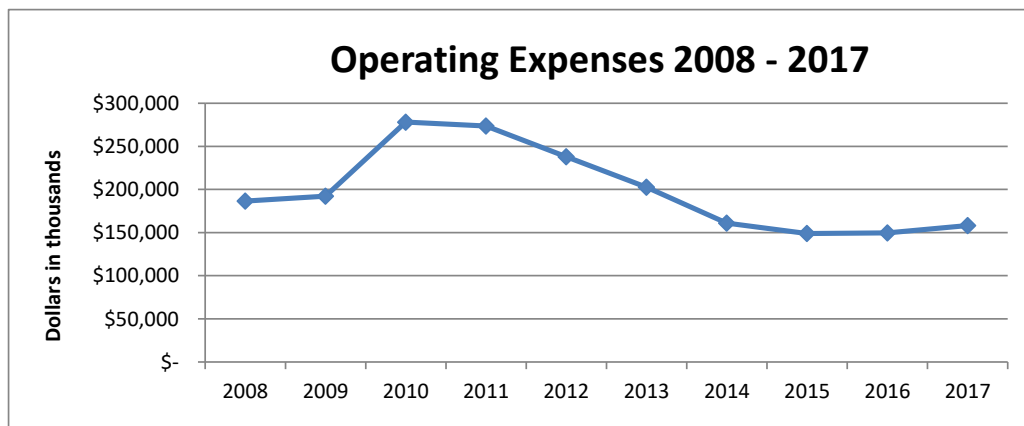
(in thousands)

### OPERATING EXPENSES

Fiscal Year	DEP Programmatic Support Costs	General and Adminstrative	Arbitrage Rebate Payments	Interest Expense	Grant Disbursement	Total Operating Expenses
2017	\$ 8,545	\$ 5,210	\$ 12,328	\$ 126,551	\$ 5,672 *	\$ 158,306
2016	8,421	4,092	3,785	127,247	6,117 *	149,662
2015	5,793	5,923	1,538	130,888	4,797 *	148,939
2014	7,418	7,860	166	137,959	7,567 *	160,970
2013	8,921	5,046 **	6,725	169,595	12,335 *	202,622
2012	11,369	8,440 **	10,487	173,869	33,693 *	237,858
2011	10,482	8,843 **	1,122	182,035	71,018 *	273,500
2010	12,168	4,754	972	170,724	89,581 *	278,199
2009	8,711	4,232	1,979	177,217	-	192,139
2008	10,834	2,493	267	173,038	-	186,632

\* Represents a reserve established for the anticipated future principal forgiveness associated with the disbursement of federal capitalization grants, including ARRA. The principal forgiveness is fully funded by the capitalization grants.

\*\* Implemented GASB 65, Financial Reporting of Deferred Outflows, Deferred Inflows of Resources, and Net Position, resulting in the recognition of certain amounts as deferred inflows/outflows rather than assets/liabilities.



# MASSACHUSETTS CLEAN WATER TRUST

## Ten Year Schedule of Full Time Equivalent Employees

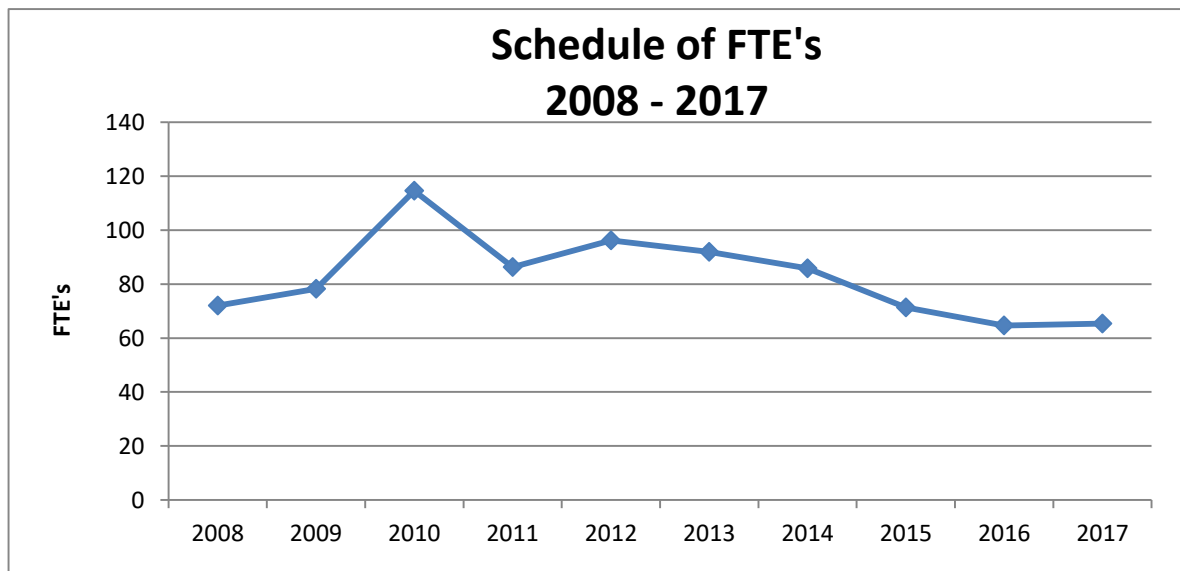
### By Program and Agency

For fiscal years ending June 30, 2008 through June 30, 2017

<u>Fiscal Year</u>	<u>MCWT - Administrative</u>	<u>DEP - Clean Water Program</u>	<u>DEP - Drinking Water Program</u>	<u>DEP - Admin Expendable Trust</u>	<u>Total</u>
2017	8.76	19.15	33.30	4.20	65.41
2016	9.00	19.60	31.85	4.20	64.65
2015	8.83	17.50	32.08	12.98	71.39
2014	9.25	21.66	45.01	9.92	85.84
2013	9.75	21.49	50.17	10.50	91.91
2012	9.78	22.00	50.19	14.27	96.24
2011	9.27	21.50	51.77	3.79	86.33
2010	9.70	29.43	68.02	7.42	114.57
2009	8.50	9.15	37.50	23.14	78.29
2008	7.00	15.10	41.62	8.34	72.06

MCWT - Massachusetts Clean Water Trust

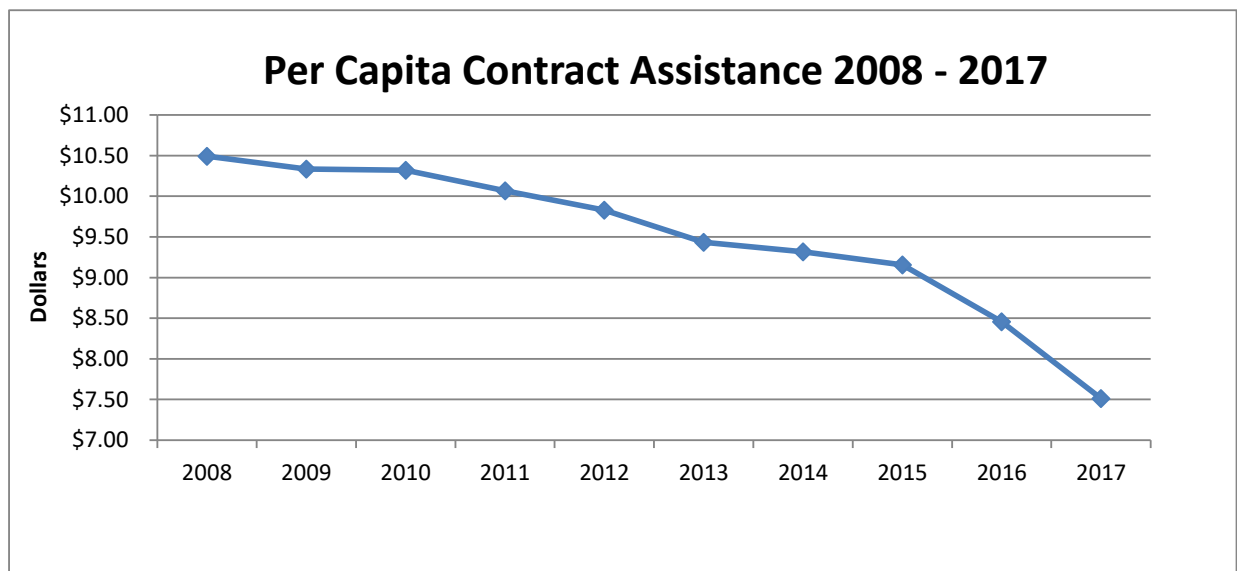
DEP - Department of Environmental Protection



**MASSACHUSETTS CLEAN WATER TRUST**  
**Ten Year Schedule of Contract Assistance Provided by the Commonwealth of Massachusetts,**  
**Massachusetts Population, and Per Capita Contract Assistance**  
**For fiscal years ending June 30, 2008 through June 30, 2017**

<b>Fiscal Year ending June 30</b>	<b>Contract Assistance Provided (in thousands)</b>	<b>Population Estimates (1) (in thousands)</b>	<b>Per Capita Contract Assistance</b>
2017	\$ 51,179	6,812	\$ 7.51
2016	57,379	6,784	8.46
2015	61,802	6,750	9.16
2014	62,491	6,707	9.32
2013	62,811	6,658	9.43
2012	64,986	6,612	9.83
2011	66,093	6,566	10.07
2010	67,262	6,518	10.32
2009	66,856	6,469	10.33
2008	67,489	6,432	10.49

(1) Population estimates have been restated to most current United States Census Bureau Data. Population data is reported as of July 1 of the previous year and has been restated to most recent United States Census Bureau Data.

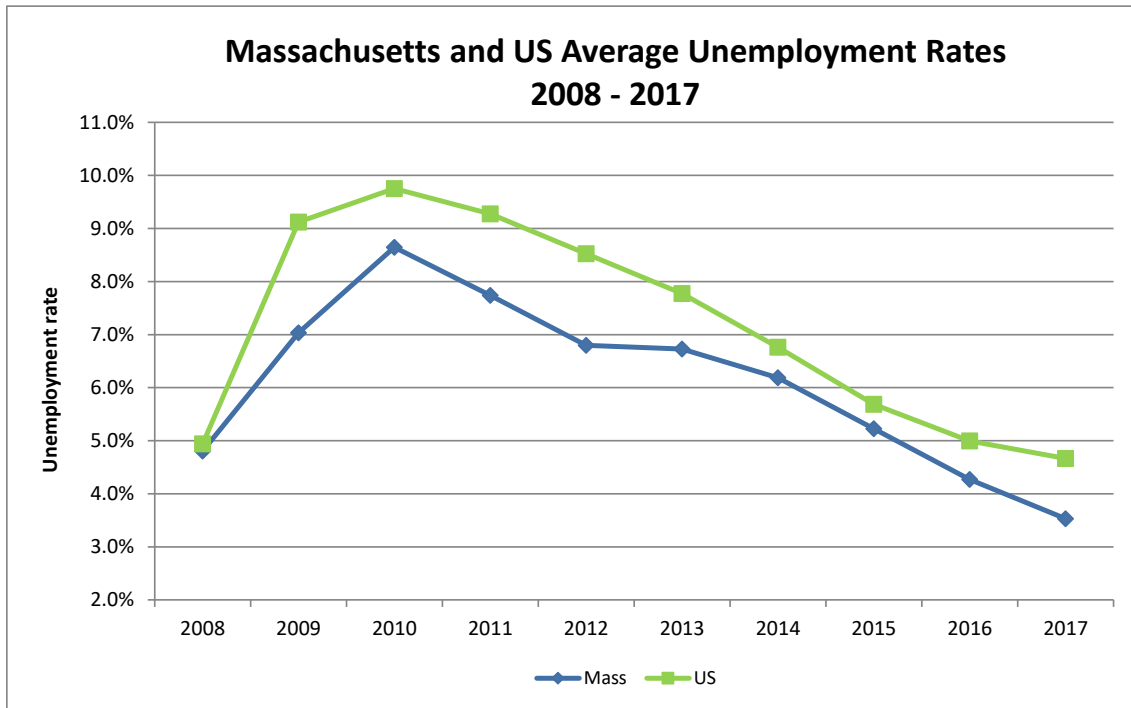


**MASSACHUSETTS CLEAN WATER TRUST**  
**Ten Year Schedule of Fiscal Year Annual Average Civilian Labor Force,**  
**Unemployment and Unemployment Rates**  
**For Massachusetts and the United States**

(in thousands)

Fiscal Year	<u>Massachusetts</u>			<u>United States</u>			Massachusetts Rate as % of U.S. Rate
	Labor Force	Unemployment	Unemployment Rate %	Labor Force	Unemployment	Unemployment Rate %	
2017	3,626	128	3.5%	159,791	7,454	4.7%	75.7%
2016	3,582	153	4.3%	158,029	7,890	5.0%	85.6%
2015	3,580	187	5.2%	156,618	8,903	5.7%	91.9%
2014	3,523	218	6.2%	155,474	10,513	6.8%	91.5%
2013	3,494	235	6.7%	155,330	12,076	7.8%	86.5%
2012	3,472	236	6.8%	154,297	13,153	8.5%	79.7%
2011	3,464	268	7.7%	153,615	14,252	9.3%	83.4%
2010	3,470	300	8.6%	153,906	15,009	9.8%	88.7%
2009	3,470	244	7.0%	154,559	14,094	9.1%	77.1%
2008	3,434	165	4.8%	153,680	7,593	4.9%	97.2%

Source-Federal Bureau of Labor Statistics, September 2017. Seasonally adjusted. Previous data has been updated by the Federal Bureau of Labor Statistics.



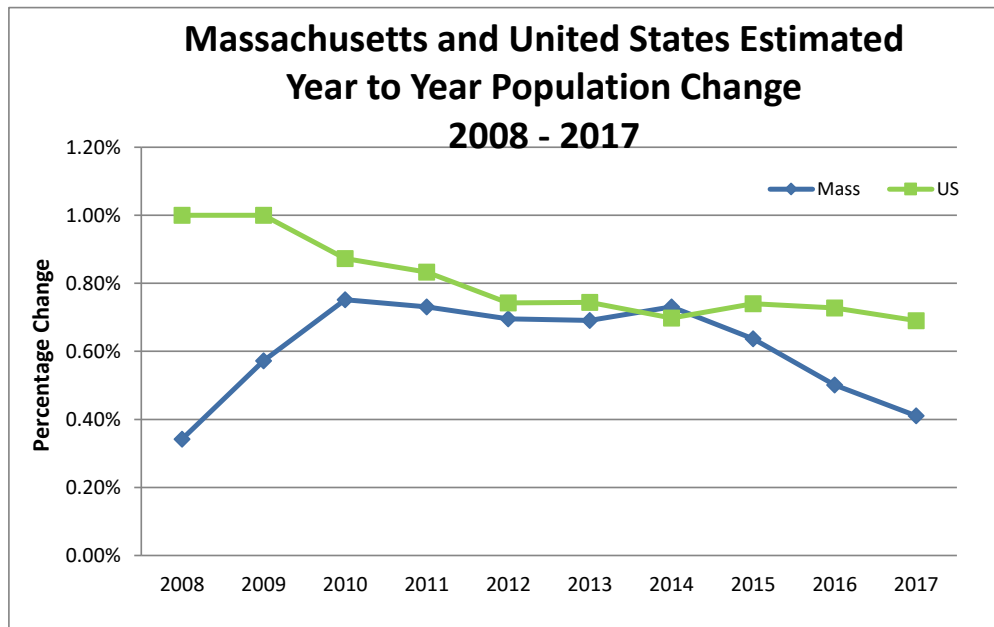
# MASSACHUSETTS CLEAN WATER TRUST

## Ten Year Schedule of Massachusetts and United States Resident Population

(Amounts in thousands)

Beginning of Fiscal Year	United States	% Change	Massachusetts Resident Population <sup>(1)</sup>	% Change	Massachusetts as % of U.S.
2017	323,128	0.7%	6,812	0.4%	2.1%
2016	320,897	0.7%	6,784	0.5%	2.1%
2015	318,563	0.7%	6,750	0.6%	2.1%
2014	316,205	0.7%	6,707	0.7%	2.1%
2013	313,998	0.7%	6,658	0.7%	2.1%
2012	311,663	0.7%	6,612	0.7%	2.1%
2011	309,348	0.8%	6,566	0.7%	2.1%
2010	306,772	0.9%	6,518	0.8%	2.1%
2009	304,094	1.0%	6,469	0.6%	2.1%
2008	301,231	1.0%	6,432	0.3%	2.1%

<sup>(1)</sup> Population estimates have been restated to most current United States Census Bureau Data. Population data is reported as of July 1 of the previous year and has been restated to most recent United States Census Bureau Data.

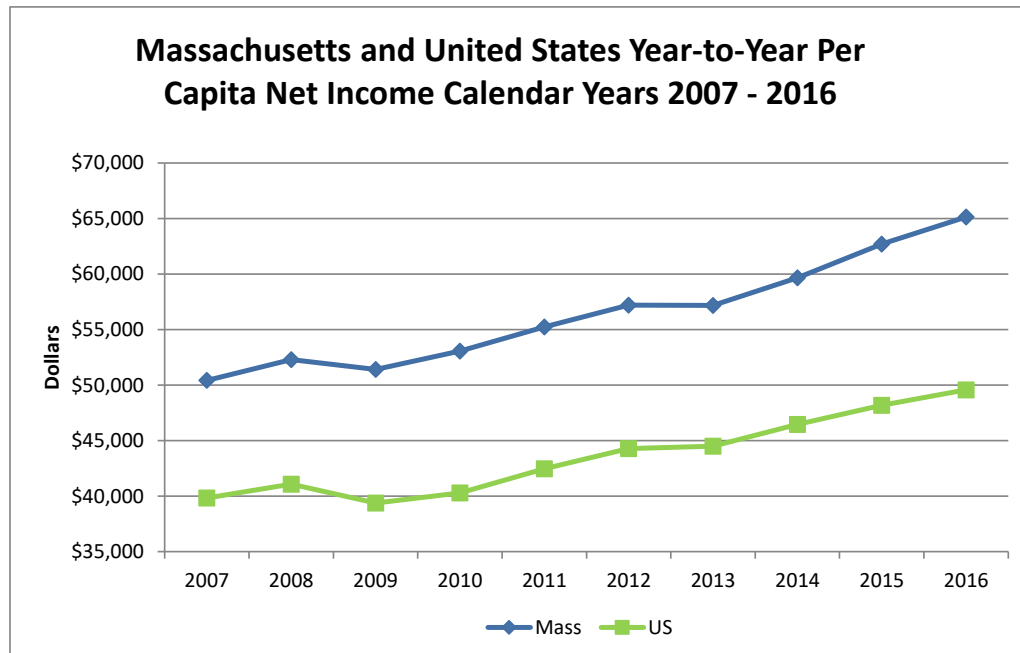


# MASSACHUSETTS CLEAN WATER TRUST

## Ten Year Schedule of Massachusetts and United States Resident Per Capita Net Income

Calendar Year	United States <sup>(1)</sup>	% Change	Massachusetts <sup>(1)</sup>	% Change	Massachusetts as % of U.S.
2016	\$ 49,570	2.9%	\$ 65,137	3.9%	131.4%
2015	48,190	3.7%	62,697	5.1%	130.1%
2014	46,464	4.4%	59,650	4.3%	128.4%
2013	44,493	0.5%	57,182	0.0%	128.5%
2012	44,282	4.3%	57,192	3.5%	129.2%
2011	42,461	5.4%	55,232	4.1%	130.1%
2010	40,277	2.3%	53,054	3.2%	131.7%
2009	39,376	-4.2%	51,412	-1.7%	130.6%
2008	41,082	3.2%	52,283	3.7%	127.3%
2007	39,821	4.4%	50,417	4.4%	126.6%

<sup>(1)</sup> Source: Bureau of Economic Analysis, US Department of Commerce. Prior years restated due to revised estimates released March 28, 2017.

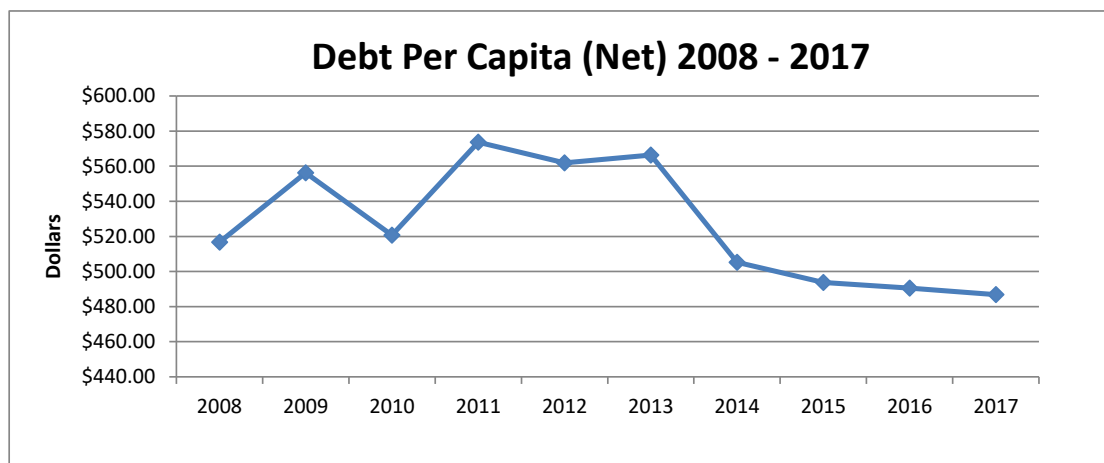


**MASSACHUSETTS CLEAN WATER TRUST**  
**Ten Year Schedule of Total Net Debt, Massachusetts Resident Population, and Debt Per Capita**  
**For fiscal years ending June 30, 2008 through June 30, 2017**

<b>Fiscal Year ending June 30</b>	<b>Total Debt (Net) (in thousands)</b>	<b>Population Estimates <sup>(1)</sup> (in thousands)</b>	<b>Debt Per Capita (Net)</b>
2017	\$3,316,209	6,812	\$486.82
2016	3,328,202	6,784	490.60
2015	3,332,352	6,750	493.68
2014	3,389,010	6,707	505.29
2013	3,771,008	6,658	566.39
2012	3,715,203 **	6,612	561.89
2011	3,766,617	6,566	573.65
2010	3,394,046	6,518	520.72
2009	3,597,861	6,469	556.17
2008	3,323,503	6,432	516.71

(1) Population estimates have been restated to most current United States Census Bureau Data. Population data is reported as of July 1 of the previous year. Source: <http://www.fedstats.gov> (US Census Bureau).

\*\* Implemented GASB 65, Financial Reporting of Deferred Outflows, Deferred Inflows of Resources, and Net Position, resulting in the recognition of certain amounts as deferred inflow/outflow rather than assets/liabilities.



**MASSACHUSETTS CLEAN WATER TRUST**  
**Largest Private Sector Massachusetts Employers 2017 and 2008**  
(Alphabetical Order)

2017			2008		
Employer	Headquarters	Product or Service	Employer	Headquarters	Product or Service
Bay State Medical Center, Inc.	Springfield	Hospital	Bay State Medical Center, Inc.	Springfield	Insurance
Beth Israel Deaconess Medical Center	Boston	Hospital	Beth Israel Deaconess Medical Center	Boston	Hospital
Big Y Foods, Inc.	Springfield	Supermarket	Boston Medical Center Corporation	Boston	Hospital
Boston Medical Center Corporation	Boston	Hospital	Boston University	Boston	University
Boston University	Boston	University	Brigham and Women's Hospital, Inc.	Boston	Hospital
Brigham and Women's Hospital, Inc.	Boston	Hospital	DeMoulas Supermarkets, Inc.	Tewksbury	Supermarket
DeMoulas Supermarkets, Inc.	Tewksbury	Supermarket	EMC Corporation	Hopkinton	Computer Storage & Peripherals
EMC Corporation	Hopkinton	Computer Storage & Peripherals	General Hospital Corporation	Boston	Hospital
General Hospital Corporation	Boston	Hospital	Massachusetts Institute of Technology	Cambridge	University
Massachusetts Institute of Technology	Cambridge	University	New England Medical Center	Boston	Hospital
Partners Healthcare Systems, Inc.	Boston	Hospital	President and Fellows of Harvard College	Cambridge	University
President and Fellows of Harvard College	Cambridge	University	Raytheon Company	Lexington	Electronics /
Raytheon Company	Lexington	Electronics / Defense	Shaw's Supermarkets, Inc.	West Bridgewater	Supermarket
The Stop & Shop Supermarkets, Co	Quincy	Supermarket	Southcoast Hospitals Group	New Bedford	Hospital
Shaw's Supermarkets, Inc.	West Bridgewater	Supermarket	State Street Bank and Trust Company	Boston	Banking
State Street Bank and Trust Company	Boston	Banking	The Children's Hospital Corporation	Boston	Hospital
The Children's Hospital Corporation	Boston	Hospital	Tufts University	Boston	University
The TJX Companies, Inc.	Framingham	Retail	UMASS Memorial Medical Center, Inc.	Worcester	Hospital
UMASS Memorial Medical Center, Inc.	Worcester	Hospital	Verizon New England, Inc.	Boston	Telecommunications

*Source: - Massachusetts Executive Office of Labor and Workforce Development, Division of Unemployment Assistance - March 2017 survey. In addition, CVS Pharmacy, Inc., Home Depot U.S.A., Inc., Target Corp., United Parcel Services, Inc., Wal-Mart Associates and Whole Foods Market Group, Inc. are all large Massachusetts employers, but are headquartered outside of Massachusetts. Verizon New England is a subsidiary of Verizon Communications, headquartered in New York. The information is based on employers registered for unemployment insurance. The list may not include those employers who do business in Massachusetts under multiple legal corporations and those who register each store, facility or franchisee as a separate employer.*