KPMG

MASSACHUSETTS CLEAN WATER TRUST

(A Component Unit of the Commonwealth of Massachusetts)

Financial Statements and
Required Supplementary Information

June 30, 2018 and 2017

(With Independent Auditors' Report Thereon)

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

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KPMG LLP
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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, 2018 and 2017, 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 and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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, 2018 and 2017, 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.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 12, 2018 on our consideration of the Trust's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Plan's internal control over financial reporting and compliance.

KPMG LLP

Boston, Massachusetts
October 12, 2018

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, certain projects may receive a rate below 2% for specific programs approved by the Board of Trustees or directed by the legislature, such as those that address nutrient reduction. 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.

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.

Condensed Financial Information and Financial Analysis

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

	June 30			Percentage change	
	2018	**2017**	**2016**	**2018–2017**	**2017–2016**
Cash and cash equivalents	$ 478,627	586,633	486,629	(18.4)%	20.6 %
Investments	838,269	916,697	1,014,715	(8.6)	(9.7)
Project fund deposits	26,704	66,573	50,243	(59.9)	32.5
Grants receivable, EPA	40,536	28,814	49,667	40.7	(42.0)
Loans receivable	3,990,591	4,105,419	4,049,067	(2.8)	1.4
Accrued interest receivable and other assets	52,323	56,135	57,774	(6.8)	(2.8)
Deferred outflows	68,556	88,654	100,910	(22.7)	(12.1)
Total assets and deferred outflows	5,495,606	5,848,925	5,809,005	(6.0)	0.7
Accrued expenses and interest payable	53,549	58,268	60,307	(8.1)	(3.4)
Unearned revenue	25,982	27,270	28,086	(4.7)	(2.9)
Loan commitments and project funds payable	26,739	67,023	49,363	(60.1)	35.8
Liability for derivative instruments	1,841	3,604	6,461	(48.9)	(44.2)
Long-term debt	2,932,678	3,316,209	3,328,202	(11.6)	(0.4)
Deferred inflows	8,679	—	—	100.0	—
Total liabilities	3,049,468	3,472,374	3,472,419	(12.2)	—
Net position:					
Restricted	1,964,713	1,906,475	1,838,451	3.1	3.7
Unrestricted	481,425	470,076	498,135	2.4	(5.6)
Total net position	$ 2,446,138	2,376,551	2,336,586	2.9 %	1.7 %

The Trust's net position at June 30, 2018 and 2017 increased $69.6 million, or 2.9%, to $2.45 billion from $2.38 billion, respectively, as total liabilities decreased $422.9 million while total assets and deferred outflows decreased $353.3 million. Total assets and deferred outflows decreased $353.3 million to $5.50 billion at June 30, 2018 from $5.85 billion at June 30, 2017. This decrease was primarily due to $108.0 million decrease in cash and cash equivalents, a $114.8 million decrease in loans receivable, a $78.4 million decrease in investments and a $39.9 million decrease in project fund deposits. Loans receivable and project fund deposits decreased as borrower payments and disbursements of project funds were made during the fiscal year. Typically, there is a new bond issuance during the fiscal year which would provide an offset of new financed loans and project funds; however, the annual bond issuance occurred in September 2018. The Trust used $122.7 million of its cash to defease its State Revolving Fund Refunding Bonds, Series 2009A and 2010A. The Trust's debt service reserve fund investments continue to decrease as scheduled maturities of investments revolve back into program equity (cash and cash equivalent). Total liabilities decreased $422.9 million due to scheduled debt service payments and the previously mentioned defeasance of debt.

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 less than 1%, or $39.9 million to $5.85 billion at June 30, 2017, as $98.0 million of scheduled maturities of investments in the debt service reserve funds revolved back into program equity (cash and cash equivalent). 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.

Long-term Debt/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 Trust's assets that are pledged as a source of payment and security. Trust's pledged assets consist of either reserve funds or loans to borrowers, or a combination thereof, both of which are funded by the SRF program funds. The balance of the Trust's pledged assets as of June 30, 2018 is $423.9 million in reserve funds and $448.8 million in loans to borrowers. 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 Trust issues its bonds under and secured by the Master Trust Agreement (MTA) dated as of January 1, 2015. The Trust entered into the MTA to replace the Program Resolution and to create a simpler security framework for the Trust's SRF Bonds. The Series 18 Bonds were the initial series of MTA Bonds and the Trust expects to continue to conduct its SRF program through the Master Trust Agreement. The Trust's prior bonds were issued pursuant to the Program Resolution to finance or refinance loans to several Borrowers concurrently (Pool Loan Program Bonds) or to finance or refinance loans to a single Borrower (Prior Single Obligor Bonds). The Prior Single Obligor Bonds were issued to provide loans to the following three obligors: (1) the Massachusetts Water Resources Authority ("MWRA"); (2) the South Essex Sewerage District ("SESD"); and (3) the City of New Bedford. The City of New Bedford, MWRA and SESD also are borrowers under the Trust's Pool Loan Program Bonds and the MTA Bonds.

The following is a summary of bonds payable at June 30, 2018, 2017 and 2016 (in thousands). More detailed information can be found in note 8 to the financial statements.

		Summary of Bonds Payable at June 30,		
		2018	**2017**	**2016**
Water Pollution Abatement Revenue Bonds:				
Master Trust Agreement	$	597,670	620,750	428,720
Pool Loan Program		836,630	892,585	1,037,980
Single Obligor Bonds:				
MWRA Loan Program		7,280	8,170	9,100
South Essex Sewage District Loan Program		—	—	285
Subtotal revenue bonds		1,441,580	1,521,505	1,476,085
Subordinated Revenue Refunding Bonds:				
Master Trust Agreement		96,280	96,280	—
Pool Loan Program		1,044,890	1,296,575	1,462,805
Single Obligor Bonds:				
MWRA Loan Program		36,595	54,040	54,040
Subtotal revenue refunding bonds		1,177,765	1,446,895	1,516,845
Total bonds		2,619,345	2,968,400	2,992,930
Add unamortized bond premium		313,333	347,809	335,272
Total bonds payable, net	$	2,932,678	3,316,209	3,328,202

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

	2018	2017	2016	2018–2017	2017–2016
Loan servicing fees	$ 5,615	5,608	5,515	0.1 %	1.7 %
Loan origination fees	—	1,821	1,926	(100.0)	(5.5)
Interest income	108,028	90,573	133,905	19.3	(32.4)
Contract assistance	26,003	26,572	28,927	(2.1)	(8.1)
Total operating revenues	139,646	124,574	170,273	12.1	(26.8)
DEP programmatic support costs	7,583	8,545	8,421	(11.3)	1.5
Principal forgiveness	7,372	5,672	6,117	30.0	(7.3)
General and administrative	2,331	5,210	4,092	(55.3)	27.3
Arbitrage rebate payments	—	12,328	3,785	(100.0)	225.7
Interest expense	125,293	126,551	127,247	(1.0)	(0.5)
Total operating expenses	142,579	158,306	149,662	(9.9)	5.8
Operating income (loss)	(2,933)	(33,732)	20,611	(91.3)	(263.7)
EPA capitalization grants	60,453	61,534	63,781	(1.8)	(3.5)
State matching grants	12,067	12,163	12,738	(0.8)	(4.5)
Total nonoperating revenues	72,520	73,697	76,519	(1.6)	(3.7)
Increase in net position	69,587	39,965	97,130	74.1	(58.9)
Net position, beginning of year	2,376,551	2,336,586	2,239,456	1.7	4.3
Net position, end of year	$ 2,446,138	2,376,551	2,336,586	2.9 %	1.7 %

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

Summary of Interest Income
(In thousands)

	June 30			Percentage change	
	2018	**2017**	**2016**	**2018–2017**	**2017–2016**
Loan interest income	$ 68,349	67,596	69,102	1.1 %	(2.2)%
Investment income	42,215	40,770	40,234	3.5	1.3
BAB subsidy income	4,286	4,144	4,266	3.4	(2.9)
Change in fair market value	(6,822)	(11,937)	20,303	42.8	(158.8)
Refunding savings paid to the Commonwealth	—	(10,000)	—	(100.0)	100.0
Total interest income	$ 108,028	90,573	133,905	19.3 %	(32.4) %

Results of Operations

For fiscal year 2018, the Trust recorded operating loss of $2.9 million as compared to an operating loss of $33.7 million in fiscal year 2017. Excluding the change in fair market value of investments fiscal year 2018 recorded operating income of $3.9 million and fiscal year 2017 recorded an operating loss of $21.8 million. Fiscal year 2017 operating loss included two items that negatively impacted results that did not recur in fiscal year 2018. These items were a $10.0 million payment of refunding savings to the Commonwealth and $12.3 million in arbitrage rebate payments to the United States Treasury. Without these two items and excluding the change in fair market value of investments, fiscal year 2017 would have recorded $0.5 million in operating income. General and administrative expenses for fiscal year 2017 included $1.6 million in costs of issuance related to the Series 20 and 2017 Refunding bond issuances and $1.3 million of funding for a testing for lead in public schools' program.

For fiscal year 2017, the Trust recorded operating loss of $33.7 million as compared to operating income of $20.6 million in fiscal year 2016. Excluding the change in fair market value of investments fiscal year 2017 recorded an operating loss of $21.8 million and fiscal year 2016 recorded operating income of $0.3 million. Fiscal year 2017 operating loss included two items that negatively impacted results that did not occur in fiscal year 2016. These items were a $10.0 million payment of refunding savings to the Commonwealth and $12.3 million in arbitrage rebate payments to the United States Treasury. Without these two items and excluding the change in fair market value of investments, fiscal year 2017 would have recorded $0.5 million in operating income.

The Trust’s operating income is negatively impacted by the inclusion of expenses such as DEP programmatic support costs of $7.6 million, $8.5 million, and $8.4 million for fiscal years 2018, 2017 and 2016, respectively, and principal forgiveness, which are funded by the capitalization grant revenue that is classified as nonoperating revenue.

For fiscal year 2018, the Trust’s nonoperating revenue of $72.5 million decreased slightly from $73.7 million the year before reflecting slight 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 2018, the Commonwealth enacted the *An Act Promoting Climate Change Adaptation, Environmental and Natural Resource Protection, and Investment in Recreational Assets and Opportunity,* which provided for $60.3 million in matching capitalization funds to the Clean Water SRF and Drinking Water SRF programs. This amount combined with the $17.9 million balance remaining as of June 30, 2018, the Trust estimates will be sufficient to meet its clean water and drinking water matching needs through FY 2022, 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 or Sally Peacock, Controller, speacock@tre.state.ma.us or mail to Massachusetts Clean Water Trust, 1 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, 2018 and 2017

(In thousands)

		2018	2017
Assets and deferred outflows:			
Current assets:			
Cash and cash equivalents (note 3)	$	478,627	586,633
Short-term investments (note 5)		223,467	221,170
Project fund deposits (note 4)		26,704	66,573
Grants receivable:			
U.S. Environmental Protection Agency (note 6)		40,536	28,814
Loans receivable, net (note 7)		561,902	389,912
Accrued interest receivable		52,323	54,312
Total current assets		1,383,559	1,347,414
Noncurrent assets:			
Loans receivable, long term (note 7)		3,428,689	3,715,507
Long-term investments (note 5)		614,802	695,527
Other assets		—	1,823
Total noncurrent assets		4,043,491	4,412,857
Deferred outflows of resources (notes 8 and 12)		68,556	88,654
Total assets and deferred outflows of resources		5,495,606	5,848,925
Liabilities:			
Current liabilities:			
Accrued expenses and interest payable		53,549	58,268
Unearned revenue		25,982	27,270
Loan commitments and project funds payable		26,739	67,023
Long-term debt (note 8)		230,280	231,485
Total current liabilities		336,550	384,046
Noncurrent liabilities:			
Liability for derivative instruments (note 11)		1,841	3,604
Long-term debt, net (note 8)		2,702,398	3,084,724
Total noncurrent liabilities		2,704,239	3,088,328
Deferred inflows of resources (note 2)		8,679	—
Total liabilities and deferred inflows of resources		3,049,468	3,472,374
Net position:			
Restricted for program purposes (note 9)		1,964,713	1,906,475
Unrestricted (note 9)		481,425	470,076
Commitments (note 10)		—	—
Total net position	$	2,446,138	2,376,551

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, 2018 and 2017

(In thousands)

		2018	2017
Operating revenues:			
Loan servicing fees	$	5,615	5,608
Loan origination fees		—	1,821
Interest income		108,028	90,573
Contract assistance from Commonwealth of Massachusetts		26,003	26,572
Total operating revenues		139,646	124,574
Operating expenses:			
Commonwealth of Massachusetts:			
Department of Environmental Protection – programmatic support costs		7,583	8,545
Principal forgiveness		7,372	5,672
General and administrative		2,331	5,210
Arbitrage rebate payments		—	12,328
Interest expense		125,293	126,551
Total operating expenses		142,579	158,306
Operating income		(2,933)	(33,732)
Nonoperating revenue:			
Capitalization grant revenue:			
U.S. Environmental Protection Agency capitalization grants (note 6)		60,453	61,534
Commonwealth of Massachusetts matching grants (note 6)		12,067	12,163
Total nonoperating revenue		72,520	73,697
Increase in net position		69,587	39,965
Net position – beginning of year		2,376,551	2,336,586
Net position – end of year	$	2,446,138	2,376,551

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, 2018 and 2017

(In thousands)

		2018	2017
Cash flows from operating activities:			
Other cash received from borrowers	$	7,436	7,494
Cash paid to vendors		(10,067)	(25,953)
Net cash used in operating activities		(2,631)	(18,459)
Cash flows from noncapital financing activities:			
Bond proceeds		—	354,577
Cash used in debt refunding		(122,736)	(115,810)
Repayment of bonds		(231,485)	(225,895)
Interest paid		(137,460)	(140,716)
Proceeds from U.S. Environmental Protection Agency capitalization grants		48,611	81,666
Proceeds from Commonwealth matching capitalization grants		10,899	12,067
Net cash used in noncapital financing activities		(432,171)	(34,111)
Cash flows from investing activities:			
Loans disbursed to recipients		(168,918)	(329,883)
Cash received from borrowers		252,632	239,871
Contract assistance received – principal		20,385	24,543
Interest received		122,925	103,761
Contract assistance received – interest		26,388	26,636
Purchases of investments		(4,864)	(6,976)
Sales/maturities of investments, net		78,248	94,622
Net cash provided by investing activities		326,796	152,574
Net increase in cash and cash equivalents		(108,006)	100,004
Cash and cash equivalents, beginning of year		586,633	486,629
Cash and cash equivalents, end of year	$	478,627	586,633
Reconciliation of operating income to net cash used in operating activities:			
Operating income	$	(2,933)	(33,732)
Adjustments to reconcile operating income to net cash used in operating activities:			
Reclassification of:			
Interest income		(108,028)	(90,573)
Contract assistance		(26,003)	(26,572)
Interest expense		125,293	126,551
Principal forgiveness		7,372	5,672
Changes in operating assets and liabilities:			
Other assets and liabilities, net		1,668	195
Net cash used in operating activities	$	(2,631)	(18,459)

See accompanying notes to financial statements.

(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 to 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 interim financing for its borrowers, the investment of program funds, the management and coordination of the programs, and the issuance of debt in the capital markets.

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 pledges such grants, state matching funds and other monies available to the Trust to secure its bonds which are issued to fund such water infrastructure projects. The Trust applies investment earnings on such pledged assets to pay a portion of the debt service on the related bonds thereby reducing financing costs to the communities.

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.

(Continued)

(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, are generated through the issuance of loans to local government units within the Commonwealth. Operating expenses include interest expense related to the Trust's outstanding debt as well as programmatic and administrative expenses. 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.

(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.

(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 year 2018, the Trust has reported deferred inflows of resources that represent the funds received from the Commonwealth in the amount of $8.6 million that will be used to provide future additional subsidies. For fiscal years 2018 and 2017, 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 2017 balances to conform to the presentation used in FY 2018.

(3) Cash and Cash Equivalents

Cash and cash equivalent for the years ended June 30, 2018 and 2017 are as follows:

		Cash and Cash Equivalents as of June 30,	
		2018	**2017**
Program Equity Funds		360,789	496,763
Revenue Funds		29,014	34,378
Administrative Funds		28,542	22,946
State Match Funds		11,594	12,664
Rebate Funds		10,602	9,073
Other Cash Funds		38,086	10,809
Total Cash and Cash Equivalents	$	478,627	586,633

The Trust's cash and cash equivalents primarily consist of the SRF program equity funds. 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.

Revenue fund balances primarily represent proceeds collected from the Trust's specific revenue sources: borrower repayments, pledged assets earnings and contract assistance that are restricted or committed for specific purposes including debt service. Administrative funds are primarily funded with the annual loan servicing fee equal to 0.15% of outstanding loan principal charged pursuant to financing agreements, 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. Rebate funds represent amounts set aside to pay arbitrage rebate liabilities to the United States Treasury when due. State match funds represents the net balance of the Commonwealth matching grant and related interest earnings. Other cash accounts at June 30, 2018 primarily consist of additional assistance funds set aside by the Commonwealth to provide future subsidies the amount and timing of which to be determined by the Board. During fiscal year 2018, the Board of Trustees approved an additional subsidy pursuant to Chapter 259 of the Acts of 2014 in the amount of $10.6 million. This subsidy was funded in part by the Commonwealth with a deferred inflow of resources of $8.7 million pursuant to the Amended Contract Assistance Agreement between the Trust and the Commonwealth.

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. 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, 2018 and 2017.

(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 for eligible project costs 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, 2018, and 2017, the

(Dollars in thousands, unless noted)

Trust had $26,704 and $66,573, respectively, held in project fund deposits related to executed loan agreements for State Revolving Fund Bonds.

(5) Investments

Investments for the years ended June 30, 2018 and 2017 are as follows:

		June 30, 2018			
		Guaranteed investment contracts	U.S. Treasuries and agencies	MMDT short-term bond portfolio	Total investments
Less than 1 year	$	113,313	14,047	96,107	223,467
One to five years		196,572	74,635	—	271,207
Six to ten years		120,919	66,589	—	187,508
More than ten years		46,298	109,789	—	156,087
	$	477,102	265,060	96,107	838,269

		June 30, 2017			
		Guaranteed investment contracts	U.S. Treasuries and agencies	MMDT short-term bond portfolio	Total investments
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
	$	536,449	285,917	94,331	916,697

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.

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.

(Continued)

(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.

Provider	2018		2017	
Dexia Credit Local/FSA Capital Management Services, LLC	$ 138,593	19 %	$ 159,954	20 %
Mass Mutual Financial Group / Trinity Funding Company, LLC*	123,061	17	135,089	17
Natixis Funding Corp. f/k/a Ixis Funding Corp., CDC Funding Corp.	114,938	15	131,201	16
Citigroup Global Markets Inc.	76,731	10	84,130	10

* Trinity sold to MassMutual its interests in certain investment agreements

(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:

	Clean Water Program		Drinking Water Program		Total Program	
	Federal	State	Federal	State	Federal	State
Grants receivable at June 30, 2017	$ 27,092	—	1,722	—	28,814	—
Project Grant Award/Match – FFY 2017	42,853	9,003	10,570	3,064	53,423	12,067
Admin/Set Asides Grant – FFY 2017	2,161		4,749		6,910	—
Total Grant Award/Match	45,014	9,003	15,319	3,064	60,333	12,067
Grant Funds Drawn	(33,326)	(9,003)	(15,285)	(3,064)	(48,611)	(12,067)
Grants receivable at June 30, 2018	$ 38,780	—	1,756	—	40,536	—

(Dollars in thousands, unless noted)

		Clean Water Program		Drinking Water Program		Total Program	
		Federal	State	Federal	State	Federal	State
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 Drawn		(65,631)	(9,073)	(16,036)	(3,090)	(81,667)	(12,163)
Grants receivable at June 30, 2017	$	27,092	—	1,722	—	28,814	—

Federal capitalization revenue is recognized in accordance with funding availability schedules contained within the individual grant agreements. The periodic cash draws by the Trust on the federal grants are based on the amount of incurred costs for certain eligible projects or activities.

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

		Clean Water Program		Drinking Water Program		Total Programs	
		2018	2017	2018	2017	2018	2017
Federal FY 2017 grant	$	33,760	—	11,489	—	45,249	—
Federal FY 2016 grant		11,341	34,022	3,863	11,588	15,204	45,610
Federal FY 2015 grant		—	11,840	—	4,084	—	15,924
Total grant revenue – EPA		45,101	45,862	15,352	15,672	60,453	61,534
State match – FY 2017 grant		9,003	—	3,064	—	12,067	—
State match – FY 2016 grant		—	9,073	—	3,090	—	12,163
Total grant revenue – State Match	$	9,003	9,073	3,064	3,090	12,067	12,163

(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 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).

(Dollars in thousands, unless noted)

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, 2018 and 2017 is as follows:

		2018	2017
Leveraged loans	$	3,251,964	3,510,721
Direct loans pledged for bond debt service		448,814	470,330
Other direct loans		7,774	8,401
Total permanently financed loans receivable		3,708,552	3,989,452
Interim loans		337,370	173,023
Principal forgiveness		(55,331)	(57,056)
Total loans receivable		3,990,591	4,105,419
Less current portion loans receivable		561,902	389,912
Long-term portion – loans receivable	$	3,428,689	3,715,507

The interim loan receivable balances were $337,370 and $173,023 as of June 30, 2018 and 2017, respectively. The significant increase in interim loan balances is attributed to the timing of bond issuance and related financing of loans. The Trust did not issue bonds in fiscal year 2018, rather it issued its Series 21 bonds in September 2018, when $303.1 million of interim loans were permanently financed.

Additionally, the interim loan balances represent disbursements of construction funds of $55,331 and $57,056, 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.

(Dollars in thousands, unless noted)

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, 2018, the Trust has $449 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:

Years ending June 30:		Leveraged loans	Direct loans used for bond debt service	Other direct loans	Total permanently financed loans
2019	$	258,260	20,791	627	279,678
2020		253,248	21,223	628	275,099
2021		246,739	21,677	628	269,044
2022		233,286	22,074	629	255,989
2023		238,860	22,555	629	262,044
2024–2028		980,681	115,453	3,151	1,099,285
2029–2033		641,269	121,142	1,482	763,893
2034–2038		299,879	61,284	—	361,163
2039–2043		78,875	30,300	—	109,175
2044–2048		20,867	12,315	—	33,182
	$	3,251,964	448,814	7,774	3,708,552

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 $253.9 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.

(Continued)

(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 2.0% 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 Trust issues its bonds under and secured by the Master Trust Agreement (MTA) dated as of January 1, 2015. The Trust entered into the MTA to replace the Program Resolution and to create a simpler security framework for the Trust's SRF Bonds. The Series 18 Bonds were the initial series of MTA Bonds and the Trust expects to continue to conduct its SRF program through the Master Trust Agreement. The Trust's prior bonds were issued pursuant to the Program Resolution to finance or refinance loans to several Borrowers concurrently (Pool Loan Program Bonds) or to finance or refinance loans to a single Borrower (Prior Single Obligor Bonds). The Prior Single Obligor Bonds were issued to provide loans to the following three obligors: (1) the Massachusetts Water Resources Authority ("MWRA"); (2) the South Essex Sewerage District ("SESD"); and (3) the City of New Bedford. The City of New Bedford, MWRA and SESD also are borrowers under the Trust's Pool Loan Program Bonds and the MTA Bonds.

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.

(Dollars in thousands, unless noted)

The following is a summary of bonds payable at June 30, 2018 and 2017:

Bond issue	Program	Issue date	Final maturity	Balance June 30, 2017	Additions	Reductions	Balance June 30, 2018	Due within one year
Senior revenue bonds:								
Series 6	Pool Loan	11/6/2000	8/1/2023	$ 3,165	—	—	3,165	—
Series 7	Pool Loan	7/15/2001	2/1/2023	1,530	—	—	1,530	245
Series 2002A	MWRA	10/15/2002	8/1/2032	8,170	—	890	7,280	850
Series 8	Pool Loan	11/15/2002	8/1/2026	8,730	—	1,450	7,280	1,255
Series 9	Pool Loan	10/10/2003	8/1/2027	13,950	—	1,535	12,415	3,620
Series 11	Pool Loan	10/19/2005	8/1/2025	41,725	—	235	41,490	12,425
Series 12	Pool Loan	12/14/2006	8/1/2026	22,830	—	—	22,830	—
Series 14	Pool Loan	3/18/2009	8/1/2038	146,495	—	17,080	129,415	17,565
Series 15	Pool Loan	7/8/2010	8/1/2040	329,905	—	18,215	311,690	18,900
Series 16 A & B	Pool Loan	6/13/2012	8/1/2042	152,260	—	9,760	142,500	10,070
Series 17 A & B	Pool Loan	7/22/2013	2/1/2043	171,995	—	7,680	164,315	7,975
Series 18	MTA	1/7/2015	2/1/2045	213,140	—	7,990	205,150	8,205
Series 19	MTA	2/11/2016	2/1/2046	200,260	—	8,050	192,210	8,320
Series 20	MTA	4/13/2017	2/1/2047	207,350	—	7,040	200,310	6,970
Subordinated revenue refunding bonds:								
MWRA 1999A	MWRA	11/3/1999	8/1/2029	54,040	—	17,445	36,595	16,750
Series 2004A	Pool Loan	8/25/2004	8/1/2027	210,120	—	48,800	161,320	41,430
Series 2006	Pool Loan	12/14/2006	8/1/2034	397,530	—	35,295	362,235	22,880
Series 2009A	Pool Loan	7/30/2009	8/1/2019	135,025	—	100,255	34,770	16,495
Series 2010A	Pool Loan	7/8/2010	2/1/2020	25,075	—	20,160	4,915	2,395
Series 2012A	Pool Loan	6/13/2012	8/1/2032	46,840	—	500	46,340	2,485
Series 2014	Pool Loan	6/12/2014	8/1/2028	481,985	—	46,675	435,310	31,445
Series 2017	MTA	4/13/2017	8/1/2029	96,280	—	—	96,280	—
Subtotal				2,968,400	—	349,055	2,619,345	230,280
Add unamortized bond premiums				347,809		34,476	313,333	
Total bonds payable				$ 3,316,209	—	383,531	2,932,678	230,280

On June 13, 2018, the Trust used $122.7 million of its cash to defease its State Revolving Fund Refunding Bonds, Series 2009A and 2010A. On September 12, 2018, the Trust issued State Revolving Fund Bonds Series 21 (Green Bonds) in the amount of $163.5 million with a premium of $26.0 million. The Trust has designated the Series 21 bonds as “Green Bonds” based on the intended use of the bond proceeds for the financing of projects that adhere to the federal Clean Water Act and Safe Drinking Water Act, as determined by the EPA. Series 21 Bond proceeds were applied to fund $119.3 million in loans for wastewater projects under the clean water SRF and $70.2 million in 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 21 bonds, the Trust pledged $85.7 million of direct loans for projects under the clean water SRF and $27.9 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 21 bonds.

(Dollars in thousands, unless noted)

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

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

(Dollars in thousands, unless noted)

$167.5 million in loans for wastewater projects under the clean water SRF and $72.1 million in 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. 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.

At June 30, 2018, debt service requirements to maturity for principal and interest are as follows:

		Total debt service	Principal	Interest
Year ending June 30:				
2019	$	353,854	230,280	123,574
2020		338,599	226,295	112,304
2021		305,279	203,835	101,444
2022		276,701	185,150	91,551
2023		276,613	194,450	82,163
2024–2028		1,066,858	780,365	286,493
2029–2033		625,600	491,280	134,320
2034–2038		257,311	210,565	46,746
2039–2043		89,965	76,350	13,615
2044–2048		22,876	20,775	2,101
Total debt service requirements	$	3,613,656	2,619,345	994,311

(Dollars in thousands, unless noted)

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, 2018 are as follows:

Description	Redemption date	Final escrow payment date	Outstanding principal amount 2018	2017
MWRA Series 1998A	11/3/1999	8/1/2018	$ 8,415	16,720
Pool 13	6/12/2014	8/1/2018	13,950	27,920
Pool 14	6/12/2014	8/1/2019	137,595	137,595
Pool 15	4/13/2017	8/1/2020	18,320	18,320
Pool 16	4/13/2017	8/1/2020	54,285	54,285
Series 2012 refunding	4/13/2017	8/1/2022	29,660	29,660
Series 2009A refunding	6/13/2018	8/1/2019	99,695	—
Series 2010A refunding	6/13/2018	2/1/2020	17,875	—

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):

	2018	2017
Beginning balance	$ 85,050	94,449
Additions	—	691
Reductions	(18,335)	(10,090)
Ending balance	$ 66,715	85,050

(9) Net Position

As of June 30, 2018, and 2017, the Trust has a restricted net position in the amount of $1,964,713 and $1,906,475, respectively, and an unrestricted net position in the amount of $481,425 and $470,076, 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.

(Dollars in thousands, unless noted)

(10) Commitment

As of June 30, 2018, and 2017, the Trust has agreed to provide loans to various local government units amounting to approximately $253,049 and $135,585, 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:

	2022 Termination	2023 Termination
Trade date	November 21, 2006	November 21, 2006
Effective date	December 14, 2006	December 14, 2006
Termination date	August 1, 2022	August 1, 2023

(Dollars in thousands, unless noted)

		2022 Termination	2023 Termination
Notional amount	$	30,650	46,605
Fair value at June 30, 2018		(651)	(1,190)
Fair value at June 30, 2017		(1,311)	(2,293)
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, 2018 and 2017, which means on the August 1, 2018 debt service payment date the Trust will make a payment to the swap counterparty. At June 30, 2018 and 2017, 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, 2018 and 2017, 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.

(Dollars in thousands, unless noted)

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, 2018, the variable rate was calculated using the May 31, 2018 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.

		Variable rate bonds[1]		Net swap	Total
		Principal	Interest	payments[2]	debt service
Fiscal year ending June 30:					
2019	$	—	2,905	102	3,007
2020		—	2,905	102	3,007
2021		—	2,905	102	3,007
2022		—	2,905	102	3,007
2023		30,650	2,328	84	33,062
2024		46,605	876	33	47,514

[1] Calculated rate uses May 31, 2018 Muni-CPI rate to reflect debt service payment for August 1, 2018.

[2] A positive net swap payment requires a payment from the Trust to the counterparty.

(Dollars in thousands, unless noted)

(12) Deferred Outflows of Resources

The following is a summary of deferred outflows of resources at June 30, 2018 and 2017:

		2018	2017
Deferred outflows of resources:			
Derivative instruments (note 11)	$	1,841	3,604
Excess of reacquisition price over net carrying value of defeased bonds (note 8)		66,715	85,050
	$	68,556	88,654

(13) Subsequent Events

On September 12, 2018, the Trust issued State Revolving Fund Bonds Series 21 (Green Bonds) in the amount of $163.5 million with a premium of $26.1 million. The Trust has designated the Series 21 bonds as “Green Bonds” based on the intended use of the bond proceeds for the financing of projects that adhere to the federal Clean Water Act and Safe Drinking Water Act, as determined by the EPA. Series 21 Bond proceeds were applied to fund $119.3 million in loans for wastewater projects under the clean water SRF and $70.2 million in 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 21 bonds, the Trust pledged $85.7 million of direct loans for projects under the clean water SRF and $27.9 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 21 bonds.