

Report of

# Boston Groundwater Trust

June 30, 2018



# Boston Groundwater Trust

229 Berkeley St, Fourth Floor, Boston, MA 02116  
617.859.8439 voice  
[www.bostongroundwater.org](http://www.bostongroundwater.org)

November 28, 2018

## Board of Trustees

Gary L. Saunders  
Tim Ian Mitchell  
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## Executive Director

Christian Simonelli

## **ANNUAL REPORT INTRODUCTION**

The Boston Groundwater Trust was established by the Boston City Council to monitor groundwater levels in sections of the City where the integrity of building foundations, especially those supported by wood pilings, is threatened by low groundwater levels and to make recommendations for solving the problem. In Fiscal Year 2018 (7/1/17 through 6/30/18), we continued to make headway on these efforts.

The Trust, for the first time ever, released a three-part series of informational videos about the organization and the groundwater issue in Boston. The videos provide a brief overview of the how Boston became the City that it is today, an insight to the overall activities of the Trust, how groundwater levels are monitored and managed, and the process of identifying and (if required) repairing wood piles that have become compromised. The videos were awarded the prestigious Golden Telly Award in May, 2018 and can be found on the homepage of [www.bostongroundwater.org](http://www.bostongroundwater.org).

Continuing our public outreach and awareness efforts about the groundwater issue the Trust continued their partnership with Project Team LightWell, a 2014 winner of the Mayor's Office of New Urban Mechanics Public Space Invitational, on a groundwater data crowd sourcing project. Since 2017 this project has used interactive well caps to leverage groundwater level data. Ten custom-designed, Bluetooth-enabled, translucent-Corian well caps temporarily replaced existing Groundwater Trust observation well caps and during 2018 were on display along a seven-block stretch of Boylston Street from Arlington-Hereford Street. The technology allows residents and visitors to see real-time groundwater level data digitally displayed on the face of the well caps and interact with the data through the Boston LightWells mobile app. The program will relaunch in the spring of 2019. Project information can be found at [www.bostongroundwater.org/project-lightwell.html](http://www.bostongroundwater.org/project-lightwell.html).

Additional public outreach and awareness efforts were undertaken as the Trust presented the groundwater issue to several residents, city departments and agencies, neighborhood groups, law firms, and real estate brokerages throughout the past year.

The Trust's primary responsibility is to maintain our approximately 800 observation well network, to measure groundwater elevations 6-8 times annually and to distribute the data to the public. Our principal means of communication is our website, [www.bostongroundwater.org](http://www.bostongroundwater.org). Traffic on the Trust's website again reached all-time highs this past year. Unique visits per day increased to approximately 120 visits per day from approximately 80 unique visits per day. The site includes our interactive map with current and historic data on all of our observation wells, as well as updated organization documents, executive director reports, project comment letters, news stories about groundwater issues, building piling cutoff information, and Groundwater Conservation Overlay District information. Well readings are posted as soon as they are available and we continue to read the well network 6-8 times per year.

The Trust is an active participant in the quarterly meetings of the City-State Groundwater Working Group which includes all of the public bodies that have significant underground infrastructure in areas where many buildings are supported on wood pilings. All Working Group meetings open with a review and analysis of the latest observation well readings throughout the areas of concern in the City. Participation continues to be excellent, with all agencies responding to the Trusts requests for information and investigations into areas where we have low groundwater levels.

The Trust's work at addressing the groundwater problem can only be effective with the cooperation of many others. In addition to the Trust's partners on the Working Group, the Boston Planning and Development Agency has made the evaluation of groundwater impacts a requirement of the Article 80 development review process for all projects. During the year, the Trust formally commented on 10 project submittals.

The Inspectional Services Department (ISD) and the Zoning Board of Appeals continue to be diligent in assuring that all qualifying projects comply with the requirements of the Groundwater Conservation Overlay District. The Boston Water and Sewer Commission (BWSC) has been helpful in determining that the required recharge systems are properly sized and designed. To date over 600 recharge systems have been approved and installed through the GCOD process, directing rainfall into the ground rather than the sewer system. We have worked with ISD and other City agencies to streamline the GCOD process which has reduced project delays without losing the benefits gained through the process.

The success of the Trust's efforts would not be possible without the support of the Mayor, the City Council and the Department of Environment, Energy and Open Space. Once again in FY18, the Trust's request for operating funds was approved by the City and the Trust also received an annual grant from the BWSC. The Trust's operations for the year were once again conducted within its annual budget.

The Trust's success is also predicated on the efforts of our 13 Trustees, who serve without compensation. The Trustees meet bimonthly and review all operations of the Trust, setting policy and providing guidance for the Executive Director. Also critical to the Trust's success are the nine volunteer members of the Technical Advisory Committee, all local engineers and scientists who are identified on our website. The committee meets regularly to help the Trust interpret the results of its well readings and develop strategies for addressing problems.

While important strides have been made in addressing groundwater problems, it is important to remember that the wood piling supported structures that represent so much of Boston's history will always be vulnerable to lowered groundwater levels. All of us who are concerned about Boston must continue to monitor levels, repair leaking infrastructure, assure that new projects do not cause drawdowns, advocate for porous pavements, and recharge rainwater into the ground so that these buildings, located in the filled land of Boston's neighborhoods, can continue to protect the economic viability of a substantial tax base asset and also help to preserve the historic character of this magnificent city.

Cordially Yours,

A handwritten signature in cursive script that reads "Christian S. Simonelli".

Christian Simonelli  
Executive Director

**Boston Groundwater Trust Financial Statement 06-30-2018**

**Independent Accountant's Review Report**

To the Board of Trustees of  
The Boston Groundwater Trust  
Boston, Massachusetts

We have reviewed the accompanying financial statements of Boston Groundwater Trust (a nonprofit organization), which comprise the statements of financial position as of June 30, 2018 and 2017, and the related statements of activities and cash flows for the years then ended, and the related notes to the financial statements. A review includes primarily applying analytical procedures to management's financial data and making inquiries of management. A review is substantially less in scope than an audit, the objective of which is the expression of an opinion regarding the financial statements as a whole. Accordingly, we do not express such an opinion.

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

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; 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.

**Accountant's Responsibility**

Our responsibility is to conduct the review engagements in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. Those standards require us to perform procedures to obtain limited assurance as a basis for reporting whether we are aware of any material modifications that should be made to the financial statements for them to be in accordance with accounting principles generally accepted in the United States of America. We believe that the results of our procedures provide a reasonable basis for our conclusion.

**Accountant's Conclusion**

Based on our review, we are not aware of any material modifications that should be made to the accompanying financial statements in order for them to be in accordance with accounting principles generally accepted in the United States of America.

Respectfully submitted,



Raphael and Raphael LLP  
Certified Public Accountants

Boston, Massachusetts  
November 14, 2018

BOSTON GROUNDWATER TRUST

Statements of Financial Position

As of June 30, 2018 and 2017

SEE INDEPENDENT ACCOUNTANT'S REVIEW REPORT

ASSETS	<u>2018</u>	<u>2017</u>
CURRENT ASSETS:		
Cash and Cash Equivalents	\$ 224,219	\$ 184,334
Investments - Maturing in Less Than a Year	40,352	125,092
Interest Receivable	2,747	3,438
TOTAL CURRENT ASSETS	<u>267,318</u>	<u>312,864</u>
LONG TERM ASSETS:		
Investments - Maturing in More Than a Year	<u>507,724</u>	<u>479,858</u>
PROPERTY AND EQUIPMENT:		
Equipment	43,928	42,431
Less - Accumulated Depreciation	(14,689)	(6,053)
NET PROPERTY AND EQUIPEMENT	<u>29,239</u>	<u>36,378</u>
TOTAL ASSETS	<u>\$ 804,281</u>	<u>\$ 829,100</u>
LIABILITIES AND NET ASSETS		
CURRENT LIABILITIES:		
Accrued Expenses	\$ 4,221	\$ 29,740
NET ASSETS:		
Unrestricted	<u>800,060</u>	<u>799,360</u>
TOTAL LIABILITIES AND NET ASSETS	<u>\$ 804,281</u>	<u>\$ 829,100</u>

The accompanying notes are an integral part of the financial statements.

BOSTON GROUNDWATER TRUST

Statements of Activities

For the Years Ended June 30, 2018 and 2017

SEE INDEPENDENT ACCOUNTANT'S REVIEW REPORT

	<u>2018</u>	<u>2017</u>
REVENUE:		
Grants and Contracts	\$ 194,373	\$ 204,373
Interest Income	13,168	6,361
TOTAL REVENUE	<u>207,541</u>	<u>210,734</u>
EXPENSES:		
PROGRAM EXPENSES:		
Well Installation	-	25,843
Salary	8,495	9,047
Payroll Taxes	668	701
Insurance	8,365	8,316
Groundwater Monitoring	9,174	1,487
Public Awareness Project Expense	-	1,099
Technical Research Project Expense	27,850	-
Website Expense	326	446
Depreciation	8,636	5,826
TOTAL PROGRAM EXPENSES	<u>63,514</u>	<u>52,765</u>
MANAGEMENT AND GENERAL EXPENSES:		
Salary	92,159	88,183
Rent and Utilities	13,937	13,814
Payroll Taxes	6,994	6,528
Professional Services	6,000	6,000
Employee Benefits	4,150	4,019
Miscellaneous Expense	7,277	5,695
TOTAL MANAGEMENT AND GENERAL EXPENSES	<u>130,517</u>	<u>124,239</u>
TOTAL EXPENSES	<u>194,031</u>	<u>177,004</u>
INCREASE IN NET ASSETS BEFORE OTHER INCOME	13,510	33,730
OTHER INCOME (LOSS)		
Loss on Sale of Investments	<u>(210)</u>	<u>-</u>
INCREASE IN NET ASSETS BEFORE CHANGE IN UNREALIZED GAIN (LOSS) ON INVESTMENTS	13,300	33,730
CHANGE IN UNREALIZED GAIN (LOSS) ON INVESTMENTS	<u>(12,600)</u>	<u>(5,624)</u>
INCREASE IN NET ASSETS	700	28,106
NET ASSETS, BEGINNING OF YEAR	<u>799,360</u>	<u>771,254</u>
NET ASSETS, END OF YEAR	<u>\$ 800,060</u>	<u>\$ 799,360</u>

The accompanying notes are an integral part of the financial statements.



BOSTON GROUNDWATER TRUST

Statements of Cash Flows  
For the Years Ended June 30, 2018 and 2017  
SEE INDEPENDENT ACCOUNTANT'S REVIEW REPORT

	<u>2018</u>	<u>2017</u>
CASH FLOWS FROM OPERATING ACTIVITIES:		
Increase in Net Assets	\$ 700	\$ 28,106
Adjustments to Reconcile Increase in Net Assets To Net Cash Provided by Operating Activities:		
Depreciation Expense	8,636	5,826
Unrealized (Gains) Losses	12,600	5,624
Loss on Sale of Investments	210	-
Bond Premium Amortization	6,288	9,595
(Increase) Decrease in:		
Interest Receivable	694	4,757
Increase (Decrease) in:		
Accrued Expenses	(25,522)	26,258
Total Adjustments	<u>2,906</u>	<u>52,060</u>
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>3,606</u>	<u>80,166</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of Investments	(123,821)	(107,287)
Proceeds from Sale of Investment	37,597	-
Maturity of Certificates of Deposit and Bonds	124,000	118,000
Purchase of Property and Equipment	(1,497)	(15,202)
NET CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES:	<u>36,279</u>	<u>(4,489)</u>
ACTIVITIES		
NET INCREASE IN CASH AND CASH EQUIVALENTS	39,885	75,677
Cash and Cash Equivalents at Beginning of Year	<u>184,334</u>	<u>108,657</u>
Cash and Cash Equivalents at End of Year	<u>\$ 224,219</u>	<u>\$ 184,334</u>

The accompanying notes are an integral part of the financial statements.

## BOSTON GROUNDWATER TRUST

### Notes to Financial Statements

June 30, 2018 and 2017

### SEE INDEPENDENT ACCOUNTANT'S REVIEW REPORT

#### NOTE 1 - ORGANIZATION:

The Boston Groundwater Trust (the "Trust") was established as a trust in Massachusetts on July 18, 1986 under the custodianship of the City of Boston. The Trust's mission is to serve the public interest by re-establishing and maintaining a system for monitoring groundwater levels in parts of the City of Boston. It achieves this by engaging engineers, contractors and other professionals to reactivate existing wells and install new observation wells in addition to collecting, managing, publishing and analyzing data derived from old and new observation wells.

#### NOTE 2 - SIGNIFICANT ACCOUNTING POLICIES:

##### Basis of Accounting

The financial statements of the Trust are prepared on the accrual basis of accounting, under which revenues are recognized when earned and expenses are recognized when incurred. This is different from the cash basis of accounting, under which revenues are recognized when cash is received and expenses are recognized when cash is disbursed.

##### Basis of Presentation

Financial statement presentation follows the recommendations of the Financial Accounting Standards Board Accounting Standards Codification (FASB ASC) Topic 958, *Not-For-Profit Entities*. Under FASB ASC Topic 958, the Trust is required to report information regarding its financial position and activities according to three classes of net assets: unrestricted net assets, temporarily restricted net assets, and permanently restricted net assets.

##### Cash and Cash Equivalents

Cash and cash equivalents are held in banks and money market mutual funds, and consist of highly liquid investments with a maturity when purchased of three months or less.

On March 26, 2009, the Trustees voted to create an unrestricted reserve fund for the following uses: groundwater research; network upgrading; and a contingency for technical assistance.

##### Investments

The Trust adopted SFAS No. 124, "Accounting for Certain Investments Held by Not-for-Profit Organizations." Under SFAS No. 124, investments in marketable securities with readily determinable fair values and all investments in debt securities are valued at their fair values in the statement of financial position. Unrealized gains and losses are included in the change of net assets.

BOSTON GROUNDWATER TRUST

Notes to Financial Statements

June 30, 2018 and 2017

SEE INDEPENDENT ACCOUNTANT'S REVIEW REPORT

NOTE 2 - SIGNIFICANT ACCOUNTING POLICIES - Continued:

Investments consist of investments in bonds and certificates of deposit and are reflected at fair market value. Generally, management relies on its custodian for securities valuations. Bond premiums and discounts are amortized over the maturity life of the bond.

Investment income and gains and losses on investments are reported as increases or decreases in unrestricted net assets unless a donor or law temporarily or permanently restricts their use. Investment income and gains restricted by a donor are reported as increases in unrestricted net assets if the restrictions are met (either by passage of time or by use) in the reporting period in which the income and gains are recognized.

Accrued Expenses

Accrued expenses include current period labor expenses paid after the balance sheet date.

Grants, Contracts and Deferred Revenue

The Boston Groundwater Trust receives substantially all grants and contract revenue from the City of Boston and its independent agencies, the U.S. government, and the Commonwealth of Massachusetts. The Trust records grant/contract revenue as deferred revenue until it is expended for the purpose of the grant/contract, at which time it is recognized as revenue.

Contributions

Contributions received are recorded as unrestricted, temporarily restricted, or permanently restricted support, depending on the existence and/or nature of any donor restrictions. Contributions that are restricted by the donor are reported as increases in unrestricted net assets if the restrictions expire in the fiscal year in which the contributions are recognized. All other donor-restricted contributions are reported as increases in temporarily or permanently restricted net assets depending on the nature of the restrictions. When a restriction expires, temporarily restricted net assets are reclassified to unrestricted net assets.

Contributed Services and Facilities

The thirteen Trustees of The Boston Groundwater Trust contribute their services to assist in maintaining the various programs of the Trust.

BOSTON GROUNDWATER TRUST

Notes to Financial Statements

June 30, 2018 and 2017

SEE INDEPENDENT ACCOUNTANT'S REVIEW REPORT

NOTE 2 - SIGNIFICANT ACCOUNTING POLICIES - Continued:

Property and Equipment

Property and equipment is valued at cost and is being depreciated over 5 years on the straight line method. Maintenance and repairs are charged to expense when incurred. Upon retirement or disposition, the cost and related accumulated depreciation are removed from the accounts and any resulting gain or loss is reflected in operations.

Income Taxes

The Trust is a not-for-profit organization that is exempt from income taxes under section 501(c)3 of the Internal Revenue Code. The Trust's tax returns generally remain subject to examination for three years after filing.

Use of Estimates

Management uses estimates and assumptions in preparing financial statements. Those estimates and assumptions affect the reported amounts of assets and liabilities, the disclosure of contingent liabilities, and the reported revenues, gains, support, expenses and losses. Actual results could differ from those estimates.

Compensated Absences

Employees of the Trust are entitled to paid vacations, sick days, and other time off depending on job classification, length of service, and other factors. Unused paid time off does not carry over from year to year; therefore, no liability has been recorded in the accompanying financial statements. The Trust's policy is to recognize the cost of compensated absences when paid to employees.

Subsequent Events

Subsequent events are events or transactions that occur after the balance sheet date but that could affect the amounts or disclosures in the financial statements. Management has evaluated subsequent events through the date that the financial statements are available to be issued, which is the date noted at the bottom of the auditor's report.

BOSTON GROUNDWATER TRUST

Notes to Financial Statements

June 30, 2018 and 2017

SEE INDEPENDENT ACCOUNTANT'S REVIEW REPORT

NOTE 3 – INVESTMENTS:

For the years ended June 30, 2018 and 2017, management has classified all of the securities held by the Trust as held-to-maturity. In 2018 and 2017 the Trust had unrealized losses of 12,600 and 5,624, respectively.

The marketable securities portfolio is comprised of the following:

	June 30,			
	2018		2017	
	<u>Cost</u>	<u>Value</u>	<u>Cost</u>	<u>Value</u>
Bonds	\$ 499,565	\$ 488,723	\$ 499,838	\$ 500,247
CDs	60,000	59,353	104,000	104,703
	<u>\$ 559,565</u>	<u>\$ 548,076</u>	<u>\$ 603,838</u>	<u>\$ 604,950</u>

The maturities of the investments in bonds and CDs for each of the next five years and thereafter are as follows:

<u>Year Ending June 30,</u>	<u>Bonds</u>	<u>CDs</u>	<u>Total</u>
2019	\$ 40,352	\$ -	\$ 40,352
2020	106,732	39,780	146,512
2021	119,512	-	119,512
2022	19,699	19,573	39,272
2023	141,127	-	141,127
Thereafter	61,301	-	61,301
Total	<u>\$ 488,723</u>	<u>\$ 59,353</u>	<u>\$ 548,076</u>

NOTE 4 - FAIR VALUE MEASUREMENTS:

The Trust uses a three-level hierarchy for disclosure of fair value measurements. The valuation hierarchy is based upon the reliability of inputs to the valuation of the Trust's investments. The three levels are defined as follows:

Level 1 - Valuations based on quoted prices for identical securities in active markets

Level 2 - Prices determined using other significant observable inputs

Level 3 - Valuations based on inputs that are unobservable and significant

BOSTON GROUNDWATER TRUST

Notes to Financial Statements

June 30, 2018 and 2017

SEE INDEPENDENT ACCOUNTANT'S REVIEW REPORT

NOTE 4 - FAIR VALUE MEASUREMENTS - Continued:

The following is a summary of the inputs used as of June 30, 2018 in valuing the Trust's investments:

<u>Asset Valuation Inputs</u>	<u>Trading Securities</u>
Level 1 - Quoted Prices	\$ 548,076
Level 2 - Other Significant Observable Inputs	
Level 3 - Significant Unobservable Inputs	

The following is a summary of the inputs used as of June 30, 2017 in valuing the Trust's investments:

<u>Asset Valuation Inputs</u>	<u>Trading Securities</u>
Level 1 - Quoted Prices	\$ 604,950
Level 2 - Other Significant Observable Inputs	
Level 3 - Significant Unobservable Inputs	

The Trust relies on its custodian for valuations of its trading securities.

NOTE 5 - SUMMARY OF GRANTS/CONTRACTS FUNDING:

The Boston Groundwater Trust was primarily funded through the following grants and contracts for the year ended June 30, 2018:

Funding Source	Grant Contract Period	Total Grant/ Contract	Recognized Support
<hr/>			
City of Boston:			
The Environmental Department	6/30/17-6/30/18	\$169,373	\$169,373
City of Boston Independent Agencies:			
Boston Water and Sewer Commission		25,000	25,000
		<hr/>	<hr/>
Total Grants and Contracts		<u>\$194,373</u>	<u>\$194,373</u>

BOSTON GROUNDWATER TRUST

Notes to Financial Statements

June 30, 2018 and 2017

SEE INDEPENDENT ACCOUNTANT'S REVIEW REPORT

NOTE 5 - SUMMARY OF GRANTS/CONTRACTS FUNDING - Continued:

The Boston Groundwater Trust was primarily funded through the following grants and contracts for the year ended June 30, 2017:

Funding Source	Grant Period	Contract	Total Grant/Contract	Recognized Support
<hr/>				
City of Boston:				
The Environmental Department	6/30/16-6/30/17		\$169,373	\$169,373
City of Boston Independent Agencies:				
Boston Water and Sewer Commission			25,000	25,000
Boston Planning and Development Agency			10,000	10,000
			<hr/>	<hr/>
Total Grants and Contracts			<u>\$204,373</u>	<u>\$204,373</u>

NOTE 6 - CONCENTRATION OF CREDIT RISK:

The Boston Groundwater Trust receives substantially all grants and contract revenue from The City of Boston and its independent agencies, the U.S. government, and the Commonwealth of Massachusetts.

NOTE 7 - RETIREMENT PLAN:

The Trust has a discretionary retirement plan under Section 408(k) of the Internal Revenue Code. Under the plan and at its discretion, the Trust has contributed 5% of gross earnings to eligible employees who are at least twenty-one years old and have completed at least 3 years of service in the preceding five years. Employees are 100% vested upon participation. The Trust's contributions to the plan were \$4,150 and \$4,019 for the years ended June 30, 2018 and 2017, respectively.

NOTE 8 - LEASES:

The Trust sub-leases its facilities from the Back Bay Association. The operating lease was effective June 1, 2010, and is automatically renewable if not canceled. The lease is cancelable at any time by either party on one month's notice with no penalty.

Rent expense paid by the Trust was \$13,937 and \$13,588 for the years ended June 30, 2018 and 2017, respectively.