Barnstable County

Retirement System
Audit Report
January 1, 2014 - December 31, 2018

PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION
COMMONWEALTH OF MASSACHUSETTS

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PERAC

COMMONWEALTH OF MASSACHUSETTS | PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION

PHILIP Y. BROWN, ESQ., *Chairman* JOHN W. PARSONS, ESQ., *Executive Director*

Auditor SUZANNE M. BUMP | KATHLEEN M. FALLON | KATE FITZPATRICK | JAMES M. MACHADO | RICHARD MacKINNON, Jr. | JENNIFER F. SULLIVAN

March 1, 2021

The Public Employee Retirement Administration Commission (PERAC) has completed a review of the audits of the Barnstable County Retirement System conducted by the firm of Powers & Sullivan, LLC, Certified Public Accountants. Powers & Sullivan conducted these audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits in *Government Auditing Standards*, issued by the Comptroller General of the United States. The audits covered the period from January 1, 2014 to December 31, 2018.

We conducted an inspection of the work papers prepared by Powers & Sullivan. We determined that the audits were conducted in a competent professional manner and the work papers demonstrated that audit tests and procedures were performed in sufficient detail to allow us to accept the final audit reports as issued.

We identified specific differences between these financial audits designed to provide an opinion on financial statements and our compliance audits performed in accordance with the accounting and management standards established by PERAC in regulation 840 CMR 25.00 and in compliance with the provisions specified in PERAC Memo #18/2019.

Accordingly, we supplemented the field work conducted in the audits by Powers & Sullivan with certain limited procedures designed to provide additional assurance that the accounting and management standards established by PERAC were adhered to and complied with. The specific objectives of our review were to determine: 1) that the Board is exercising appropriate fiduciary oversight, 2) that cash and investment balances are accurately stated, 3) that travel expenses were properly documented and accounted for, 4) that retirement contributions are accurately deducted, 5) that retirement allowances were correctly calculated, and 6) that required member documentation is maintained.

To achieve these objectives, we inspected certain records of the Barnstable County Retirement System in the above areas. Specifically, we reviewed the minutes of the Board meetings for compliance with fiduciary oversight, and verified cash and investment balances. We tested a sample of travel expenses for Board approvals, supporting documentation and proper accounting. We tested the payroll records of a sample of active members to confirm that the correct percentage of regular compensation is being deducted, including the additional two percent over $30,000. We

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tested a sample of members who retired during our audit period to verify that their retirement allowance was calculated in accordance with the statute. We also reviewed a sample of member files for accuracy and completeness.

In our opinion, the financial records are being maintained and the management functions are being performed in conformity with the standards established by PERAC with the exception related to our supplemental work which is detailed in the finding presented in this report.

It should be noted that the financial statements included in this audit report were based on the work performed by Powers & Sullivan and the tests conducted for the periods referenced in their opinions. These audits were not performed by employees or representatives of PERAC. It should also be noted that the opinions expressed in these audit reports were based on the laws and regulations in effect at the time.

The financial statements and footnotes presented in this report were limited to the express results as of and for the years ended December 31, 2018, December 31, 2017, December 31, 2016, December 31, 2015, and December 31, 2014.

In closing, I wish to acknowledge the work of Powers & Sullivan, who conducted these examinations, and PERAC examiners, Michelle Lastra, George Nsia, and Richard Wrona, who conducted limited procedures to supplement the field work, and express my appreciation to the Barnstable County Retirement Board and staff for their courtesy and cooperation.

Sincerely,

John W. Parsons, Esq.
Executive Director

EXPLANATION OF FINDING AND RECOMMENDATION

Vacation Payouts at Retirement:
Three of the sampled retirees had lump sum vacation payments included in their 3-year average salaries. The Board was using these payments to bridge the gap between the final day worked and the retirement date. For example, if a member's last day worked was October 1st and they received a lump sum payment for 5 weeks of vacation time, then the retirement date would be November 5th. These members were also receiving creditable service for the time represented by the lump sum.

These payments are not regular compensation pursuant to 840 CMR 15.03 (3): "'wages' shall not include … 1-time lump sum payments in lieu of or for unused vacation …" Since these members are not receiving regular compensation, they cannot earn creditable service during this period either.

If the member wants to be able to include the remaining vacation time in the 3-year average then they must remain on the payroll and be paid on their normal weekly/bi-weekly schedule until the time owed is used. If this is done then creditable service would be granted too.

Recommendation: Units must be instructed to stop taking retirement contributions out of lump sum vacation payments at the end of members' careers. The Board must stop using these payments in the calculation of average salaries and crediting this time as service.

Board Response:
This issue was resolved in July 2019 by abandoning the longstanding practice of extending the retirement date of members who received vacation time payments upon retirement. At that time, all units were advised to cease withholding retirement deductions from unused and/or accrued vacation time. Any deductions withheld from these pay types in error since are promptly refunded and not used as regular compensation in retirement calculations.

FINAL DETERMINATION:
PERAC Audit staff will follow up in six (6) months to ensure appropriate actions have been taken regarding all findings.

SUPPLEMENTARY INFORMATION

SCHEDULE OF ALLOCATION OF INVESTMENTS OWNED

(percentages by category)

	AS OF DECEMBER 31, 2018	
	MARKET VALUE	PERCENTAGE OF TOTAL ASSETS
Cash	$1,382,733	0.1%
Pooled Real Estate Funds	1,093,400	0.1%
PRIT Cash Fund	831,536	0.1%
PRIT Core Fund	1,069,334,612	99.7%
Grand Total	$1,072,642,281	100.0%

For the year ending December 31, 2018, the rate of return for the investments of the Barnstable County Retirement System was -1.81%. For the five-year period ending December 31, 2018, the rate of return for the investments of the Barnstable County Retirement System averaged 6.50%. For the 34-year period ending December 31, 2018, since PERAC began evaluating the returns of the retirement systems, the rate of return on the investments of the Barnstable County Retirement System was 7.42%.

The composite rate of return for all retirement systems for the year ending December 31, 2018 was -2.25%. For the five-year period ending December 31, 2018, the composite rate of return for the investments of all retirement systems averaged 6.22%. For the 34-year period ending December 31, 2018, since PERAC began evaluating the returns of the retirement systems, the composite rate of return on the investments of all retirement systems averaged 9.00%.

SUPPLEMENTARY INFORMATION (Continued)

ADMINISTRATION OF THE SYSTEM

The System is administered by a five-person Board of Retirement consisting of two members appointed by the governing authority, a third and fourth member who shall be elected by the members in or retired from the service of such system, and a fifth member appointed by the Advisory Council.

Appointed Member:	Robert Lawton, Chairman		
Appointed Member:	Ronald Bergstrom	Term Expires:	1/6/22
Elected Member:	Robert F. Rolanti	Term Expires:	1/6/23
Elected Member:	Harold S. Brunelle	Term Expires:	1/6/21
Appointed Member:	TK Menesale	Serves until a successor is appointed	

The Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the system. The board must annually file a financial statement of condition for the system with the Executive Director of PERAC.

The investment of the system's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the system has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by two persons designated by the Board.

Retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts. Fidelity insurance is the only required policy coverage under Ch. 32 §21 and §23 as well as 840 CMR 17.01. The policy is designed to cover specific intentional acts such as theft, fraud or embezzlement and also specify who commits such acts, most commonly employees of the system. This coverage reimburses the system for the losses it suffers as a result of its employees' actions. It does not insure the employees for their illegal acts. Statutorily required coverage is provided by the current fidelity insurance policy to a limit of $1,000,000 with a $10,000 deductible issued through Travelers Casualty and Surety Company. The system also has Fiduciary coverage to a limit of $50,000,000 under a blanket policy issued through the Massachusetts Association of Contributory Retirement Systems.

BOARD REGULATIONS

The Barnstable Retirement Board has adopted Supplemental Regulations which are available on the PERAC website at https://www.mass.gov/barnstable-county-retirement-board-regulations.

SUPPLEMENTARY INFORMATION (Continued)

ACTUARIAL VALUATION AND ASSUMPTIONS

The most recent actuarial valuation of the System was prepared by the Segal Group, Inc. as of January 1, 2020.

The actuarial liability for active members was	$876,734,111
The actuarial liability for inactive members was	25,004,875
The actuarial liability for retired members was	1,093,208,896
The total actuarial liability was	$1,994,947,882
System assets as of that date were (actuarial value)	1,212,111,231
The unfunded actuarial liability was	$782,836,651
The ratio of system's assets to total actuarial liability was	60.8%
As of that date the total covered employee payroll was	$293,746,441

The normal cost for employees on that date was 10.3% of payroll
The normal cost for the employer (including expenses) was 6.4% of payroll

The principal actuarial assumptions used in the valuation are as follows:

Investment Return: 7.15% per annum
Rate of Salary Increase: Varies by group and service

SCHEDULE OF FUNDING PROGRESS AS OF JANUARY 1, 2020

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Cov. Payroll ((b-a)/c)
1/1/2020	$1,212,111,231	$1,994,947,882	$782,836,651	60.8%	$293,746,441	266.5%
1/1/2018	$1,061,514,465	$1,783,937,286	$722,422,821	59.5%	$271,510,348	266.1%
1/1/2016	$910,455,464	$1,563,442,019	$652,986,555	58.2%	$258,172,567	252.9%
1/1/2014	$776,973,700	$1,353,810,101	$576,836,401	57.4%	$253,920,106	227.2%
1/1/2012	$651,063,981	$1,173,483,848	$522,419,867	55.5%	$239,437,303	218.2%

For valuations as of 1/1/2016 and later, the covered payroll was set equal to the total payroll.

SUPPLEMENTARY INFORMATION (Continued)

MEMBERSHIP EXHIBIT

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Retirement in Past Years										
Superannuation	100	137	128	135	139	148	192	159	141	199
Ordinary Disability	3	2	0	2	1	3	2	1	2	6
Accidental Disability	15	10	16	8	15	13	10	13	5	7
Total Retirements	118	149	144	145	155	164	204	173	148	212
Total Retirees, Beneficiaries and Survivors	2,481	2,495	2,648	2,708	2,787	2,891	3,035	3,099	3,122	3,254
Total Active Members	5,195	4,812	4,710	4,744	4,766	4,709	4,718	4,875	4,644	4,762
Pension Payments										
Superannuation	$27,398,326	$29,997,228	$32,879,167	$35,186,853	$37,618,932	$40,556,776	$44,014,168	$47,819,695	$51,797,759	$55,918,217
Survivor/Beneficiary Payments	1,548,989	1,692,407	1,820,226	2,057,144	2,224,297	2,383,170	2,515,430	2,671,530	2,835,800	3,100,767
Ordinary Disability	780,611	792,511	843,608	914,833	897,222	893,856	926,257	924,996	899,941	780,979
Accidental Disability	7,701,100	7,834,604	8,327,393	8,798,663	9,461,897	10,112,977	10,553,996	11,339,886	11,497,457	11,699,921
Other	1,956,935	2,308,699	2,241,304	2,307,689	2,502,823	2,636,111	2,820,889	2,928,901	3,619,239	4,385,615
Total Payments for Year	$39,385,961	$42,625,449	$46,111,698	$49,265,182	$52,705,171	$56,582,891	$60,830,740	$65,685,008	$70,650,196	$75,885,499

SUPPLEMENTARY INFORMATION (Continued)

LEASED PREMISES

The Barnstable County Retirement Board leases approximately 6,127 square feet of space for its offices located at 750 Attucks Lane, Hyannis, MA. They signed a ten-year lease which will expire December 31, 2028. The landlord is Renaissance Trust 2000, LLC.

The following schedule displays the minimum lease obligations on non-cancelable operating leases as of December 31, 2018:

For the year ending:	Annual Rent
2019	$ 134,794
2020	134,794
2021	134,794
2022	134,794
2023	134,794
2024	134,794
2025	147,048
2026	147,048
2027	147,048
2028	147,048
Total future minimum lease payments required	$1,396,956

Notes: The lease does provide a termination provision effective after the seventh year of the lease, with a termination penalty of one year's rent of $147,048.

In addition to lease payments, Barnstable County Retirement is obligated to pay common area maintenance fees. These total about $39,000 per year or about $6.30 per square foot. The amounts vary depending on actual costs incurred by the landlord.

BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2018

BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2018

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Financial Section

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Independent Auditor's Report

To the Honorable Barnstable County Retirement Board
Barnstable County Retirement Association
Barnstable, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of Barnstable County Retirement Association (BCRA) as of and for the year ended December 31, 2018, and the related notes to the financial statements, which collectively comprise the Barnstable County Retirement Association's financial statements as listed in the table of contents.

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.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit 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 auditor's 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 Barnstable County Retirement Association as of December 31, 2018, and the results of its operations and changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis; the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Returns be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the 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 financial statements, and other knowledge we obtained during our audit of the 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 August 27, 2019, on our consideration of the Barnstable County Retirement Association's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, 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 the 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 Barnstable County Retirement Association's internal control over financial reporting and compliance.

Restriction on Use

This report is intended solely for the information and use of the Barnstable County Retirement Association, the Public Employee Retirement Administration Commission and all member units and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

August 27, 2019

Management's Discussion and Analysis

As management of the Barnstable County Retirement Association, we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2018. The Association complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

The GASB is the authoritative standard setting body that provides guidance on how to prepare financial statements in conformity with generally accepted accounting principles (GAAP). Users of these financial statements rely on the GASB to establish consistent reporting standards for all governments in the United States. This consistent application is the only way users can assess the financial condition of a public retirement system compared to others.

Financial Highlights

- The Association's assets exceeded its liabilities at the close of the most recent year by $1.1 billion (net position).
- The Association's net position decreased by $28.5 million for the year ended December 31, 2018.
- Total investment loss was $20.3 million; investment expenses were $5.8 million; and net investment loss was $26.2 million.
- Total contributions were $95.6 million including $62.5 million from employers, $28.3 million from members, and $4.9 million from other transfers in and settlements.
- Retirement benefits, refunds and transfers to other systems amounted to $96.6 million.
- Administrative expenses were $1.4 million.
- The Total Pension Liability is $1.9 billion as of December 31, 2018 while the Net Pension Liability is $790.4 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 57.63%.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the Association's fiduciary financial statements. These fiduciary financial statements comprise of four components: 1) management's discussion and analysis, 2) fiduciary financial statements, 3) notes to the financial statements and 4) required supplementary information.

Fiduciary Financial Statements

The *statement of net position* presents information on all assets and deferred outflows less deferred inflows and liabilities with the difference reported as *net position*. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position is improving or deteriorating.

The *statement of changes in fiduciary net position* presents information showing how the Association's net position changed during the most recent year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, *regardless of the timing of related cash flows*. Thus, additions and deductions are reported in this statement for some items that will only result in cash flows in future periods.

Notes to the Financial Statements

The notes provide additional information that is essential to a full understanding of the data provided in the fiduciary financial statements.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Returns be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context.

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the Association's financial position. The Association's net position was $1.075 billion at the close of 2018.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year-end the Association's net position includes investments of $1.070 billion, cash and cash equivalents of $2.2 million and accounts receivable of $2.4 million.

In 2018, the Association's contributions were $95.6 million and net investment loss was $26.2 million while retirement benefit payments, refunds, transfers and administration expenses were $98.0 million, which resulted in a current decrease of $28.5 million. In 2017, the Association's contributions were $91.3 million and net investment income was $160.8 million while retirement benefit payments, refunds, transfers and administration expenses were $90.8 million, which resulted in a prior year increase of $161.3 million.

In 2018, the Association's current contributions of $95.6 million did not fully support deductions totaling $98.0 million, which resulted in a current deficiency of ($2.4) million. In 2017, the current contributions fully supported the current expenses.

The main difference of the change in net position between years was the change in net investment income between years. Net investment income was $160.8 million in 2017, however in 2018 the Association experienced net investment loss of $26.2 million. The annual money weighted rate of return was -2.34% and 17.17% in 2018 and 2017 respectively. Fluctuations in the Association's annual investment returns are expected.

The following tables present summarized financial information for the past two years:

	2018	2017
Assets:		
Cash and cash equivalents	$ 2,214,268	$ 2,459,946
Investments	1,070,428,012	1,097,123,904
Receivables	2,369,266	3,910,288
Total assets	1,075,011,546	1,103,494,138
Liabilities:		
Accounts payable	777	323
Net Position Restricted for Pension Benefits	$ 1,075,010,769	$ 1,103,493,815

	2018	2017
Additions:		
Contributions:		
Member contributions	$ 28,253,747	$ 27,339,086
Employer contributions	62,518,733	59,204,601
Other contributions	4,862,203	4,753,312
Total contributions	95,634,683	91,296,999
Net investment income (loss):		
Total investment income (loss)	(20,308,800)	166,164,987
Less, investment expenses	(5,842,481)	(5,352,824)
Net investment income (loss)	(26,151,281)	160,812,163
Total additions	69,483,402	252,109,162
Deductions:		
Administration	1,385,431	1,282,473
Retirement benefits, refunds and transfers	96,581,017	89,495,593
Total deductions	97,966,448	90,778,066
Net increase (decrease) in fiduciary net position	(28,483,046)	161,331,096
Fiduciary net position at beginning of year	1,103,493,815	942,162,719
Fiduciary net position at end of year	$ 1,075,010,769	$ 1,103,493,815

Requests for Information

This financial report is designed to provide a general overview of the Association's finances for all those with an interest in the Association's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Association's Board, 750 Attucks Lane, Hyannis, MA 02601.

STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2018

Assets		
Cash and cash equivalents	$	2,214,268
Investments:		
Investments in Pension Reserve Investment Trust		1,069,334,612
Pooled real estate funds		1,093,400
Total investments		1,070,428,012
Receivables, net of allowance for uncollectibles:		
Member deductions		2,369,266
Total Assets		1,075,011,546
Liabilities		
Accounts payable		777
Net Position Restricted for Pensions	$	1,075,010,769

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2018

Additions:		
Contributions:		
Employer pension appropriation	$	62,518,733
Member contributions		28,253,747
Transfers from other systems		1,427,259
3(8)c reimbursements from other systems		2,586,821
Workers compensation settlements		62,900
Federal grant reimbursements		150,861
State COLA reimbursements		493,910
Member makeup payments and redeposits		137,899
Interest not refunded		230
Other revenue		2,323
Total contributions		95,634,683
Net investment income (loss):		
Investment income (loss)		(20,308,800)
Less: investment expense		(5,842,481)
Net investment income (loss)		(26,151,281)
Total additions		69,483,402
Deductions:		
Administration		1,385,431
Benefits and refunds		91,853,586
Transfers to other systems		2,019,136
3(8)c reimbursements to other systems		2,708,295
Total deductions		97,966,448
Net increase (decrease) in fiduciary net position		(28,483,046)
Fiduciary net position at beginning of year		1,103,493,815
Fiduciary net position at end of year	$	1,075,010,769

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

The Barnstable County Retirement Association is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Barnstable County Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the Association is mandatory immediately upon the commencement of employment for all permanent employees working a minimum of 25 hours per week. The Association has 50 participating employers.

The Association is governed by a five member Board who establish the policies under which the Association operates. Board members also approve all of the Association's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the Association are managed by the Executive Director.

The legislative body for the Association is an Advisory Council consisting of treasurers of the member units. The Advisory Council meets semi-annually and is responsible for supervising and certifying the procedures involved in the election of members to the retirement board.

The Association is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (MGL). Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

Massachusetts contributory retirement system benefits are, with certain exceptions, uniform from system to system. The Plan provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are three classes of membership in the retirement Association; Group 1, Group 2, and Group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, Group 4 consists of police officers, firefighters, and other hazardous positions.

Any individual in Group 1 or Group 2 whose membership began before January 1, 1978, and who maintains an annuity savings fund account, is eligible to receive a superannuation retirement allowance at age 55 or later, regardless of how many years of credible service he or she has completed.

There are no minimum vesting requirements for individuals in Group 4.

Members in Groups 1 and 2, hired after January 1, 1978 and prior to April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 20 years of service or upon the completion of 10 years of service and upon reaching the age of 55.

Members in Groups 1 and 2, hired on or after April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 10 years of service and upon reaching the age of 60 (Group 1) or age 55 (Group 2).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The difference between the total retirement benefit and the annuity is the pension.

Active members contribute between 5 and 9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired on or after January 1, 1979, contribute an additional 2% of annual regular compensation in excess of $30,000. Deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the PERAC actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the Association and all costs are borne by the Association.

The pension portion of any retirement benefit is paid from the Pension Fund of the Association. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The Association adopted Section 22d of Chapter 32 in April of 1989. The Association's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2036.

Administrative expenses, which were previously appropriated from the governmental entities whose employees are members of the Association, are now paid from investment income.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service are entitled to request a refund of their accumulated total deductions.

Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements of the Barnstable County Retirement Association have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles.

BCRA is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition. Investments are carried at fair value.

The fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. The fair value of private equities are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Real estate assets are reported at fair value utilizing an income approach to valuation along with independent appraisals and estimates by management.

Fair Value Measurements

The Retirement Association reports required types of financial instruments in accordance with the fair value standards. These standards require an entity to maximize the use of observable inputs (such as quoted prices in active markets) and minimize the use of unobservable inputs (such as appraisals or valuation techniques) to determine fair value. Fair value standards also require the government to classify these financial instruments into a three-level hierarchy, based on the priority of inputs to the valuation technique or in accordance with net asset value practical expedient rules, which allow for either Level 2 or Level 3 depending on lock up and notice periods associated with the underlying funds.

Instruments measured and reported at fair value are classified and disclosed in one of the following categories:

Level 1 – Quoted prices are available in active markets for identical instruments as of the reporting date. Instruments, which are generally included in this category, include actively traded equity and debt securities, U.S. government obligations, and mutual funds with quoted market prices in active markets.

Level 2 – Pricing inputs are other than quoted in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies. Certain fixed income securities, primarily corporate bonds, are classified as Level 2 because fair values are estimated using pricing models, matrix pricing, or discounted cash flows.

Level 3 – Pricing inputs are unobservable for the instrument and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

In some instances the inputs used to measure fair value may fall into different levels of the fair value hierarchy and are based on the lowest level of input that is significant to the fair value measurement.

Market price is affected by a number of factors, including the type of instrument and the characteristics specific to the instrument. Instruments with readily available active quoted prices generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value. It is reasonably possible that change in values of these instruments will occur in the near term and that such changes could materially affect amounts reported in these financial statements. For more information on the fair value of the Retirement Association's financial instruments, see Note 4 – Cash and Investments.

Accounts Receivable

Accounts receivable consist of member deductions, pension fund appropriations, and federal grant reimbursements. These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents a consumption of fiduciary net position that applies to a future period(s) and so will not be recognized as an outflow of resources (deduction) until then. The BCRA did not have any items that qualify for reporting in this category.

In addition to liabilities, the statement of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflows of resources*, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (addition) until that time. The BCRA did not have any items that qualify for reporting in this category.

NOTE 3 – PLAN ADMINISTRATION

The Association is administered by a five-person Board of Retirement consisting of the County Finance Director/Treasurer, who shall be a member ex-officio, a second member appointed by the governing authority (the County Commission), a third and fourth member who shall be elected by the members in or retired from the service of such Association, and a fifth member appointed by the Advisory Council consisting of representatives from the member units.

Chairperson	Mary T. McIsaac	Term Expires:	Indefinite
Appointed Member	Ronald Bergstrom	Term Expires:	1/6/2020
Elected Member	Harold S. Brunelle	Term Expires:	1/6/2021
Elected Member	Robert F. Rolanti	Term Expires:	12/31/2019
Appointed Member	Judith C. Sprague	Term Expires:	Indefinite

Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the Association. The Board must annually file a financial statement of condition for the Association with the Executive Director of PERAC.

The investment of the Association's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC actuary performs verification prior to payment, unless the Association has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the Association must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.

The following retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

Treasurer-Custodian:	)	MACRS Blanket Policy
Ex-Officio Member:	)	$50,000,000 Fiduciary Liability
Elected Members:	)	$1,000,000 Fidelity (ERISA) Bond
Appointed Members:	)	St. Paul Travelers Insurance Company
Staff Employees:	)	National Union Fire Arch Insurance Company

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2018, the carrying amount of the Association's deposits totaled $2,214,268; this is comprised of $1,382,732 of cash deposited with banks along with $831,536 in the PRIT cash fund. Of the $1,382,732, the bank balance totaled $3,412,065, which was covered by Federal Depository Insurance. The $831,536 in the PRIT Cash Fund is uninsured and uncollateralized.

Investments

The Association's investments are as follows:

Investment Type		December 31, 2018
PRIT Pooled Funds……	$	1,069,334,612
Pooled Real Estate Funds……		1,093,400
Total Investments……	$	1,070,428,012

Approximately 99% of the Retirement Association's investments are in Pension Reserve Investment Trust (PRIT), which meets the criteria of an external investment pool. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Association does not have the ability to control any of the investment decisions relative to its funds in PRIT. PRIT investments are valued using the net asset value (NAV) method.

The remaining investments consist of real estate investments. The fair value of the investments in pooled real estate funds are categorized in Level 3 of the Fair Value Hierarchy as pricing inputs are unobservable and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

The Association's annual money-weighted rate of return on pension plan investments was -2.34%. The money–weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

NOTE 5 – MEMBERSHIP

The following table represents the Association's membership at December 31, 2018:

Retirees and beneficiaries currently receiving benefits	3,254
Inactive members	795
Active members	4,762
Total	8,811

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2018 were as follows:

Total pension liability	$ 1,865,385,410
The pension plan's fiduciary net position	(1,075,010,769)
The net pension liability	$ 790,374,641
The pension plan's fiduciary net position as a percentage of the total pension liability	57.63%

The total pension liability was determined by an actuarial valuation as of January 1, 2018, using the following actuarial assumptions, applied to all periods included in the measurement that was rolled back to December 31, 2018:

Valuation date	January 1, 2018
Actuarial cost method	Entry Age Normal Cost Method.
Amortization method	Appropriations increase at 5.28% per year
Remaining amortization period	17 years from July 1, 2018 for 2002 and 2003 Early Retirement Incentives, retiree sheriffs liability and remaining unfunded liability, and 4 years from July 1, 2018 for 2010 Early Retirement Incentive.
Asset valuation method	The net pension liability is calculated using the market value of assets. The Association also uses an actuarial value of assets that gradually reflects year-to-year changes in the market value of assets in determining contribution requirements.
Inflation rate	3.25%
Projected salary increases	Varies by length of service with ultimate rates of 4.00% for Group 1, 4.25% for Group 2 and 4.50% for Group 4.

Cost of living adjustments	3.0% of the first $18,000 of retirement income.
Rates of retirement	Varies based upon age for general employees, police and fire employees.
Rates of disability	For general employees, it was assumed that 55% of all disabilities are accidental disability. For police and fire employees, 90% of all disabilities are assumed to be accidental disability.
Mortality Rates:	
Pre-Retirement	The RP-2014 Blue Collar Employee Mortality Table projected generationally with Scale MP-2017.
Healthy Retiree	The RP-2014 Blue Collar Healthy Annuitant Mortality Table projected generationally with Scale MP-2017.
Disabled Retiree	The RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year and projected generationally with Scale MP-2017.
Investment rate of return/Discount rate.	7.375%, net of pension plan investment expense, including inflation.

Investment policy: The pension plan's policy in regard to the allocation of invested assets is established by PRIT. Plan assets are managed on a total return basis with a long-term objective of achieving a fully funded status for the benefits provided through the pension plan.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	21.00%	6.16%
International developed markets equity	13.00%	6.69%
International emerging markets equity	5.00%	9.47%
Core fixed income	15.00%	1.89%
High-yield fixed income	8.00%	4.00%
Real estate	10.00%	4.58%
Commodities	4.00%	4.77%
Hedge fund, GTAA, Risk parity	11.00%	3.68%
Private equity	13.00%	10.00%
	100.00%	

Discount rate: The discount rate used to measure the total pension liability was 7.375%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rate. For this purpose, only employer contributions that are intended to fund the service costs for future plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate: The following presents the net pension liability, calculated using the discount rate of 7.375%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.375%) or 1-percentage-point higher (8.375%) than the current rate:

	1% Decrease (6.375%)	Current Discount Rate (7.375%)	1% Increase (8.375%)
Barnstable County Retirement Association's net pension liability as of December 31, 2018……	$ 1,008,933,895	$ 790,374,641	$ 606,529,204

Contributions: Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the Association's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE 7 – COMMITMENTS AND CONTINGENCIES

Various legal actions and claims are pending against the Association. Litigation is subject to many uncertainties, and the outcome of individual litigated matters is not always predictable. Although the amount of liability, if any, at December 31, 2018 cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2018.

NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

During 2018, the following GASB pronouncements were implemented:

- The GASB issued Statement #85, *Omnibus 2017*. The financial statements and related notes were not impacted by the implementation of this pronouncement.
- The GASB issued Statement #86, *Certain Debt Extinguishment Issues*. The financial statements and related notes were not impacted by the implementation of this pronouncement.

The following GASB pronouncements will be implemented in the future:

- The GASB issued Statement #83, *Certain Asset Retirement Obligations*, which is required to be implemented in 2019.
- The GASB issued Statement #84, *Fiduciary Activities*, which is required to be implemented in 2019.
- The GASB issued Statement #87, *Leases*, which is required to be implemented in 2020.
- The GASB issued Statement #88, *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements*, which is required to be implemented in 2019.
- The GASB issued Statement #89, *Accounting for Interest Costs Incurred Before the End of a Construction Period,* which is required to be implemented in 2020.
- The GASB issued Statement #90, *Majority Equity Interests – An Amendment of GASB Statements No. 14 and No. 61*, which is required to be implemented in 2019.
- The GASB issued Statement #91, *Conduit Debt Obligations*, which is required to be implemented in 2021.

Management is currently assessing the impact the implementation of these pronouncements will have on the financial statements.

NOTE 9 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through August 27, 2019, which is the date the financial statements were available to be issued.

Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018
Total pension liability:					
Service cost	$ 36,820,342	$ 38,962,546	$ 42,095,884	$ 41,043,966	$ 42,023,138
Interest	105,040,822	110,695,407	116,551,753	125,242,091	131,278,572
Changes in benefit terms	-	-	23,494,437	-	-
Differences between expected and actual experience	-	-	(10,802,611)	(3,055,533)	-
Changes in assumptions	-	-	50,013,040	61,743,785	-
Benefit payments	(69,038,553)	(73,639,192)	(79,260,605)	(85,780,394)	(91,853,586)
Net change in total pension liability	72,822,611	76,018,761	142,091,898	139,193,915	81,448,124
Total pension liability - beginning	1,353,810,101	1,426,632,712	1,502,651,473	1,644,743,371	1,783,937,286
Total pension liability - ending (a)	$ 1,426,632,712	$ 1,502,651,473	$ 1,644,743,371	$ 1,783,937,286	$ 1,865,385,410
Plan fiduciary net position:					
Employer pension appropriation	$ 51,562,171	$ 53,626,350	$ 56,269,527	$ 59,204,601	$ 62,518,733
Member contributions	24,847,689	25,867,837	26,411,361	27,339,086	28,253,747
Other contributions	3,779,205	3,575,730	4,900,585	4,753,312	4,862,203
Net investment income (loss)	60,614,682	5,470,561	64,678,206	160,812,163	(26,151,281)
Administrative expenses	(1,210,998)	(1,288,422)	(1,384,804)	(1,282,473)	(1,385,431)
Retirement benefits and refunds	(69,038,553)	(73,639,192)	(79,260,605)	(85,780,394)	(91,853,586)
Other retirement deductions	(2,469,197)	(2,680,065)	(2,453,642)	(3,715,199)	(4,727,431)
Net increase (decrease) in fiduciary net position	68,084,999	10,932,799	69,160,628	161,331,096	(28,483,046)
Fiduciary net position - beginning of year	793,984,293	862,069,292	873,002,091	942,162,719	1,103,493,815
Fiduciary net position - end of year (b)	$ 862,069,292	$ 873,002,091	$ 942,162,719	$ 1,103,493,815	$ 1,075,010,769
Net pension liability - ending (a)-(b)	$ 564,563,420	$ 629,649,382	$ 702,580,652	$ 680,443,471	$ 790,374,641
Plan fiduciary net position as a percentage of the total pension liability	60.43%	58.10%	57.28%	61.86%	57.63%
Covered payroll	$ 253,920,107	$ 264,076,910	$ 269,672,807	$ 271,510,348	$ 283,145,854
Net pension liability as a percentage of covered payroll	222.34%	238.43%	260.53%	250.61%	279.14%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF CONTRIBUTIONS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018
Actuarially determined contribution	$ 51,562,171	$ 53,626,350	$ 56,269,527	$ 59,204,601	$ 62,518,733
Contributions in relation to the actuarially determined contribution	(51,562,171)	(53,626,350)	(56,269,527)	(59,204,601)	(62,518,733)
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -
Covered payroll	$ 253,920,107	$ 264,076,910	$ 269,672,807	$ 271,510,348	$ 283,145,854
Contributions as a percentage of covered payroll	20.31%	20.31%	20.87%	21.81%	22.08%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF INVESTMENT RETURNS

Year	Annual money-weighted rate of return, net of investment expense
December 31, 2018…….	-2.34%
December 31, 2017…….	17.17%
December 31, 2016…….	7.40%
December 31, 2015…….	0.57%
December 31, 2014…….	7.58%

Note: this schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

NOTE A – CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the Association's total pension liability, changes in the Associations net position, and the ending net pension liability. It also demonstrates the plan's net position as a percentage of the total pension liability and the net pension liability as a percentage of covered payroll.

NOTE B – CONTRIBUTIONS

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the Association's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The total appropriations are payable on July 1 and January 1. Employers may choose to pay the entire appropriation in July at a discounted rate. Accordingly, actual employer contributions may be less than the "total appropriation". The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE C – MONEY WEIGHTED RATE OF RETURN

The money weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. A money weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. Inputs to the money weighted rate of return calculation are determined monthly.

NOTE D – CHANGES IN ACTUARIAL ASSUMPTIONS AND PLAN PROVISIONS

Changes in Assumptions

None

Changes in Plan Provisions

None

Audit of Specific Elements, Accounts and Items of Financial Statements

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Independent Auditor's Report

To the Honorable Barnstable County Retirement Board
Barnstable County Retirement Association
Barnstable, Massachusetts

We have audited the accompanying schedule of employer allocations of the Barnstable County Retirement Association (BCRA) as of and for the year ended December 31, 2018, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the BCRA Pension Plan as of and for the year ended December 31, 2018, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules 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 the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified row totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer, 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer.

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

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Barnstable County Retirement Association as of and for the year ended December 31, 2018, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Barnstable County Retirement Association as of and for the year ended December 31, 2018, and our report thereon, dated August 27, 2019, expressed an unmodified opinion on those financial statements.

Restriction on Use

This report is intended solely for the information and use of the Barnstable County Retirement Association management, the Barnstable County Retirement Association employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

August 27, 2019

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2018

Employer	FY2019 Pension Fund Appropriation	Direct Appropriation E.R.I., Sheriff and Hospital	FY2019 Total Appropriation	Share of Net Pension Liability	Percent of Total Net Pension Liability
Barnstable County	$ 2,659,382	$ 126,287	$ 2,785,669	$ 34,388,815	4.351%
Barnstable County Hospital	-	8,262	8,262	113,988	0.014%
Barnstable County Retired Sheriffs	-	1,506,576	1,506,576	24,908,609	3.151%
Town of Barnstable	9,263,504	217,094	9,480,598	117,037,064	14.808%
Barnstable Fire District	409,133	4,645	413,778	5,108,049	0.646%
Barnstable Housing Authority	177,087	4,170	181,257	2,237,600	0.283%
Town of Bourne	3,669,984	86,253	3,756,237	46,370,383	5.867%
Bourne Housing Authority	61,065	-	61,065	753,842	0.095%
Bourne Recreation Authority	109,916	18,357	128,273	1,583,518	0.200%
Bourne Water District	140,449	5,322	145,771	1,799,529	0.228%
Town of Brewster	2,363,201	18,224	2,381,425	29,398,461	3.720%
Brewster Housing Authority	12,213	-	12,213	150,768	0.019%
Buzzards Bay Water District	79,384	-	79,384	979,988	0.124%
Cape Light Compact JPE	277,827	-	277,827	3,429,747	0.434%
Cape Cod Mosquito Control District	287,004	2,912	289,916	3,578,985	0.453%
Cape Cod Regional Technical High School	506,836	-	506,836	6,256,841	0.792%
Centerville/Osterville/Marstons Mills Fire District	1,422,806	5,317	1,428,123	17,630,040	2.231%
Town of Chatham	1,972,388	101,140	2,073,528	25,597,503	3.239%
Chatham Housing Authority	36,639	-	36,639	452,305	0.057%
Cotuit Fire District	305,323	-	305,323	3,769,183	0.477%
Town of Dennis	3,291,383	-	3,291,383	40,631,805	5.141%
Dennis Housing Authority	73,278	2,781	76,059	938,941	0.119%
Dennis Water District	262,578	-	262,578	3,241,500	0.410%
Dennis/Yarmouth Regional School District	1,349,528	-	1,349,528	16,659,793	2.108%
Town of Eastham	1,563,254	25,572	1,588,826	19,613,903	2.482%
Town of Harwich	2,815,079	-	2,815,079	34,751,878	4.397%
Hyannis Fire District	1,105,270	1,837	1,107,107	13,667,129	1.729%
Town of Mashpee	2,973,847	40,818	3,014,665	37,215,748	4.709%
Mashpee Housing Authority	61,065	-	61,065	753,842	0.095%
Mashpee Water District	158,768	4,628	163,396	2,017,108	0.255%
Town of Nantucket	6,259,124	128,530	6,387,654	78,854,971	9.977%
Nantucket Housing Authority	18,319	-	18,319	226,146	0.029%
County of Nantucket	232,046	-	232,046	2,864,585	0.362%
Nantucket Regional Transit Authority	36,639	-	36,639	452,305	0.057%
Nauset Regional School District	891,544	-	891,544	11,006,024	1.393%
North Sagamore Water District	54,958	-	54,958	678,451	0.086%
Town of Orleans	2,088,410	-	2,088,410	25,781,220	3.262%
Orleans Housing Authority	42,745	-	42,745	527,683	0.067%
Town of Provincetown	1,807,513	-	1,807,513	22,313,573	2.823%
Town of Sandwich	3,914,243	-	3,914,243	48,320,951	6.114%
Sandwich Housing Authority	30,532	-	30,532	376,915	0.048%
Sandwich Water District	195,407	-	195,407	2,412,281	0.305%
Town of Truro	1,135,802	14,901	1,150,703	14,205,317	1.797%
Veterans District	61,065	4,463	65,528	808,937	0.102%
Town of Wellfleet	1,264,038	15,607	1,279,645	15,797,094	1.999%
Town of Yarmouth	4,298,950	99,447	4,398,397	54,297,786	6.870%
Yarmouth Housing Authority	36,639	4,477	41,116	507,573	0.064%
West Barnstable Fire District	116,023	-	116,023	1,432,293	0.181%
Cape Cod Regional Transit Authority	189,300	-	189,300	2,336,890	0.296%
Monomoy Regional School District	983,141	-	983,141	12,136,781	1.536%
Provincetown Housing Authority	-	-	-	-	0.000%
Total	$ 61,064,629	$ 2,447,620	$ 63,512,249	$ 790,374,641	100.000%

See notes to schedule of employer allocations and schedule of pension amounts by employer.

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	Barnstable County	Barnstable County Hospital	Barnstable County Retired Sheriffs	Town of Barnstable
Net Pension Liability				
Beginning net pension liability	$ 33,423,155	$ 98,671	$ 21,125,831	$ 102,598,144
Ending net pension liability	$ 34,388,815	$ 113,988	$ 24,908,609	$ 117,037,064
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	2,008,302	6,657	1,454,659	6,834,948
Changes of assumptions	2,878,983	9,543	2,085,313	9,798,172
Changes in proportion and differences between employer contributions and proportionate share of contributions	658,584	-	258,385	1,373,686
Total Deferred Outflows of Resources	$ 5,545,869	$ 16,200	$ 3,798,357	$ 18,006,806
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 323,638	$ 1,073	$ 234,418	$ 1,101,450
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	4,042,462	16,579	1,298,304	2,099,363
Total Deferred Inflows of Resources	$ 4,366,100	$ 17,652	$ 1,532,722	$ 3,200,813
Pension Expense				
Proportionate share of plan pension expense	$ 4,273,785	$ 14,165	$ 3,095,601	$ 14,545,171
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(577,545)	(4,795)	(315,907)	(224,332)
Total Employer Pension Expense	$ 3,696,240	$ 9,370	$ 2,779,694	$ 14,320,839
Contributions				
Statutory required contribution	$ 2,830,830	$ 8,112	$ 1,479,152	$ 9,308,022
Contribution in relation to statutory required contribution	(2,830,830)	(8,112)	(1,479,152)	(9,308,022)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	22.83%	N/A	N/A	21.67%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2020	$ 856,367	$ (42)	$ 722,708	$ 4,655,764
June 30, 2021	320,753	(1,815)	334,769	2,832,884
June 30, 2022	68,437	(1,416)	382,641	2,938,579
June 30, 2023	523,535	2,057	856,841	4,663,783
June 30, 2024	(589,323)	(236)	(31,324)	(285,017)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 1,179,769	$ (1,452)	$ 2,265,635	$ 14,805,993
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 43,898,222	$ 145,509	$ 31,796,491	$ 149,400,874
Current discount rate (7.375%)	$ 34,388,815	$ 113,988	$ 24,908,609	$ 117,037,064
1% increase (8.375%)	$ 26,389,790	$ 87,474	$ 19,114,731	$ 89,813,605
Covered Payroll	$ 12,401,788	$ -	$ -	$ 42,953,226

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	Barnstable Fire District	Barnstable Housing Authority	Town of Bourne	Bourne Housing Authority
Net Pension Liability				
Beginning net pension liability	$ 4,723,263	$ 2,056,991	$ 40,456,504	$ 713,971
Ending net pension liability	$ 5,108,049	$ 2,237,600	$ 46,370,383	$ 753,842
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	298,309	130,676	2,708,024	44,024
Changes of assumptions	427,639	187,329	3,882,063	63,111
Changes in proportion and differences between employer contributions and proportionate share of contributions	175,839	156,611	299,813	2,054
Total Deferred Outflows of Resources	$ 901,787	$ 474,616	$ 6,889,900	$ 109,189
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 48,073	$ 21,058	$ 436,398	$ 7,095
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	259,179	281,228	1,238,021	158,807
Total Deferred Inflows of Resources	$ 307,252	$ 302,286	$ 1,674,419	$ 165,902
Pension Expense				
Proportionate share of plan pension expense	$ 634,820	278,086	$ 5,762,836	$ 93,687
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	15,048	(18,664)	(204,523)	(38,677)
Total Employer Pension Expense	$ 649,868	$ 259,422	$ 5,558,313	$ 55,010
Contributions				
Statutory required contribution	$ 406,246	$ 187,687	$ 3,738,770	$ 59,953
Contribution in relation to statutory required contribution	(406,246)	(187,687)	(3,738,770)	(59,953)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.41%	22.86%	21.97%	21.17%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2020	$ 228,038	$ 74,637	$ 1,728,983	$ (7,244)
June 30, 2021	148,475	39,782	1,006,746	(18,989)
June 30, 2022	108,081	46,066	853,377	(19,856)
June 30, 2023	161,437	30,864	1,700,073	(330)
June 30, 2024	(51,496)	(19,019)	(73,698)	(10,294)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 594,535	$ 172,330	$ 5,215,481	$ (56,713)
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 6,520,558	$ 2,856,355	$ 59,193,006	$ 962,299
Current discount rate (7.375%)	$ 5,108,049	$ 2,237,600	$ 46,370,383	$ 753,842
1% increase (8.375%)	$ 3,919,889	$ 1,717,122	$ 35,584,380	$ 578,494
Covered Payroll	$ 1,897,077	$ 821,123	$ 17,017,066	$ 283,146

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	Bourne Recreation Authority	Bourne Water District	Town of Brewster	Brewster Housing Authority
Net Pension Liability				
Beginning net pension liability	$ 1,301,008	$ 1,550,129	$ 25,055,360	$ 129,811
Ending net pension liability	$ 1,583,518	$ 1,799,529	$ 29,398,461	$ 150,768
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	92,477	105,092	1,716,866	8,805
Changes of assumptions	132,570	150,654	2,461,197	12,622
Changes in proportion and differences between employer contributions and proportionate share of contributions	76,703	118,283	1,126,796	759
Total Deferred Outflows of Resources	$ 301,750	$ 374,029	$ 5,304,859	$ 22,186
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 14,903	$ 16,936	$ 276,673	$ 1,419
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	57,835	110,831	413,930	35,811
Total Deferred Inflows of Resources	$ 72,738	$ 127,767	$ 690,603	$ 37,230
Pension Expense				
Proportionate share of plan pension expense	$ 196,800	$ 223,641	$ 3,653,595	$ 18,733
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	2,943	1,901	128,875	(17,687)
Total Employer Pension Expense	$ 199,743	$ 225,542	$ 3,782,470	$ 1,046
Contributions				
Statutory required contribution	$ 128,273	$ 143,118	$ 2,342,130	$ 12,213
Contribution in relation to statutory required contribution	(128,273)	(143,118)	(2,342,130)	(12,213)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	25.17%	21.98%	21.37%	21.57%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2020	$ 68,971	$ 76,936	$ 1,354,703	$ (11,400)
June 30, 2021	44,305	48,907	896,815	(13,746)
June 30, 2022	32,364	29,124	888,638	3,987
June 30, 2023	72,967	91,314	1,431,029	6,068
June 30, 2024	10,405	(19)	43,071	47
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 229,012	$ 246,262	$ 4,614,256	$ (15,044)
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 2,021,402	$ 2,297,146	$ 37,527,904	$ 192,459
Current discount rate (7.375%)	$ 1,583,518	$ 1,799,529	$ 29,398,461	$ 150,768
1% increase (8.375%)	$ 1,215,183	$ 1,380,949	$ 22,560,219	$ 115,699
Covered Payroll	$ 509,663	$ 651,235	$ 10,957,745	$ 56,629

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	Buzzards Bay Water District	Cape Light Compact JPE	Cape Cod Mosquito Control District	Cape Cod Regional Technical High School
Net Pension Liability				
Beginning net pension liability	$ 778,876	$ -	$ 2,952,144	$ 4,608,363
Ending net pension liability	$ 979,988	$ 3,429,747	$ 3,578,985	$ 6,256,841
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	57,231	200,297	209,012	365,399
Changes of assumptions	82,043	287,134	299,628	523,814
Changes in proportion and differences between employer contributions and proportionate share of contributions	95,946	2,355,147	218,075	678,813
Total Deferred Outflows of Resources	$ 235,220	$ 2,842,578	$ 726,715	$ 1,568,026
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 9,223	$ 32,278	$ 33,682	$ 58,884
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	27,407	-	119,131	401,697
Total Deferred Inflows of Resources	$ 36,630	$ 32,278	$ 152,813	$ 460,581
Pension Expense				
Proportionate share of plan pension expense	$ 121,794	$ 426,244	$ 444,792	$ 777,588
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	12,381	471,030	29,078	38,233
Total Employer Pension Expense	$ 134,175	$ 897,274	$ 473,870	$ 815,821
Contributions				
Statutory required contribution	$ 79,384	$ 277,827	$ 284,639	$ 497,610
Contribution in relation to statutory required contribution	(79,384)	(277,827)	(284,639)	(497,610)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.57%	22.82%	21.39%	21.17%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2020	$ 53,243	$ 614,040	$ 178,311	$ 299,125
June 30, 2021	37,979	560,621	122,565	201,675
June 30, 2022	36,972	557,884	119,375	169,596
June 30, 2023	59,779	606,727	132,872	312,769
June 30, 2024	10,617	471,028	20,779	124,280
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 198,590	$ 2,810,300	$ 573,902	$ 1,107,445
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 1,250,980	$ 4,378,162	$ 4,568,668	$ 7,987,021
Current discount rate (7.375%)	$ 979,988	$ 3,429,747	$ 3,578,985	$ 6,256,841
1% increase (8.375%)	$ 752,037	$ 2,631,969	$ 2,746,494	$ 4,801,466
Covered Payroll	$ 368,090	$ 1,217,527	$ 1,330,786	$ 2,350,111

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	Centerville/ Osterville/ Martsons Mills Fire District	Town of Chatham	Chatham Housing Authority	Cotuit Fire District
Net Pension Liability				
Beginning net pension liability	$ 14,985,740	$ 21,967,203	$ 389,444	$ 3,180,421
Ending net pension liability	$ 17,630,040	$ 25,597,503	$ 452,305	$ 3,769,183
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	1,029,592	1,494,890	26,415	220,120
Changes of assumptions	1,475,962	2,142,987	37,866	315,551
Changes in proportion and differences between employer contributions and proportionate share of contributions	195,685	180,585	2,298	273,143
Total Deferred Outflows of Resources	$ 2,701,239	$ 3,818,462	$ 66,579	$ 808,814
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 165,919	$ 240,902	$ 4,257	$ 35,472
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	157,284	224,586	71	89,754
Total Deferred Inflows of Resources	$ 323,203	$ 465,488	$ 4,328	$ 125,226
Pension Expense				
Proportionate share of plan pension expense	$ 2,191,031	$ 3,181,216	$ 56,210	$ 468,423
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(8,751)	(53,710)	627	25,674
Total Employer Pension Expense	$ 2,182,280	$ 3,127,506	$ 56,837	$ 494,097
Contributions				
Statutory required contribution	$ 1,402,127	$ 2,035,784	$ 36,639	$ 299,765
Contribution in relation to statutory required contribution	(1,402,127)	(2,035,784)	(36,639)	(299,765)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.25%	22.26%	21.57%	21.17%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2020	$ 726,369	$ 1,013,629	$ 19,487	$ 182,838
June 30, 2021	451,774	614,938	12,442	124,131
June 30, 2022	441,800	690,132	11,969	165,743
June 30, 2023	726,335	1,021,441	18,222	200,360
June 30, 2024	31,758	12,834	131	10,516
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 2,378,036	$ 3,352,974	$ 62,251	$ 683,588
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 22,505,207	$ 32,675,882	$ 577,379	$ 4,811,461
Current discount rate (7.375%)	$ 17,630,040	$ 25,597,503	$ 452,305	$ 3,769,183
1% increase (8.375%)	$ 13,529,197	$ 19,643,385	$ 347,096	$ 2,892,451
Covered Payroll	$ 6,597,298	$ 9,145,611	$ 169,888	$ 1,415,729

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	Town of Dennis	Dennis Housing Authority	Dennis Water District	Dennis/Yarmouth Regional School District
Net Pension Liability				
Beginning net pension liability	$ 35,309,162	$ 808,810	$ 2,920,800	$ 13,889,994
Ending net pension liability	$ 40,631,805	$ 938,941	$ 3,241,500	$ 16,659,793
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	2,372,891	54,834	189,303	972,929
Changes of assumptions	3,401,637	78,607	271,374	1,394,734
Changes in proportion and differences between employer contributions and proportionate share of contributions	686,079	62,319	45,040	548,805
Total Deferred Outflows of Resources	$ 6,460,607	$ 195,760	$ 505,717	$ 2,916,468
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 382,392	$ 8,837	$ 30,506	$ 156,788
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	717,729	369	231,097	463,298
Total Deferred Inflows of Resources	$ 1,100,121	$ 9,206	$ 261,603	$ 620,086
Pension Expense				
Proportionate share of plan pension expense	$ 5,049,651	$ 116,691	$ 402,848	$ 2,070,451
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	35,260	20,197	(54,832)	(49,111)
Total Employer Pension Expense	$ 5,084,911	$ 136,888	$ 348,016	$ 2,021,340
Contributions				
Statutory required contribution	$ 3,231,470	$ 76,059	$ 257,798	$ 1,324,963
Contribution in relation to statutory required contribution	(3,231,470)	(76,059)	(257,798)	(1,324,963)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.17%	22.39%	21.17%	21.17%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2020	$ 1,729,485	$ 59,348	$ 80,329	$ 645,553
June 30, 2021	1,096,635	44,721	29,845	386,071
June 30, 2022	928,421	34,612	36,067	506,398
June 30, 2023	1,655,577	47,654	118,378	685,217
June 30, 2024	(49,632)	219	(20,505)	73,143
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 5,360,486	$ 186,554	$ 244,114	$ 2,296,382
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 51,867,561	$ 1,198,583	$ 4,137,860	$ 21,266,661
Current discount rate (7.375%)	$ 40,631,805	$ 938,941	$ 3,241,500	$ 16,659,793
1% increase (8.375%)	$ 31,180,626	$ 720,538	$ 2,487,509	$ 12,784,635
Covered Payroll	$ 15,261,562	$ 339,775	$ 1,217,527	$ 6,257,523

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	Town of Eastham	Town of Harwich	Hyannis Fire District	Town of Mashpee
Net Pension Liability				
Beginning net pension liability	$ 16,956,243	$ 30,570,977	$ 12,416,917	$ 31,854,119
Ending net pension liability	$ 19,613,903	$ 34,751,878	$ 13,667,129	$ 37,215,748
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	1,145,449	2,029,505	798,158	2,173,394
Changes of assumptions	1,642,048	2,909,378	1,144,193	3,115,650
Changes in proportion and differences between employer contributions and proportionate share of contributions	274,943	846,199	185,464	503,998
Total Deferred Outflows of Resources	$ 3,062,440	$ 5,785,082	$ 2,127,815	$ 5,793,042
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 184,589	$ 327,055	$ 128,623	$ 350,243
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	393,180	575,861	588,922	766,925
Total Deferred Inflows of Resources	$ 577,769	$ 902,916	$ 717,545	$ 1,117,168
Pension Expense				
Proportionate share of plan pension expense	$ 2,437,581	$ 4,318,902	$ 1,698,528	$ 4,625,110
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(40,017)	137,111	(69,315)	(49,109)
Total Employer Pension Expense	$ 2,397,564	$ 4,456,013	$ 1,629,213	$ 4,576,001
Contributions				
Statutory required contribution	$ 1,559,905	$ 2,763,836	$ 1,086,954	$ 2,962,112
Contribution in relation to statutory required contribution	(1,559,905)	(2,763,836)	(1,086,954)	(2,962,112)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.52%	21.17%	21.21%	21.48%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2020	$ 777,824	$ 1,586,161	$ 500,563	$ 1,502,676
June 30, 2021	472,334	1,044,894	287,697	923,031
June 30, 2022	525,709	1,042,749	294,026	897,946
June 30, 2023	718,710	1,309,938	430,649	1,319,861
June 30, 2024	(9,906)	(101,576)	(102,665)	32,360
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 2,484,671	$ 4,882,166	$ 1,410,270	$ 4,675,874
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 25,037,660	$ 44,361,681	$ 17,446,448	$ 47,506,875
Current discount rate (7.375%)	$ 19,613,903	$ 34,751,878	$ 13,667,129	$ 37,215,748
1% increase (8.375%)	$ 15,051,603	$ 26,668,402	$ 10,488,081	$ 28,559,163
Covered Payroll	$ 7,248,534	$ 13,053,024	$ 5,124,940	$ 13,789,203

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	Mashpee Housing Authority	Mashpee Water District	Town of Nantucket	Nantucket Housing Authority
Net Pension Liability				
Beginning net pension liability	$ 584,160	$ 1,802,295	$ 65,965,497	$ 259,622
Ending net pension liability	$ 753,842	$ 2,017,108	$ 78,854,971	$ 226,146
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	44,024	117,799	4,605,119	13,207
Changes of assumptions	63,111	168,869	6,601,626	18,933
Changes in proportion and differences between employer contributions and proportionate share of contributions	100,559	21,170	2,739,006	1,411
Total Deferred Outflows of Resources	$ 207,694	$ 307,838	$ 13,945,751	$ 33,551
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 7,095	$ 18,983	$ 742,115	$ 2,128
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	132,228	869,218	51,696
Total Deferred Inflows of Resources	$ 7,095	$ 151,211	$ 1,611,333	$ 53,824
Pension Expense				
Proportionate share of plan pension expense	$ 93,686	$ 250,683	$ 9,799,963	$ 28,102
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	29,425	(20,408)	493,225	(9,933)
Total Employer Pension Expense	$ 123,111	$ 230,275	$ 10,293,188	$ 18,169
Contributions				
Statutory required contribution	$ 61,065	$ 160,422	$ 6,271,380	$ 18,319
Contribution in relation to statutory required contribution	(61,065)	(160,422)	(6,271,380)	(18,319)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.57%	21.79%	21.61%	21.57%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2020	$ 60,858	$ 63,699	$ 3,781,242	$ (503)
June 30, 2021	49,115	32,282	2,553,053	(4,030)
June 30, 2022	39,411	21,308	2,469,156	(4,282)
June 30, 2023	40,661	49,668	3,219,878	(1,193)
June 30, 2024	10,554	(10,330)	311,089	(10,265)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 200,599	$ 156,627	$ 12,334,418	$ (20,273)
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 962,299	$ 2,574,891	$ 100,660,432	$ 288,681
Current discount rate (7.375%)	$ 753,842	$ 2,017,108	$ 78,854,971	$ 226,146
1% increase (8.375%)	$ 578,494	$ 1,547,918	$ 60,512,876	$ 173,543
Covered Payroll	$ 283,146	$ 736,179	$ 29,022,450	$ 84,944

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	County of Nantucket	Nantucket Regional Transit Authority	Nauset Regional School District	North Sagamore Water District
Net Pension Liability				
Beginning net pension liability	$ 2,271,723	$ 389,444	$ 9,865,791	$ 584,160
Ending net pension liability	$ 2,864,585	$ 452,305	$ 11,006,024	$ 678,451
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	167,291	26,415	642,750	39,621
Changes of assumptions	239,819	37,866	921,409	56,799
Changes in proportion and differences between employer contributions and proportionate share of contributions	358,763	2,298	400,076	18,856
Total Deferred Outflows of Resources	$ 765,873	$ 66,579	$ 1,964,235	$ 115,276
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 26,959	$ 4,257	$ 103,579	$ 6,385
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	153,871	71	501,102	27,441
Total Deferred Inflows of Resources	$ 180,830	$ 4,328	$ 604,681	$ 33,826
Pension Expense				
Proportionate share of plan pension expense	$ 356,003	$ 56,210	$ 1,367,810	$ 84,318
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	18,801	627	45,391	66
Total Employer Pension Expense	$ 374,804	$ 56,837	$ 1,413,201	$ 84,384
Contributions				
Statutory required contribution	$ 227,822	$ 36,639	$ 885,979	$ 53,958
Contribution in relation to statutory required contribution	(227,822)	(36,639)	(885,979)	(53,958)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.17%	21.57%	21.43%	21.17%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2020	$ 138,246	$ 19,487	$ 504,309	$ 28,355
June 30, 2021	93,629	12,442	332,888	17,788
June 30, 2022	127,042	11,969	180,923	8,270
June 30, 2023	194,992	18,222	401,085	27,003
June 30, 2024	31,134	131	(59,651)	34
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 585,043	$ 62,251	$ 1,359,554	$ 81,450
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 3,656,718	$ 577,379	$ 14,049,477	$ 866,060
Current discount rate (7.375%)	$ 2,864,585	$ 452,305	$ 11,006,024	$ 678,451
1% increase (8.375%)	$ 2,198,267	$ 347,096	$ 8,445,963	$ 520,640
Covered Payroll	$ 1,075,954	$ 169,888	$ 4,133,929	$ 254,831

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	Town of Orleans	Orleans Housing Authority	Town of Provincetown	Town of Sandwich
Net Pension Liability				
Beginning net pension liability	$ 22,457,666	$ 519,255	$ 18,173,830	$ 41,345,467
Ending net pension liability	$ 25,781,220	$ 527,683	$ 22,313,573	$ 48,320,951
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	1,505,619	30,817	1,303,109	2,821,937
Changes of assumptions	2,158,367	44,177	1,868,061	4,045,361
Changes in proportion and differences between employer contributions and proportionate share of contributions	766,138	2,942	1,185,834	1,352,828
Total Deferred Outflows of Resources	$ 4,430,124	$ 77,936	$ 4,357,004	$ 8,220,126
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 242,631	$ 4,966	$ 209,996	$ 454,755
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	366,256	51,750	292,061	-
Total Deferred Inflows of Resources	$ 608,887	$ 56,716	$ 502,057	$ 454,755
Pension Expense				
Proportionate share of plan pension expense	$ 3,204,045	$ 65,578	$ 2,773,093	$ 6,005,244
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	120,243	(9,517)	166,131	395,874
Total Employer Pension Expense	$ 3,324,288	$ 56,061	$ 2,939,224	$ 6,401,118
Contributions				
Statutory required contribution	$ 2,050,395	$ 42,745	$ 1,774,611	$ 3,842,992
Contribution in relation to statutory required contribution	(2,050,395)	(42,745)	(1,774,611)	(3,842,992)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.17%	21.57%	21.17%	21.17%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2020	$ 1,195,243	$ 12,486	$ 1,096,540	$ 2,410,713
June 30, 2021	793,696	4,265	748,997	1,658,102
June 30, 2022	727,429	3,693	819,910	1,528,325
June 30, 2023	1,144,911	10,954	1,023,101	2,124,500
June 30, 2024	(40,042)	(10,178)	166,399	43,731
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 3,821,237	$ 21,220	$ 3,854,947	$ 7,765,371
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 32,910,401	$ 673,601	$ 28,483,859	$ 61,682,957
Current discount rate (7.375%)	$ 25,781,220	$ 527,683	$ 22,313,573	$ 48,320,951
1% increase (8.375%)	$ 19,784,368	$ 404,941	$ 17,123,315	$ 37,081,235
Covered Payroll	$ 9,683,588	$ 198,202	$ 8,381,117	$ 18,149,649

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	Sandwich Housing Authority	Sandwich Water District	Town of Truro	Veterans District
Net Pension Liability				
Beginning net pension liability	$ 324,538	$ 2,077,007	$ 11,908,476	$ 697,101
Ending net pension liability	$ 376,915	$ 2,412,281	$ 14,205,317	$ 808,937
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	22,012	140,877	829,588	47,242
Changes of assumptions	31,555	201,953	1,189,249	67,723
Changes in proportion and differences between employer contributions and proportionate share of contributions	2,835	3,666	286,806	58,995
Total Deferred Outflows of Resources	$ 56,402	$ 346,496	$ 2,305,643	$ 173,960
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 3,547	22,702	133,688	7,613
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	67	165,264	130,225	28,115
Total Deferred Inflows of Resources	$ 3,614	$ 187,966	$ 263,913	$ 35,728
Pension Expense				
Proportionate share of plan pension expense	$ 46,842	299,794	1,765,413	100,530
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	754	(54,058)	(1,600)	10,101
Total Employer Pension Expense	$ 47,596	$ 245,736	$ 1,763,813	$ 110,631
Contributions				
Statutory required contribution	$ 30,532	$ 191,850	$ 1,129,757	$ 64,335
Contribution in relation to statutory required contribution	(30,532)	(191,850)	(1,129,757)	(64,335)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.57%	21.17%	21.45%	22.72%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2020	$ 16,470	$ 46,527	$ 590,719	$ 43,831
June 30, 2021	10,599	8,955	369,469	31,232
June 30, 2022	10,198	6,920	410,237	21,290
June 30, 2023	15,411	96,009	619,269	41,937
June 30, 2024	110	119	52,036	(58)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 52,788	$ 158,530	$ 2,041,730	$ 138,232
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 481,142	3,079,340	18,133,459	1,032,629
Current discount rate (7.375%)	$ 376,915	$ 2,412,281	$ 14,205,317	$ 808,937
1% increase (8.375%)	$ 289,243	1,851,171	10,901,083	620,774
Covered Payroll	$ 141,573	$ 906,067	$ 5,266,513	$ 283,146

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	Town of Wellfleet	Town of Yarmouth	Yarmouth Housing Authority	West Barnstable Fire District
Net Pension Liability				
Beginning net pension liability	$ 13,084,397	$ 46,788,644	$ 437,636	$ 1,427,942
Ending net pension liability	$ 15,797,094	$ 54,297,786	$ 507,573	$ 1,432,293
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	922,548	3,170,983	29,642	83,646
Changes of assumptions	1,322,510	4,545,733	42,493	119,910
Changes in proportion and differences between employer contributions and proportionate share of contributions	799,311	218,748	2,912	56,480
Total Deferred Outflows of Resources	$ 3,044,369	$ 7,935,464	$ 75,047	$ 260,036
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 148,669	$ 511,004	$ 4,777	$ 13,480
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	52,663	1,166,521	41,064	155,073
Total Deferred Inflows of Resources	$ 201,332	$ 1,677,525	$ 45,841	$ 168,553
Pension Expense				
Proportionate share of plan pension expense	$ 1,963,238	$ 6,748,033	$ 63,082	$ 178,002
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	160,851	(243,867)	(9,273)	(3,381)
Total Employer Pension Expense	$ 2,124,089	$ 6,504,166	$ 53,809	$ 174,621
Contributions				
Statutory required contribution	$ 1,256,352	$ 4,318,333	$ 41,116	$ 113,911
Contribution in relation to statutory required contribution	(1,256,352)	(4,318,333)	(41,116)	(113,911)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.44%	21.66%	24.20%	21.17%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2020	$ 819,543	$ 2,020,189	$ 11,891	$ 56,341
June 30, 2021	573,500	1,174,488	3,984	34,028
June 30, 2022	586,078	1,048,249	3,112	5,977
June 30, 2023	780,821	2,018,259	10,166	26,056
June 30, 2024	83,095	(3,246)	53	(30,919)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 2,843,037	$ 6,257,939	$ 29,206	$ 91,483
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 20,165,404	$ 69,312,544	$ 647,930	$ 1,828,359
Current discount rate (7.375%)	$ 15,797,094	$ 54,297,786	$ 507,573	$ 1,432,293
1% increase (8.375%)	$ 12,122,604	$ 41,667,826	$ 389,509	$ 1,099,134
Covered Payroll	$ 5,861,119	$ 19,933,468	$ 169,888	$ 537,977

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	Cape Cod Regional Transit Authority	Monomoy Regional School District	Provincetown Housing Authority	Totals
Net Pension Liability				
Beginning net pension liability	$ 2,077,007	$ 10,449,951	$ 129,811	$ 680,443,471
Ending net pension liability	$ 2,336,890	$ 12,136,781	$ -	$ 790,374,641
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	136,474	708,786	-	46,157,764
Changes of assumptions	195,641	1,016,074	-	66,169,041
Changes in proportion and differences between employer contributions and proportionate share of contributions	284,579	138,137	55,536	20,257,938
Total Deferred Outflows of Resources	$ 616,694	$ 1,862,997	$ 55,536	$ 132,584,743
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 21,993	$ 114,221	$ -	$ 7,438,327
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	261,013	352,437	103,306	19,671,103
Total Deferred Inflows of Resources	$ 283,006	$ 466,658	$ 103,306	$ 27,109,430
Pension Expense				
Proportionate share of plan pension expense	$ 290,422	$ 1,508,339	$ -	$ 98,226,410
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(20,576)	(109,278)	(2,167)	148,814
Total Employer Pension Expense	$ 269,846	$ 1,399,061	$ (2,167)	$ 98,375,224
Contributions				
Statutory required contribution	$ 185,854	$ 965,245	$ -	$ 62,544,990
Contribution in relation to statutory required contribution	(185,854)	(965,245)	-	(62,544,990)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.17%	21.17%	N/A	22.09%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2020	$ 76,865	$ 396,789	$ (2,167)	$ 33,105,075
June 30, 2021	40,467	207,758	(2,167)	20,794,779
June 30, 2022	73,828	278,136	(2,170)	20,164,430
June 30, 2023	152,743	513,053	(20,604)	31,411,029
June 30, 2024	(10,215)	603	(20,662)	-
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 333,688	$ 1,396,339	$ (47,770)	$ 105,475,313
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 2,983,101	$ 15,492,918	$ -	$ 1,008,933,895
Current discount rate (7.375%)	$ 2,336,890	$ 12,136,781	$ -	$ 790,374,641
1% increase (8.375%)	$ 1,793,317	$ 9,313,700	$ -	$ 606,529,204
Covered Payroll	$ 877,752	$ 4,558,648	$ -	$ 283,145,854

See notes to schedule of employer allocations and schedule of pension amounts by employer. (concluded)

NOTE I – Schedule of Employer Allocations

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a cost-sharing pension plan to recognize pension liabilities as employees provide services to the government and earn their pension benefits. Employers participating in cost-sharing plans are required to recognize their proportionate share of the plan's collective pension amounts for all benefits provided through the plan including the net pension liability, deferred outflows of resources, deferred inflows of resources, contributions and pension expense.

GASB Statement #68 requires the allocation of the collective pension amounts be consistent with the manner in which contributions to the plan are determined. As permissible under GASB Statement #68, The Schedule of Employer Allocations is used to demonstrate the allocation of Barnstable County Retirement Association's collective pension amounts.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the Association who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2017 were applied to allocate the Association's December 31, 2018 pension fund appropriation by member unit.

The Barnstable County Hospital was operated by Barnstable County from the late 1800s to 1995, when it was closed and all employees were terminated. The remaining payments due from the Barnstable County Retirement Association to the former employees of the Barnstable County Hospital were actuarially determined and are separately identified in the Association's funding schedule. Barnstable County continues to pay for the retirement obligations related to previously retired Hospital employees.

In 2012, the Barnstable County Sheriff's functions were taken over by the Commonwealth of Massachusetts. Barnstable County continues to pay for the retirement obligations related to previously retired Sheriff's employees. These liabilities are actuarially determined and are separately identified in the Association's funding schedule.

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC completes an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP. The accrued liability for the members who accept the ERIP as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP, and is separately identified in the Association's funding schedule. The 2003 ERIP amortization is occurring over 25 years, increasing 4.5% per year. The 2010 ERIP amortization is occurring over a 10 year, straight-line basis.

The allocation percentage of the total net pension liability is a blended rate of the following three items. (1) The proportionate share of active employer's covered payroll is applied to the fiscal year 2018 pension fund appropriation calculated by the actuary. (2) ERI is a direct charge calculated by PERAC for only the employers that accepted the ERI. (3) The direct amortization of the actuarially determined net pension liability for Barnstable County Sheriff and Barnstable County Hospital since they no longer have active covered payroll.

NOTE II – Schedule of Pension Amounts by Employer

The Schedule of Pension Amounts by Employer presents the net pension liability, the various categories of deferred outflows of resources and deferred inflows of resources, contributions and pension expense for all participating employers including differences between expected and actual economic experience; differences between projected and actual investment earnings, net; and changes of assumptions.

Changes in Assumptions

None

Changes in Plan Provisions

None

NOTE III – Change in Member Units

Cape Light Compact JPE

The Cape Light Compact (Compact) was originally established in 1997 pursuant to an Inter-Municipal Agreement for the purpose of providing competitive electric supply, green power options, energy efficiency programs and consumer advocacy for the residents and businesses of Cape Cod and Martha's Vineyard. Prior to 2017, the Compact operated through Barnstable County and all employees were employees of Barnstable County. The Compact was charged for their proportionate share of employee related costs, including their share of Barnstable County's annual pension assessment. Accordingly, the full net pension liability was reported under Barnstable County as the employer and member unit of Barnstable County Retirement Association.

In 2017, the Cape Light Compact reorganized and reconstituted itself as a joint powers entity (JPE). As of July 1, 2017, the Cape Light Compact JPE became the legal and operational successor to the Cape Light Compact. As of that date, employees who were previously employees of Barnstable County became employees of the Cape Light Compact JPE. For the year ended December 31, 2018, Cape Light Compact JPE has been assessed its share of the pension fund appropriation for Barnstable County Retirement Association, for the first time. As a result, previously reported net pension liabilities of the transferred employees are now reported under the new entity (Cape Light Compact JPE) as a new member unit and are no longer included within the net pension liability of Barnstable County.

As of December 31, 2017, the Compact was 9.81% of Barnstable County's Net Pension Liability and related Deferred Outflows and Deferred Inflows of Resources. This represents an increase from 9.58% as of December 31, 2016. The Compact's share of the Net Pension Liability, Deferred Outflows of Resources, and Deferred Inflows of Resources totaled $3,278,811 in Net Pension Liability; $408,597 in Deferred Outflows from changes in assumptions; $141,479 in Deferred Outflows from changes in proportion; $46,972 in Deferred Inflows from differences between expected and actual experience, $213,988 in Deferred Inflows from the difference between projected and actual investment earnings on pension plan investments; and $123,182 in Deferred Inflows from changes in proportion, as of December 31, 2017.

Provincetown Housing Authority

Each member unit's share of the net pension liability is based on the pension fund appropriation, which is based on the covered payroll of the member unit. The Provincetown Housing Authority did not have covered payroll and, as a result, had no pension fund appropriation or net pension liability for the year ended December 31, 2018.

BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2017

BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2017

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Independent Auditor's Report

To the Honorable Barnstable County Retirement Board
Barnstable County Retirement Association
Barnstable, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of Barnstable County Retirement Association (BCRA) as of and for the year ended December 31, 2017, and the related notes to the financial statements, which collectively comprise the Barnstable County Retirement Associations' financial statements as listed in the table of contents.

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.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit 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 auditor's 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 Barnstable County Retirement Association as of December 31, 2017, and the results of its operations and changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Returns be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the 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 financial statements, and other knowledge we obtained during our audit of the 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 September 25, 2018, on our consideration of the Barnstable County Retirement Association's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, 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 the 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 Barnstable County Retirement Association's internal control over financial reporting and compliance.

Restriction on Use

This report is intended solely for the information and use of the Barnstable County Retirement Association, the Public Employee Retirement Administration Commission and all member units and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

September 25, 2018

Management's Discussion and Analysis

As management of the Barnstable County Retirement Association, we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2017. The Association complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

The GASB is the authoritative standard setting body that provides guidance on how to prepare financial statements in conformity with generally accepted accounting principles (GAAP). Users of these financial statements rely on the GASB to establish consistent reporting standards for all governments in the United States. This consistent application is the only way users can assess the financial condition of a public retirement system compared to others.

Financial Highlights

- The Association's assets exceeded its liabilities at the close of the most recent year by $1.1 billion (net position).
- The Association's net position increased by $161.3 million for the year ended December 31, 2017.
- Total investment income was $166.2 million; investment expenses were $5.4 million; and net investment income was $160.8 million.
- Total contributions were $91.3 million including $59.2 million from employers, $27.3 million from members, and $4.8 million from other transfers in and settlements.
- Retirement benefits, refunds and transfers to other systems amounted to $89.5 million.
- Administrative expenses were $1.3 million.
- The Total Pension Liability is $1.8 billion as of December 31, 2017 while the Net Pension Liability is $680.4 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 61.86%.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the Association fiduciary financial statements. These fiduciary financial statements comprise of four components: 1) management's discussion and analysis, 2) fiduciary financial statements, 3) notes to the financial statements and 4) required supplementary information.

Fiduciary Financial Statements

The *statement of net position* presents information on all assets and deferred outflows less deferred inflows and liabilities with the difference reported as *net position*. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position is improving or deteriorating.

The *statement of changes in fiduciary net position* presents information showing how the Association's net position changed during the most recent year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, *regardless of the timing of related cash flows*. Thus, additions and deductions are reported in this statement for some items that will only result in cash flows in future periods.

Notes to the financial statements

The notes provide additional information that is essential to a full understanding of the data provided in the fiduciary financial statements.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Returns be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context.

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the Association's financial position. The Association's net position exceeded liabilities by $1.1 billion at the close of 2017.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year-end the Association's net position include investments of $1.1 billion, cash and cash equivalents of $2.5 million and accounts receivable of $3.9 million.

In 2017, the Association's contributions were $91.3 million and net investment income was $160.8 million while retirement benefit payments, refunds, transfers and administration expenses were $90.8 million, which resulted in a current increase of $161.3 million. In 2016, the Association's contributions were $87.6 million and net investment income was $64.7 million while retirement benefit payments, refunds, transfers and administration expenses were $83.1 million, which resulted in a prior year increase of $69.2 million.

For both years, the current contributions fully supported the current expenses. Total contributions increased by $3.7 million from 2016, while total deductions increased by $7.7 million from 2016. The major difference in the change in net position when comparing the 2017 and 2016 results is net investment income. Net investment income was $160.8 million and $64.7 million in 2017 and 2016 respectively. The annual money weighted rate of return was 17.17% and 7.40% in 2017 and 2016 respectively. Fluctuations in the Association's annual investment returns are expected.

The following tables present summarized financial information for the past two years:

	2017	2016
Assets:		
Cash and cash equivalents	$ 2,459,946	$ 1,824,611
Investments	1,097,123,904	937,995,441
Receivables	3,910,288	2,368,212
Total assets	1,103,494,138	942,188,264
Liabilities:		
Accounts payable	323	25,545
Net Position Restricted for Pension Benefits	$ 1,103,493,815	$ 942,162,719

	2017	2016
Additions:		
Contributions:		
Member contributions	$ 27,339,086	$ 26,411,361
Employer contributions	59,204,601	56,269,527
Other contributions	4,753,312	4,900,585
Total contributions	91,296,999	87,581,473
Net investment income (loss):		
Total investment income (loss)	166,164,987	69,523,173
Less, investment expenses	(5,352,824)	(4,844,967)
Net investment income (loss)	160,812,163	64,678,206
Total additions	252,109,162	152,259,679
Deductions:		
Administration	1,282,473	1,384,804
Retirement benefits, refunds and transfers	89,495,593	81,714,247
Total deductions	90,778,066	83,099,051
Net increase (decrease) in fiduciary net position	161,331,096	69,160,628
Fiduciary net position at beginning of year	942,162,719	873,002,091
Fiduciary net position at end of year	$ 1,103,493,815	$ 942,162,719

Requests for Information

This financial report is designed to provide a general overview of the Association's finances for all those with an interest in the Association's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Association's Board, 750 Attucks Lane, Hyannis, MA 02601.

STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2017

Assets		
Cash and cash equivalents	$	2,459,946
Investments:		
Investments in Pension Reserve Investment Trust		1,093,385,971
Pooled real estate funds		3,737,933
Total investments		1,097,123,904
Receivables, net of allowance for uncollectibles:		
Member deductions		3,910,288
Total Assets		1,103,494,138
Liabilities		
Accounts payable		323
Net Position Restricted for Pensions	$	1,103,493,815

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2017

Additions:		
Contributions:		
Employer pension appropriation	$	59,204,601
Member contributions		27,339,086
Transfers from other systems		1,481,792
3(8)c reimbursements from other systems		2,368,447
Workers compensation settlements		94,496
Federal grant reimbursements		87,636
State COLA reimbursements		526,289
Member makeup payments and redeposits		193,869
Interest not refunded		783
Total contributions		91,296,999
Net investment income (loss):		
Investment income (loss)		166,164,987
Less: investment expense		(5,352,824)
Net investment income (loss)		160,812,163
Total additions		252,109,162
Deductions:		
Administration		1,282,473
Benefits and refunds		85,780,394
Transfers to other systems		1,718,253
3(8)c reimbursements to other systems		1,996,946
Total deductions		90,778,066
Net increase (decrease) in fiduciary net position		161,331,096
Fiduciary net position at beginning of year		942,162,719
Fiduciary net position at end of year	$	1,103,493,815

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

The Barnstable County Retirement Association is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Barnstable County Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the Association is mandatory immediately upon the commencement of employment for all permanent employees working a minimum of 25 hours per week. The Association has 50 participating employers.

Originally established in 1922, the Association is governed by a five member Board who establish the policies under which the Association operates. Board members also approve all of the Association's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the Association are managed by the Executive Director.

The legislative body for the Association is an Advisory Council consisting of treasurers of the member units. The Advisory Council meets semi-annually and is responsible for supervising and certifying the procedures involved in the election of members to the retirement board.

The Association is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (MGL). Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

Massachusetts contributory retirement system benefits are, with certain exceptions, uniform from system to system. The Plan provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are three classes of membership in the retirement Association; Group 1, Group 2, and Group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, Group 4 consists of police officers, firefighters, and other hazardous positions.

Any individual in Group 1 or Group 2 whose membership began before January 1, 1978, and who maintains an annuity savings fund account, is eligible to receive a superannuation retirement allowance at age 55 or later, regardless of how many years of credible service he or she has completed.

There are no minimum vesting requirements for individuals in Group 4.

Members in Groups 1 and 2, hired after January 1, 1978 and prior to April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 20 years of service or upon the completion of 10 years of service and upon reaching the age of 55.

Members in Groups 1 and 2, hired on or after April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 10 years of service and upon reaching the age of 60 (Group 1) or age 55 (Group 2).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension.

Active members contribute between 5 and 9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired on or after January 1, 1979, contribute an additional 2% of annual regular compensation in excess of $30,000. Deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the PERAC actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the Association and all costs are borne by the Association.

The pension portion of any retirement benefit is paid from the Pension Fund of the Association. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The Association adopted Section 22d of Chapter 32 in April of 1989. The Association's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2036.

Administrative expenses, which were previously appropriated from the governmental entities whose employees are members of the Association, are now paid from investment income.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service are entitled to request a refund of their accumulated total deductions.

Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements of the Barnstable County Retirement Association have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles.

BCRA is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition. Investments are carried at fair value. The

fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. The fair value of private equities are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Real estate assets are reported at fair value utilizing an income approach to valuation along with independent appraisals and estimates by management.

Fair Value Measurements

The Retirement Association reports required types of financial instruments in accordance with the fair value standards. These standards require an entity to maximize the use of observable inputs (such as quoted prices in active markets) and minimize the use of unobservable inputs (such as appraisals or valuation techniques) to determine fair value. Fair value standards also require the government to classify these financial instruments into a three-level hierarchy, based on the priority of inputs to the valuation technique or in accordance with net asset value practical expedient rules, which allow for either Level 2 or Level 3 depending on lock up and notice periods associated with the underlying funds.

Instruments measured and reported at fair value are classified and disclosed in one of the following categories:

Level 1 – Quoted prices are available in active markets for identical instruments as of the reporting date. Instruments, which are generally included in this category, include actively traded equity and debt securities, U.S. government obligations, and mutual funds with quoted market prices in active markets.

Level 2 – Pricing inputs are other than quoted in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies. Certain fixed income securities, primarily corporate bonds, are classified as Level 2 because fair values are estimated using pricing models, matrix pricing, or discounted cash flows.

Level 3 – Pricing inputs are unobservable for the instrument and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

In some instances the inputs used to measure fair value may fall into different levels of the fair value hierarchy and is based on the lowest level of input that is significant to the fair value measurement.

Market price is affected by a number of factors, including the type of instrument and the characteristics specific to the instrument. Instruments with readily available active quoted prices generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value. It is reasonably possible that change in values of these instruments will occur in the near term and that such changes could materially affect amounts reported in these financial statements. For more information on the fair value of the Retirement Administration's financial instruments, see Note 4 – Cash and Investments.

Accounts Receivable

Accounts receivable consist of member deductions, pension fund appropriations, and federal grant reimbursements. These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents a consumption of fiduciary net position that applies to a future period(s) and so will not be recognized as an outflow of resources (deduction) until then. The BCRA did not have any items that qualify for reporting in this category.

In addition to liabilities, the statement of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflows of resources*, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (addition) until that time. The BCRA did not have any items that qualify for reporting in this category.

NOTE 3 – PLAN ADMINISTRATION

The Association is administered by a five-person Board of Retirement consisting of the County Finance Director/Treasurer, who shall be a member ex-officio, a second member appointed by the governing authority (the County Commission), a third and fourth member who shall be elected by the members in or retired from the service of such Association, and a fifth member appointed by the Advisory Council consisting of representatives from the member units.

Chairman	Mary T. McIsaac	Term Expires:	Indefinite
Appointed Member	Leo G. Cakounes	Term Expires:	1/3/2019
Elected Member	Harold S. Brunelle	Term Expires:	1/6/2021
Elected Member	Robert F. Rolanti	Term Expires:	12/31/2019
Appointed Member	Judith C. Sprague	Term Expires:	Indefinite

Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the Association. The Board must annually file a financial statement of condition for the Association with the Executive Director of PERAC.

The investment of the Association's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the Association has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the Association must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.

The following retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

Treasurer-Custodian:	)	MACRS Blanket Policy
Ex-Officio Member:	)	$50,000,000 Fiduciary Liability
Elected Members:	)	$1,000,000 Fidelity (ERISA) Bond
Appointed Members:	)	St. Paul Travelers Insurance Company
Staff Employees:	)	National Union Fire Arch Insurance Company

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2017, the carrying amount of the Association's deposits totaled $2,459,946; this is comprised of $653,081 of cash deposited with banks along with $1,806,865 in the PRIT cash fund. Of the $653,081, the bank balance totaled $2,333,004, which was covered by Federal Depository Insurance. The $1,806,865 in the PRIT Cash Fund is uninsured and uncollateralized.

Investments

The Association's investments are as follows:

Investment Type		December 31, 2017
PRIT Pooled Funds	$	1,093,385,971
Pooled Real Estate Funds		3,737,933
Total Investments	$	1,097,123,904

Approximately 99% of the Retirement Association's investments are in Pension Reserve Investment Trust (PRIT), which meets the criteria of an external investment pool. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT. PRIT investments are valued using the net asset value (NAV) method.

The remaining investments consist of two closed end real estate investments which are scheduled to mature during 2018. The fair value of the investments in pooled real estate funds are categorized in Level 3 of the Fair Value Hierarchy as pricing inputs are unobservable and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

The Administration's annual money-weighted rate of return on pension plan investments was 17.17%. The money–weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

NOTE 5 – MEMBERSHIP

The following table represents the Association's membership at January 1, 2018:

Retirees and beneficiaries currently receiving benefits	3,122
Inactive members	730
Active members	4,644
Total	8,496

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2017 were as follows:

Total pension liability	$ 1,783,937,286
The pension plan's fiduciary net position	(1,103,493,815)
The net pension liability	$ 680,443,471
The pension plan's fiduciary net position as a percentage of the total pension liability	61.86%

The total pension liability was determined by an actuarial valuation as of January 1, 2018, using the following actuarial assumptions, applied to all periods included in the measurement that was rolled back to December 31, 2017:

Valuation date	January 1, 2018
Actuarial cost method	Entry Age Normal Cost Method.
Amortization method	Appropriations increase at 5.28% per year
Remaining amortization period	17 years from July 1, 2018 for 2002 and 2003 Early Retirement Incentives, retiree sheriffs liability and remaining unfunded liability, and 4 years from July 1, 2018 for 2010 Early Retirement Incentive.
Asset valuation method	The net pension liability is calculated using the market value of assets. The Association also uses an actuarial value of assets that gradually reflects year-to-year changes in the market value of assets in determining contribution requirements.

Inflation rate……	3.25%
Projected salary increases…….	Varies by length of service with ultimate rates of 4.00% for Group 1, 4.25% for Group 2 and 4.50% for Group 4.
Cost of living adjustments……	3.0% of the first $18,000 of retirement income.
Rates of retirement……	Varies based upon age for general employees, police and fire employees.
Rates of disability…….	For general employees, it was assumed that 55% of all disabilities are accidental disability. For police and fire employees, 90% of all disabilities are assumed to be accidental disability.
Mortality Rates:	
Pre-Retirement…….	The RP-2014 Blue Collar Employee Mortality Table projected generationally with Scale MP-2017.
Healthy Retiree…….	The RP-2014 Blue Collar Healthy Annuitant Mortality Table projected generationally with Scale MP-2017.
Disabled Retiree……	The RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year and projected generationally with Scale MP-2017.
Investment rate of return/Discount rate…	7.375%, net of pension plan investment expense, including inflation.

Investment policy: The pension plan's policy in regard to the allocation of invested assets is established by PRIT. Plan assets are managed on a total return basis with a long-term objective of achieving a fully funded status for the benefits provided through the pension plan.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	17.50%	6.15%
International developed markets equity	15.50%	7.11%
International emerging markets equity	6.00%	9.41%
Core fixed income	12.00%	1.68%
High-yield fixed income	10.00%	4.13%
Real estate	10.00%	4.90%
Commodities	4.00%	4.71%
Hedge fund, GTAA, Risk parity	13.00%	3.94%
Private equity	12.00%	10.28%
	100.00%	

Discount rate: The discount rate used to measure the total pension liability was 7.375%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rate. For this purpose, only employer contributions that are intended to fund the service costs for future plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net position liability to changes in the discount rate: The following presents the net position liability, calculated using the discount rate of 7.375%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.375%) or 1-percentage-point higher (8.375%) than the current rate:

	1% Decrease (6.375%)	Current Discount Rate (7.375%)	1% Increase (8.375%)
Barnstable County Retirement Association's net pension liability as of December 31, 2017	$ 892,516,460	$ 680,443,471	$ 502,131,729

Contributions: Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the Association's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE 7 – COMMITMENTS AND CONTINGENCIES

Various legal actions and claims are pending against the Association. Litigation is subject to many uncertainties, and the outcome of individual litigated matters is not always predictable. Although the amount of liability, if any, at December 31, 2017 cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2017.

NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

During 2017, the following GASB pronouncements were implemented:

- GASB Statement #82, *Pension Issues – an amendment of GASB Statements #67, #68, and #73.* The financial statements and related notes were updated to be in compliance with this pronouncement.

The following GASB pronouncements will be implemented in the future:

- The GASB issued Statement #83, *Certain Asset Retirement Obligations,* which is required to be implemented in 2019.
- The GASB issued Statement #84, *Fiduciary Activities*, which is required to be implemented in 2020.
- The GASB issued Statement #85, *Omnibus 2017*, which is required to be implemented in 2018.
- The GASB issued Statement #86, *Certain Debt Extinguishment Issues,* which is required to be implemented in 2018.
- The GASB issued Statement #87, *Leases*, which is required to be implemented in 2021.
- The GASB issued Statement #88, *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements,* which is require to be implemented in 2019.
- The GASB issued Statement #89, *Accounting for Interest Cost Incurred before the End of a Construction Period,* which is required to be implemented in 2020.

Management is currently assessing the impact the implementation of these pronouncements will have on the basic financial statements.

NOTE 9 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through September 25, 2018, which is the date the financial statements were available to be issued.

Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017
Total pension liability:				
Service cost	$ 36,820,342	$ 38,962,546	$ 42,095,884	$ 41,043,966
Interest	105,040,822	110,695,407	116,551,753	125,242,091
Changes in benefit terms	-	-	23,494,437	-
Differences between expected and actual experience	-	-	(10,802,611)	(3,055,533)
Changes in assumptions	-	-	50,013,040	61,743,785
Benefit payments	(69,038,553)	(73,639,192)	(79,260,605)	(85,780,394)
Net change in total pension liability	72,822,611	76,018,761	142,091,898	139,193,915
Total pension liability - beginning	1,353,810,101	1,426,632,712	1,502,651,473	1,644,743,371
Total pension liability - ending (a)	$ 1,426,632,712	$ 1,502,651,473	$ 1,644,743,371	$ 1,783,937,286
Plan fiduciary net position:				
Employer pension appropriation	$ 51,562,171	$ 53,626,350	$ 56,269,527	$ 59,204,601
Member contributions	24,847,689	25,867,837	26,411,361	27,339,086
Other contributions	3,779,205	3,575,730	4,900,585	4,753,312
Net investment income (loss)	60,614,682	5,470,561	64,678,206	160,812,163
Administrative expenses	(1,210,998)	(1,288,422)	(1,384,804)	(1,282,473)
Retirement benefits and refunds	(69,038,553)	(73,639,192)	(79,260,605)	(85,780,394)
Other retirement deductions	(2,469,197)	(2,680,065)	(2,453,642)	(3,715,199)
Net increase (decrease) in fiduciary net position	68,084,999	10,932,799	69,160,628	161,331,096
Fiduciary net position - beginning of year	793,984,293	862,069,292	873,002,091	942,162,719
Fiduciary net position - end of year (b)	$ 862,069,292	$ 873,002,091	$ 942,162,719	$ 1,103,493,815
Net pension liability - ending (a)-(b)	$ 564,563,420	$ 629,649,382	$ 702,580,652	$ 680,443,471
Plan fiduciary net position as a percentage of the total pension liability	60.43%	58.10%	57.28%	61.86%
Covered payroll	$ 253,920,107	$ 264,076,910	$ 269,672,807	$ 271,510,348
Net pension liability as a percentage of covered payroll	222.34%	238.43%	260.53%	250.61%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF CONTRIBUTIONS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017
Actuarially determined contribution	$ 51,562,171	$ 53,626,350	$ 56,269,527	$ 59,204,601
Contributions in relation to the actuarially determined contribution	(51,562,171)	(53,626,350)	(56,269,527)	(59,204,601)
Contribution deficiency (excess)	$ -	$ -	$ -	$ -
Covered payroll	$ 253,920,107	$ 264,076,910	$ 269,672,807	$ 271,510,348
Contributions as a percentage of covered payroll	20.31%	20.31%	20.87%	21.81%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF INVESTMENT RETURNS

Year	Annual money-weighted rate of return, net of investment expense
December 31, 2017…….	17.17%
December 31, 2016…….	7.40%
December 31, 2015…….	0.57%
December 31, 2014…….	7.58%

Note: this schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

NOTE A – CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the Associations total pension liability, changes in the Associations net position, and the ending net pension liability. It also demonstrates the plan's net position as a percentage of the total pension liability and the net pension liability as a percentage of covered payroll.

NOTE B – CONTRIBUTIONS

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the Association's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The total appropriations are payable on July 1 and January 1. Employers may choose to pay the entire appropriation in July at a discounted rate. Accordingly, actual employer contributions may be less than the "total appropriation". The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE C – MONEY WEIGHTED RATE OF RETURN

The money weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. A money weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. Inputs to the money weighted rate of return calculation are determined monthly.

NOTE D – CHANGES IN ACTUARIAL ASSUMPTIONS AND PLAN PROVISIONS

Changes in Assumptions

The following assumption changes were reflected in the January 1, 2018 actuarial valuation:

- The mortality tables for non-disabled participants were changed from the RP-2000 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale BB2D from 2009 to the RP-2014 Blue Collar Employee and Healthy Annuitant Mortality Tables projected generationally using Scale MP-2017.
- The mortality tables for disabled participants were changed from the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale BB2D from 2015 to the RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward 1 year projected generationally using Scale MP-2017.
- The long-term salary increase assumption was lowered by 0.25%, to 4.00% for Group 1 participants, 4.25% for Group 2 participants, and 4.50% for Group 4 participants.
- The investment rate of return and discount rate assumption were lowered from 7.625% to 7.375%.

Changes in Plan Provisions

The following plan provision change was reflected in the January 1, 2018 actuarial valuation:

- The Cost of Living Adjustment Base was increased from $15,000 to $16,000 as of July 1, 2015, to $17,000 as of July 1, 2016, and to $18,000 as of July 1, 2017.

Audit of Specific Elements, Accounts and Items of Financial Statements

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Independent Auditor's Report

To the Honorable Barnstable County Retirement Board
Barnstable County Retirement Association
Barnstable, Massachusetts

We have audited the accompanying schedule of employer allocations of the Barnstable County Retirement Association (BCRA) as of and for the year ended December 31, 2017, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the BCRA Pension Plan as of and for the year ended December 31, 2017, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules 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 the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified row totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer, 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer.

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

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Barnstable County Retirement Association as of and for the year ended December 31, 2017, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Barnstable County Retirement Association as of and for the year ended December 31, 2017, and our report thereon, dated September 25, 2018, expressed an unmodified opinion on those financial statements.

Restriction on Use

This report is intended solely for the information and use of the Barnstable County Retirement Association management, the Barnstable County Retirement Association employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

September 25, 2018

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2017

Employer	FY2018 Pension Fund Appropriation	Direct Appropriation E.R.I., Sheriff and Hospital	FY2018 Total Appropriation	Share of Net Pension Liability	Percent of Total Net Pension Liability
Barnstable County	$ 2,864,261	$ 121,429	$ 2,985,690	$ 33,423,155	4.912%
Barnstable County Hospital	-	7,944	7,944	98,671	0.015%
Barnstable County Retired Sheriffs	-	1,431,018	1,431,018	21,125,831	3.105%
Town of Barnstable	8,952,267	212,824	9,165,091	102,598,144	15.078%
Barnstable Fire District	417,463	4,466	421,929	4,723,263	0.694%
Barnstable Housing Authority	179,741	4,010	183,751	2,056,991	0.302%
Town of Bourne	3,531,043	82,936	3,613,979	40,456,504	5.946%
Bourne Housing Authority	63,779	-	63,779	713,971	0.105%
Bourne Recreation Authority	98,568	17,651	116,219	1,301,008	0.191%
Bourne Water District	133,356	5,117	138,473	1,550,129	0.228%
Town of Brewster	2,220,672	17,523	2,238,195	25,055,360	3.682%
Brewster Housing Authority	11,596	-	11,596	129,811	0.019%
Buzzards Bay Water District	69,577	-	69,577	778,876	0.114%
Cape Cod Mosquito Control District	260,915	2,800	263,715	2,952,144	0.434%
Cape Cod Regional Technical High School	411,665	-	411,665	4,608,363	0.677%
Centerville/Osterville/Marstons Mills Fire District	1,333,563	5,113	1,338,676	14,985,740	2.202%
Town of Chatham	1,861,190	101,140	1,962,330	21,967,203	3.228%
Chatham Housing Authority	34,789	-	34,789	389,444	0.057%
Cotuit Fire District	284,107	-	284,107	3,180,421	0.467%
Town of Dennis	3,154,167	-	3,154,167	35,309,162	5.189%
Dennis Housing Authority	69,577	2,674	72,251	808,810	0.119%
Dennis Water District	260,915	-	260,915	2,920,800	0.429%
Dennis/Yarmouth Regional School District	1,240,793	-	1,240,793	13,889,994	2.041%
Town of Eastham	1,490,112	24,589	1,514,701	16,956,243	2.492%
Town of Harwich	2,730,905	-	2,730,905	30,570,977	4.493%
Hyannis Fire District	1,107,437	1,766	1,109,203	12,416,917	1.825%
Town of Mashpee	2,806,280	39,248	2,845,528	31,854,119	4.681%
Mashpee Housing Authority	52,183	-	52,183	584,160	0.086%
Mashpee Water District	156,549	4,450	160,999	1,802,295	0.265%
Town of Nantucket	5,769,110	123,587	5,892,697	65,965,497	9.694%
Nantucket Housing Authority	23,192	-	23,192	259,622	0.038%
County of Nantucket	202,933	-	202,933	2,271,723	0.334%
Nantucket Regional Transit Authority	34,789	-	34,789	389,444	0.057%
Nauset Regional School District	881,311	-	881,311	9,865,791	1.450%
North Sagamore Water District	52,183	-	52,183	584,160	0.086%
Town of Orleans	2,006,143	-	2,006,143	22,457,666	3.300%
Orleans Housing Authority	46,385	-	46,385	519,255	0.076%
Ground Water Protection District	-	-	-	-	0.000%
Town of Provincetown	1,623,468	-	1,623,468	18,173,830	2.671%
Town of Sandwich	3,693,390	-	3,693,390	41,345,467	6.076%
Sandwich Housing Authority	28,991	-	28,991	324,538	0.048%
Sandwich Water District	185,539	-	185,539	2,077,007	0.305%
Town of Truro	1,049,456	14,328	1,063,784	11,908,476	1.750%
Veterans District	57,981	4,291	62,272	697,101	0.102%
Town of Wellfleet	1,153,822	15,007	1,168,829	13,084,397	1.923%
Town of Yarmouth	4,081,863	97,766	4,179,629	46,788,644	6.876%
Yarmouth Housing Authority	34,789	4,305	39,094	437,636	0.064%
West Barnstable Fire District	127,558	-	127,558	1,427,942	0.210%
Cape Cod Regional Transit Authority	185,539	-	185,539	2,077,007	0.305%
Monomoy Regional School District	933,494	-	933,494	10,449,951	1.536%
Provincetown Housing	11,596	-	11,596	129,811	0.019%
Total	$ 57,981,002	$ 2,345,982	$ 60,326,984	$ 680,443,471	100.000%

See notes to schedule of employer allocations and schedule of pension amounts by employer.

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	Barnstable County	Barnstable County Hospital	Barnstable County Retired Sheriffs	Town of Barnstable
Net Pension Liability				
Beginning net pension liability	$ 36,191,018	$ 115,799	$ 21,978,311	$ 103,876,895
Ending net pension liability	$ 33,423,155	$ 98,671	$ 21,125,831	$ 102,598,144
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	4,165,110	12,296	2,632,649	12,785,526
Changes in proportion and differences between employer contributions and proportionate share of contributions	830,233	-	7,614	1,677,542
Total Deferred Outflows of Resources	$ 4,995,343	$ 12,296	$ 2,640,263	$ 14,463,068
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 478,819	$ 1,414	$ 302,648	$ 1,469,820
Net difference between projected and actual investment earnings on pension plan investments	2,181,327	6,440	1,378,755	6,695,959
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,255,678	19,953	1,175,461	917,399
Total Deferred Inflows of Resources	$ 3,915,824	$ 27,807	$ 2,856,864	$ 9,083,178
Pension Expense				
Proportionate share of plan pension expense	$ 3,886,770	$ 11,476	$ 2,456,714	$ 11,931,102
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	11,786	(4,558)	(284,576)	60,695
Total Employer Pension Expense	$ 3,898,556	$ 6,918	$ 2,172,138	$ 11,991,797
Contributions				
Statutory required contribution	$ 2,932,885	$ 7,799	$ 1,404,973	$ 9,003,460
Contribution in relation to statutory required contribution	(2,932,885)	(7,799)	(1,404,973)	(9,003,460)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.87%	N/A	N/A	21.48%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2019	$ 586,900	$ (2,860)	$ 78,937	$ 1,826,108
June 30, 2020	575,027	(2,895)	71,433	1,789,660
June 30, 2021	(29,648)	(4,678)	(310,747)	(66,497)
June 30, 2022	(285,502)	(4,280)	(262,580)	37,494
June 30, 2023	232,742	(798)	206,356	1,793,125
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 1,079,519	$ (15,511)	$ (216,601)	$ 5,379,890
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 43,840,105	$ 129,424	$ 27,710,092	$ 134,574,784
Current discount rate (7.375%)	$ 33,423,155	$ 98,671	$ 21,125,831	$ 102,598,144
1% increase (8.375%)	$ 24,664,540	$ 72,814	$ 15,589,759	$ 75,712,071
Covered Payroll	$ 13,412,612	$ -	$ -	$ 41,921,199

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	Barnstable Fire District	Barnstable Housing Authority	Town of Bourne	Bourne Housing Authority
Net Pension Liability				
Beginning net pension liability	$ 4,807,406	$ 2,391,232	$ 42,164,706	$ 870,559
Ending net pension liability	$ 4,723,263	$ 2,056,991	$ 40,456,504	$ 713,971
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	588,601	256,338	5,041,589	88,973
Changes in proportion and differences between employer contributions and proportionate share of contributions	240,694	196,812	361,515	2,488
Total Deferred Outflows of Resources	$ 829,295	$ 453,150	$ 5,403,104	$ 91,461
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 67,665	$ 29,468	$ 579,579	$ 10,228
Net difference between projected and actual investment earnings on pension plan investments	308,259	134,248	2,640,349	46,596
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	225,978	1,062,031	136,164
Total Deferred Inflows of Resources	$ 375,924	$ 389,694	$ 4,281,959	$ 192,988
Pension Expense				
Proportionate share of plan pension expense	$ 549,261	239,205	$ 4,704,669	$ 83,031
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	66,546	355	(130,820)	(28,385)
Total Employer Pension Expense	$ 615,807	$ 239,560	$ 4,573,849	$ 54,646
Contributions				
Statutory required contribution	$ 414,249	$ 187,041	$ 3,511,643	$ 62,618
Contribution in relation to statutory required contribution	(414,249)	(187,041)	(3,511,643)	(62,618)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.19%	22.22%	21.24%	20.97%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2019	$ 147,819	$ 35,750	$ 565,317	$ (16,100)
June 30, 2020	146,142	35,019	550,946	(16,353)
June 30, 2021	60,686	(2,199)	(180,982)	(29,274)
June 30, 2022	19,991	3,963	(334,847)	(30,201)
June 30, 2023	78,733	(9,077)	520,711	(9,599)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 453,371	$ 63,456	$ 1,121,145	$ (101,527)
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 6,195,358	$ 2,698,095	$ 53,065,531	$ 936,491
Current discount rate (7.375%)	$ 4,723,263	$ 2,056,991	$ 40,456,504	$ 713,971
1% increase (8.375%)	$ 3,485,522	$ 1,517,954	$ 29,854,785	$ 526,872
Covered Payroll	$ 1,954,875	$ 841,682	$ 16,534,981	$ 298,661

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	Bourne Recreation Authority	Bourne Water District	Town of Brewster	Brewster Housing Authority
Net Pension Liability				
Beginning net pension liability	$ 1,347,104	$ 1,466,779	$ 24,381,943	$ 133,933
Ending net pension liability	$ 1,301,008	$ 1,550,129	$ 25,055,360	$ 129,811
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments				
Changes of assumptions	162,128	193,174	3,122,337	16,176
Changes in proportion and differences between employer contributions and proportionate share of contributions	36,317	156,320	1,141,145	695
Total Deferred Outflows of Resources	$ 198,445	$ 349,494	$ 4,263,482	$ 16,871
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 18,638	$ 22,207	$ 358,942	$ 1,860
Net difference between projected and actual investment earnings on pension plan investments	84,909	101,168	1,635,210	8,472
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	76,926	146,833	557,835	53,707
Total Deferred Inflows of Resources	$ 180,473	$ 270,208	$ 2,551,987	$ 64,039
Pension Expense				
Proportionate share of plan pension expense	$ 151,298	$ 180,260	$ 2,913,679	$ 15,100
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(7,460)	1,924	85,803	(17,732)
Total Employer Pension Expense	$ 143,838	$ 182,184	$ 2,999,482	$ (2,632)
Contributions				
Statutory required contribution	$ 116,219	$ 135,952	$ 2,197,453	$ 11,596
Contribution in relation to statutory required contribution	(116,219)	(135,952)	(2,197,453)	(11,596)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	25.18%	21.77%	21.13%	21.35%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2019	$ 14,927	$ 28,597	$ 516,932	$ (15,498)
June 30, 2020	14,464	28,047	508,032	(15,544)
June 30, 2021	(9,075)	1	54,742	(17,890)
June 30, 2022	(20,959)	(19,782)	46,800	(157)
June 30, 2023	18,615	42,423	584,989	1,921
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 17,972	$ 79,286	$ 1,711,495	$ (47,168)
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 1,706,491	$ 2,033,260	$ 32,864,331	$ 170,265
Current discount rate (7.375%)	$ 1,301,008	$ 1,550,129	$ 25,055,360	$ 129,811
1% increase (8.375%)	$ 960,076	$ 1,143,916	$ 18,489,546	$ 95,792
Covered Payroll	$ 461,568	$ 624,474	$ 10,398,846	$ 54,302

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	Buzzards Bay Water District	Cape Cod Mosquito Control District	Cape Cod Regional Technical High School	Centerville/ Osterville/ Martsons Mills Fire District
Net Pension Liability				
Beginning net pension liability	$ 736,626	$ 3,247,484	$ 5,156,391	$ 15,529,637
Ending net pension liability	$ 778,876	$ 2,952,144	$ 4,608,363	$ 14,985,740
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments				
Changes of assumptions	97,062	367,889	574,283	1,867,486
Changes in proportion and differences between employer contributions and proportionate share of contributions	53,755	152,278	85,438	49,126
Total Deferred Outflows of Resources	$ 150,817	$ 520,167	$ 659,721	$ 1,916,612
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 11,158	$ 42,292	$ 66,019	$ 214,685
Net difference between projected and actual investment earnings on pension plan investments	50,833	192,669	300,760	978,029
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	36,557	148,914	515,764	210,009
Total Deferred Inflows of Resources	$ 98,548	$ 383,875	$ 882,543	$ 1,402,723
Pension Expense				
Proportionate share of plan pension expense	$ 90,577	$ 343,302	$ 535,906	$ 1,742,688
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	1,760	8,302	(86,046)	(40,506)
Total Employer Pension Expense	$ 92,337	$ 351,604	$ 449,860	$ 1,702,182
Contributions				
Statutory required contribution	$ 69,577	$ 258,915	$ 404,171	$ 1,338,676
Contribution in relation to statutory required contribution	(69,577)	(258,915)	(404,171)	(1,338,676)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.35%	21.19%	20.97%	21.44%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2019	$ 15,162	$ 59,100	$ (6,750)	$ 217,354
June 30, 2020	14,885	58,051	(8,387)	212,031
June 30, 2021	793	4,640	(91,757)	(59,087)
June 30, 2022	(153)	1,569	(123,114)	(68,883)
June 30, 2023	21,582	12,932	7,186	212,474
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 52,269	$ 136,292	$ (222,822)	$ 513,889
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 1,021,628	$ 3,872,236	$ 6,044,648	$ 19,656,327
Current discount rate (7.375%)	$ 778,876	$ 2,952,144	$ 4,608,363	$ 14,985,740
1% increase (8.375%)	$ 574,770	$ 2,178,529	$ 3,400,732	$ 11,058,693
Covered Payroll	$ 325,812	$ 1,221,797	$ 1,927,723	$ 6,244,738

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	Town of Chatham	Chatham Housing Authority	Cotuit Fire District	Town of Dennis
Net Pension Liability				
Beginning net pension liability	$ 22,730,937	$ 401,799	$ 3,013,475	$ 35,826,921
Ending net pension liability	$ 21,967,203	$ 389,444	$ 3,180,421	$ 35,309,162
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments				
Changes of assumptions	2,737,499	48,532	396,336	4,400,141
Changes in proportion and differences between employer contributions and proportionate share of contributions	154,814	2,104	280,582	909,562
Total Deferred Outflows of Resources	$ 2,892,313	$ 50,636	$ 676,918	$ 5,309,703
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 314,702	$ 5,579	$ 45,563	$ 505,838
Net difference between projected and actual investment earnings on pension plan investments	1,433,667	25,417	207,567	2,304,415
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	329,548	52	134,630	608,166
Total Deferred Inflows of Resources	$ 2,077,917	$ 31,048	$ 387,760	$ 3,418,419
Pension Expense				
Proportionate share of plan pension expense	$ 2,554,554	$ 45,287	$ 369,850	$ 4,106,084
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(66,548)	493	15,155	84,891
Total Employer Pension Expense	$ 2,488,006	$ 45,780	$ 385,005	$ 4,190,975
Contributions				
Statutory required contribution	$ 1,933,226	$ 34,789	$ 278,935	$ 3,096,752
Contribution in relation to statutory required contribution	(1,933,226)	(34,789)	(278,935)	(3,096,752)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	22.18%	21.36%	20.97%	20.97%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2019	$ 311,443	$ 7,194	$ 69,881	$ 692,458
June 30, 2020	303,640	7,056	68,751	679,915
June 30, 2021	(93,785)	10	11,211	41,118
June 30, 2022	(18,526)	(463)	52,883	(127,401)
June 30, 2023	311,624	5,791	86,432	605,194
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 814,396	$ 19,588	$ 289,158	$ 1,891,284
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 28,813,698	$ 510,823	$ 4,171,658	$ 46,313,929
Current discount rate (7.375%)	$ 21,967,203	$ 389,444	$ 3,180,421	$ 35,309,162
1% increase (8.375%)	$ 16,210,650	$ 287,390	$ 2,346,984	$ 26,056,318
Covered Payroll	$ 8,715,482	$ 162,906	$ 1,330,401	$ 14,770,163

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	Dennis Housing Authority	Dennis Water District	Dennis/Yarmouth Regional School District	Town of Eastham
Net Pension Liability				
Beginning net pension liability	$ 768,232	$ 2,946,514	$ 14,665,600	$ 17,835,831
Ending net pension liability	$ 808,810	$ 2,920,800	$ 13,889,994	$ 16,956,243
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments				
Changes of assumptions	100,792	363,982	1,730,937	2,113,045
Changes in proportion and differences between employer contributions and proportionate share of contributions	80,833	55,177	244,097	357,914
Total Deferred Outflows of Resources	$ 181,625	$ 419,159	$ 1,975,034	$ 2,470,959
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 11,587	$ 41,843	$ 198,988	$ 242,915
Net difference between projected and actual investment earnings on pension plan investments	52,786	190,623	906,516	1,106,632
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	173,061	646,570	456,742
Total Deferred Inflows of Resources	$ 64,373	$ 405,527	$ 1,752,074	$ 1,806,289
Pension Expense				
Proportionate share of plan pension expense	$ 94,056	$ 339,666	$ 1,615,259	$ 1,971,837
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	19,978	(34,332)	(122,256)	(30,113)
Total Employer Pension Expense	$ 114,034	$ 305,334	$ 1,493,003	$ 1,941,724
Contributions				
Statutory required contribution	$ 72,251	$ 256,166	$ 1,218,207	$ 1,487,129
Contribution in relation to statutory required contribution	(72,251)	(256,166)	(1,218,207)	(1,487,129)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	22.18%	20.97%	20.97%	21.31%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2019	$ 33,895	$ 15,926	$ 116,750	$ 261,654
June 30, 2020	33,608	14,889	111,816	255,631
June 30, 2021	18,972	(37,950)	(139,477)	(51,133)
June 30, 2022	8,863	(31,848)	(18,730)	2,176
June 30, 2023	21,914	52,615	152,601	196,342
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 117,252	$ 13,632	$ 222,960	$ 664,670
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 1,060,890	$ 3,831,118	$ 18,219,072	$ 22,240,975
Current discount rate (7.375%)	$ 808,810	$ 2,920,800	$ 13,889,994	$ 16,956,243
1% increase (8.375%)	$ 596,859	$ 2,155,395	$ 10,250,090	$ 12,512,821
Covered Payroll	$ 325,812	$ 1,221,797	$ 5,810,321	$ 6,977,816

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	Town of Harwich	Hyannis Fire District	Town of Mashpee	Mashpee Housing Authority
Net Pension Liability				
Beginning net pension liability	$ 31,340,183	$ 12,878,386	$ 34,148,007	$ 602,693
Ending net pension liability	$ 30,570,977	$ 12,416,917	$ 31,854,119	$ 584,160
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments				
Changes of assumptions	3,809,679	1,547,365	3,969,581	72,797
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,101,624	241,234	456,274	66,660
Total Deferred Outflows of Resources	$ 4,911,303	$ 1,788,599	$ 4,425,855	$ 139,457
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 437,959	$ 177,884	$ 456,341	$ 8,369
Net difference between projected and actual investment earnings on pension plan investments	1,995,183	810,377	2,078,926	38,125
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	84,719	98,021	962,454	-
Total Deferred Inflows of Resources	$ 2,517,861	$ 1,086,282	$ 3,497,721	$ 46,494
Pension Expense				
Proportionate share of plan pension expense	$ 3,555,089	$ 1,443,962	$ 3,704,303	$ 67,934
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	238,687	33,349	(81,466)	18,871
Total Employer Pension Expense	$ 3,793,776	$ 1,477,311	$ 3,622,837	$ 86,805
Contributions				
Statutory required contribution	$ 2,681,194	$ 1,089,012	$ 2,793,731	$ 52,183
Contribution in relation to statutory required contribution	(2,681,194)	(1,089,012)	(2,793,731)	(52,183)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.97%	21.00%	21.26%	21.36%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2019	$ 764,724	$ 247,008	$ 466,650	$ 28,923
June 30, 2020	753,864	242,597	455,334	28,715
June 30, 2021	200,790	17,958	(120,957)	18,145
June 30, 2022	198,040	23,684	(145,871)	8,501
June 30, 2023	476,024	171,070	272,978	8,679
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 2,393,442	$ 702,317	$ 928,134	$ 92,963
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 40,098,997	$ 16,286,881	$ 41,782,051	$ 766,225
Current discount rate (7.375%)	$ 30,570,977	$ 12,416,917	$ 31,854,119	$ 584,160
1% increase (8.375%)	$ 22,559,784	$ 9,163,035	$ 23,506,674	$ 431,080
Covered Payroll	$ 12,788,137	$ 5,185,848	$ 13,141,101	$ 244,359

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	Mashpee Water District	Town of Nantucket	Nantucket Housing Authority	County of Nantucket
Net Pension Liability				
Beginning net pension liability	$ 1,994,615	$ 69,565,696	$ 267,866	$ 2,008,983
Ending net pension liability	$ 1,802,295	$ 65,965,497	$ 259,622	$ 2,271,723
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments				
Changes of assumptions	224,598	8,220,457	32,354	283,096
Changes in proportion and differences between employer contributions and proportionate share of contributions	30,401	1,583,006	1,402	254,000
Total Deferred Outflows of Resources	$ 254,999	$ 9,803,463	$ 33,756	$ 537,096
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 25,820	$ 945,020	$ 3,719	$ 32,545
Net difference between projected and actual investment earnings on pension plan investments	117,625	4,305,169	16,944	148,262
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	99,887	1,086,522	40	217,126
Total Deferred Inflows of Resources	$ 243,332	$ 6,336,711	$ 20,703	$ 397,933
Pension Expense				
Proportionate share of plan pension expense	$ 209,584	$ 7,671,099	$ 30,189	$ 264,176
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(10,078)	182,137	330	(12,336)
Total Employer Pension Expense	$ 199,506	$ 7,853,236	$ 30,519	$ 251,840
Contributions				
Statutory required contribution	$ 158,068	$ 5,785,432	$ 23,192	$ 199,239
Contribution in relation to statutory required contribution	(158,068)	(5,785,432)	(23,192)	(199,239)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.56%	21.42%	21.35%	20.97%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2019	$ 20,934	$ 1,317,209	$ 4,797	$ 26,754
June 30, 2020	20,294	1,293,775	4,705	25,947
June 30, 2021	(12,312)	100,355	4	(15,152)
June 30, 2022	(23,348)	18,238	(308)	18,441
June 30, 2023	6,099	737,175	3,855	83,173
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 11,667	$ 3,466,752	$ 13,053	$ 139,163
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 2,364,017	$ 86,524,883	$ 340,540	$ 2,979,747
Current discount rate (7.375%)	$ 1,802,295	$ 65,965,497	$ 259,622	$ 2,271,723
1% increase (8.375%)	$ 1,330,001	$ 48,679,090	$ 191,588	$ 1,676,412
Covered Payroll	$ 733,078	$ 27,015,280	$ 108,604	$ 950,286

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	Nantucket Regional Transit Authority	Nauset Regional School District	North Sagamore Water District	Town of Orleans
Net Pension Liability				
Beginning net pension liability	$ 401,799	$ 10,044,928	$ 602,693	$ 22,098,852
Ending net pension liability	$ 389,444	$ 9,865,791	$ 584,160	$ 22,457,666
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments				
Changes of assumptions	48,532	1,229,450	72,797	2,798,619
Changes in proportion and differences between employer contributions and proportionate share of contributions	2,104	556,023	27,791	970,395
Total Deferred Outflows of Resources	$ 50,636	$ 1,785,473	$ 100,588	$ 3,769,014
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 5,579	$ 141,337	$ 8,369	$ 321,728
Net difference between projected and actual investment earnings on pension plan investments	25,417	643,881	38,125	1,465,676
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	52	253,712	36,509	210,034
Total Deferred Inflows of Resources	$ 31,048	$ 1,038,930	$ 83,003	$ 1,997,438
Pension Expense				
Proportionate share of plan pension expense	$ 45,287	$ 1,147,292	$ 67,934	$ 2,611,590
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	493	105,050	33	160,282
Total Employer Pension Expense	$ 45,780	$ 1,252,342	$ 67,967	$ 2,771,872
Contributions				
Statutory required contribution	$ 34,789	$ 884,280	$ 51,233	$ 1,969,625
Contribution in relation to statutory required contribution	(34,789)	(884,280)	(51,233)	(1,969,625)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.36%	21.43%	20.97%	20.97%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2019	$ 7,194	$ 274,811	$ 10,085	$ 546,712
June 30, 2020	7,056	271,307	9,877	538,735
June 30, 2021	10	92,819	(691)	132,442
June 30, 2022	(463)	(59,508)	(10,210)	65,932
June 30, 2023	5,791	167,114	8,524	487,755
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 19,588	$ 746,543	$ 17,585	$ 1,771,576
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 510,823	$ 12,940,650	$ 766,225	$ 29,457,024
Current discount rate (7.375%)	$ 389,444	$ 9,865,791	$ 584,160	$ 22,457,666
1% increase (8.375%)	$ 287,390	$ 7,280,438	$ 431,080	$ 16,572,587
Covered Payroll	$ 162,906	$ 4,126,957	$ 244,359	$ 9,394,258

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	Orleans Housing Authority	Ground Water Protection District	Town of Provincetown	Town of Sandwich
Net Pension Liability				
Beginning net pension liability	$ 535,732	$ 937,531	$ 18,951,432	$ 41,586,017
Ending net pension liability	$ 519,255	$ -	$ 18,173,830	$ 41,345,467
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments				
Changes of assumptions	64,708	-	2,264,777	5,152,370
Changes in proportion and differences between employer contributions and proportionate share of contributions	2,802	1,362	471,737	1,486,326
Total Deferred Outflows of Resources	$ 67,510	$ 1,362	$ 2,736,514	$ 6,638,696
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 7,439	$ -	$ 260,358	$ 592,314
Net difference between projected and actual investment earnings on pension plan investments	33,889	-	1,186,096	2,698,369
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	74	1,362	410,243	-
Total Deferred Inflows of Resources	$ 41,402	$ 1,362	$ 1,856,697	$ 3,290,683
Pension Expense				
Proportionate share of plan pension expense	$ 60,386	$ (735,649)	$ 2,113,430	$ 4,808,047
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	658	(148,814)	(271)	352,145
Total Employer Pension Expense	$ 61,044	$ (884,463)	$ 2,113,159	$ 5,160,192
Contributions				
Statutory required contribution	$ 46,385	$ -	$ 1,593,916	$ 3,626,159
Contribution in relation to statutory required contribution	(46,385)	-	(1,593,916)	(3,626,159)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.36%	N/A	20.97%	20.97%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2019	$ 9,593	$ -	$ 312,447	$ 1,063,579
June 30, 2020	9,408	-	305,991	1,048,892
June 30, 2021	12	-	(22,805)	300,887
June 30, 2022	(620)	-	49,066	171,346
June 30, 2023	7,715	-	235,118	763,309
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 26,108	$ -	$ 879,817	$ 3,348,013
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 681,088	$ -	$ 23,838,044	$ 54,231,558
Current discount rate (7.375%)	$ 519,255	$ -	$ 18,173,830	$ 41,345,467
1% increase (8.375%)	$ 383,182	$ -	$ 13,411,336	$ 30,510,794
Covered Payroll	$ 217,208	$ -	$ 7,602,290	$ 17,295,209

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	Sandwich Housing Authority	Sandwich Water District	Town of Truro	Veterans District
Net Pension Liability				
Beginning net pension liability	$ 334,826	$ 2,142,916	$ 12,290,256	$ 653,400
Ending net pension liability	$ 324,538	$ 2,077,007	$ 11,908,476	$ 697,101
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments				
Changes of assumptions	40,443	258,831	1,484,005	86,871
Changes in proportion and differences between employer contributions and proportionate share of contributions	2,906	3,750	34,105	78,075
Total Deferred Outflows of Resources	$ 43,349	$ 262,581	$ 1,518,110	$ 164,946
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 4,649	$ 29,755	$ 170,601	$ 9,987
Net difference between projected and actual investment earnings on pension plan investments	21,181	135,554	777,194	45,496
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	44	220,130	191,370	36,771
Total Deferred Inflows of Resources	$ 25,874	$ 385,439	$ 1,139,165	$ 92,254
Pension Expense				
Proportionate share of plan pension expense	$ 37,743	241,532	1,384,833	81,066
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	644	(54,179)	(53,642)	10,154
Total Employer Pension Expense	$ 38,387	$ 187,353	$ 1,331,191	$ 91,220
Contributions				
Statutory required contribution	$ 30,372	$ 182,162	$ 1,063,784	$ 61,138
Contribution in relation to statutory required contribution	(30,372)	(182,162)	(1,063,784)	(61,138)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	22.37%	20.97%	21.65%	22.52%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2019	$ 6,228	$ (18,440)	$ 151,268	$ 22,149
June 30, 2020	6,113	(19,178)	147,038	21,901
June 30, 2021	241	(56,754)	(68,405)	9,290
June 30, 2022	(160)	(58,789)	(27,338)	(652)
June 30, 2023	5,053	30,303	176,382	20,004
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 17,475	$ (122,858)	$ 378,945	$ 72,692
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 425,686	$ 2,724,344	$ 15,619,975	$ 914,365
Current discount rate (7.375%)	$ 324,538	$ 2,077,007	$ 11,908,476	$ 697,101
1% increase (8.375%)	$ 239,492	$ 1,532,722	$ 8,787,832	$ 514,424
Covered Payroll	$ 135,755	$ 868,833	$ 4,914,337	$ 271,510

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	Town of Wellfleet	Town of Yarmouth	Yarmouth Housing Authority	West Barnstable Fire District
Net Pension Liability				
Beginning net pension liability	$ 13,034,923	$ 49,192,133	$ 519,649	$ 1,473,251
Ending net pension liability	$ 13,084,397	$ 46,788,644	$ 437,636	$ 1,427,942
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments				
Changes of assumptions	1,630,545	5,830,685	54,537	177,947
Changes in proportion and differences between employer contributions and proportionate share of contributions	487,913	293,692	2,931	83,545
Total Deferred Outflows of Resources	$ 2,118,458	$ 6,124,377	$ 57,468	$ 261,492
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 187,447	$ 670,293	$ 6,270	$ 20,457
Net difference between projected and actual investment earnings on pension plan investments	853,940	3,053,612	28,562	93,193
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	78,994	1,465,842	50,674	-
Total Deferred Inflows of Resources	$ 1,120,381	$ 5,189,747	$ 85,506	$ 113,650
Pension Expense				
Proportionate share of plan pension expense	$ 1,521,580	$ 5,441,030	$ 50,895	$ 166,049
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	77,754	(240,618)	(9,326)	27,539
Total Employer Pension Expense	$ 1,599,334	$ 5,200,412	$ 41,569	$ 193,588
Contributions				
Statutory required contribution	$ 1,150,399	$ 4,106,672	$ 39,094	$ 125,236
Contribution in relation to statutory required contribution	(1,150,399)	(4,106,672)	(39,094)	(125,236)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.29%	21.48%	24.00%	20.97%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2019	$ 302,898	$ 564,477	$ (1,796)	$ 52,110
June 30, 2020	298,250	547,856	(1,951)	51,602
June 30, 2021	61,534	(298,622)	(9,871)	25,764
June 30, 2022	74,590	(424,901)	(10,743)	(2,468)
June 30, 2023	260,805	545,820	(3,677)	20,834
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 998,077	$ 934,630	$ (28,038)	$ 147,842
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 17,162,395	$ 61,371,208	$ 574,031	$ 1,872,990
Current discount rate (7.375%)	$ 13,084,397	$ 46,788,644	$ 437,636	$ 1,427,942
1% increase (8.375%)	$ 9,655,601	$ 34,527,577	$ 322,951	$ 1,053,749
Covered Payroll	$ 5,403,056	$ 19,114,328	$ 162,906	$ 597,323

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	Cape Cod Regional Transit Authority	Monomoy Regional School District	Provincetown Housing Authority	Totals
Net Pension Liability				
Beginning net pension liability	$ 1,674,157	$ 10,580,661	$ 133,933	$ 702,580,650
Ending net pension liability	$ 2,077,007	$ 10,449,951	$ 129,811	$ 680,443,471
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments				
Changes of assumptions	258,831	1,302,247	16,176	84,795,179
Changes in proportion and differences between employer contributions and proportionate share of contributions	355,130	168,404	74,030	15,914,677
Total Deferred Outflows of Resources	$ 613,961	$ 1,470,651	$ 90,206	$ 100,709,856
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 29,755	$ 149,706	$ 1,860	$ 9,748,018
Net difference between projected and actual investment earnings on pension plan investments	135,554	682,005	8,472	44,408,433
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	290,855	495,615	-	15,179,028
Total Deferred Inflows of Resources	$ 456,164	$ 1,327,326	$ 10,332	$ 69,335,479
Pension Expense				
Proportionate share of plan pension expense	$ 241,536	$ 1,215,221	$ 15,100	$ 78,392,869
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(10,362)	(109,884)	18,494	-
Total Employer Pension Expense	$ 231,174	$ 1,105,337	$ 33,594	$ 78,392,869
Contributions				
Statutory required contribution	$ 182,162	$ 916,502	$ 11,596	$ 59,292,237
Contribution in relation to statutory required contribution	(182,162)	(916,502)	(11,596)	(59,292,237)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.97%	20.97%	21.35%	21.84%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2019	$ 25,377	$ 69,929	$ 20,728	$ 11,857,244
June 30, 2020	24,639	66,217	20,682	11,615,530
June 30, 2021	(12,938)	(122,837)	18,333	(694,766)
June 30, 2022	20,363	(52,460)	18,210	(1,325,115)
June 30, 2023	100,356	182,476	1,921	9,921,484
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 157,797	$ 143,325	$ 79,874	$ 31,374,377
Discount Rate Sensitivity				
1% decrease (6.375%)	$ 2,724,344	$ 13,706,875	$ 170,265	$ 892,516,460
Current discount rate (7.375%)	$ 2,077,007	$ 10,449,951	$ 129,811	$ 680,443,471
1% increase (8.375%)	$ 1,532,722	$ 7,711,518	$ 95,792	$ 502,131,729
Covered Payroll	$ 868,833	$ 4,371,317	$ 54,302	$ 271,510,348

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(concluded)

NOTE I – Schedule of Employer Allocations

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a cost-sharing pension plan to recognize pension liabilities as employees provide services to the government and earn their pension benefits. Employers participating in cost-sharing plans are required to recognize their proportionate share of the plan's collective pension amounts for all benefits provided through the plan including the net pension liability, deferred outflows of resources, deferred inflows of resources, contributions and pension expense.

GASB Statement #68 requires the allocation of the collective pension amounts be consistent with the manner in which contributions to the plan are determined. As permissible under GASB Statement #68, The Schedule of Employer Allocations is used to demonstrate the allocation of Barnstable County Retirement Association's collective pension amounts.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the Association who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2016 were applied to allocate the Association's December 31, 2017 pension fund appropriation by member unit.

The Barnstable County Hospital was operated by Barnstable County from the late 1800s to 1995, when it was closed and all employees were terminated. The remaining payments due from the Barnstable County Retirement Association to the former employees of the Barnstable County Hospital were actuarially determined and are separately identified in the Association's funding schedule. Barnstable County continues to pay for the retirement obligations related to previously retired Hospital employees.

In 2012, the Barnstable County Sheriff's functions were taken over by the Commonwealth of Massachusetts. Barnstable County continues to pay for the retirement obligations related to previously retired Sheriff's employees. These liabilities are actuarially determined and are separately identified in the Association's funding schedule.

As of December 31, 2016, the Ground Water Protection District was dissolved and is no longer a member unit of the Association. Accordingly, the Association has not reported a net pension liability or related deferred outflows of resources or deferred inflows of resources for the Ground Water Protection District as of December 31, 2017. The effect of the change in proportion from the dissolution of the Ground Water Protection District is included in deferred inflows and deferred outflows of the remaining member units.

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC complete an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP. The accrued liability for the members who accept the ERIP as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP, and is separately identified in the Association's funding schedule. The 2003 ERIP amortization is occurring over 25 years, increasing 4.5% per year. The 2010 ERIP amortization is occurring over a 10 year, straight-line basis.

The allocation percentage of the total net pension liability is a blended rate of the following three items. (1) The proportionate share of active employer's covered payroll is applied to the fiscal year 2018 pension fund appropriation calculated by the actuary. (2) ERI is a direct charge calculated by PERAC for only the employers that accepted the ERI. (3) The direct amortization of the actuarial determined net pension liability for Barnstable County Sheriff and Barnstable County Hospital since they no longer have active covered payroll.

NOTE II – Schedule of Pension Amounts by Employer

The Schedule of Pension Amounts by Employer presents the net pension liability, the various categories of deferred outflows of resources and deferred inflows of resources, contributions and pension expense for all participating employers including differences between expected and actual economic experience; differences between projected and actual investment earnings, net; and changes of assumptions.

Changes in Assumptions

The following assumption changes were reflected in the January 1, 2018 actuarial valuation:

- The mortality tables for non-disabled participants were changed from the RP-2000 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale BB2D from 2009 to the RP-2014 Blue Collar Employee and Healthy Annuitant Mortality Tables projected generationally using Scale MP-2017.

- The mortality tables for disabled participants were changed from the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale BB2D from 2015 to the RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward 1 year projected generationally using Scale MP-2017.

- The long-term salary increase assumption was lowered by 0.25%, to 4.00% for Group 1 participants, 4.25% for Group 2 participants, and 4.50% for Group 4 participants.

- The investment rate of return and discount rate assumption were lowered from 7.625% to 7.375%.

Changes in Plan Provisions

The following plan provision change was reflected in the January 1, 2018 actuarial valuation:

- The Cost of Living Adjustment Base was increased from $15,000 to $16,000 as of July 1, 2015, to $17,000 as of July 1, 2016, and to $18,000 as of July 1, 2017.

BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2016

BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2016

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Financial Section

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Independent Auditor's Report

To the Honorable Barnstable Retirement Board
Barnstable County Retirement Association
Barnstable, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of Barnstable County Retirement Association (BCRA) as of and for the year ended December 31, 2016, and the related notes to the financial statements, which collectively comprise the Barnstable County Retirement Associations' financial statements as listed in the table of contents.

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.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit 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 auditor's 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 Barnstable County Retirement Association as of December 31, 2016 and the results of its operations and changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Return be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the 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 financial statements, and other knowledge we obtained during our audit of the 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 August 22, 2017, on our consideration of the Barnstable County Retirement Association's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, 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 the 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 Barnstable County Retirement Association's internal control over financial reporting and compliance.

Restriction on Use

This report is intended solely for the information and use of the Barnstable County Retirement Association, the Public Employee Retirement Administration Commission and all member units and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

August 22, 2017

Management's Discussion and Analysis

As management of the Barnstable County Retirement Association, we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2016. The Association complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

The GASB is the authoritative standard setting body that provides guidance on how to prepare financial statements in conformity with generally accepted accounting principles (GAAP). Users of these financial statements rely on the GASB to establish consistent reporting standards for all governments in the United States. This consistent application is the only way users can assess the financial condition of a public retirement system compared to others.

Financial Highlights

- The Association's assets exceeded its liabilities at the close of the most recent year by $942.2 million (net position).
- The Association's net position increased by $69.2 million for the year ended December 31, 2016.
- Total investment income was $69.5 million; investment expenses were $4.8 million; and net investment income was $64.7 million.
- Total contributions were $87.6 million including $56.3 million from employers, $26.4 million from members, and $4.9 million from other transfers in and settlements.
- Retirement benefits, refunds and transfers to other systems amounted to $81.7 million.
- Administrative expenses were $1.4 million.
- The Total Pension Liability is $1.6 billion as of December 31, 2016 while the Net Pension Liability is $702.6 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 57.28%.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the Association fiduciary financial statements. These fiduciary financial statements comprise of four components: 1) management's discussion and analysis, 2) fiduciary financial statements, 3) notes to the financial statements and 4) required supplementary information.

Fiduciary Financial Statements

The *statement of net position* presents information on all assets and deferred outflows less deferred inflows and liabilities with the difference reported as *net position*. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position is improving or deteriorating.

The *statement of changes in fiduciary net position* presents information showing how the Association's net position changed during the most recent year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, *regardless of the timing of related cash flows*. Thus, additions and deductions are reported in this statement for some items that will only result in cash flows in future periods.

Notes to the financial statements

The notes provide additional information that is essential to a full understanding of the data provided in the fiduciary financial statements.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Return be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context.

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the Association's financial position. The Association's net position exceeded liabilities by $942.2 million at the close of 2016.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year end the Association's net position include investments of $938 million, cash of $1.8 million and accounts receivable of $2.4 million.

In 2016 the Association's contributions were $87.6 million and net investment income was $64.7 million while retirement benefit payments, refunds, transfers and administration expenses were $83.1 million which resulted in a current increase of $69.2 million. In 2015 the Association's contributions were $83.1 million and net investment income was $5.5 million while retirement benefit payments, refunds, transfers and administration expenses were $77.6 million which resulted in a prior year increase of $10.9 million.

For both years, the current contributions not only fully supported the current expenses but contributed to the increase in net position. The major difference in the change in net position when comparing the 2016 and 2015 results is net investment income. Net investment income was $64.7 million and $5.5 million in 2016 and 2015 respectively. The annual money weighted rate of return was 7.40% and 0.57% in 2016 and 2015 respectively. Fluctuations in the Association's annual investment returns are expected.

The following tables present summarized financial information for the past two years.

	2016	2015
Statement of Fiduciary Net Position		
Assets:		
Cash	$ 1,824,611	$ 860,349
Investments	937,995,441	869,072,837
Receivables	2,368,212	3,068,905
Total assets	942,188,264	873,002,091
Liabilities:		
Accounts payable	25,545	-
Net Position Restricted for Pension Benefits	$ 942,162,719	$ 873,002,091

Statement of Changes in Fiduciary Net Position	2016	2015
Additions:		
Contributions:		
Member contributions	$ 26,411,361	$ 25,867,837
Employer contributions	56,269,527	53,626,350
Other contributions	4,900,585	3,575,730
Total contributions	87,581,473	83,069,917
Net investment income (loss):		
Total investment income (loss)	69,523,173	9,956,947
Less, investment expenses	(4,844,967)	(4,486,386)
Net investment income (loss)	64,678,206	5,470,561
Total additions	152,259,679	88,540,478
Deductions:		
Administration	1,384,804	1,288,422
Retirement benefits, refunds and transfers	81,714,247	76,319,257
Total deductions	83,099,051	77,607,679
Net increase (decrease) in fiduciary net position	69,160,628	10,932,799
Fiduciary net position at beginning of year	873,002,091	862,069,292
Fiduciary net position at end of year	$ 942,162,719	$ 873,002,091

Requests for Information

This financial report is designed to provide a general overview of the Association's finances for all those with an interest in the Association's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Association's Board, 750 Attucks Lane, Hyannis, MA 02601.

STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2016

Assets		
Cash	$	1,824,611
Investments:		
PRIT funds		933,767,669
Pooled real estate funds		4,227,772
Total investments		937,995,441
Receivables		2,368,212
Total assets		942,188,264
Liabilities		
Accounts payable		25,545
Net Position Restricted for Pensions	$	942,162,719

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

FOR THE YEAR ENDED DECEMBER 31, 2016

Additions:		
Contributions:		
Member contributions	$	26,411,361
Retirement benefits - transfers from other systems		1,769,226
Retirement benefits - 3(8)c contributions from other systems		2,236,573
Retirement benefits - worker's compensation settlements		39,650
Retirement benefits - state COLA reimbursements		855,136
Employer contributions		56,269,527
Total contributions		87,581,473
Net investment income (loss):		
Total investment income (loss)		69,523,173
Less, investment expenses		(4,844,967)
Net investment income (loss)		64,678,206
Total additions		152,259,679
Deductions:		
Administration		1,384,804
Retirement benefits - transfers to other systems		1,074,219
Retirement benefits - 3(8)c payments to other systems		1,379,423
Retirement benefits and refunds		79,260,605
Total deductions		83,099,051
Net increase (decrease) in fiduciary net position		69,160,628
Fiduciary net position at beginning of year		873,002,091
Fiduciary net position at end of year	$	942,162,719

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

The Barnstable County Retirement Association is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Barnstable County Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the Association is mandatory immediately upon the commencement of employment for all permanent employees working a minimum of 25 hours per week. The Association has 51 participating employers.

Originally established in 1937, the Association is governed by a five member Board who establish the policies under which the Association operates. Board members also approve all of the Association's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the Association are managed by the Executive Director.

The legislative body for the Association is an Advisory Council consisting of treasurers of the member units. The Advisory Council meets semi-annually and is responsible for supervising and certifying the procedures involved in the election of members to the retirement board.

The Association is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (MGL). Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

Massachusetts contributory retirement system benefits are, with certain exceptions, uniform from system to system. The Plan provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are three classes of membership in the retirement Association; Group 1, Group 2 and Group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, Group 4 consists of police officers, firefighters, and other hazardous positions.

Any individual in Group 1 or Group 2 whose membership began before January 1, 1978, and who maintains an annuity savings fund account, is eligible to receive a superannuation retirement allowance at age 55 or later, regardless of how many years of credible service he or she has completed.

There are no minimum vesting requirements for individuals in Group 4.

Members in Groups 1 and 2, hired after January 1, 1978 and prior to April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 20 years of service or upon the completion of 10 years of service and upon reaching the age of 55.

Members in Groups 1 and 2, hired on or after April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 10 years of service and upon reaching the age of 60 (Group 1) or age 55 (Group 2).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension.

Active members contribute between 5 and 9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired on or after January 1, 1979, contribute an additional 2% of annual regular compensation in excess of $30,000. Deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the PERAC actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the Association and all costs are borne by the Association.

The pension portion of any retirement benefit is paid from the Pension Fund of the Association. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The Association adopted Section 22d of Chapter 32 in April of 1989. The Association's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2036.

Administrative expenses, which were previously appropriated from the governmental entities whose employees are members of the Association, are now paid from investment income.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service are entitled to request a refund of their accumulated total deductions.

Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements of the Barnstable County Retirement Association have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles.

BCRA is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition. Investments are carried at fair value. The

fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. The fair value of private equities are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Real estate assets are reported at fair value utilizing an income approach to valuation along with independent appraisals and estimates by management.

Fair Value Measurements

The Retirement Association reports required types of financial instruments in accordance with the fair value standards. These standards require an entity to maximize the use of observable inputs (such as quoted prices in active markets) and minimize the use of unobservable inputs (such as appraisals or valuation techniques) to determine fair value. Fair value standards also require the government to classify these financial instruments into a three-level hierarchy, based on the priority of inputs to the valuation technique or in accordance with net asset value practical expedient rules, which allow for either Level 2 or Level 3 depending on lock up and notice periods associated with the underlying funds.

Instruments measured and reported at fair value are classified and disclosed in one of the following categories:

Level 1 – Quoted prices are available in active markets for identical instruments as of the reporting date. Instruments, which are generally included in this category, include actively traded equity and debt securities, U.S. government obligations, and mutual funds with quoted market prices in active markets.

Level 2 – Pricing inputs are other than quoted in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies. Certain fixed income securities, primarily corporate bonds, are classified as Level 2 because fair values are estimated using pricing models, matrix pricing, or discounted cash flows.

Level 3 – Pricing inputs are unobservable for the instrument and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

In some instances the inputs used to measure fair value may fall into different levels of the fair value hierarchy and is based on the lowest level of input that is significant to the fair value measurement.

Market price is affected by a number of factors, including the type of instrument and the characteristics specific to the instrument. Instruments with readily available active quoted prices generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value. It is reasonably possible that change in values of these instruments will occur in the near term and that such changes could materially affect amounts reported in these financial statements. For more information on the fair value of the Retirement Administration's financial instruments, see Note 4 – Cash and Investments.

Accounts Receivable

Accounts receivable consist of member deductions, pension fund appropriations, and federal grant reimbursements. These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents a consumption of fiduciary net position that applies to a future period(s) and so will not be recognized as an outflow of resources (deduction) until then. The BCRA did not have any items that qualify for reporting in this category.

In addition to liabilities, the statement of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflows of resources*, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (addition) until that time. The BCRA did not have any items that qualify for reporting in this category.

NOTE 3 – PLAN ADMINISTRATION

The Association is administered by a five-person Board of Retirement consisting of the County Finance Director/Treasurer, who shall be a member ex-officio, a second member appointed by the governing authority (the County Commission), a third and fourth member who shall be elected by the members in or retired from the service of such Association, and a fifth member appointed by the Advisory Council consisting of representatives from the member units.

Chairman	Mary T. McIsaac	Term Expires:	Indefinite
Appointed Member	Mary Pat Flynn	Term Expires:	1/3/2018
Elected Member	Mark Foley	Term Expires:	1/6/2018
Elected Member	Robert Rolanti	Term Expires:	12/31/2019
Appointed Member	Judith C. Sprague	Term Expires:	12/31/2017

Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the Association. The Board must annually file a financial statement of condition for the Association with the Executive Director of PERAC.

The investment of the Association's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the Association has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the Association must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.

The following retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

Treasurer-Custodian:	)	MACRS Blanket Policy
Ex-Officio Member:	)	$50,000,000 Fiduciary Liability
Elected Members:	)	$1,000,000 Fidelity (ERISA) Bond
Appointed Members:	)	St. Paul Travelers Insurance Company
Staff Employees:	)	National Union Fire Arch Insurance Company

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2016, the carrying amount of the Association's deposits totaled $1,824,611 and the bank balance totaled $2,816,988. Of the bank balance, $1,714,042 was covered by Federal Depository Insurance and $1,102,946 was uninsured and uncollateralized.

Investments

The Association's investments are as follows:

Investment Type	December 31, 2016
PRIT Pooled Funds……	$ 933,767,669
Pooled Real Estate Funds……	4,227,772
Total Investments……	$ 937,995,441

Approximately 99% of the Retirement Association's investments are in Pension Reserve Investment Trust (PRIT), which meets the criteria of an external investment pool. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT. PRIT investments are valued using the net asset value (NAV) method.

The remaining investments consist of two closed end real estate investments which are scheduled to mature during 2018. The fair value of the investments in pooled real estate funds are categorized in Level 3 of the Fair Value Hierarchy as pricing inputs are unobservable and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

The Administration's annual money-weighted rate of return on pension plan investments was 7.40%. The money–weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

NOTE 5 – MEMBERSHIP

The following table represents the Association's membership at January 1, 2016:

Retirees and beneficiaries currently receiving benefits	2,937
Inactive members	622
Active members	4,699
Total	8,258

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2016 were as follows:

Total pension liability	$ 1,644,743,370
The pension plan's fiduciary net position	(942,162,719)
The net pension liability	$ 702,580,651
The pension plan's fiduciary net position as a percentage of the total pension liability	57.28%

The total pension liability was determined by an actuarial valuation as of January 1, 2016, using the following actuarial assumptions, applied to all periods included in the measurement that was updated to December 31, 2016:

Valuation date	January 1, 2016
Actuarial cost method	Entry Age Normal Cost Method.
Amortization method	Appropriations increase at 5.28% per year
Remaining amortization period	20 years from July 1, 2016 for 2002 and 2003 Early Retirement Incentives, retiree sheriffs liability and remaining unfunded liability, and 6 years from July 1, 2016 for 2010 Early Retirement Incentive.
Asset valuation method	A preliminary actuarial value is first determined by taking the actuarial value of assets at the beginning of the year and adding assumed investment earnings (at the assumed actuarial rate of return) and the net new money during the year (contributions less benefit payments and administrative expenses). Twenty percent of the difference between the market value of assets as reported in the Association's Annual Statement and the preliminary actuarial value of assets is added to the preliminary actuarial value. In order for the actuarial value to not differ too significantly from the market value of assets, the final actuarial value of assets must be within 20% of the market value of assets.

Projected salary increases…….	Varies by length of service with ultimate rates of 4.25% for Group 1, 4.50% for Group 2 and 4.75% for Group 4.
Cost of living adjustments……	3.0% of first $16,000 of retirement income as of July 1, 2015, $17,000 as of July 1, 2016, and $18,000 as of July 1, 2017.
Rates of retirement……	Varies based upon age for general employees, police and fire employees.
Rates of disability…….	For general employees, it was assumed that 45% of all disabilities are ordinary (55% are service connected). For police and fire employees, 10% of all disabilities are assumed to be ordinary (90% are service connected).
Mortality Rates:	
Pre-Retirement…….	The RP-2000 Employee Mortality Table projected generationally with Scale BB2D from 2009.
Healthy Retiree…….	The RP-2000 Healthy Annuitant Mortality Table projected generationally with Scale BB2D from 2009.
Disabled Retiree……	The RP-2000 Healthy Annuitant Mortality Table projected generationally with Scale BB2D from 2015.
Investment rate of return/Discount rate……	7.625%, net of pension plan investment expense, including inflation.

Investment policy: The pension plan's policy in regard to the allocation of invested assets is established by PRIT. Plan assets are managed on a total return basis with a long-term objective of achieving a fully funded status for the benefits provided through the pension plan.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of January 1, 2016 are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	18.00%	6.44%
International developed markets equity	16.00%	7.40%
International emerging markets equity	6.00%	9.42%
Core fixed income	13.00%	2.02%
High-yield fixed income	10.00%	4.43%
Real estate	10.00%	5.00%
Commodities	4.00%	4.43%
Hedge fund, GTAA, Risk parity	13.00%	3.75%
Private equity	10.00%	10.47%
	100.00%	

Discount rate: The discount rate used to measure the total pension liability was 7.625%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the actuarially determined contribution rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net position liability to changes in the discount rate. The following presents the net position liability, calculated using the discount rate of 7.625%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.625%) or 1-percentage-point higher (8.625%) than the current rate:

	1% Decrease (6.625%)	Current Discount (7.625%)	1% Increase (8.625%)
Barnstable County Retirement Association's net pension liability as of December 31, 2016	$ 894,041,463	$ 702,580,650	$ 541,092,898

Contributions: Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the Association's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE 7 – COMMITMENTS AND CONTINGENCIES

Various legal actions and claims are pending against the Association. Litigation is subject to many uncertainties, and the outcome of individual litigated matters is not always predictable. Although the amount of liability, if any, at December 31, 2016 cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2016.

NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

During 2016, the following GASB pronouncements were implemented:

- GASB Statement #72, *Fair Value Measurement and Application*. Notes to the basic financial statements were changed to provide additional disclosure on fair value measurement.

- GASB Statement #73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*. This pronouncement did not impact the basic financial statements.

- GASB Statement #76, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments*. This pronouncement did not impact the basic financial statements.

- GASB Statement #78, *Pensions Provided through Certain Multiple-Employer Defined Benefit Pension Plans*. This pronouncement did not impact the basic financial statements.

- GASB Statement #79, *Certain External Investment Pools and Pool Participants*. The basic financial statements and related notes were updated to be in compliance with this pronouncement.

The following GASB pronouncement will be implemented in the future:

- *The* GASB issued Statement #82, *Pension Issues – an amendment of GASB Statements #67, #68, and #73*, which is required to be implemented in 2018.

Management is currently assessing the impact the implementation of this pronouncement will have on the financial statements.

NOTE 9 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through August 22, 2017, which is the date the financial statements were available to be issued.

Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

	2014	2015	2016
Total pension liability:			
Service cost	$ 35,328,892	$ 38,066,881	$ 39,648,941
Interest	105,040,822	110,695,407	116,551,753
Changes in benefit terms	-	-	23,494,437
Differences between expected and actual experience	-	-	(10,802,611)
Changes in assumptions	-	-	50,013,039
Benefit payments, including refunds of employee contributions	(67,547,103)	(72,743,527)	(76,813,662)
Net change in total pension liability	72,822,611	76,018,761	142,091,897
Total pension liability, beginning	1,353,810,101	1,426,632,712	1,502,651,473
Total pension liability, ending **(a)**	$ 1,426,632,712	$ 1,502,651,473	$ 1,644,743,370
Plan fiduciary net position:			
Member contributions	$ 24,666,247	$ 25,867,837	26,411,361
Employer contributions	51,562,171	53,626,350	56,269,527
Net investment income (loss)	60,614,682	5,470,561	64,678,206
Retirement benefits and refunds	(67,547,103)	(72,743,527)	(76,813,662)
Administration	(1,210,998)	(1,288,422)	(1,384,804)
Net increase (decrease) in fiduciary net position	68,084,999	10,932,799	69,160,628
Fiduciary net position at beginning of year	793,984,293	862,069,292	873,002,091
Fiduciary net position at end of year **(b)**	$ 862,069,292	$ 873,002,091	$ 942,162,719
Net pension liability - ending (a) - (b)	$ 564,563,420	$ 629,649,382	$ 702,580,651
Plan fiduciary net position as a percentage of the total pension liability	60.43%	58.10%	57.28%
Covered-employee payroll	$ 253,920,107	$ 264,076,910	$ 269,672,807
Net pension liability as a percentage of covered-employee payroll	222.34%	238.43%	260.53%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF CONTRIBUTIONS

	2014	2015	2016
Actuarially determined contribution	$ 51,562,171	$ 53,626,350	$ 56,269,527
Contributions in relation to the actuarially determined contribution	(51,562,171)	(53,626,350)	(56,269,527)
Contribution deficiency (excess)	$ -	$ -	$ -
Covered-employee payroll	$ 253,920,107	$ 264,076,910	$ 269,672,807
Contributions as a percentage of covered-employee payroll	20.31%	20.31%	20.87%

Note: this schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF INVESTMENT RETURN

	2014	2015	2016
Annual money-weighted rate of return, net of investment expense……	7.58%	0.57%	7.40%

Note: this schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

The annual money-weighted rate of return has been calculated by the Pension Reserves Investment Management Board (PRIM).

See notes to required supplementary information.

NOTE A – CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the Associations total pension liability, changes in the Associations net position, and the ending net pension liability. It also demonstrates the plan's net position as a percentage of the total pension liability and the net pension liability as a percentage of covered payroll.

NOTE B – CONTRIBUTIONS

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the Association's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The total appropriations are payable on July 1 and January 1. Employers may choose to pay the entire appropriation in July at a discounted rate. Accordingly, actual employer contributions may be less than the "total appropriation". The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE C – MONEY WEIGHTED RATE OF RETURN

The money weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. A money weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. Inputs to the money weighted rate of return calculation are determined monthly.

Audit of Specific Elements, Accounts and Items of Financial Statements

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Independent Auditor's Report

To the Honorable Barnstable Retirement Board
Barnstable County Retirement Association
Barnstable, Massachusetts

We have audited the accompanying schedule of employer allocations of the Barnstable County Retirement Association (BCRA) as of and for the year ended December 31, 2016, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the BCRA Pension Plan as of and for the year ended December 31, 2016, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules 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 the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified row totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer, 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer.

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

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Barnstable County Retirement Association as of and for the year ended December 31, 2016, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Barnstable County Retirement Association as of and for the year ended December 31, 2016, and our report thereon, dated August 22, 2017, expressed an unmodified opinion on those financial statements.

Restriction on Use

This report is intended solely for the information and use of the Barnstable County Retirement Association management, the Barnstable County Retirement Association employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

August 22, 2017

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2016

Employer	FY2017 Pension Fund Appropriation	Direct Appropriation E.R.I., Sheriff and Hospital	FY2017 Total Appropriation	Share of Net Pension Liability	Percent of Total Net Pension Liability
Barnstable County	$ 2,856,822	$ 118,000	$ 2,974,822	$ 36,191,018	5.151%
Barnstable County Hospital	-	7,722	7,722	115,799	0.016%
Barnstable County Retired Sheriffs	-	1,359,250	1,359,250	21,978,311	3.128%
Town of Barnstable	8,328,270	210,182	8,538,452	103,876,895	14.785%
Barnstable Fire District	390,818	4,340	395,158	4,807,406	0.684%
Barnstable Housing Authority	192,657	3,897	196,554	2,391,232	0.340%
Town of Bourne	3,385,252	80,594	3,465,846	42,164,706	6.001%
Bourne Housing Authority	71,558	-	71,558	870,559	0.124%
Bourne Recreation Authority	93,576	17,153	110,729	1,347,104	0.192%
Bourne Water District	115,594	4,972	120,566	1,466,779	0.209%
Town of Brewster	1,987,115	17,027	2,004,142	24,381,943	3.470%
Brewster Housing Authority	11,009	-	11,009	133,933	0.019%
Buzzards Bay Water District	60,549	-	60,549	736,626	0.105%
Cape Cod Mosquito Control District	264,215	2,721	266,936	3,247,484	0.462%
Cape Cod Regional Technical High School	423,844	-	423,844	5,156,391	0.734%
Centerville/Osterville/Marstons Mills Fire District	1,271,534	4,968	1,276,502	15,529,637	2.210%
Town of Chatham	1,766,936	101,497	1,868,433	22,730,937	3.235%
Chatham Housing Authority	33,027	-	33,027	401,799	0.057%
Cotuit Fire District	247,701	-	247,701	3,013,475	0.429%
Town of Dennis	2,944,894	-	2,944,894	35,826,921	5.099%
Dennis Housing Authority	60,549	2,598	63,147	768,232	0.109%
Dennis Water District	242,197	-	242,197	2,946,514	0.419%
Dennis/Yarmouth Regional School District	1,205,480	-	1,205,480	14,665,600	2.087%
Town of Eastham	1,442,172	23,894	1,466,066	17,835,831	2.539%
Town of Harwich	2,576,094	-	2,576,094	31,340,183	4.461%
Hyannis Fire District	1,056,859	1,716	1,058,575	12,878,386	1.833%
Town of Mashpee	2,768,751	38,140	2,806,891	34,148,007	4.860%
Mashpee Housing Authority	49,540	-	49,540	602,693	0.086%
Mashpee Water District	159,630	4,323	163,953	1,994,615	0.284%
Town of Nantucket	5,598,050	120,097	5,718,147	69,565,696	9.901%
Nantucket Housing Authority	22,018	-	22,018	267,866	0.038%
County of Nantucket	165,134	-	165,134	2,008,983	0.286%
Nantucket Regional Transit Authority	33,027	-	33,027	401,799	0.057%
Nauset Regional School District	825,671	-	825,671	10,044,928	1.430%
North Sagamore Water District	49,540	-	49,540	602,693	0.086%
Town of Orleans	1,816,477	-	1,816,477	22,098,852	3.145%
Orleans Housing Authority	44,036	-	44,036	535,732	0.076%
Tri-Town Wastewater Treatment Facility	77,063	-	77,063	937,531	0.133%
Town of Provincetown	1,557,766	-	1,557,766	18,951,432	2.697%
Town of Sandwich	3,418,279	-	3,418,279	41,586,017	5.919%
Sandwich Housing Authority	27,522	-	27,522	334,826	0.048%
Sandwich Water District	176,143	-	176,143	2,142,916	0.305%
Town of Truro	996,310	13,922	1,010,232	12,290,256	1.749%
Veterans District	49,540	4,168	53,708	653,400	0.093%
Town of Wellfleet	1,056,859	14,583	1,071,442	13,034,923	1.855%
Town of Yarmouth	3,946,708	96,777	4,043,485	49,192,133	7.002%
Yarmouth Housing Authority	38,531	4,183	42,714	519,649	0.074%
West Barnstable Fire District	121,098	-	121,098	1,473,251	0.210%
Cape Cod Regional Transit Authority	137,612	-	137,612	1,674,157	0.238%
Monomoy Regional School District	869,707	-	869,707	10,580,661	1.506%
Provincetown Housing	11,009	-	11,009	133,933	0.019%
Total	$ 55,044,743	$ 2,256,724	$ 57,301,467	$ 702,580,650	100.000%

See notes to schedule of employer allocations and schedule of pension amounts by employer.

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

	Barnstable County	Barnstable County Hospital	Barnstable County Retired Sheriffs	Town of Barnstable
Net Pension Liability				
Beginning net pension liability	$ 32,238,620	$ 114,036	$ 20,012,789	$ 93,561,206
Ending net pension liability	$ 36,191,018	$ 115,799	$ 21,978,311	$ 103,876,895
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	2,057,208	6,582	1,249,314	5,904,684
Changes of assumptions	2,146,874	6,869	1,303,767	6,162,045
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,072,687	-	10,152	110,528
Total Deferred Outflows of Resources	$ 5,276,769	$ 13,451	$ 2,563,233	$ 12,177,257
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 463,716	$ 1,484	$ 281,608	$ 1,330,977
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	11,231	878,581	1,199,302
Total Deferred Inflows of Resources	$ 463,716	$ 12,715	$ 1,160,189	$ 2,530,279
Pension Expense				
Proportionate share of plan pension expense	$ 5,488,811	$ 17,562	$ 3,333,277	$ 15,754,187
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	259,512	(2,345)	(187,243)	(257,572)
Total Employer Pension Expense	$ 5,748,323	$ 15,217	$ 3,146,034	$ 15,496,615
Contributions				
Statutory required contribution	$ 2,926,285	$ 7,579	$ 1,334,120	$ 8,398,711
Contribution in relation to statutory required contribution	(2,926,285)	(7,579)	(1,334,120)	(8,398,711)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.91%	N/A	N/A	20.58%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2018	$ 1,275,202	$ 905	$ 429,572	$ 2,657,701
June 30, 2019	1,275,202	905	429,572	2,657,701
June 30, 2020	1,262,751	865	422,010	2,621,963
June 30, 2021	628,630	(1,162)	36,936	801,885
June 30, 2022	371,268	(777)	84,954	907,728
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 4,813,053	$ 736	$ 1,403,044	$ 9,646,978
Discount Rate Sensitivity				
1% decrease (6.625%)	$ 46,053,462	$ 147,356	$ 27,967,638	$ 132,184,478
Current discount rate (7.625%)	$ 36,191,018	$ 115,799	$ 21,978,311	$ 103,876,895
1% increase (8.625%)	$ 27,872,534	$ 89,183	$ 16,926,609	$ 80,000,851
Covered Payroll	$ 13,996,018	$ -	$ -	$ 40,801,496

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

	Barnstable Fire District	Barnstable Housing Authority	Town of Bourne	Bourne Housing Authority
Net Pension Liability				
Beginning net pension liability	$ 4,185,105	$ 1,841,730	$ 39,022,403	$ 839,458
Ending net pension liability	$ 4,807,406	$ 2,391,232	$ 42,164,706	$ 870,559
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	273,267	135,925	2,396,771	49,485
Changes of assumptions	285,178	141,849	2,501,237	51,642
Changes in proportion and differences between employer contributions and proportionate share of contributions	242,224	238,062	480,990	2,767
Total Deferred Outflows of Resources	$ 800,669	$ 515,836	$ 5,378,998	$ 103,894
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 61,597	$ 30,639	$ 540,257	$ 11,155
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	34,981	947,188	45,650
Total Deferred Inflows of Resources	$ 61,597	$ 65,620	$ 1,487,445	$ 56,805
Pension Expense				
Proportionate share of plan pension expense	$ 729,104	$ 362,659	$ 6,394,794	$ 132,034
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	55,710	39,004	(69,963)	(8,522)
Total Employer Pension Expense	$ 784,814	$ 401,663	$ 6,324,831	$ 123,512
Contributions				
Statutory required contribution	$ 387,852	$ 196,554	$ 3,395,528	$ 71,558
Contribution in relation to statutory required contribution	(387,852)	(196,554)	(3,395,528)	(71,558)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.26%	20.82%	20.47%	20.41%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2018	$ 190,628	$ 106,113	$ 1,113,376	$ 15,910
June 30, 2019	190,628	106,113	1,113,376	15,910
June 30, 2020	188,974	105,291	1,098,870	15,611
June 30, 2021	104,737	63,388	360,074	353
June 30, 2022	64,105	69,311	205,857	(695)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 739,072	$ 450,216	$ 3,891,553	$ 47,089
Discount Rate Sensitivity				
1% decrease (6.625%)	$ 6,117,470	$ 3,042,870	$ 53,655,040	$ 1,107,798
Current discount rate (7.625%)	$ 4,807,406	$ 2,391,232	$ 42,164,706	$ 870,559
1% increase (8.625%)	$ 3,702,423	$ 1,841,610	$ 32,473,171	$ 670,463
Covered Payroll	$ 1,914,677	$ 943,855	$ 16,584,878	$ 350,575

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

	Bourne Recreation Authority	Bourne Water District	Town of Brewster	Brewster Housing Authority
Net Pension Liability				
Beginning net pension liability	$ 1,328,012	$ 1,553,755	$ 22,672,955	$ 119,921
Ending net pension liability	$ 1,347,104	$ 1,466,779	$ 24,381,943	$ 133,933
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	76,574	83,376	1,385,944	7,613
Changes of assumptions	79,911	87,010	1,446,352	7,945
Changes in proportion and differences between employer contributions and proportionate share of contributions	45,096	74,118	21,957	494
Total Deferred Outflows of Resources	$ 201,581	$ 244,504	$ 2,854,253	$ 16,052
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 17,261	$ 18,794	$ 312,406	$ 1,716
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	92,633	183,542	701,740	71,610
Total Deferred Inflows of Resources	$ 109,894	$ 202,336	$ 1,014,146	$ 73,326
Pension Expense				
Proportionate share of plan pension expense	$ 204,303	$ 222,456	$ 3,697,820	$ 20,314
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(7,371)	(18,215)	(139,013)	(17,795)
Total Employer Pension Expense	$ 196,932	$ 204,241	$ 3,558,807	$ 2,519
Contributions				
Statutory required contribution	$ 110,729	$ 118,337	$ 1,967,090	$ 11,009
Contribution in relation to statutory required contribution	(110,729)	(118,337)	(1,967,090)	(11,009)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	24.15%	20.90%	20.21%	20.41%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2018	$ 30,435	$ 22,950	$ 545,259	$ (14,036)
June 30, 2019	30,435	22,950	545,259	(14,036)
June 30, 2020	29,972	22,445	536,871	(14,082)
June 30, 2021	6,366	(3,256)	109,662	(16,426)
June 30, 2022	(5,521)	(22,921)	103,056	1,306
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 91,687	$ 42,168	$ 1,840,107	$ (57,274)
Discount Rate Sensitivity				
1% decrease (6.625%)	$ 1,714,208	$ 1,866,490	$ 31,026,287	$ 170,431
Current discount rate (7.625%)	$ 1,347,104	$ 1,466,779	$ 24,381,943	$ 133,933
1% increase (8.625%)	$ 1,037,475	$ 1,129,640	$ 18,777,769	$ 103,149
Covered Payroll	$ 458,444	$ 566,313	$ 9,735,188	$ 53,935

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

	Buzzards Bay Water District	Cape Cod Mosquito Control District	Cape Cod Regional Technical High School	Centerville/ Osterville/ Martsons Mills Fire District
Net Pension Liability				
Beginning net pension liability	$ 719,537	$ 2,668,245	$ 4,976,808	$ 14,145,643
Ending net pension liability	$ 736,626	$ 3,247,484	$ 5,156,391	$ 15,529,637
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	41,872	184,597	293,105	882,752
Changes of assumptions	43,697	192,643	305,881	921,228
Changes in proportion and differences between employer contributions and proportionate share of contributions	2,355	188,691	110,850	28,491
Total Deferred Outflows of Resources	$ 87,924	$ 565,931	$ 709,836	$ 1,832,471
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 9,438	$ 41,610	$ 66,069	$ 198,981
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	45,707	-	272,872	212,198
Total Deferred Inflows of Resources	$ 55,145	$ 41,610	$ 338,941	$ 411,179
Pension Expense				
Proportionate share of plan pension expense	$ 111,717	$ 492,522	$ 782,025	$ 2,355,260
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(8,625)	37,806	(26,988)	(37,559)
Total Employer Pension Expense	$ 103,092	$ 530,328	$ 755,037	$ 2,317,701
Contributions				
Statutory required contribution	$ 60,549	$ 262,001	$ 416,008	$ 1,252,902
Contribution in relation to statutory required contribution	(60,549)	(262,001)	(416,008)	(1,252,902)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.41%	20.24%	20.03%	20.11%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2018	$ 12,048	$ 128,946	$ 117,725	$ 398,276
June 30, 2019	12,048	128,946	117,725	398,276
June 30, 2020	11,795	127,828	115,951	392,933
June 30, 2021	(1,113)	70,925	25,605	120,828
June 30, 2022	(1,999)	67,676	(6,111)	110,979
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 32,779	$ 524,321	$ 370,895	$ 1,421,292
Discount Rate Sensitivity				
1% decrease (6.625%)	$ 937,367	$ 4,132,456	$ 6,561,567	$ 19,761,633
Current discount rate (7.625%)	$ 736,626	$ 3,247,484	$ 5,156,391	$ 15,529,637
1% increase (8.625%)	$ 567,314	$ 2,501,050	$ 3,971,200	$ 11,960,161
Covered Payroll	$ 296,640	$ 1,294,429	$ 2,076,481	$ 6,229,442

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

	Town of Chatham	Chatham Housing Authority	Cotuit Fire District	Town of Dennis
Net Pension Liability				
Beginning net pension liability	$ 20,169,342	$ 359,774	$ 2,578,353	$ 33,098,792
Ending net pension liability	$ 22,730,937	$ 401,799	$ 3,013,475	$ 35,826,921
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	1,292,096	22,839	171,295	2,036,512
Changes of assumptions	1,348,414	23,835	178,761	2,125,276
Changes in proportion and differences between employer contributions and proportionate share of contributions	174,172	1,478	96,344	560,736
Total Deferred Outflows of Resources	$ 2,814,682	$ 48,152	$ 446,400	$ 4,722,524
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 291,252	$ 5,148	$ 38,612	$ 459,051
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	390,520	70	179,506	760,207
Total Deferred Inflows of Resources	$ 681,772	$ 5,218	$ 218,118	$ 1,219,258
Pension Expense				
Proportionate share of plan pension expense	$ 3,447,428	$ 60,939	$ 457,029	$ 5,433,591
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(62,392)	304	(25,556)	(12,736)
Total Employer Pension Expense	$ 3,385,036	$ 61,243	$ 431,473	$ 5,420,855
Contributions				
Statutory required contribution	$ 1,833,890	$ 33,027	$ 243,122	$ 2,890,449
Contribution in relation to statutory required contribution	(1,833,890)	(33,027)	(243,122)	(2,890,449)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.19%	20.41%	20.03%	20.03%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2018	$ 575,545	$ 11,580	$ 59,016	$ 992,736
June 30, 2019	575,545	11,580	59,016	992,736
June 30, 2020	567,724	11,442	57,979	980,410
June 30, 2021	169,440	4,402	5,178	352,669
June 30, 2022	244,656	3,930	47,093	184,715
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 2,132,910	$ 42,934	$ 228,282	$ 3,503,266
Discount Rate Sensitivity				
1% decrease (6.625%)	$ 28,925,362	$ 511,293	$ 3,834,678	$ 45,590,142
Current discount rate (7.625%)	$ 22,730,937	$ 401,799	$ 3,013,475	$ 35,826,921
1% increase (8.625%)	$ 17,506,244	$ 309,446	$ 2,320,829	$ 27,592,123
Covered Payroll	$ 8,656,497	$ 161,804	$ 1,213,528	$ 14,427,495

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

	Dennis Housing Authority	Dennis Water District	Dennis/Yarmouth Regional School District	Town of Eastham
Net Pension Liability				
Beginning net pension liability	$ 688,158	$ 2,878,161	$ 12,771,810	$ 15,433,200
Ending net pension liability	$ 768,232	$ 2,946,514	$ 14,665,600	$ 17,835,831
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	43,669	167,489	833,637	1,013,843
Changes of assumptions	45,572	174,789	869,973	1,058,033
Changes in proportion and differences between employer contributions and proportionate share of contributions	39,059	2,592	297,247	437,775
Total Deferred Outflows of Resources	$ 128,300	$ 344,870	$ 2,000,857	$ 2,509,651
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 9,843	$ 37,754	$ 187,911	$ 228,531
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	218,602	539,584	282,267
Total Deferred Inflows of Resources	$ 9,843	$ 256,356	$ 727,495	$ 510,798
Pension Expense				
Proportionate share of plan pension expense	$ 116,510	$ 446,870	$ 2,224,218	$ 2,705,020
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	9,685	(44,965)	(75,191)	17,296
Total Employer Pension Expense	$ 126,195	$ 401,905	$ 2,149,027	$ 2,722,316
Contributions				
Statutory required contribution	$ 63,147	$ 237,719	$ 1,183,193	$ 1,438,962
Contribution in relation to statutory required contribution	(63,147)	(237,719)	(1,183,193)	(1,438,962)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	21.29%	20.03%	20.03%	20.37%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2018	$ 31,245	$ 37,728	$ 336,395	$ 517,853
June 30, 2019	31,245	37,728	336,395	517,853
June 30, 2020	30,981	36,714	331,349	511,717
June 30, 2021	17,517	(14,910)	74,384	199,208
June 30, 2022	7,469	(8,746)	194,839	252,222
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 118,457	$ 88,514	$ 1,273,362	$ 1,998,853
Discount Rate Sensitivity				
1% decrease (6.625%)	$ 977,581	$ 3,749,476	$ 18,662,132	$ 22,696,289
Current discount rate (7.625%)	$ 768,232	$ 2,946,514	$ 14,665,600	$ 17,835,831
1% increase (8.625%)	$ 591,653	$ 2,269,262	$ 11,294,719	$ 13,736,276
Covered Payroll	$ 296,640	$ 1,186,560	$ 5,905,834	$ 7,065,428

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

	Town of Harwich	Hyannis Fire District	Town of Mashpee	Mashpee Housing Authority
Net Pension Liability				
Beginning net pension liability	$ 26,622,944	$ 11,171,730	$ 29,920,777	$ 479,695
Ending net pension liability	$ 31,340,183	$ 12,878,386	$ 34,148,007	$ 602,693
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	1,781,472	732,047	1,941,077	34,259
Changes of assumptions	1,859,120	763,954	2,025,681	35,752
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,149,159	294,497	552,299	83,829
Total Deferred Outflows of Resources	$ 4,789,751	$ 1,790,498	$ 4,519,057	$ 153,840
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 401,562	$ 165,011	$ 437,539	$ 7,722
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	112,959	73,402	30,390	-
Total Deferred Inflows of Resources	$ 514,521	$ 238,413	$ 467,929	$ 7,722
Pension Expense				
Proportionate share of plan pension expense	$ 4,753,118	$ 1,953,163	$ 5,178,962	$ 91,408
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	202,122	40,771	103,460	18,587
Total Employer Pension Expense	$ 4,955,240	$ 1,993,934	$ 5,282,422	$ 109,995
Contributions				
Statutory required contribution	$ 2,528,468	$ 1,039,004	$ 2,754,998	$ 49,540
Contribution in relation to statutory required contribution	(2,528,468)	(1,039,004)	(2,754,998)	(49,540)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.03%	20.07%	20.31%	20.41%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2018	$ 1,081,675	$ 402,199	$ 1,061,813	$ 35,501
June 30, 2019	1,081,675	402,199	1,061,813	35,501
June 30, 2020	1,070,892	397,768	1,050,065	35,294
June 30, 2021	521,767	172,122	451,739	24,732
June 30, 2022	519,221	177,797	425,698	15,090
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 4,275,230	$ 1,552,085	$ 4,051,128	$ 146,118
Discount Rate Sensitivity				
1% decrease (6.625%)	$ 39,880,722	$ 16,387,887	$ 43,453,705	$ 766,936
Current discount rate (7.625%)	$ 31,340,183	$ 12,878,386	$ 34,148,007	$ 602,693
1% increase (8.625%)	$ 24,136,661	$ 9,918,298	$ 26,299,106	$ 464,166
Covered Payroll	$ 12,620,687	$ 5,177,718	$ 13,564,542	$ 242,706

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

	Mashpee Water District	Town of Nantucket	Nantucket Housing Authority	County of Nantucket
Net Pension Liability				
Beginning net pension liability	$ 1,786,456	$ 59,963,947	$ 239,842	$ 1,978,737
Ending net pension liability	$ 1,994,615	$ 69,565,696	$ 267,866	$ 2,008,983
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	113,380	3,954,327	15,226	114,197
Changes of assumptions	118,322	4,126,681	15,890	119,174
Changes in proportion and differences between employer contributions and proportionate share of contributions	39,280	1,945,093	993	1,775
Total Deferred Outflows of Resources	$ 270,982	$ 10,026,101	$ 32,109	$ 235,146
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 25,557	$ 891,346	$ 3,432	$ 25,741
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	-	53	280,381
Total Deferred Inflows of Resources	$ 25,557	$ 891,346	$ 3,485	$ 306,122
Pension Expense				
Proportionate share of plan pension expense	$ 302,508	$ 10,550,489	$ 40,623	$ 304,688
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	9,729	393,215	204	(62,861)
Total Employer Pension Expense	$ 312,237	$ 10,943,704	$ 40,827	$ 241,827
Contributions				
Statutory required contribution	$ 160,922	$ 5,613,325	$ 22,018	$ 162,081
Contribution in relation to statutory required contribution	(160,922)	(5,613,325)	(22,018)	(162,081)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.58%	20.47%	20.41%	20.03%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2018	$ 65,707	$ 2,345,555	$ 7,722	$ (6,480)
June 30, 2019	65,707	2,345,555	7,722	(6,480)
June 30, 2020	65,021	2,321,622	7,629	(7,171)
June 30, 2021	30,072	1,102,723	2,932	(42,371)
June 30, 2022	18,918	1,019,300	2,619	(8,474)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 245,425	$ 9,134,755	$ 28,624	$ (70,976)
Discount Rate Sensitivity				
1% decrease (6.625%)	$ 2,538,166	$ 88,523,095	$ 340,862	$ 2,556,449
Current discount rate (7.625%)	$ 1,994,615	$ 69,565,696	$ 267,866	$ 2,008,983
1% increase (8.625%)	$ 1,536,152	$ 53,576,059	$ 206,297	$ 1,547,217
Covered Payroll	$ 782,051	$ 27,425,724	$ 107,869	$ 809,018

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

	Nantucket Regional Transit Authority	Nauset Regional School District	North Sagamore Water District	Town of Orleans
Net Pension Liability				
Beginning net pension liability	$ 359,774	$ 9,413,965	$ 599,616	$ 20,147,095
Ending net pension liability	$ 401,799	$ 10,044,928	$ 602,693	$ 22,098,852
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	22,839	570,984	34,259	1,256,166
Changes of assumptions	23,835	595,872	35,752	1,310,918
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,478	572,732	36,199	193,621
Total Deferred Outflows of Resources	$ 48,152	$ 1,739,588	$ 106,210	$ 2,760,705
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 5,148	$ 128,706	$ 7,722	$ 283,153
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	70	317,140	45,636	262,543
Total Deferred Inflows of Resources	$ 5,218	$ 445,846	$ 53,358	$ 545,696
Pension Expense				
Proportionate share of plan pension expense	$ 60,939	$ 1,523,434	$ 91,404	$ 3,351,559
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	304	79,755	(92)	(4,646)
Total Employer Pension Expense	$ 61,243	$ 1,603,189	$ 91,312	$ 3,346,913
Contributions				
Statutory required contribution	$ 33,027	$ 803,000	$ 48,624	$ 1,782,894
Contribution in relation to statutory required contribution	(33,027)	(803,000)	(48,624)	(1,782,894)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.41%	19.85%	20.03%	20.03%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2018	$ 11,580	$ 361,663	$ 16,822	$ 615,552
June 30, 2019	11,580	361,663	16,822	615,552
June 30, 2020	11,442	358,207	16,615	607,949
June 30, 2021	4,402	182,204	6,055	220,745
June 30, 2022	3,930	30,005	(3,462)	155,211
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 42,934	$ 1,293,742	$ 52,852	$ 2,215,009
Discount Rate Sensitivity				
1% decrease (6.625%)	$ 511,293	$ 12,782,281	$ 766,936	$ 28,121,028
Current discount rate (7.625%)	$ 401,799	$ 10,044,928	$ 602,693	$ 22,098,852
1% increase (8.625%)	$ 309,446	$ 7,736,108	$ 464,166	$ 17,019,444
Covered Payroll	$ 161,804	$ 4,045,092	$ 242,706	$ 8,899,203

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

	Orleans Housing Authority	Tri-Town Wastewater Treatment Facility	Town of Provincetown	Town of Sandwich
Net Pension Liability				
Beginning net pension liability	$ 479,695	$ 899,425	$ 16,249,588	$ 36,696,480
Ending net pension liability	$ 535,732	$ 937,531	$ 18,951,432	$ 41,586,017
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	30,453	53,292	1,077,257	2,363,876
Changes of assumptions	31,780	55,615	1,124,211	2,466,909
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,973	1,786	579,356	824,653
Total Deferred Outflows of Resources	$ 64,206	$ 110,693	$ 2,780,824	$ 5,655,438
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 6,864	$ 12,013	$ 242,825	$ 532,842
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	98	45,612	361,337	-
Total Deferred Inflows of Resources	$ 6,962	$ 57,625	$ 604,162	$ 532,842
Pension Expense				
Proportionate share of plan pension expense	$ 81,253	$ 142,189	$ 2,874,217	$ 6,307,031
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	406	(8,708)	25,862	183,175
Total Employer Pension Expense	$ 81,659	$ 133,481	$ 2,900,079	$ 6,490,206
Contributions				
Statutory required contribution	$ 44,036	$ 75,638	$ 1,528,966	$ 3,355,082
Contribution in relation to statutory required contribution	(44,036)	(75,638)	(1,528,966)	(3,355,082)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.41%	20.03%	20.03%	20.03%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2018	$ 15,441	$ 17,604	$ 557,728	$ 1,350,274
June 30, 2019	15,441	17,604	557,728	1,350,274
June 30, 2020	15,257	17,281	551,208	1,335,967
June 30, 2021	5,868	854	219,147	607,316
June 30, 2022	5,237	(275)	290,851	478,765
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 57,244	$ 53,068	$ 2,176,662	$ 5,122,596
Discount Rate Sensitivity				
1% decrease (6.625%)	$ 681,724	$ 1,193,018	$ 24,115,901	$ 52,918,654
Current discount rate (7.625%)	$ 535,732	$ 937,531	$ 18,951,432	$ 41,586,017
1% increase (8.625%)	$ 412,594	$ 722,040	$ 14,595,456	$ 32,027,494
Covered Payroll	$ 215,738	$ 377,542	$ 7,631,740	$ 16,746,681

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

	Sandwich Housing Authority	Sandwich Water District	Town of Truro	Veterans District
Net Pension Liability				
Beginning net pension liability	$ 299,808	$ 2,278,545	$ 11,066,206	$ 645,484
Ending net pension liability	$ 334,826	$ 2,142,916	$ 12,290,256	$ 653,400
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	19,033	121,810	698,616	37,141
Changes of assumptions	19,862	127,119	729,066	38,760
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,232	1,961	10,440	37,508
Total Deferred Outflows of Resources	$ 40,127	$ 250,890	$ 1,438,122	$ 113,409
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 4,290	$ 27,457	$ 157,475	$ 8,372
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	59	275,191	252,515	45,964
Total Deferred Inflows of Resources	$ 4,349	$ 302,648	$ 409,990	$ 54,336
Pension Expense				
Proportionate share of plan pension expense	$ 50,778	$ 325,000	$ 1,863,968	$ 99,098
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	255	(54,624)	(58,836)	168
Total Employer Pension Expense	$ 51,033	$ 270,376	$ 1,805,132	$ 99,266
Contributions				
Statutory required contribution	$ 27,522	$ 172,886	$ 991,555	$ 52,715
Contribution in relation to statutory required contribution	(27,522)	(172,886)	(991,555)	(52,715)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.41%	20.03%	20.31%	21.72%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2018	$ 9,652	$ 5,516	$ 286,086	$ 18,505
June 30, 2019	9,652	5,516	286,086	18,505
June 30, 2020	9,537	4,779	281,858	18,281
June 30, 2021	3,669	(32,768)	66,515	6,832
June 30, 2022	3,268	(34,801)	107,587	(3,050)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 35,778	$ (51,758)	$ 1,028,132	$ 59,073
Discount Rate Sensitivity				
1% decrease (6.625%)	$ 426,073	$ 2,726,880	$ 15,639,485	$ 831,459
Current discount rate (7.625%)	$ 334,826	$ 2,142,916	$ 12,290,256	$ 653,400
1% increase (8.625%)	$ 257,869	$ 1,650,366	$ 9,465,349	$ 503,216
Covered Payroll	$ 134,836	$ 862,953	$ 4,881,078	$ 242,706

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

	Town of Welfleet	Town of Yarmouth	Yarmouth Housing Authority	West Barnstable Fire District
Net Pension Liability				
Beginning net pension liability	$ 11,493,202	$ 45,401,138	$ 465,757	$ 1,319,154
Ending net pension liability	$ 13,034,923	$ 49,192,133	$ 519,649	$ 1,473,251
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	740,945	2,796,231	29,538	83,744
Changes of assumptions	773,240	2,918,109	30,826	87,394
Changes in proportion and differences between employer contributions and proportionate share of contributions	155,695	356,989	2,782	109,242
Total Deferred Outflows of Resources	$ 1,669,880	$ 6,071,329	$ 63,146	$ 280,380
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 167,017	$ 630,300	$ 6,658	$ 18,877
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	105,325	1,009,170	38	-
Total Deferred Inflows of Resources	$ 272,342	$ 1,639,470	$ 6,696	$ 18,877
Pension Expense				
Proportionate share of plan pension expense	$ 1,976,907	$ 7,460,589	$ 78,812	$ 223,439
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	5,037	(113,854)	643	27,232
Total Employer Pension Expense	$ 1,981,944	$ 7,346,735	$ 79,455	$ 250,671
Contributions				
Statutory required contribution	$ 1,051,633	$ 3,970,199	$ 42,714	$ 118,859
Contribution in relation to statutory required contribution	(1,051,633)	(3,970,199)	(42,714)	(118,859)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.31%	20.53%	22.63%	20.03%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2018	$ 370,858	$ 1,266,708	$ 15,227	$ 68,578
June 30, 2019	370,858	1,266,708	15,227	68,578
June 30, 2020	366,374	1,249,784	15,048	68,071
June 30, 2021	137,983	387,864	5,941	42,253
June 30, 2022	151,465	260,795	5,007	14,023
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 1,397,538	$ 4,431,859	$ 56,450	$ 261,503
Discount Rate Sensitivity				
1% decrease (6.625%)	$ 16,587,080	$ 62,597,520	$ 661,260	$ 1,874,724
Current discount rate (7.625%)	$ 13,034,923	$ 49,192,133	$ 519,649	$ 1,473,251
1% increase (8.625%)	$ 10,038,853	$ 37,885,350	$ 400,209	$ 1,134,623
Covered Payroll	$ 5,177,718	$ 19,335,540	$ 188,771	$ 593,280

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

	Cape Cod Regional Transit Authority	Monomoy Regional School District	Provincetown Housing Authority	Totals
Net Pension Liability				
Beginning net pension liability	$ 1,798,849	$ 9,893,660	$ -	$ 629,649,382
Ending net pension liability	$ 1,674,157	$ 10,580,661	$ 133,933	$ 702,580,650
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	95,164	601,437	7,613	39,936,832
Changes of assumptions	99,312	627,652	7,945	41,677,532
Changes in proportion and differences between employer contributions and proportionate share of contributions	3,475	9,134	92,152	11,298,198
Total Deferred Outflows of Resources	$ 197,951	$ 1,238,223	$ 107,710	$ 92,912,562
Deferred Inflows of Resources				
Differences between expected and actual experience	$ 21,451	$ 135,570	$ 1,716	$ 9,002,176
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	372,541	639,783	-	11,298,198
Total Deferred Inflows of Resources	$ 393,992	$ 775,353	$ 1,716	$ 20,300,374
Pension Expense				
Proportionate share of plan pension expense	$ 253,908	$ 1,604,688	$ 20,313	$ 106,554,935
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(80,858)	(142,143)	18,431	-
Total Employer Pension Expense	$ 173,050	$ 1,462,545	$ 38,744	$ 106,554,935
Contributions				
Statutory required contribution	$ 135,068	$ 853,628	$ 10,805	$ 56,269,528
Contribution in relation to statutory required contribution	(135,068)	(853,628)	(10,805)	(56,269,528)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.03%	20.03%	20.03%	20.87%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense				
June 30, 2018	$ (33,873)	$ 154,800	$ 22,190	$ 19,717,711
June 30, 2019	(33,873)	154,800	22,190	19,717,711
June 30, 2020	(34,449)	151,160	22,144	19,475,997
June 30, 2021	(63,784)	(34,228)	19,797	7,165,701
June 30, 2022	(30,062)	36,338	19,673	6,535,068
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ (196,041)	$ 462,870	$ 105,994	$ 72,612,188
Discount Rate Sensitivity				
1% decrease (6.625%)	$ 2,130,385	$ 13,464,005	$ 170,431	$ 894,041,463
Current discount rate (7.625%)	$ 1,674,157	$ 10,580,661	$ 133,933	$ 702,580,650
1% increase (8.625%)	$ 1,289,354	$ 8,148,702	$ 103,149	$ 541,092,898
Covered Payroll	$ 674,182	$ 4,260,830	$ 53,935	$ 269,672,807

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(concluded)

NOTE I – Schedule of Employer Allocations

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a cost-sharing pension plan to recognize pension liabilities as employees provide services to the government and earn their pension benefits. Employers participating in cost-sharing plans are required to recognize their proportionate share of the plan's collective pension amounts for all benefits provided through the plan including the net pension liability, deferred outflows of resources, deferred inflows of resources, contributions and pension expense.

GASB Statement #68 requires the allocation of the collective pension amounts be consistent with the manner in which contributions to the plan are determined. As permissible under GASB Statement #68, The Schedule of Employer Allocations is used to demonstrate the allocation of Barnstable County Retirement Association's collective pension amounts.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the Association who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2015 were applied to allocate the Association's December 31, 2016 pension fund appropriation by member unit.

The Barnstable County Hospital was operated by Barnstable County from the late 1800s to 1995, when it was closed and all employees were terminated. The remaining payments due from the Barnstable County Retirement Association to the former employees of the Barnstable County Hospital were actuarially determined and are separately identified in the Association's funding schedule. Barnstable County continues to pay for the retirement obligations related to previously retired Hospital employees.

In 2012, the Barnstable County Sheriff's functions were taken over by the Commonwealth of Massachusetts. Barnstable County continues to pay for the retirement obligations related to previously retired Sheriff's employees. These liabilities are actuarially determined and are separately identified in the Association's funding schedule.

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC complete an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP. The accrued liability for the members who accept the ERIP as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP, and is separately identified in the Association's funding schedule. The 2003 ERIP amortization is occurring over 25 years, increasing 4.5% per year. The 2010 ERIP amortization is occurring over a 10 year, straight-line basis.

The allocation percentage of the total net pension liability is a blended rate of the following three items. (1) The proportionate share of active employer's covered payroll is applied to the fiscal year 2016 pension fund appropriation calculated by the actuary. (2) ERI is a direct charge calculated by PERAC for only the employers that accepted the ERI. (3) The direct amortization of the actuarial determined net pension liability for Barnstable County Sheriff and Barnstable County Hospital since they no longer have active covered payroll.

NOTE II – Schedule of Pension Amounts by Employer

The Schedule of Pension Amounts by Employer presents the net pension liability, the various categories of deferred outflows of resources and deferred inflows of resources, contributions and pension expense for all participating employers including differences between expected and actual economic experience; differences between projected and actual investment earnings, net; and changes of assumptions.

Changes in Assumptions

The following assumption changes were reflected in the January 1, 2016 actuarial valuation:

- The investment return assumption was decreased from 7.75% to 7.625%.
- The pre-retirement mortality assumption was changed from the RP-2000 Employee Mortality Table projected generationally using Scale AA from 2010 to the RP-2000 Employee Mortality Table projected generationally using Scale BB2D from 2009.
- The post-retirement mortality assumption for non-disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale AA from 2010 to the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale BB2D from 2009.
- The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward three years for males only projected generationally using Scale AA from 2010 to the RP-2000 Healthy Annuitant Mortality Table projected generationally with Scale BB2D from 2015.
- The administrative expense assumption was increased from $1,150,000 to $1,500,000 based on the fiscal 2017 expense budget.

Changes in Plan Provisions

The following plan provision change was reflected in the January 1, 2016 actuarial valuation:

- The Cost of Living Adjustment base was increased from $15,000 to $16,000 as of July 1, 2015, to $17,000 as of July 1, 2016 and to $18,000 as of July 1, 2017.

BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2015

BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2015

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Independent Auditor's Report

To the Honorable Barnstable Retirement Board
Barnstable County Retirement Association
Barnstable, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of Barnstable County Retirement Association (BCRA) as of and for the year ended December 31, 2015, and the related notes to the financial statements, which collectively comprise the Barnstable County Retirement Associations' financial statements as listed in the table of contents.

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.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit 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 auditor's 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 Barnstable County Retirement Association as of December 31, 2015 and the results of its operations and changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Return be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the 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 financial statements, and other knowledge we obtained during our audit of the 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 August 25, 2016, on our consideration of the Barnstable County Retirement Association's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, 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 the 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 Barnstable County Retirement Association's internal control over financial reporting and compliance.

Restriction on Use

This report is intended solely for the information and use of the Barnstable County Retirement Association, the Public Employee Retirement Administration Commission and all member units and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

August 25, 2016

Management's Discussion and Analysis

As management of the Barnstable County Retirement Association, we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2015. The Association complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

The GASB is the authoritative standard setting body that provides guidance on how to prepare financial statements in conformity with generally accepted accounting principles (GAAP). Users of these financial statements rely on the GASB to establish consistent reporting standards for all governments in the United States. This consistent application is the only way users can assess the financial condition of a public retirement system compared to others.

Financial Highlights

- The Association's assets exceeded its liabilities at the close of the most recent year by $873 million (net position).
- The Association's net position increased by $10.9 million for the year ended December 31, 2015.
- Total investment income was $10.0 million; investment expenses were $4.5 million; and net investment income was $5.5 million.
- Total contributions were $83.1 million including $53.6 from employers and $25.9 from members.
- Retirement benefits, refunds and transfers amounted to $76.3 million.
- Administrative expenses were $1.3 million.
- The Total Pension Liability is $1.5 billion as of December 31, 2015 while the Net Pension Liability is $629.6 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 58.1%.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the Association fiduciary financial statements. These fiduciary financial statements comprise of four components: 1) management's discussion and analysis, 2) fiduciary financial statements, 3) notes to the financial statements and 4) required supplementary information.

Fiduciary Financial Statements

The *statement of net position* presents information on all assets and deferred outflows less deferred inflows and liabilities with the difference reported as *net position*. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position is improving or deteriorating.

The *statement of changes in fiduciary net position* presents information showing how the Association's net position changed during the most recent year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, *regardless of the timing of related cash flows*. Thus, additions and deductions are reported in this statement for some items that will only result in cash flows in future periods.

Notes to the financial statements

The notes provide additional information that is essential to a full understanding of the data provided in the fiduciary financial statements.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Return be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context.

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the Association's financial position. The Association's net position exceeded liabilities by $873 million at the close of 2015.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year end the Association's net position include investments of $869.1 million, cash of $860,000 and accounts receivable of $3.1 million.

In 2015 the Association's contributions were $83.1 million and net investment income was $5.5 million while retirement benefit payments, refunds, transfers and administration expenses were $77.6 million which resulted in a current increase of $10.9 million. In 2014 the Association's contributions were $80.2 million and net investment income was $60.6 million while retirement benefit payments, refunds, transfers and administration expenses were $72.7 million which resulted in a prior year increase of $68.1 million.

For both years, the current contributions not only fully supported the current expenses but contributed to the increase in net position. The major difference in the change in net position when comparing the 2015 and 2014 results is net investment income. Net investment income was $5.5 million and $60.6 million in 2015 and 2014 respectively. The annual money weighted rate of return was 0.57% and 7.58% in 2015 and 2014 respectively. Fluctuations in the Association's annual investment returns are expected.

The following tables present summarized financial information for the past two years.

	2015	2014
Statement of Fiduciary Net Position		
Assets:		
Cash	$ 860,349	$ 1,649,428
Investments	869,072,837	857,766,798
Receivables	3,068,905	2,653,066
Total assets	873,002,091	862,069,292
Net Position Restricted for Pension Benefits	$ 873,002,091	$ 862,069,292

Statement of Changes in Fiduciary Net Position	2015	2014
Additions:		
Contributions:		
Member contributions	$ 25,867,837	$ 24,847,689
Employer contributions	53,626,350	51,562,171
Other contributions	3,575,730	3,779,205
Total contributions	83,069,917	80,189,065
Net investment income (loss):		
Total investment income (loss)	9,956,947	65,037,021
Less, investment expenses	(4,486,386)	(4,422,339)
Net investment income (loss)	5,470,561	60,614,682
Total additions	88,540,478	140,803,747
Deductions:		
Administration	1,288,422	1,210,998
Retirement benefits, refunds and transfers	76,319,257	71,507,750
Total deductions	77,607,679	72,718,748
Net increase (decrease) in fiduciary net position	10,932,799	68,084,999
Fiduciary net position at beginning of year	862,069,292	793,984,293
Fiduciary net position at end of year	$ 873,002,091	$ 862,069,292

Requests for Information

This financial report is designed to provide a general overview of the Association's finances for all those with an interest in the Association's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Association's Board, 750 Attucks Lane, Hyannis, MA 02601.

STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2015

Assets		
Cash	$	860,349
Investments:		
PRIT funds		863,091,249
Pooled real estate funds		5,981,588
Total investments		869,072,837
Receivables		3,068,905
Total assets		873,002,091
Net Position Restricted for Pensions	$	873,002,091

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

FOR THE YEAR ENDED DECEMBER 31, 2015

Additions:		
Contributions:		
Member contributions	$	25,867,837
Retirement benefits - transfers from other systems		1,049,267
Retirement benefits - 3(8)c contributions from other systems		2,165,645
Retirement benefits - worker's compensation settlements		48,500
Retirement benefits - state COLA reimbursements		312,318
Employer contributions		53,626,350
Total contributions		83,069,917
Net investment income (loss):		
Total investment income (loss)		9,956,947
Less, investment expenses		(4,486,386)
Net investment income (loss)		5,470,561
Total additions		88,540,478
Deductions:		
Administration		1,288,422
Retirement benefits - transfers to other systems		1,365,519
Retirement benefits - 3(8)c payments to other systems		1,314,546
Retirement benefits and refunds		73,639,192
Total deductions		77,607,679
Net increase (decrease) in fiduciary net position		10,932,799
Fiduciary net position at beginning of year		862,069,292
Fiduciary net position at end of year	$	873,002,091

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

The Barnstable County Retirement Association is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Barnstable County Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the Association is mandatory immediately upon the commencement of employment for all permanent employees working a minimum of 25 hours per week. The Association has 50 participating employers.

Originally established in 1937, the Association is governed by a five member Board who establish the policies under which the Association operates. Board members also approve all of the Association's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the Association are managed by the Executive Director.

The legislative body for the Association is an Advisory Council consisting of treasurers of the member units. The Advisory Council meets semi-annually and is responsible for supervising and certifying the procedures involved in the election of members to the retirement board.

The Association is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (MGL). Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

Massachusetts contributory retirement system benefits are, with certain exceptions, uniform from system to system. The Plan provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are three classes of membership in the retirement Association; Group 1, Group 2 and Group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, Group 4 consists of police officers, firefighters, and other hazardous positions.

Any individual in Group 1 or Group 2 whose membership began before January 1, 1978, and who maintains an annuity savings fund account, is eligible to receive a superannuation retirement allowance at age 55 or later, regardless of how many years of credible service he or she has completed.

There are no minimum vesting requirements for individuals in Group 4.

Members in Groups 1 and 2, hired after January 1, 1978 and prior to April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 20 years of service or upon the completion of 10 years of service and upon reaching the age of 55.

Members in Groups 1 and 2, hired on or after April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 10 years of service and upon reaching the age of 60 (Group 1) or age 55 (Group 2).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension.

Active members contribute between 5 and 9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired on or after January 1, 1979, contribute an additional 2% of annual regular compensation in excess of $30,000. Deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the PERAC actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the Association and all costs are borne by the Association.

The pension portion of any retirement benefit is paid from the Pension Fund of the Association. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The Association adopted Section 22d of Chapter 32 in April of 1989. The Association's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2036.

Administrative expenses, which were previously appropriated from the governmental entities whose employees are members of the Association, are now paid from investment income.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service are entitled to request a refund of their accumulated total deductions.

Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements of the Barnstable County Retirement Association have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles.

BCRA is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition. Investments are carried at fair value. The

fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. The fair value of private equities are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Real estate assets are reported at fair value utilizing an income approach to valuation along with independent appraisals and estimates by management.

Accounts Receivable

Accounts receivable consist of member deductions, pension fund appropriations, and federal grant reimbursements. These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents a consumption of fiduciary net position that applies to a future period(s) and so will not be recognized as an outflow of resources (deduction) until then. The BCRA did not have any items that qualify for reporting in this category.

In addition to liabilities, the statement of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflows of resources*, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (addition) until that time. The BCRA did not have any items that qualify for reporting in this category.

NOTE 3 – PLAN ADMINISTRATION

The Association is administered by a five-person Board of Retirement consisting of the County Finance Director/Treasurer, who shall be a member ex-officio, a second member appointed by the governing authority (the County Commission), a third and fourth member who shall be elected by the members in or retired from the service of such Association, and a fifth member appointed by the Advisory Council consisting of representatives from the member units.

Chairman	Mary T. McIsaac	Term Expires:	Indefinite
Appointed Member	Mary Pat Flynn	Term Expires:	1/3/2017
Elected Member	Mark Foley	Term Expires:	1/6/2018
Elected Member	Robert Rolanti	Term Expires:	12/31/2016
Appointed Member	Judith C. Sprague	Term Expires:	12/31/2017

Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the Association. The Board must annually file a financial statement of condition for the Association with the Executive Director of PERAC.

The investment of the Association's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the Association has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the Association must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.

The following retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

Treasurer-Custodian:	)	MACRS Blanket Policy
Ex-Officio Member:	)	$50,000,000 Fiduciary Liability
Elected Members:	)	$1,000,000 Fidelity (ERISA) Bond
Appointed Members:	)	St. Paul Travelers Insurance Company
Staff Employees:	)	National Union Fire Arch Insurance Company

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2015, the carrying amount of the Association's deposits totaled $860,349 and the bank balance of $1,835,036 was covered by Federal Depository Insurance.

Investments

The Association's investments are as follows:

Investment Type		December 31, 2015
PRIT Pooled Funds	$	863,091,249
Pooled Real Estate Funds		5,981,588
Total Investments	$	869,072,837

Approximately 99% of the Retirement Association's investments are in Pension Reserve Investment Trust (PRIT). This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT.

The remaining investments consist of two closed end real estate investments which are scheduled to mature during 2018.

The Administration's annual money-weighted rate of return on pension plan investments was .57%. The money–

weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

NOTE 5 – MEMBERSHIP

The following table represents the Association's membership at January 1, 2014:

Retirees and beneficiaries currently receiving benefits	3,035
Inactive members	613
Active members	4,718
Total	8,366

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2015 were as follows:

Total pension liability	$ 1,502,651,473
The pension plan's fiduciary net position	873,002,091
The net pension liability	$ 629,649,382
The pension plan's fiduciary net position as a percentage of the total pension liability	58.10%

The total pension liability was determined by an actuarial valuation as of January 1, 2014, using the following actuarial assumptions, applied to all periods included in the measurement that was updated to December 31, 2015:

Valuation date	January 1, 2014
Actuarial cost method	Entry Age Normal Cost Method.
Amortization method	Payments increast at 4.0%, except for 2010 Early Retirement Incentive, which is a level payment.
Remaining amortization period	22 years from July 1, 2014 for 2002 and 2003 Early Retirement Incentives, retiree sheriffs liability and remaining unfunded liability, and 8 years from July 1, 2014 for 2010 Early Retirement Incentive.
Asset valuation method	Sum of actuarial value at beginning of the year, contributions and investment earnings based on the actuarial interest assumption less benefit payments and operating expenses plus 20% of the market value at the end of the year in excess of that sum, plus additional adjustment toward market value as necessary so that the final actuarial value is within 20% of market value.
Inflation rate	4.00%
Projected salary increases	Varies by length of service with ultimate rates of 4.25% for Group 1, 4.50% for Group 2 and 4.75% for Group 4.
Cost of living adjustments	3.0% of the first $15,000 of retirement income.
Rates of retirement	Varies based upon age for general employees, police and fire employees.
Rates of disability	For general employees, it was assumed that 45% of all disabilities are ordinary (55% are service connected). For police and fire employees, 10% of all disabilities are assumed to be ordinary (90% are service connected).
Mortality Rates:	
Pre-Retirement	The RP-2000 Employee Mortality Table projected generationally with a Scale AA from 2010.
Healthy Retiree	The RP-2000 Healthy Annuitant Mortality Table projected generationally with a Scale AA from 2010.
Disabled Retiree	The RP-2000 Healthy Annuitant Mortality Table set forward three years for males only projected generationally with Scale AA from 2010.
Investment rate of return/Discount rate	7.75%, net of pension plan investment expense, including inflation previously 7.875%

Investment policy: The pension plan's policy in regard to the allocation of invested assets is established by PRIT. Plan assets are managed on a total return basis with a long-term objective of achieving a fully funded status for the benefits provided through the pension plan.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to

produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of January 1, 2014 are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return	Long-Term Expected Asset Allocation
Domestic equity	6.60%	20.00%
International developed markets equity	7.10%	16.00%
International emerging markets equity	9.40%	7.00%
Core fixed income	2.20%	13.00%
High-yield fixed income	4.70%	10.00%
Real estate	4.40%	10.00%
Commodities	4.40%	4.00%
Hedge fund, GTAA, Risk parity	3.90%	10.00%
Private equity	11.70%	10.00%

Discount rate: The discount rate used to measure the total pension liability was 7.75%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the actuarially determined contribution rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net position liability to changes in the discount rate. The following presents the net position liability, calculated using the discount rate of 7.75%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.75%) or 1-percentage-point higher (8.75% than the current rate:

	1% Decrease (6.75%)	Current Discount (7.75%)	1% Increase (8.75%)
Barnstable County Retirement Association's net pension liability as of December 31, 2015	$ 798,489,114	$ 629,649,382	$ 486,357,107

Contributions: Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the Association's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE 7 – COMMITMENTS AND CONTINGENCIES

Various legal actions and claims are pending against the Association. Litigation is subject to many uncertainties, and the outcome of individual litigated matters is not always predictable. Although the amount of liability, if any, at December 31, 2015 cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2015.

NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

The following GASB pronouncements will be implemented in the future:

- The GASB issued Statement #72, *Fair Value Measurement and Application,* which is required to be implemented in 2016.
- The GASB issued Statement #76, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments*, which is required to be implemented in 2016.
- The GASB issued Statement #78, *Pensions Provided through Certain Multiple-Employer Defined Benefit Pension Plans,* which is required to be implemented in 2016.
- The GASB issued Statement #79, *Certain External Investment Pools and Pool Participants***,** which is required to be implemented in 2016 with certain provisions to be implemented in 2016.
- *The* GASB issued Statement #82, *Pension Issues – an amendment of GASB Statements #67, #68, and #73*, which is required to be implemented in 2017.

Management is currently assessing the impact the implementation of these pronouncements will have on the financial statements.

NOTE 9 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through August 25, 2016, which is the date the financial statements were available to be issued.

Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

	2014	2015
Total pension liability:		
Service cost	$ 35,328,892	$ 38,066,881
Interest	105,040,822	110,695,407
Changes in benefit terms	-	-
Differences between expected and actual experience	-	-
Changes in assumptions	-	-
Benefit payments, including refunds of employee contributions	(67,547,103)	(72,743,527)
Net change in total pension liability	72,822,611	76,018,761
Total pension liability, beginning	1,353,810,101	1,426,632,712
Total pension liability, ending **(a)**	$ 1,426,632,712	$ 1,502,651,473
Plan fiduciary net position:		
Member contributions	$ 24,666,247	$ 25,867,837
Employer contributions	51,562,171	53,626,350
Net investment income (loss)	60,614,682	5,470,561
Retirement benefits and refunds	(67,547,103)	(72,743,527)
Administration	(1,210,998)	(1,288,422)
Net increase (decrease) in fiduciary net position	68,084,999	10,932,799
Fiduciary net position at beginning of year	793,984,293	862,069,292
Fiduciary net position at end of year **(b)**	$ 862,069,292	$ 873,002,091
Net pension liability - ending (a) - (b)	$ 564,563,420	$ 629,649,382
Plan fiduciary net position as a percentage of the total pension liability	60.43%	58.10%
Covered-employee payroll (*)	$ 253,920,107	264,076,910
Net pension liability as a percentage of covered-employee payroll	222.34%	238.43%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF CONTRIBUTIONS

	2014	2015
Actuarially determined contribution	$ 51,562,171	$ 53,626,350
Contributions in relation to the actuarially determined contribution	(51,562,171)	(53,626,350)
Contribution deficiency (excess)	$ -	$ -
Covered-employee payroll	$ 253,920,107	$ 264,076,910
Contributions as a percentage of covered-employee payroll	20.31%	20.31%

Note: this schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF INVESTMENT RETURN

	2014	2015
Annual money-weighted rate of return, net of investment expense…….	7.58%	0.57%

Note: this schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

The annual money-weighted rate of return has been calculated by the Pension Reserves Investment Management Board (PRIM).

See notes to required supplementary information.

NOTE A – CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the Associations total pension liability, changes in the Associations net position, and the ending net pension liability. It also demonstrates the plan's net position as a percentage of the total pension liability and the net pension liability as a percentage of covered payroll.

Since the Association performs an actuarial valuation bi-annually, there are no reported amounts for the changes in benefit terms, differences between expected and actual experience and changes in assumptions as of December 31, 2015.

NOTE B – CONTRIBUTIONS

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the Association's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The total appropriations are payable on July 1 and January 1. Employers may choose to pay the entire appropriation in July at a discounted rate. Accordingly, actual employer contributions may be less than the "total appropriation". The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE C – MONEY WEIGHTED RATE OF RETURN

The money weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. A money weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. Inputs to the money weighted rate of return calculation are determined monthly.

Audit of Specific Elements, Accounts and Items of Financial Statements

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Independent Auditor's Report

To the Honorable Barnstable Retirement Board
Barnstable County Retirement Association
Barnstable, Massachusetts

We have audited the accompanying schedule of employer allocations of the Barnstable County Retirement Association (BCRA) as of and for the year ended December 31, 2015, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the BCRA Pension Plan as of and for the year ended December 31, 2015, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules 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 the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified row totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer, 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer.

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

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Barnstable County Retirement Association as of and for the year ended December 31, 2015, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Barnstable County Retirement Association as of and for the year ended December 31, 2015, and our report thereon, dated August 25, 2016, expressed an unmodified opinion on those financial statements.

Restriction on Use

This report is intended solely for the information and use of the Barnstable County Retirement Association management, the Barnstable County Retirement Association employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

August 25, 2016

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2015

Employer	FY2016 Pension Fund Appropriation	Direct Appropriation E.R.I., Sheriff and Hospital	FY2016 Total Appropriation	Share of Net Pension Liability	Percent of Total Net Pension Liability
Barnstable County	$ 2,703,630	$ 113,462	$ 2,817,092	$ 32,238,620	5.120%
Barnstable County Hospital	-	7,425	7,425	114,036	0.018%
Barnstable County Retired Sheriffs	-	1,306,971	1,306,971	20,012,789	3.178%
Town of Barnstable	7,969,422	206,192	8,175,614	93,561,206	14.859%
Barnstable Fire District	361,532	4,173	365,705	4,185,105	0.665%
Barnstable Housing Authority	157,188	3,747	160,935	1,841,730	0.293%
Town of Bourne	3,332,382	77,494	3,409,876	39,022,403	6.197%
Bourne Housing Authority	73,354	-	73,354	839,458	0.133%
Bourne Recreation Authority	99,552	16,493	116,045	1,328,012	0.211%
Bourne Water District	130,990	4,781	135,771	1,553,755	0.247%
Town of Brewster	1,964,848	16,372	1,981,220	22,672,955	3.601%
Brewster Housing Authority	10,479	-	10,479	119,921	0.019%
Buzzards Bay Water District	62,875	-	62,875	719,537	0.114%
Cape Cod Mosquito Control District	230,542	2,616	233,158	2,668,245	0.424%
Cape Cod Regional Technical High School	434,886	-	434,886	4,976,808	0.790%
Centerville/Osterville/Marstons Mills Fire District	1,231,305	4,777	1,236,082	14,145,643	2.247%
Town of Chatham	1,660,951	101,497	1,762,448	20,169,342	3.203%
Chatham Housing Authority	31,438	-	31,438	359,774	0.057%
Cotuit Fire District	225,303	-	225,303	2,578,353	0.409%
Town of Dennis	2,892,256	-	2,892,256	33,098,792	5.257%
Dennis Housing Authority	57,635	2,498	60,133	688,158	0.109%
Dennis Water District	251,501	-	251,501	2,878,161	0.457%
Dennis/Yarmouth Regional School District	1,116,033	-	1,116,033	12,771,810	2.028%
Town of Eastham	1,325,617	22,975	1,348,592	15,433,200	2.451%
Town of Harwich	2,326,380	-	2,326,380	26,622,944	4.228%
Hyannis Fire District	974,564	1,650	976,214	11,171,730	1.774%
Town of Mashpee	2,577,880	36,673	2,614,553	29,920,777	4.752%
Mashpee Housing Authority	41,917	-	41,917	479,695	0.076%
Mashpee Water District	151,948	4,157	156,105	1,786,456	0.284%
Town of Nantucket	5,124,323	115,478	5,239,801	59,963,947	9.523%
Nantucket Housing Authority	20,958	-	20,958	239,842	0.038%
County of Nantucket	172,907	-	172,907	1,978,737	0.314%
Nantucket Regional Transit Authority	31,438	-	31,438	359,774	0.057%
Nauset Regional School District	822,616	-	822,616	9,413,965	1.495%
North Sagamore Water District	52,396	-	52,396	599,616	0.095%
Town of Orleans	1,760,504	-	1,760,504	20,147,095	3.200%
Orleans Housing Authority	41,917	-	41,917	479,695	0.076%
Tri-Town Wastewater Treatment Facility	78,594	-	78,594	899,425	0.143%
Town of Provincetown	1,419,930	-	1,419,930	16,249,588	2.581%
Town of Sandwich	3,206,631	-	3,206,631	36,696,480	5.828%
Sandwich Housing Authority	26,198	-	26,198	299,808	0.048%
Sandwich Water District	199,105	-	199,105	2,278,545	0.362%
Town of Truro	953,606	13,387	966,993	11,066,206	1.758%
Veterans District	52,396	4,008	56,404	645,484	0.103%
Town of Wellfleet	990,283	14,022	1,004,305	11,493,202	1.825%
Town of Yarmouth	3,872,060	95,206	3,967,266	45,401,138	7.211%
Yarmouth Housing Authority	36,677	4,022	40,699	465,757	0.074%
West Barnstable Fire District	115,271	-	115,271	1,319,154	0.210%
Cape Cod Regional Transit Authority	157,188	-	157,188	1,798,849	0.286%
Monomoy Regional School District	864,533	-	864,533	9,893,660	1.571%
Total	$ 52,395,939	$ 2,180,076	$ 54,576,015	$ 629,649,382	100.000%

See notes to schedule of employer allocations and schedule of pension amounts by employer.

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2015

	Barnstable County	Barnstable County Hospital	Barnstable County Retired Sheriffs	Town of Barnstable
Net Pension Liability				
Beginning net pension liability	$ 27,571,253	$ 102,751	$ 17,928,841	$ 85,153,333
Ending net pension liability	$ 32,238,620	$ 114,036	$ 20,012,789	$ 93,561,206
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	2,558,321	9,049	1,588,131	7,424,624
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,124,372	-	12,690	55,626
Total Deferred Outflows of Resources	$ 3,682,693	$ 9,049	$ 1,600,821	$ 7,480,250
Deferred Inflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	2,438	351,385	1,051,057
Total Deferred Inflows of Resources	$ -	$ 2,438	$ 351,385	$ 1,051,057
Pension Expense				
Proportionate share of plan pension expense	$ 3,569,361	$ 12,626	$ 2,215,755	$ 10,358,810
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	224,871	(488)	(67,746)	(199,071)
Total Employer Pension Expense	$ 3,794,232	$ 12,138	$ 2,148,009	$ 10,159,739
Contributions				
Statutory required contribution	$ 2,762,340	$ 7,288	$ 1,282,792	$ 8,035,227
Contribution in relation to statutory required contribution	(2,762,340)	(7,288)	(1,282,792)	(8,035,227)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.27%	N/A	N/A	20.00%
Deferred Inflows/(Outflows) Recognized in Future Pension Expense				
June 30, 2017	$ 867,549	$ 1,786	$ 331,214	$ 1,666,047
June 30, 2018	867,549	1,786	331,214	1,666,047
June 30, 2019	867,549	1,786	331,214	1,666,047
June 30, 2020	855,173	1,742	323,532	1,630,134
June 30, 2021	224,873	(489)	(67,738)	(199,082)
Total Deferred Inflows/(Outflows) Recognized in Future Pension Expense	$ 3,682,693	$ 6,611	$ 1,249,436	$ 6,429,193
Discount Rate Sensitivity				
1% decrease (6.75%)	$ 40,883,369	$ 144,614	$ 25,379,194	$ 118,649,526
Current discount rate (7.75%)	$ 32,238,620	$ 114,036	$ 20,012,789	$ 93,561,206
1% increase (8.75%)	$ 24,901,926	$ 88,084	$ 15,458,384	$ 72,269,038
Covered Payroll	$ 13,626,369	$ -	$ -	$ 40,166,098

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2015

	Barnstable Fire District	Barnstable Housing Authority	Town of Bourne	Bourne Housing Authority
Net Pension Liability				
Beginning net pension liability	$ 3,536,684	$ 1,703,916	$ 34,318,522	$ 752,951
Ending net pension liability	$ 4,185,105	$ 1,841,730	$ 39,022,403	$ 839,458
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	332,112	146,152	3,096,654	66,616
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	181,621	3,397	581,899	1,548
Total Deferred Outflows of Resources	$ 513,733	$ 149,549	$ 3,678,553	$ 68,164
Deferred Inflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	43,726	-	222
Total Deferred Inflows of Resources	$ -	$ 43,726	$ -	$ 222
Pension Expense				
Proportionate share of plan pension expense	$ 463,362	$ 203,911	$ 4,320,441	$ 92,942
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	36,326	(8,067)	116,384	266
Total Employer Pension Expense	$ 499,688	$ 195,844	$ 4,436,825	$ 93,208
Contributions				
Statutory required contribution	$ 358,943	$ 160,935	$ 3,352,724	$ 73,354
Contribution in relation to statutory required contribution	(358,943)	(160,935)	(3,352,724)	(73,354)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	19.70%	20.31%	19.96%	19.84%
Deferred Inflows/(Outflows) Recognized in Future Pension Expense				
June 30, 2017	$ 119,755	$ 28,650	$ 894,288	$ 17,000
June 30, 2018	119,755	28,650	894,288	17,000
June 30, 2019	119,755	28,650	894,288	17,000
June 30, 2020	118,147	27,942	879,308	16,678
June 30, 2021	36,321	(8,069)	116,381	264
Total Deferred Inflows/(Outflows) Recognized in Future Pension Expense	$ 513,733	$ 105,823	$ 3,678,553	$ 67,942
Discount Rate Sensitivity				
1% decrease (6.75%)	$ 5,307,334	$ 2,335,589	$ 49,486,211	$ 1,064,562
Current discount rate (7.75%)	$ 4,185,105	$ 1,841,730	$ 39,022,403	$ 839,458
1% increase (8.75%)	$ 3,232,680	$ 1,422,599	$ 30,141,889	$ 648,421
Covered Payroll	$ 1,822,131	$ 792,231	$ 16,795,291	$ 369,708

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2015

	Bourne Recreation Authority	Bourne Water District	Town of Brewster	Brewster Housing Authority
Net Pension Liability				
Beginning net pension liability	$ 1,129,480	$ 1,283,787	$ 20,436,149	$ 215,127
Ending net pension liability	$ 1,328,012	$ 1,553,755	$ 22,672,955	$ 119,921
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	105,385	123,299	1,799,230	9,516
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	53,413	91,749	12,504	221
Total Deferred Outflows of Resources	$ 158,798	$ 215,048	$ 1,811,734	$ 9,737
Deferred Inflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	-	88,898	89,513
Total Deferred Inflows of Resources	$ -	$ -	$ 88,898	$ 89,513
Pension Expense				
Proportionate share of plan pension expense	$ 147,033	$ 172,027	$ 2,510,280	$ 13,277
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	10,680	18,353	(15,282)	(17,860)
Total Employer Pension Expense	$ 157,713	$ 190,380	$ 2,494,998	$ (4,583)
Contributions				
Statutory required contribution	$ 116,045	$ 133,261	$ 1,946,029	$ 10,479
Contribution in relation to statutory required contribution	(116,045)	(133,261)	(1,946,029)	(10,479)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	23.13%	20.19%	19.65%	19.84%
Deferred Inflows/(Outflows) Recognized in Future Pension Expense				
June 30, 2017	$ 37,156	$ 49,324	$ 436,705	$ (15,468)
June 30, 2018	37,156	49,324	436,705	(15,468)
June 30, 2019	37,156	49,324	436,705	(15,468)
June 30, 2020	36,646	48,727	428,001	(15,514)
June 30, 2021	10,684	18,349	(15,280)	(17,858)
Total Deferred Inflows/(Outflows) Recognized in Future Pension Expense	$ 158,798	$ 215,048	$ 1,722,836	$ (79,776)
Discount Rate Sensitivity				
1% decrease (6.75%)	$ 1,684,117	$ 1,970,392	$ 28,752,683	$ 152,080
Current discount rate (7.75%)	$ 1,328,012	$ 1,553,755	$ 22,672,955	$ 119,921
1% increase (8.75%)	$ 1,025,790	$ 1,200,159	$ 17,513,165	$ 92,632
Covered Payroll	$ 501,746	$ 660,192	$ 9,902,884	$ 52,815

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2015

	Buzzards Bay Water District	Cape Cod Mosquito Control District	Cape Cod Regional Technical High School	Centerville/ Osterville/ Martsons Mills Fire District
Net Pension Liability				
Beginning net pension liability	$ 645,393	$ 2,392,026	$ 4,302,581	$ 12,739,373
Ending net pension liability	$ 719,537	$ 2,668,245	$ 4,976,808	$ 14,145,643
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	57,099	211,741	394,939	1,122,539
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,327	1,668	135,402	26,097
Total Deferred Outflows of Resources	$ 58,426	$ 213,409	$ 530,341	$ 1,148,636
Deferred Inflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	193	-	-	46,539
Total Deferred Inflows of Resources	$ 193	$ -	$ -	$ 46,539
Pension Expense				
Proportionate share of plan pension expense	$ 79,665	$ 295,420	$ 551,017	$ 1,566,162
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	226	334	27,084	(4,090)
Total Employer Pension Expense	$ 79,891	$ 295,754	$ 578,101	$ 1,562,072
Contributions				
Statutory required contribution	$ 62,875	$ 228,847	$ 426,846	$ 1,236,082
Contribution in relation to statutory required contribution	(62,875)	(228,847)	(426,846)	(1,236,082)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	19.84%	19.70%	19.47%	19.92%
Deferred Inflows/(Outflows) Recognized in Future Pension Expense				
June 30, 2017	$ 14,571	$ 53,525	$ 126,293	$ 277,904
June 30, 2018	14,571	53,525	126,293	277,904
June 30, 2019	14,571	53,525	126,293	277,904
June 30, 2020	14,294	52,501	124,382	272,474
June 30, 2021	226	333	27,080	(4,089)
Total Deferred Inflows/(Outflows) Recognized in Future Pension Expense	$ 58,233	$ 213,409	$ 530,341	$ 1,102,097
Discount Rate Sensitivity				
1% decrease (6.75%)	$ 912,481	$ 3,383,733	$ 6,311,330	$ 17,938,785
Current discount rate (7.75%)	$ 719,537	$ 2,668,245	$ 4,976,808	$ 14,145,643
1% increase (8.75%)	$ 555,789	$ 2,061,021	$ 3,844,210	$ 10,926,455
Covered Payroll	$ 316,892	$ 1,161,938	$ 2,191,838	$ 6,205,807

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2015

	Town of Chatham	Chatham Housing Authority	Cotuit Fire District	Town of Dennis
Net Pension Liability				
Beginning net pension liability	$ 18,671,253	$ 322,696	$ 2,581,550	$ 28,881,100
Ending net pension liability	$ 20,169,342	$ 359,774	$ 2,578,353	$ 33,098,792
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	1,600,554	28,550	204,607	2,626,581
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	10,057	663	1,286	678,962
Total Deferred Outflows of Resources	$ 1,610,611	$ 29,213	$ 205,893	$ 3,305,543
Deferred Inflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	488,150	88	224,382	-
Total Deferred Inflows of Resources	$ 488,150	$ 88	$ 224,382	$ -
Pension Expense				
Proportionate share of plan pension expense	$ 2,233,088	$ 39,833	$ 285,467	$ 3,664,597
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(95,620)	111	(44,616)	135,797
Total Employer Pension Expense	$ 2,137,468	$ 39,944	$ 240,851	$ 3,800,394
Contributions				
Statutory required contribution	$ 1,729,864	$ 31,438	$ 221,138	$ 2,838,784
Contribution in relation to statutory required contribution	(1,729,864)	(31,438)	(221,138)	(2,838,784)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.66%	19.84%	19.47%	19.47%
Deferred Inflows/(Outflows) Recognized in Future Pension Expense				
June 30, 2017	$ 306,456	$ 7,287	$ 6,780	$ 795,614
June 30, 2018	306,456	7,287	6,780	795,614
June 30, 2019	306,456	7,287	6,780	795,614
June 30, 2020	298,713	7,149	5,790	782,908
June 30, 2021	(95,620)	115	(44,619)	135,793
Total Deferred Inflows/(Outflows) Recognized in Future Pension Expense	$ 1,122,461	$ 29,125	$ (18,489)	$ 3,305,543
Discount Rate Sensitivity				
1% decrease (6.75%)	$ 25,577,730	$ 456,249	$ 3,269,733	$ 41,974,193
Current discount rate (7.75%)	$ 20,169,342	$ 359,774	$ 2,578,353	$ 33,098,792
1% increase (8.75%)	$ 15,579,312	$ 277,900	$ 1,991,584	$ 25,566,344
Covered Payroll	$ 8,371,238	$ 158,446	$ 1,135,531	$ 14,577,045

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2015

	Dennis Housing Authority	Dennis Water District	Dennis/Yarmouth Regional School District	Town of Eastham
Net Pension Liability				
Beginning net pension liability	$ 562,267	$ 2,635,330	$ 12,262,370	$ 14,262,018
Ending net pension liability	$ 688,158	$ 2,878,161	$ 12,771,810	$ 15,433,200
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	54,609	228,399	1,013,517	1,224,714
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	46,822	1,435	6,369	7,696
Total Deferred Outflows of Resources	$ 101,431	$ 229,834	$ 1,019,886	$ 1,232,410
Deferred Inflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	45,487	674,480	352,834
Total Deferred Inflows of Resources	$ -	$ 45,487	$ 674,480	$ 352,834
Pension Expense				
Proportionate share of plan pension expense	$ 76,191	$ 318,661	$ 1,414,056	$ 1,708,717
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	9,365	(8,813)	(133,622)	(69,027)
Total Employer Pension Expense	$ 85,556	$ 309,848	$ 1,280,434	$ 1,639,690
Contributions				
Statutory required contribution	$ 60,133	$ 246,851	$ 1,095,400	$ 1,323,659
Contribution in relation to statutory required contribution	(60,133)	(246,851)	(1,095,400)	(1,323,659)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.70%	19.47%	19.47%	19.81%
Deferred Inflows/(Outflows) Recognized in Future Pension Expense				
June 30, 2017	$ 23,083	$ 48,566	$ 120,983	$ 238,632
June 30, 2018	23,083	48,566	120,983	238,632
June 30, 2019	23,083	48,566	120,983	238,632
June 30, 2020	22,819	47,461	116,080	232,707
June 30, 2021	9,363	(8,812)	(133,623)	(69,027)
Total Deferred Inflows/(Outflows) Recognized in Future Pension Expense	$ 101,431	$ 184,347	$ 345,406	$ 879,576
Discount Rate Sensitivity				
1% decrease (6.75%)	$ 872,685	$ 3,649,934	$ 16,196,553	$ 19,571,591
Current discount rate (7.75%)	$ 688,158	$ 2,878,161	$ 12,771,810	$ 15,433,200
1% increase (8.75%)	$ 531,549	$ 2,223,163	$ 9,865,268	$ 11,920,992
Covered Payroll	$ 290,485	$ 1,267,569	$ 5,624,838	$ 6,681,146

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2015

	Town of Harwich	Hyannis Fire District	Town of Mashpee	Mashpee Housing Authority
Net Pension Liability				
Beginning net pension liability	$ 24,040,696	$ 10,127,221	$ 26,873,570	$ 376,476
Ending net pension liability	$ 26,622,944	$ 11,171,730	$ 29,920,777	$ 479,695
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	2,112,685	886,541	2,374,387	38,067
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	13,277	5,571	14,922	45,508
Total Deferred Outflows of Resources	$ 2,125,962	$ 892,112	$ 2,389,309	$ 83,575
Deferred Inflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	141,199	91,753	37,987	-
Total Deferred Inflows of Resources	$ 141,199	$ 91,753	$ 37,987	$ -
Pension Expense				
Proportionate share of plan pension expense	$ 2,947,611	$ 1,236,900	$ 3,312,737	$ 53,110
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(25,584)	(17,240)	(4,613)	9,096
Total Employer Pension Expense	$ 2,922,027	$ 1,219,660	$ 3,308,124	$ 62,206
Contributions				
Statutory required contribution	$ 2,283,370	$ 958,166	$ 2,566,216	$ 41,917
Contribution in relation to statutory required contribution	(2,283,370)	(958,166)	(2,566,216)	(41,917)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	19.47%	19.51%	19.75%	19.84%
Deferred Inflows/(Outflows) Recognized in Future Pension Expense				
June 30, 2017	$ 505,142	$ 205,471	$ 591,855	$ 18,664
June 30, 2018	505,142	205,471	591,855	18,664
June 30, 2019	505,142	205,471	591,855	18,664
June 30, 2020	494,922	201,182	580,369	18,480
June 30, 2021	(25,585)	(17,236)	(4,612)	9,103
Total Deferred Inflows/(Outflows) Recognized in Future Pension Expense	$ 1,984,763	$ 800,359	$ 2,351,322	$ 83,575
Discount Rate Sensitivity				
1% decrease (6.75%)	$ 33,761,852	$ 14,167,417	$ 37,943,995	$ 608,329
Current discount rate (7.75%)	$ 26,622,944	$ 11,171,730	$ 29,920,777	$ 479,695
1% increase (8.75%)	$ 20,564,234	$ 8,629,327	$ 23,111,563	$ 370,531
Covered Payroll	$ 11,725,015	$ 4,911,831	$ 12,992,584	$ 211,262

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2015

	Mashpee Water District	Town of Nantucket	Nantucket Housing Authority	County of Nantucket
Net Pension Liability				
Beginning net pension liability	$ 1,546,588	$ 53,675,407	$ 215,127	$ 1,989,947
Ending net pension liability	$ 1,786,456	$ 59,963,947	$ 239,842	$ 1,978,737
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	141,766	4,758,486	19,033	157,024
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	46,815	104,899	442	987
Total Deferred Outflows of Resources	$ 188,581	$ 4,863,385	$ 19,475	$ 158,011
Deferred Inflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	-	66	179,487
Total Deferred Inflows of Resources	$ -	$ -	$ 66	$ 179,487
Pension Expense				
Proportionate share of plan pension expense	$ 197,791	$ 6,639,024	$ 26,555	$ 219,080
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	9,364	20,983	77	(35,696)
Total Employer Pension Expense	$ 207,155	$ 6,660,007	$ 26,632	$ 183,384
Contributions				
Statutory required contribution	$ 153,219	$ 5,142,928	$ 20,958	$ 169,710
Contribution in relation to statutory required contribution	(153,219)	(5,142,928)	(20,958)	(169,710)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	20.01%	19.91%	19.84%	19.47%
Deferred Inflows/(Outflows) Recognized in Future Pension Expense				
June 30, 2017	$ 44,976	$ 1,216,356	$ 4,856	$ 3,746
June 30, 2018	44,976	1,216,356	4,856	3,746
June 30, 2019	44,976	1,216,356	4,856	3,746
June 30, 2020	44,290	1,193,337	4,764	2,986
June 30, 2021	9,363	20,980	77	(35,700)
Total Deferred Inflows/(Outflows) Recognized in Future Pension Expense	$ 188,581	$ 4,863,385	$ 19,409	$ (21,476)
Discount Rate Sensitivity				
1% decrease (6.75%)	$ 2,265,489	$ 76,043,208	$ 304,152	$ 2,509,332
Current discount rate (7.75%)	$ 1,786,456	$ 59,963,947	$ 239,842	$ 1,978,737
1% increase (8.75%)	$ 1,379,902	$ 46,317,670	$ 185,258	$ 1,528,426
Covered Payroll	$ 765,823	$ 25,826,722	$ 105,631	$ 871,454

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2015

	Nantucket Regional Transit Authority	Nauset Regional School District	North Sagamore Water District	Town of Orleans
Net Pension Liability				
Beginning net pension liability	$ 322,696	$ 7,583,303	$ 484,045	$ 17,801,947
Ending net pension liability	$ 359,774	$ 9,413,965	$ 599,616	$ 20,147,095
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	28,550	747,053	47,583	1,598,789
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	664	715,915	44,880	228,482
Total Deferred Outflows of Resources	$ 29,214	$ 1,462,968	$ 92,463	$ 1,827,271
Deferred Inflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	89	-	-	-
Total Deferred Inflows of Resources	$ 89	$ -	$ -	$ -
Pension Expense				
Proportionate share of plan pension expense	$ 39,833	$ 1,042,285	$ 66,388	$ 2,230,625
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	111	143,188	8,976	45,695
Total Employer Pension Expense	$ 39,944	$ 1,185,473	$ 75,364	$ 2,276,320
Contributions				
Statutory required contribution	$ 31,438	$ 804,792	$ 51,427	$ 1,727,956
Contribution in relation to statutory required contribution	(31,438)	(804,792)	(51,427)	(1,727,956)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	19.84%	19.41%	19.47%	19.47%
Deferred Inflows/(Outflows) Recognized in Future Pension Expense				
June 30, 2017	$ 7,287	$ 330,850	$ 20,929	$ 447,327
June 30, 2018	7,287	330,850	20,929	447,327
June 30, 2019	7,287	330,850	20,929	447,327
June 30, 2020	7,149	327,236	20,699	439,593
June 30, 2021	115	143,182	8,977	45,697
Total Deferred Inflows/(Outflows) Recognized in Future Pension Expense	$ 29,125	$ 1,462,968	$ 92,463	$ 1,827,271
Discount Rate Sensitivity				
1% decrease (6.75%)	$ 456,249	$ 11,938,307	$ 760,401	$ 25,549,512
Current discount rate (7.75%)	$ 359,774	$ 9,413,965	$ 599,616	$ 20,147,095
1% increase (8.75%)	$ 277,900	$ 7,271,583	$ 463,158	$ 15,562,124
Covered Payroll	$ 158,446	$ 4,146,007	$ 264,077	$ 8,872,984

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2015

	Orleans Housing Authority	Tri-Town Wastewater Treatment Facility	Town of Provincetown	Town of Sandwich
Net Pension Liability				
Beginning net pension liability	$ 430,255	$ 806,731	$ 15,112,827	$ 32,376,950
Ending net pension liability	$ 479,695	$ 899,425	$ 16,249,588	$ 36,696,480
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	38,067	71,375	1,289,499	2,912,078
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	885	1,659	8,104	456,105
Total Deferred Outflows of Resources	$ 38,952	$ 73,034	$ 1,297,603	$ 3,368,183
Deferred Inflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	122	229	451,672	-
Total Deferred Inflows of Resources	$ 122	$ 229	$ 451,672	$ -
Pension Expense				
Proportionate share of plan pension expense	$ 53,110	$ 99,582	$ 1,799,105	$ 4,062,922
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	154	283	(88,714)	91,220
Total Employer Pension Expense	$ 53,264	$ 99,865	$ 1,710,391	$ 4,154,142
Contributions				
Statutory required contribution	$ 41,917	$ 78,594	$ 1,393,679	$ 3,147,347
Contribution in relation to statutory required contribution	(41,917)	(78,594)	(1,393,679)	(3,147,347)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	19.84%	19.84%	19.47%	19.47%
Deferred Inflows/(Outflows) Recognized in Future Pension Expense				
June 30, 2017	$ 9,715	$ 18,216	$ 235,221	$ 822,762
June 30, 2018	9,715	18,216	235,221	822,762
June 30, 2019	9,715	18,216	235,221	822,762
June 30, 2020	9,531	17,871	228,983	808,675
June 30, 2021	154	286	(88,715)	91,222
Total Deferred Inflows/(Outflows) Recognized in Future Pension Expense	$ 38,830	$ 72,805	$ 845,931	$ 3,368,183
Discount Rate Sensitivity				
1% decrease (6.75%)	$ 608,329	$ 1,140,602	$ 20,606,896	$ 46,536,600
Current discount rate (7.75%)	$ 479,695	$ 899,425	$ 16,249,588	$ 36,696,480
1% increase (8.75%)	$ 370,531	$ 694,737	$ 12,551,593	$ 28,345,291
Covered Payroll	$ 211,262	$ 396,115	$ 7,156,484	$ 16,161,507

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2015

	Sandwich Housing Authority	Sandwich Water District	Town of Truro	Veterans District
Net Pension Liability				
Beginning net pension liability	$ 268,907	$ 2,043,727	$ 10,242,087	$ 523,273
Ending net pension liability	$ 299,808	$ 2,278,545	$ 11,066,206	$ 645,484
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	23,792	180,816	878,168	51,223
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	553	1,137	5,518	46,485
Total Deferred Outflows of Resources	$ 24,345	$ 181,953	$ 883,686	$ 97,708
Deferred Inflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	74	592	266,027	-
Total Deferred Inflows of Resources	$ 74	$ 592	$ 266,027	$ -
Pension Expense				
Proportionate share of plan pension expense	$ 33,194	$ 252,274	$ 1,225,216	$ 71,466
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	95	107	(52,101)	9,294
Total Employer Pension Expense	$ 33,289	$ 252,381	$ 1,173,115	$ 80,760
Contributions				
Statutory required contribution	$ 26,198	$ 195,424	$ 949,115	$ 55,361
Contribution in relation to statutory required contribution	(26,198)	(195,424)	(949,115)	(55,361)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	19.84%	19.47%	19.75%	20.96%
Deferred Inflows/(Outflows) Recognized in Future Pension Expense				
June 30, 2017	$ 6,073	$ 45,532	$ 168,502	$ 22,165
June 30, 2018	6,073	45,532	168,502	22,165
June 30, 2019	6,073	45,532	168,502	22,165
June 30, 2020	5,957	44,656	164,254	21,916
June 30, 2021	95	109	(52,101)	9,297
Total Deferred Inflows/(Outflows) Recognized in Future Pension Expense	$ 24,271	$ 181,361	$ 617,659	$ 97,708
Discount Rate Sensitivity				
1% decrease (6.75%)	$ 380,201	$ 2,889,532	$ 14,033,598	$ 818,571
Current discount rate (7.75%)	$ 299,808	$ 2,278,545	$ 11,066,206	$ 645,484
1% increase (8.75%)	$ 231,579	$ 1,760,005	$ 8,547,819	$ 498,589
Covered Payroll	$ 132,038	$ 1,003,492	$ 4,806,200	$ 264,077

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2015

	Town of Welfleet	Town of Yarmouth	Yarmouth Housing Authority	West Barnstable Fire District
Net Pension Liability				
Beginning net pension liability	$ 10,463,426	$ 40,243,041	$ 415,831	$ 1,021,869
Ending net pension liability	$ 11,493,202	$ 45,401,138	$ 465,757	$ 1,319,154
Deferred Outflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	912,052	3,602,843	36,961	104,683
Changes of assumptions	-	-		
Changes in proportion and differences between employer contributions and proportionate share of contributions	5,732	414,557	2,338	134,535
Total Deferred Outflows of Resources	$ 917,784	$ 4,017,400	$ 39,299	$ 239,218
Deferred Inflows of Resources				
Differences between expected and actual experience	$ -	$ -	$ -	$ -
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	131,656	-	-	-
Total Deferred Inflows of Resources	$ 131,656	$ -	$ -	$ -
Pension Expense				
Proportionate share of plan pension expense	$ 1,272,492	$ 5,026,675	$ 51,567	$ 146,053
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(25,187)	82,910	471	26,904
Total Employer Pension Expense	$ 1,247,305	$ 5,109,585	$ 52,038	$ 172,957
Contributions				
Statutory required contribution	$ 985,738	$ 3,899,969	$ 40,699	$ 113,140
Contribution in relation to statutory required contribution	(985,738)	(3,899,969)	(40,699)	(113,140)
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -
Contributions as a percentage of covered payroll	19.75%	19.98%	22.02%	19.47%
Deferred Inflows/(Outflows) Recognized in Future Pension Expense				
June 30, 2017	$ 203,931	$ 987,979	$ 9,753	$ 53,204
June 30, 2018	203,931	987,979	9,753	53,204
June 30, 2019	203,931	987,979	9,753	53,204
June 30, 2020	199,519	970,550	9,572	52,698
June 30, 2021	(25,184)	82,913	468	26,908
Total Deferred Inflows/(Outflows) Recognized in Future Pension Expense	$ 786,128	$ 4,017,400	$ 39,299	$ 239,218
Discount Rate Sensitivity				
1% decrease (6.75%)	$ 14,575,093	$ 57,575,401	$ 590,650	$ 1,672,883
Current discount rate (7.75%)	$ 11,493,202	$ 45,401,138	$ 465,757	$ 1,319,154
1% increase (8.75%)	$ 8,877,642	$ 35,068,988	$ 359,763	$ 1,018,947
Covered Payroll	$ 4,991,054	$ 19,515,284	$ 184,854	$ 580,969

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2015

	Cape Cod Regional Transit Authority	Monomoy Regional School District	Totals
Net Pension Liability			
Beginning net pension liability	$ 1,828,599	$ 9,358,123	$ 564,563,420
Ending net pension liability	$ 1,798,849	$ 9,893,660	$ 629,649,382
Deferred Outflows of Resources			
Differences between expected and actual experience	$ -	$ -	$ -
Net difference between projected and actual investment earnings on pension plan investments	142,749	785,119	49,966,327
Changes of assumptions	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	3,318	4,935	5,345,047
Total Deferred Outflows of Resources	$ 146,067	$ 790,054	$ 55,311,374
Deferred Inflows of Resources			
Differences between expected and actual experience	$ -	$ -	$ -
Changes of assumptions	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	179,434	405,268	5,345,047
Total Deferred Inflows of Resources	$ 179,434	$ 405,268	$ 5,345,047
Pension Expense			
Proportionate share of plan pension expense	$ 199,163	$ 1,095,390	$ 69,712,847
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(35,226)	(80,062)	-
Total Employer Pension Expense	$ 163,937	$ 1,015,328	$ 69,712,847
Contributions			
Statutory required contribution	$ 157,188	$ 848,550	$ 53,626,350
Contribution in relation to statutory required contribution	(157,188)	(848,550)	(53,626,350)
Contribution deficiency/(excess)	$ -	$ -	$ -
Contributions as a percentage of covered payroll	19.84%	19.47%	20.31%
Deferred Inflows/(Outflows) Recognized in Future Pension Expense			
June 30, 2017	$ 637	$ 117,163	$ 12,552,012
June 30, 2018	637	117,163	12,552,012
June 30, 2019	637	117,163	12,552,012
June 30, 2020	(55)	113,363	12,310,291
June 30, 2021	(35,223)	(80,066)	-
Total Deferred Inflows/(Outflows) Recognized in Future Pension Expense	$ (33,367)	$ 384,786	$ 49,966,327
Discount Rate Sensitivity			
1% decrease (6.75%)	$ 2,281,212	$ 12,546,635	$ 798,489,114
Current discount rate (7.75%)	$ 1,798,849	$ 9,893,660	$ 629,649,382
1% increase (8.75%)	$ 1,389,478	$ 7,642,115	$ 486,357,107
Covered Payroll	$ 792,231	$ 4,357,269	$ 264,076,910

See notes to schedule of employer allocations and schedule of pension amounts by employer. (concluded)

NOTE I – Schedule of Employer Allocations

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a cost-sharing pension plan to recognize pension liabilities as employees provide services to the government and earn their pension benefits. Employers participating in cost-sharing plans are required to recognize their proportionate share of the plan's collective pension amounts for all benefits provided through the plan including the net pension liability, deferred outflows of resources, deferred inflows of resources, contributions and pension expense.

GASB Statement #68 requires the allocation of the collective pension amounts be consistent with the manner in which contributions to the plan are determined. As permissible under GASB Statement #68, The Schedule of Employer Allocations is used to demonstrate the allocation of Barnstable County Retirement Association's collective pension amounts.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the Association who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2014 were applied to allocate the Association's fiscal year 2016 pension fund appropriation by member unit.

The Barnstable County Hospital was operated by Barnstable County from the late 1800s to 1995, when it was closed and all employees were terminated. The remaining payments due from the Barnstable County Retirement Association to the former employees of the Barnstable County Hospital were actuarially determined and are separately identified in the Association's funding schedule. Barnstable County continues to pay for the retirement obligations related to previously retired Hospital employees.

In 2012, the Barnstable County Sheriff's functions were taken over by the Commonwealth of Massachusetts. Barnstable County continues to pay for the retirement obligations related to previously retired Sheriff's employees. These liabilities are actuarially determined and are separately identified in the Association's funding schedule.

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC complete an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP. The accrued liability for the members who accept the ERIP as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP, and is separately identified in the Association's funding schedule. The 2003 ERIP amortization is occurring over 25 years, increasing 4.5% per year. The 2010 ERIP amortization is occurring over a 10 year, straight-line basis.

The allocation percentage of the total net pension liability is a blended rate of the following three items. (1) The proportionate share of active employer's covered payroll is applied to the fiscal year 2016 pension fund appropriation calculated by the actuary. (2) ERI is a direct charge calculated by PERAC for only the employers that accepted the ERI. (3) The direct amortization of the actuarial determined net pension liability for Barnstable County Sheriff and Barnstable County Hospital since they no longer have active covered payroll.

NOTE II – Schedule of Pension Amounts by Employer

The Schedule of Pension Amounts by Employer presents the net pension liability, the various categories of deferred outflows of resources and deferred inflows of resources, contributions and pension expense for all participating employers including differences between expected and actual economic experience; differences between projected and actual investment earnings, net; and changes of assumptions. Since the Association performs an actuarial valuation bi-annually, there are no reported differences between expected and actual experience or a change of assumptions as of December 31, 2015.

BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS PREPARED IN ACCORDANCE WITH PERAC RULES AND REGULATIONS

YEAR ENDED DECEMBER 31, 2014

BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2014

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Financial Section

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Independent Auditor's Report

To the Honorable Barnstable Retirement Board
Barnstable County Retirement Association
Barnstable, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of the Barnstable County Retirement Association (BCRA) as of and for the year ended December 31, 2014, and the related notes to the financial statements, which collectively comprise the Barnstable County Retirement Association's financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the Commonwealth of Massachusetts Public Employee Retirement Administration Commission Rules and Regulations 840 CMR 5.03: Annual Report. Management is also responsible for 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.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America, the Commonwealth of Massachusetts Public Employee Retirement Administration Commission Rules and Regulations 840 CMR 25.00: "The Conduct of Field Examinations of Contributory Retirement Associations," in existence as of August 27, 2004, 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 auditor's 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 respective financial position of the Barnstable County Retirement Association as of December 31, 2014, and the results of its operations and changes in its fund balances for the year then ended in accordance with the financial reporting provisions of the Commonwealth of Massachusetts Public Employee Retirement Administration Commission Rules and Regulations 840 CMR 5.03: Annual Report described in Note 2.

Basis of Accounting

We draw attention to Note 2 of the financial statements which describes the basis of accounting. As described in Note 2 to the financial statements, the financial statements are prepared by the BCRA on the basis of financial reporting provisions prescribed by the Commonwealth of Massachusetts Public Employee Retirement Administration Commission Rules and Regulations 840 CMR 5.03: Annual Report, which is a basis of accounting other than accounting principles generally accepted in the United States of America, to meet the requirements of the Commonwealth of Massachusetts Public Employee Retirement Administration Commission (PERAC). Our opinion is not modified with respect to this matter.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated May 26, 2015, on our consideration of the Barnstable County Retirement Association's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, 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 the 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 Barnstable County Retirement Association's internal control over financial reporting and compliance.

Restriction on Use

This report is intended solely for the information and use of the Barnstable Country Retirement Association, the Public Employee Retirement Commission and all member units and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

May 26, 2015

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Financial Statements

STATEMENT OF ASSETS, LIABILITIES, AND FUND BALANCE

DECEMBER 31, 2014

Assets		
Cash	$	1,649,428
Investments:		
PRIT funds		850,169,226
Pooled real estate funds		7,597,572
Receivables		2,653,066
Total assets	$	862,069,292
Fund Balance		
Annuity Savings Fund	$	242,573,808
Annuity Reserve Fund		74,220,567
Special Military Service Credit Fund		198,540
Pension Fund		171,250
Pension Reserve Fund		544,905,127
Total fund balance	$	862,069,292

See notes to financial statements.

STATEMENT OF CHANGES IN FUND BALANCE

YEAR ENDED DECEMBER 31, 2014

	Annuity Savings Fund	Annuity Reserve Fund	Military Service Fund
Income:			
Receipts	$ 25,907,728	$ 2,443	$ 14,370
Investment income	353,693	2,067,699	184
Total income	26,261,421	2,070,142	14,554
Disbursements and depreciation:			
Disbursements	(3,833,303)	(11,097,682)	(2,595)
Net change in fund balance before interfund transfers in (out)	22,428,118	(9,027,540)	11,959
Interfund transfers in (out), net	(14,133,071)	14,170,792	(10)
Net change in fund balance	8,295,047	5,143,252	11,949
Fund balance at beginning of year	234,278,761	69,077,315	186,591
Fund balance at end of year	$ 242,573,808	$ 74,220,567	$ 198,540

See notes to financial statements.

Pension Fund	Pension Reserve Fund	Expense Fund	Total
$ 53,372,419	$ 921,196	$ -	$ 80,218,156
-	56,953,017	5,633,337	65,007,930
53,372,419	57,874,213	5,633,337	145,226,086
(56,574,170)	-	(5,633,337)	(77,141,087)
(3,201,751)	57,874,213	-	68,084,999
2,862,532	(2,900,243)	-	-
(339,219)	54,973,970	-	68,084,999
510,469	489,931,157	-	793,984,293
$ 171,250	$ 544,905,127	$ -	$ 862,069,292

STATEMENT OF INCOME

YEAR ENDED DECEMBER 31, 2014

Members deductions	$	24,197,965
Transfers of members' accounts from other systems		1,060,039
Members' makeup payments and redeposits		649,724
Reimbursements from other systems for Pension Fund		2,062,269
Received from Commonwealth for COLA and Survivor Benefits		656,897
Employers' contributions to Pension Fund		50,627,593
Workers compensation		25,660
Contributions received for military Service		14,370
Federal grant reimbursement		109,587
Interest not refunded		988
Miscellaneous		2,443
Pension Reserve appropriation		810,621
Investment income (loss)		65,007,930
Total income	$	145,226,086

See notes to financial statements.

STATEMENT OF DISBURSEMENTS

YEAR ENDED DECEMBER 31, 2014

Refunds of members' accounts from Annuity Savings Fund	$	2,591,822
Annuity portion of retirement allowance payments from Annuity Reserve Fund		10,873,985
Option B refunds from Annuity Reserve Fund		223,697
Superannuation and termination retirement allowance payments from Pension Fund		40,548,055
Survivor allowance payments from Pension Fund		2,383,170
Ordinary disability payments from Pension Fund		893,856
Accidental disability payments from Pension Fund		10,112,977
Accidental death benefits from Pension Fund		1,061,372
Section 101 benefits from Pension Fund		347,024
Reimbursements to other systems from Pension Fund		1,227,716
Payment from Military Service Fund		2,595
Investment management and custodial fees from Expense Fund		4,422,339
Board member stipend from Expense Fund		23,626
Staff salaries from Expense Fund		523,046
Legal expenses from Expense Fund		132,217
Travel expenses from Expense Fund		1,378
Fiduciary insurance from Expense Fund		45,418
Professional services		48,793
Administrative expenses from Expense Fund		298,934
Furniture and equipment expenses from Expense Fund		5,782
Rent from Expense Fund		128,744
Education and training		3,060
Transfer of members accounts to other systems		1,241,481
Total disbursements and depreciation	$	77,141,087

See notes to financial statements.

STATEMENT OF INVESTMENT INCOME

YEAR ENDED DECEMBER 31, 2014

Gross investment income	$	23,686,161
Add:		
Profit on the sale of investments		36,838,321
Increase in market value of securities		53,727,903
Less:		
Loss on the sale of investments		(194,205)
Decrease in market value of securities		(49,050,250)
Net investment income (loss)		65,007,930
Investment income required:		
Annuity Savings Fund		353,693
Annuity Reserve Fund		2,067,699
Special Military Service Credit Fund		184
Pension Reserve Fund		56,953,017
Expense Fund		5,633,337
Total investment income required		65,007,930
Excess (deficiency) of investment income requiring transfer from Pension Reserve Fund	$	-

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

The Barnstable County Retirement Association is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Barnstable County Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the Association is mandatory immediately upon the commencement of employment for all permanent employees working a minimum of 25 hours per week. As of January 1, 2014, the Association had 50 participating employers.

Originally established in 1937, the Association is governed by a five member Board who establish the policies under which the Association operates. Board members also approve all of the Association's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the Association are managed by the Executive Director.

The legislative body for the System is an Advisory Council consisting of treasurers of the member units. The Advisory Council meets semi- annually and is responsible for supervising and certifying the procedures involved in the election of members to the retirement board.

The Association is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (MGL). Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

Massachusetts contributory retirement system benefits are, with certain exceptions, uniform from system to system. The Plan provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are three classes of membership in the retirement system; Group 1, Group 2 and Group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, Group 4 consists of police officers, firefighters, and other hazardous positions.

Any individual in Group 1 or Group 2 whose membership began before January 1, 1978, and who maintains an annuity savings fund account, is eligible to receive a superannuation retirement allowance at age 55 or later, regardless of how many years of credible service he or she has completed.

There are no minimum vesting requirements for individuals in Group 4.

Members in Groups 1 and 2, hired after January 1, 1978 and prior to April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 20 years of service or upon the completion of 10 years of service and upon reaching the age of 55.

Members in Groups 1 and 2, hired on or after April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 10 years of service and upon reaching the age of 60 (Group 1) or age 55 (Group 2).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension.

Active members contribute between 5 and 9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired on or after January 1, 1979, contribute an additional 2% of annual regular compensation in excess of $30,000. Deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the Public Employee Retirement Administration Commission's (PERAC) actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the System and all costs are borne by the System.

The pension portion of any retirement benefit is paid from the Pension Fund of the System. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. In past years, retirement systems were paying only the actual retirement benefits that were due each year. Systems had no statutory authorization to put aside money for the future benefits of employees who are currently employed. Large unfunded liabilities resulted from operating under this pay-as-you-go basis. In 1977, legislation authorized local governments to appropriate funds to meet future pension obligations. In 1983, additional legislation was passed requiring the transfer of investment earnings (in excess of the amount credited to member accounts) into the Pension Reserve Fund. Additionally, Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The Association adopted Section 22d of Chapter 32 in April of 1989. The Association's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2036. These initiatives have significantly reduced the rate of growth of Massachusetts Retirement Systems' unfunded liabilities, and in some Systems have actually reduced such liability.

Administrative expenses, which were previously appropriated from the governmental entities whose employees are members of the system, are now paid from investment income.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service are entitled to request a refund of their accumulated total deductions.

Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements are presented on the basis of accounting and reporting practices prescribed by PERAC. Financial accounting and reporting standards required by generally accepted accounting principles (GAAP) differ in some respects from the requirements of PERAC. The valuation of assets, liabilities and net assets are substantially the same. The main difference between GAAP and PERAC is that the financial statements for the changes in net assets/fund balances are presented in different formats.

The underlying accounting records of the Association are maintained on a calendar year basis in accordance with the standards and procedures established by PERAC.

The Annuity Savings Fund is the fund in which members' contributions are deposited. Voluntary contributions, redeposits, and transfers to and from other systems are also accounted for in this fund. Members' contributions to the fund earn interest at a rate determined by PERAC. Interest for some members who withdraw from the Association with less than 10 years of service is transferred to the Pension Reserve Fund. Upon retirement, a member's contributions and interest are transferred to the Annuity Reserve Fund. Dormant account balances must be transferred to the Pension Reserve Fund after a period of 10 years of inactivity.

The Annuity Reserve Fund is the fund to which a Member's account is transferred upon retirement from the Annuity Savings Fund and the Special Military Service Credit Fund. The annuity portion of the retirement allowance is paid from this fund. Interest is credited monthly to this fund at the rate of 3% annually on the previous month's balance.

The Special Military Service Credit Fund contains contributions and interest for members while on military leave for service in the Armed Forces who will receive creditable service for the period of that leave. Creditable service is granted provided the member returns to the same governmental unit within two years of the date of discharge from the military. Upon retirement, a member's contributions and interest are transferred to the Annuity Reserve Fund.

The Pension Fund contains the amounts appropriated by the governmental units as established by PERAC to pay the pension portion of each retirement allowance.

The Pension Reserve Fund contains the amounts appropriated by the governmental units for the purpose of funding retirement benefits. Any investment income in excess of the amount required to credit interest to the Annuity Savings Fund, Annuity Reserve Fund and Military Service Credit Fund is credited to the Pension Reserve Fund. Any profit or loss realized on the sale or maturity of any investment or on the unrealized gain or loss of market valued investments as of the valuation date is credited to the Pension Reserve Fund.

The Expense Fund contains amounts transferred from investment income and rental income from the Association's office building for the purpose of administering the Association.

The Investment Income Account is credited with all interest and dividends derived from invested funds. At the end of the year, the interest credited to the Annuity Savings Fund, Annuity Reserve Fund, Special Military Credit Service Fund and Expense Fund is distributed from this account and the remaining balance is transferred to the Pension Reserve Fund.

NOTE 3 – PLAN ADMINISTRATION

The Association is administered by a five-person Board of Retirement consisting of the County Finance Director/Treasurer, who shall be a member ex-officio, a second member appointed by the governing authority (the County Commission), a third and fourth member who shall be elected by the members in or retired from the service of such system, and a fifth member appointed by the Advisory Council consisting of representatives from the member units.

Chairman	E. Mark Zielinski	Term Expires:	Indefinite
Appointed Member	Mary Pat Flynn	Term Expires:	Indefinite
Elected Member	Mark Foley	Term Expires:	1/6/2018
Elected Member	Robert Rolanti	Term Expires:	12/31/2016
Appointed Member	Judith C. Sprague	Term Expires:	12/31/2017

Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the Association. The Board must annually file a financial statement of condition for the Association with the Executive Director of PERAC.

The investment of the Association's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the Association has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the Association must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.

The following retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

Treasurer-Custodian:	)	MACRS Blanket Policy
Ex-Officio Member:	)	$50,000,000 Fiduciary Liability
Elected Members:	)	$1,000,000 Fidelity (ERISA) Bond
Appointed Members:	)	St. Paul Travelers Insurance Company
Staff Employees:	)	National Union Fire Arch Insurance Company

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2014, the carrying amount of the System's deposits totaled $1,649,428 and the bank balance totaled $2,454,425 which was covered by Federal Depository Insurance.

Investments

The System's investments are as follows:

Investment Type		December 31, 2014
PRIT Pooled Funds	$	850,169,226
Pooled Real Estate Funds		7,597,572
Total Investments	$	857,766,798

Approximately 99% of the Retirement System's investments are in Pension Reserve Investment Trust (PRIT). This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT.

The remaining investments consist of two closed end real estate investments which are scheduled to mature during 2015 and 2016.

The Administration's annual money-weighted rate of return on pension plan investments was 7.58. The money – weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

NOTE 5 – ACTUARIAL VALUATION

Components of the net pension liability as of the January 1, 2014 actuarial valuation were as follows:

Total pension liability	$ 1,426,632,712
The pension plan's fiduciary net position	862,069,292
The net pension liability	$ 564,563,420
The pension plan's fiduciary net position as a percentage of the total pension liability	60.43%

The significant assumptions and other inputs used to measure the total pension liability as of January 1, 2014 were as follows:

Valuation date	January 1, 2014
Actuarial cost method	Entry Age Normal Cost Method.
Amortization method	Payments increast at 4.0%, except for 2010 Early Retirement Incentive, which is a level payment.
Remaining amortization period	22 years from July 1, 2014 for 2002 and 2003 Early Retirement Incentives, retiree sheriffs liability and remaining unfunded liability, and 8 years from July 1, 2014 for 2010 Early Retirement Incentive.
Asset valuation method	Sum of actuarial value at beginning of the year, contributions and investment earnings based on the actuarial interest assumption less benefit payments and operating expenses plus 20% of the market value at the end of the year in excess of that sum, plus additional adjustment toward market value as necessary so that the final actuarial value is within 20% of market value.
Inflation rate	4.00%
Projected salary increases	Varies by length of service with ultimate rates of 4.25% for Group 1, 4.50% for Group 2 and 4.75% for Group 4.
Cost of living adjustments	3.0% of the first $15,000 of retirement income.
Rates of retirement	Varies based upon age for general employees, police and fire employees.
Rates of disability	For general employees, it was assumed that 45% of all disabilities are ordinary (55% are service connected). For police and fire employees, 10% of all disabilities are assumed to be ordinary (90% are service connected).

Mortality Rates:	
Pre-Retirement	The RP-2000 Employee Mortality Table projected generationally with a Scale AA from 2010.
Healthy Retiree	The RP-2000 Healthy Annuitant Mortality Table projected generationally with a Scale AA from 2010.
Disabled Retiree	The RP-2000 Healthy Annuitant Mortality Table set forward three years for males only projected generationally with Scale AA from 2010.
Investment rate of return/Discount rate	7.75%, net of pension plan investment expense, including inflation previously 7.875%

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of January 1, 2014 are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return	Long-Term Expected Asset Allocation
Domestic equity	6.60%	20.00%
International developed markets equity	7.10%	16.00%
International emerging markets equity	9.40%	7.00%
Core fixed income	2.20%	13.00%
High-yield fixed income	4.70%	10.00%
Real estate	4.40%	10.00%
Commodities	4.40%	4.00%
Hedge fund, GTAA, Risk parity	3.90%	10.00%
Private equity	11.70%	10.00%

Discount rate: The discount rate used to measure the total pension liability was 7.75%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the actuarially determined contribution rated. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net position liability to changes in the discount rate. The following presents the net position liability, calculated using the discount rate of 7.75%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.75%) or 1-percentage-point higher (8.75% than the current rate:

	1% Decrease (6.75%)	Current Discount (7.75%)	1% Increase (8.75%)
Barnstable County Retirement Association's net pension liability as of December 31, 2014	$ 727,809,353	$ 564,563,420	$ 426,139,334

NOTE 6 – MEMBERSHIP

The following table represents the Association's membership at December 31, 2014:

	2014
Retirees and beneficiaries currently receiving benefits	2,729
Inactive members entitled to a return of their employee contributions	513
Inactive members with a vested right to a deferred or immediate benefit	138
Active members	4,696
Total	8,076

NOTE 7 – SCHEDULE OF FUNDING PROGRESS

The Schedule of Funding Progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (A)	Actuarial Accrued Liability (AAL) Entry Age (B)	Unfunded AAL (UAAL) (B-A)	Funded Ratio (A/B)	Covered Payroll (C)	UAAL as a Percentage of Covered Payroll ((B-A)/C)
01/01/14	$ 776,973,700	$ 1,353,810,101	$ 576,836,401	57.4%	$ 253,920,106	227.2%
01/01/12	651,063,981	1,173,483,848	522,419,867	55.5%	239,437,303	218.2%
01/01/10	554,876,554	1,030,210,321	475,333,767	53.9%	234,374,075	202.8%

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