

PLYMOUTH COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2017

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Financial Section

Independent Auditor's Report

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Independent Auditor's Report

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

Report on the Financial Statements

We have audited the accompanying financial statements of the Plymouth County Retirement Association as of and for the year ended December 31, 2017, and the related notes to the financial statements, which collectively comprise the Plymouth 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 Plymouth 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 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 October 18, 2018, on our consideration of the Plymouth 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 Plymouth 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 Plymouth 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.



October 18, 2018

Management's Discussion and Analysis

As management of the Plymouth County Retirement Association (the "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 association compared to others.

Financial Highlights

- The Association's assets exceeded its liabilities at the close of the most recent year by \$1.02 billion (net position).
- The Association's net position increased by \$133.1 million for the year ended December 31, 2017.
- Total investment income was \$152.5 million; investment expenses were \$7.6 million; and net investment income was \$144.9 million.
- Total contributions were \$100.8 million including \$69.9 million from employers and \$26.1 million from members.
- Retirement benefits, refunds and transfers amounted to \$110.8 million.
- Administrative expenses were \$1.7 million.
- The Total Pension Liability is \$1.56 billion as of December 31, 2017 while the Net Pension Liability is \$536 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 65.56%.

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 \$1.02 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 \$1.01 billion, cash of \$7.6 million, as well as accounts receivable and other assets of \$8.8 million.

In 2017, the Association's total contributions were \$100.8 million and net investment income was \$144.9 million while retirement benefit payments, refunds, transfers and administration expenses were \$112.5 million, which resulted in a current increase of \$133.1 million.

The current contributions were not sufficient to support the current expenses and therefore a portion of net investment income was needed to support the remaining expenses. The primary reason for the increase in net position was investment income. The annual money weighted rate of return was 16.30% 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 year.

	<u>2017</u>	<u>2016</u>
Statement of Fiduciary Net Position		
Assets:		
Cash.....	\$ 7,607,381	\$ 3,126,640
Investments.....	1,012,111,628	877,917,400
Receivables.....	7,699,564	8,251,710
Other assets.....	<u>1,099,153</u>	<u>1,189,116</u>
Total assets.....	<u>1,028,517,726</u>	<u>890,484,866</u>
Liabilities:		
Accounts payable.....	<u>8,810,280</u>	<u>3,900,129</u>
Net Position Restricted for Pension Benefits.....	<u>\$ 1,019,707,446</u>	<u>\$ 886,584,737</u>

Statement of Changes in Fiduciary Net Position	<u>2017</u>	<u>2016</u>
Additions:		
Contributions:		
Member contributions.....	\$ 26,076,090	\$ 25,501,976
Employer contributions.....	69,896,514	66,393,381
Other contributions.....	<u>4,788,362</u>	<u>7,186,747</u>
Total contributions.....	<u>100,760,966</u>	<u>99,082,104</u>
Net investment income (loss):		
Total investment income (loss).....	152,487,999	63,760,222
Less, investment expenses.....	<u>(7,580,883)</u>	<u>(6,123,852)</u>
Net investment income (loss).....	<u>144,907,116</u>	<u>57,636,370</u>
Total additions.....	<u>245,668,082</u>	<u>156,718,474</u>
Deductions:		
Administration.....	1,737,836	1,985,199
Retirement benefits, refunds and transfers.....	<u>110,807,537</u>	<u>100,786,030</u>
Total deductions.....	<u>112,545,373</u>	<u>102,771,229</u>
Net increase (decrease) in fiduciary net position.....	133,122,709	53,947,245
Fiduciary net position at beginning of year.....	<u>886,584,737</u>	<u>832,637,492</u>
Fiduciary net position at end of year.....	<u>\$ 1,019,707,446</u>	<u>\$ 886,584,737</u>

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, 10 Cordage Circle, Suite 234, Plymouth, MA 02360.

Financial Statements

STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2017

Assets	
Cash and cash equivalents.....	\$ 7,607,381
Investments.....	1,012,111,628
Accounts receivable.....	7,699,564
Interest and dividends.....	1,067,478
Other assets.....	<u>31,675</u>
 Total Assets.....	 <u>1,028,517,726</u>
 Liabilities	
Accounts payable.....	<u>8,810,280</u>
 Net Position Restricted for Pensions.....	 \$ <u>1,019,707,446</u>

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2017

Additions:	
Contributions:	
Employer pension assessments.....	\$ 68,636,514
Employer additional contributions.....	1,260,000
Member contributions.....	26,076,090
Transfers from other systems.....	1,722,883
3(8)(c) contributions from other systems.....	2,060,049
Workers' compensation settlements.....	61,800
Federal grant reimbursements.....	40,615
State COLA reimbursements.....	368,130
Members' makeup payments and redeposits.....	418,252
Interest not refunded.....	100,860
Reimbursement of 91A overearnings.....	450
Other revenue.....	<u>15,323</u>
 Total contributions.....	 <u>100,760,966</u>
Net investment income:	
Investment income (loss).....	152,487,999
 Less: investment expense.....	 <u>(7,580,883)</u>
Net investment income (loss).....	<u>144,907,116</u>
 Total additions.....	 <u>245,668,082</u>
Deductions:	
Administration.....	1,737,836
Retirement benefits and refunds.....	99,910,970
Transfers to other systems.....	2,503,814
3(8)(c) transfer to other systems.....	<u>8,392,753</u>
 Total deductions.....	 <u>112,545,373</u>
 Net increase (decrease) in fiduciary net position.....	 133,122,709
 Fiduciary net position at beginning of year.....	 <u>886,584,737</u>
 Fiduciary net position at end of year.....	 <u>\$ 1,019,707,446</u>

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

Established in 1937, the Plymouth 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 Plymouth 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 20 hours per week. The Association has 54 participating employers.

The Association is governed by a five member Board that establishes 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 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.

Members 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 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 for Groups 1 & 2 or age 55 for Group 4.

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 2029.

Administrative expenses are 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 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.

The Association 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 other miscellaneous reimbursements. These receivables are considered 100% collectible and therefore the Association does not report an allowance for uncollectibles.

Fair Value Measurements

The 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 Association's financial instruments, see Note 4 – Cash and Investments.

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 Association 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 Association 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	Thomas J. O'Brien
Appointed Member	James Harrington
Elected Member	Joseph McDonough
Elected Member	John Sciara
Member	Mary Beth Carter

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 \$6,921,177 million and the bank balance of \$9,239,301 million was covered by Federal Depository Insurance.

Investments

The Association’s investments are as follows:

Investment Type	Fair Value	Maturity			
		Under 1 Year	6-10 Years	Over 10 Years	
<u>Debt Securities:</u>					
Fixed Income.....	\$ 119,784,802	\$ <u>749,153</u>	\$ <u>36,752,262</u>	\$ <u>41,719,196</u>	\$ <u>40,564,191</u>
<u>Other Investments:</u>					
Money Market Mutual Funds.....	686,202				
Domestic Equities.....	322,108,769				
International Equities.....	356,056,251				
Real Estate Funds.....	114,844,104				
Venture Capital Funds.....	25,601,400				
Hedge Funds.....	39,408,442				
Bank Loan.....	<u>34,307,862</u>				
Total Investments.....	\$ <u>1,012,797,832</u>				

The Administration’s annual money-weighted rate of return on pension plan investments was 16.30%. The money-weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

Fair Market of Investments

The retiree pension defined benefit plan holds significant amounts of investments that are measured at fair value on a recurring basis. Because investing is a key part of the plan's activities, the plan shows greater disaggregation in its disclosures. The plan chooses a tabular format for disclosing the levels within the fair value hierarchy.

The Association categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles.

The Association has the following recurring fair value measurements as of December 31, 2017:

Investment Type	December 31, 2017	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level:				
<u>Debt Securities</u>				
Fixed Income.....	\$ 119,784,802	\$ -	\$ 119,784,802	\$ -
<u>Other Investments</u>				
Money Market Mutual Funds.....	686,202	686,202	-	-
Domestic Equities.....	322,108,769	322,108,769	-	-
International Equities.....	356,056,251	356,056,251	-	-
Real Estate Funds.....	114,844,104	-	-	114,844,104
Venture Capital Funds.....	25,601,400	-	-	25,601,400
Hedge Funds.....	39,408,442	-	-	39,408,442
Bank Loan.....	34,307,862	-	34,307,862	-
Total Investments by fair value level.....	\$ <u>1,012,797,832</u>	\$ <u>678,851,222</u>	\$ <u>154,092,664</u>	\$ <u>179,853,946</u>

NOTE 5 – MEMBERSHIP

The following table represents the Association's membership at December 31, 2017:

Retirees and beneficiaries currently receiving benefits.....	4,012
Inactive members.....	1,823
Active members.....	<u>5,794</u>
Total.....	<u>11,629</u>

NOTE 6 – ACTUARIAL VALUATION

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

Total pension liability.....	\$ 1,555,495,352
The pension plan's fiduciary net position.....	<u>1,019,707,446</u>
The net pension liability.....	<u>\$ 535,787,906</u>
 The pension plan's fiduciary net position as a percentage of the total pension liability.....	 65.56%

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

Valuation date.....	January 1, 2017
Actuarial cost method.....	Individual Entry Age Normal Cost Method.
Amortization method.....	Payments increase at 3.5% for the unfunded actuarial accrued liability, and level amortization of the 2002, 2003, and 2013 Early Retirement Incentives
Remaining amortization period.....	Amortization of the unfunded actuarial accrued liability over 12 years, the 2002 ERI over two years, 2003 ERI over three years, and the 2013 ERI over 11 years; all as of July 1, 2017.
Asset valuation method.....	Market value with a five-year smoothing of asset returns greater than or less than the assumed rate of return, with a 20% corridor.
Projected salary increases.....	3.75% per year.
Cost of living adjustments.....	3.0% of the first \$14,000 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..... It is assumed that both pre-retirement mortality and beneficiary mortality is represented by the RP-2014 Blue Collar Mortality with Scale MP-2016, fully generational. Mortality for retired members for Group 1 and 2 is represented by the RP-2014 Blue Collar Mortality Table set forward five years for males and 3 years for females, fully generational. Mortality for retired members for Group 4 is represented by the RP-2014 Blue Collar Mortality Table set forward three years for males, and six years for females, fully generational. Mortality for disabled members for Group 1 and 2 is represented by the RP-2000 Mortality Table set forward six years. Mortality for disabled members for Group 4 is represented by the RP-2000 Mortality Table set forward two years. Generational adjusting is based on Scale MP-2016.

Investment rate of return/Discount rate..... 8% nominal rate, net of investment expense

Investment policy: The pension plan’s policy in regard to the allocation of invested assets is established by the Board. 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 nominal 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, 2017 are summarized in the following table:

Asset Class	Long-Term Expected Nominal Rate of Return	Long-Term Expected Asset Allocation
US equity.....	7.50%	26.50%
Developed markets equity.....	7.30%	16.00%
Emerging markets equity.....	9.80%	4.00%
Core bonds.....	4.20%	11.50%
Foreign bonds.....	2.40%	3.00%
Emerging markets bonds.....	5.50%	4.00%
High yield bonds.....	6.00%	4.00%
Bank loans.....	5.50%	3.00%
Private equity.....	9.60%	10.00%
Real estate.....	6.90%	10.00%
Natural resources.....	7.00%	1.00%
Infrastructure.....	7.80%	2.00%
Hedge fund of funds.....	5.30%	4.00%
Cash.....	2.80%	1.00%
		100.00%

Discount rate: The discount rate used to measure the total pension liability was 8.00%. 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 8.00%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage-point lower (7.00%) or 1-percentage-point higher (9.00% than the current rate:

	1% Decrease (7.00%)	Current Discount (8.00%)	1% Increase (9.00%)
Plymouth County Retirement Association's net pension liability as of December 31, 2017.....	\$ 695,089,721	\$ 535,787,906	\$ 397,853,354

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.

NOTE 7 – PLYMOUTH COUNTY SHERIFF’S RETIRED EMPLOYEES

Section 10 of Chapter 61 of the Acts of 2009 related to the transfer of the sheriff’s operations from County Government to the Commonwealth and required the Commonwealth to pay off the unfunded pension liability of the retired sheriff’s employees. Section 11 of Chapter 34D of the Massachusetts General Laws provides a mechanism for allowing the County to retain additional deeds excise tax to satisfy the actuarial determined liability. The Commonwealth established a twelve-year amortization schedule for the FY2011 through FY2022 annual assessments. The Commonwealth withheld, in error, \$550,619 from each of the required amortization payments for the first four fiscal years. The Association and Commonwealth signed a settlement agreement where the Commonwealth agreed that it was in arrears \$2,202,476. The Commonwealth, County, PERAC and the Association established a ten-year straight-line payment schedule of \$220,247 in November 2014 to satisfy the liability. The one required payment of \$220,247 was paid for 2017 and received before December 31, 2017. The six remaining payments totaling \$1,321,482, at year-end, has been recorded as a receivable.

NOTE 8 – COMMITMENTS AND CONTINGENCIES

There are no legal actions or claims pending that would materially affect the financial position at December 31, 2017.

NOTE 9 – 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 basic 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 required to be implemented in 2019.

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

NOTE 10 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through October 18, 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.....	\$ 30,880,169	\$ 32,038,175	\$ 33,239,607	\$ 26,807,632
Interest.....	111,727,069	115,962,263	116,054,394	119,404,812
Changes in benefit terms.....	-	-	6,700,296	-
Differences between expected and actual experience.....	-	-	21,421,023	-
Changes in assumptions.....	-	-	(23,402,726)	-
Benefit payments.....	<u>(90,825,319)</u>	<u>(98,626,669)</u>	<u>(100,786,029)</u>	<u>(110,807,537)</u>
Net change in total pension liability.....	51,781,919	49,373,769	53,226,565	35,404,907
Total pension liability - beginning.....	<u>1,365,708,192</u>	<u>1,417,490,111</u>	<u>1,466,863,880</u>	<u>1,520,090,445</u>
Total pension liability - ending (a).....	<u>\$ 1,417,490,111</u>	<u>\$ 1,466,863,880</u>	<u>\$ 1,520,090,445</u>	<u>\$ 1,555,495,352</u>
Plan fiduciary net position:				
Employer pension appropriation.....	\$ 56,266,944	\$ 67,162,327	\$ 66,393,381	\$ 69,896,514
Member contributions.....	24,889,464	26,259,167	25,501,976	26,076,090
Other contributions.....	2,910,328	2,801,874	7,357,214	4,788,362
Net investment income (loss).....	32,962,502	(1,710,419)	57,204,478	144,907,116
Administrative expenses.....	(1,521,667)	(1,553,871)	(1,723,774)	(1,737,836)
Retirement benefits and refunds.....	<u>(91,939,449)</u>	<u>(94,903,555)</u>	<u>(100,786,030)</u>	<u>(110,807,537)</u>
Net increase (decrease) in fiduciary net position.....	23,568,122	(1,944,477)	53,947,245	133,122,709
Fiduciary net position - beginning of year.....	<u>811,013,847</u>	<u>834,581,969</u>	<u>832,637,492</u>	<u>886,584,737</u>
Fiduciary net position - end of year (b).....	<u>\$ 834,581,969</u>	<u>\$ 832,637,492</u>	<u>\$ 886,584,737</u>	<u>\$ 1,019,707,446</u>
Net pension liability - ending (a)-(b).....	<u>\$ 582,908,142</u>	<u>\$ 634,226,388</u>	<u>\$ 633,505,708</u>	<u>\$ 535,787,906</u>
Plan fiduciary net position as a percentage of the total pension liability.....	58.88%	56.76%	58.32%	65.56%
Covered payroll.....	\$ 246,703,686	\$ 255,955,074	\$ 265,029,190	\$ 275,630,359
Net pension liability as a percentage of covered payroll.....	236.28%	247.79%	239.03%	194.39%

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.....	\$ 58,130,647	\$ 62,772,260	\$ 66,255,664	\$ 68,534,029
Contributions in relation to the actuarially determined contribution.....	<u>(58,130,647)</u>	<u>(62,772,260)</u>	<u>(66,393,381)</u>	<u>(69,896,514)</u>
Contribution deficiency (excess).....	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (137,717)</u>	<u>\$ (1,362,485)</u>
Covered payroll.....	\$ 246,703,686	\$ 255,955,074	\$ 265,029,190	\$ 275,630,359
Contributions as a percentage of covered payroll.....	23.56%	24.52%	25.05%	25.36%

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

<u>Year</u>	<u>Annual money-weighted rate of return, net of investment expense</u>
December 31, 2017.....	16.30%
December 31, 2016.....	7.40%
December 31, 2015.....	0.25%
December 31, 2014.....	4.70%

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 Association's 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 the actuarial valuation results. An employer may contribute more than the amount required which reduces their specific net pension liability.

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 ASSUMPTIONS

The following changes in assumptions were included in the January 1, 2017 actuarial valuation:

- Cost of living increases were 3.0% of the first \$14,000 of retirement income, as compared to \$13,000 in the prior year.
- The annual rate of both pre-retirement and beneficiary mortality was changed to the RP-2014 Blue Collar Mortality with Scale MP-2017, fully generational table.
- The mortality for retired group 1 and 2 members was changed to the RP-2014 Blue Collar Mortality Table set forward five years for males and 3 years for females, fully generational. Group 4 retired members were changed to the RP-2014 Blue Collar Mortality table set forward three years for males, and six years for females, fully generational.
- The assumed family composition was changed to assume that 80% of all male members and 60% of all female members will be survived by a spouse, as compared to the prior valuation assumption that 80% of all members will be survived by a spouse.
- The amortization method changed from the level percent open group method to a method where payments increase at 3.5% for the unfunded actuarial accrued liability and level amortization for the 2002, 2003 and 2013 ERI.
- The amortization period changed from 17 years to amortization of the unfunded liability over 12 years, the 2002 ERI over 2 years, the 2003 ERI over 3 years, and the 2013 ERI over 11 years.
- The assumed annual increase in administrative expenses was changed to 3.75%, from 4.00%.

NOTE E – 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 Plymouth Retirement Board
Plymouth County Retirement Association
Plymouth, Massachusetts

We have audited the accompanying schedule of employer allocations of the Plymouth County Retirement Association 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 Plymouth County Retirement Association 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 row totals titled 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 Plymouth 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 Plymouth County Retirement Association as of and for the year ended December 31, 2017, and our report thereon, dated October 18, 2018, expressed an unmodified opinion on those financial statements.

Restriction on Use

This report is intended solely for the information and use of the Plymouth County Retirement Association management, the Plymouth 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.

A handwritten signature in cursive script that reads "Bowers + Sullivan".

October 18, 2018

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2017

Employer	Employer Allocation Percentage	Share of Net Pension Liability	Contribution In Excess of Annual Appropriation	Net Pension Liability
Plymouth County.....	4.7064%	\$ 25,307,213	\$ (1,907,823)	\$ 23,399,390
Town of Abington.....	3.6290%	19,513,320	-	19,513,320
Town of Bridgewater.....	4.8308%	25,974,816	-	25,974,816
Bridgewater Housing Authority.....	0.1153%	619,641	-	619,641
Bridgewater/Raynham Regional School.....	2.3803%	12,798,569	-	12,798,569
Town of Carver.....	2.9109%	15,652,446	-	15,652,446
Carver/Marion/Wareham Regional Refuse.....	0.0814%	437,470	-	437,470
Town of Duxbury.....	4.9831%	26,793,727	-	26,793,727
Duxbury Housing Authority.....	0.0372%	199,915	-	199,915
Town of East Bridgewater.....	3.5526%	19,102,197	-	19,102,197
East Bridgewater Housing Authority.....	0.0599%	321,650	-	321,650
Town of Halifax.....	1.6531%	8,888,119	-	8,888,119
Town of Hanover.....	4.4912%	24,148,907	-	24,148,907
Town of Hanson.....	2.1486%	11,552,942	-	11,552,942
Town of Kingston.....	3.1035%	16,687,404	-	16,687,404
Kingston Housing Authority.....	0.0070%	37,747	-	37,747
Town of Lakeville.....	1.4412%	7,749,171	-	7,749,171
Town of Marion.....	1.4241%	7,657,010	-	7,657,010
Town of Marshfield.....	8.1055%	43,582,541	-	43,582,541
Marshfield Housing Authority.....	0.0499%	268,310	-	268,310
Town of Mattapoisett.....	1.6139%	8,677,987	-	8,677,987
Town of Middleborough.....	9.0631%	48,732,595	-	48,732,595
Middleborough Housing Authority.....	0.1555%	836,225	-	836,225
Town of Norwell.....	3.5405%	19,037,029	-	19,037,029
Norwell Housing Authority.....	0.0390%	209,594	-	209,594
Old Rochester Regional School.....	0.8931%	4,802,058	-	4,802,058
Onset Fire District.....	0.3631%	1,952,482	-	1,952,482
Town of Pembroke.....	4.5886%	24,672,623	-	24,672,623
Plymouth County Mosquito Control.....	0.2982%	1,603,410	-	1,603,410
Town of Plympton.....	0.7132%	3,834,420	-	3,834,420
Town of Rochester.....	1.0124%	5,443,207	-	5,443,207
Town of Rockland.....	5.4863%	29,499,523	-	29,499,523
Town of Scituate.....	6.6295%	35,785,407	-	35,785,407
Scituate Housing Authority.....	0.1598%	720,298	-	720,298
Silver Lake Regional School.....	0.9856%	5,299,427	-	5,299,427
South Shore Regional School.....	0.5003%	2,690,095	-	2,690,095
Town of Wareham.....	5.4517%	29,313,050	-	29,313,050
Wareham Fire District.....	1.0473%	5,631,293	-	5,631,293
Wareham Housing Authority.....	0.0353%	190,237	-	190,237
Town of West Bridgewater.....	2.7115%	14,579,742	-	14,579,742
Town of Whitman.....	2.7491%	14,781,808	-	14,781,808
Whitman/Hanson Regional School.....	1.6325%	8,777,677	-	8,777,677
Whitman Housing Authority.....	0.0973%	523,179	-	523,179
Abington Housing Authority.....	0.0514%	276,376	-	276,376
Pembroke Housing Authority.....	0.1114%	599,102	-	599,102
Hanson Housing Authority.....	0.0425%	228,413	-	228,413
Rockland Housing Authority.....	0.0719%	386,281	-	386,281
Halifax Housing Authority.....	0.0361%	194,000	-	194,000
Mattapoisett Housing Authority.....	0.0279%	149,802	-	149,802
Acushnet/Rochester/Marion Health District.....	0.0191%	102,377	-	102,377
West Bridgewater Housing Authority.....	0.0156%	84,096	-	84,096
South Shore Tri-Town Development.....	0.1202%	646,526	-	646,526
Carver Housing Authority.....	0.0265%	142,275	-	142,275
Plymouth County Retirement Association.....	0.0000%	-	-	-
Total.....	100.00%	\$ 537,695,729	\$ (1,907,823)	\$ 535,787,906

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

	Plymouth County	Town of Abington	Town of Bridgewater
Net Pension Liability			
Beginning net pension liability.....	\$ 28,713,717	\$ 23,110,375	\$ 31,316,202
Ending net pension liability.....	\$ 23,399,390	\$ 19,513,320	\$ 25,974,816
Deferred Outflows of Resources			
Differences between expected and actual experience.....	\$ 1,558,899	\$ 424,773	\$ 565,431
Changes of assumptions.....	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	<u>2,492,784</u>	<u>-</u>	<u>70,562</u>
Total Deferred Outflows of Resources.....	<u>\$ 4,051,683</u>	<u>\$ 424,773</u>	<u>\$ 635,993</u>
Deferred Inflows of Resources			
Differences between expected and actual experience.....	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	971,939	749,418	997,576
Changes of assumptions.....	601,864	464,071	617,739
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	<u>2,908,199</u>	<u>209,750</u>	<u>517,391</u>
Total Deferred Inflows of Resources.....	<u>\$ 4,482,002</u>	<u>\$ 1,423,239</u>	<u>\$ 2,132,706</u>
Pension Expense			
Proportionate share of plan pension expense.....	\$ 2,043,308	\$ 2,076,427	\$ 2,764,002
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	<u>(1,122,834)</u>	<u>(228,734)</u>	<u>(361,609)</u>
Total Employer Pension Expense.....	<u>\$ 920,474</u>	<u>\$ 1,847,693</u>	<u>\$ 2,402,393</u>
Contributions			
Statutory required contribution.....	\$ 3,268,477	\$ 2,479,907	\$ 3,301,134
Contribution in relation to statutory required contribution.....	<u>(4,613,162)</u>	<u>(2,479,907)</u>	<u>(3,301,134)</u>
Contribution deficiency/(excess).....	<u>\$ (1,344,685)</u>	<u>\$ -</u>	<u>\$ -</u>
Contributions as a percentage of covered payroll.....	90.22%	25.57%	25.70%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense			
June 30, 2019.....	\$ 429,884	\$ 159,207	\$ 186,304
June 30, 2020.....	136,720	(85,575)	(139,582)
June 30, 2021.....	(636,500)	(521,601)	(766,026)
June 30, 2022.....	<u>(360,423)</u>	<u>(550,497)</u>	<u>(777,409)</u>
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	<u>\$ (430,319)</u>	<u>\$ (998,466)</u>	<u>\$ (1,496,713)</u>
Discount Rate Sensitivity			
1% decrease (7.00%).....	\$ 30,351,902	\$ 25,315,237	\$ 33,697,965
Current discount rate (8.00%).....	\$ 23,399,390	\$ 19,513,320	\$ 25,974,816
1% increase (9.00%).....	\$ 17,372,730	\$ 14,489,859	\$ 19,287,940
Covered Payroll.....	\$ 3,622,962	\$ 9,696,930	\$ 12,843,061
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

	Bridgewater Housing Authority	Bridgewater/ Raynham Regional School	Town of Carver	Carver/Marion Wareham Regional Refuse
Net Pension Liability				
Beginning net pension liability.....	\$ 634,737	\$ 15,108,505	\$ 18,595,425	\$ 444,760
Ending net pension liability.....	\$ 619,641	\$ 12,798,569	\$ 15,652,446	\$ 437,470
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 13,487	\$ 278,605	\$ 340,729	\$ 9,523
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	107,761	268,578	588,639	46,740
Total Deferred Outflows of Resources.....	\$ 121,248	\$ 547,183	\$ 929,368	\$ 56,263
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	23,796	491,535	601,139	16,802
Changes of assumptions.....	14,735	304,378	372,252	10,404
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	-	35,951	101,581	17,823
Total Deferred Inflows of Resources.....	\$ 38,531	\$ 831,864	\$ 1,074,972	\$ 45,029
Pension Expense				
Proportionate share of plan pension expense.....	\$ 26,952	\$ 1,361,895	\$ 1,665,579	\$ 19,161
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	78,991	2,322	90,758	35,413
Total Employer Pension Expense.....	\$ 105,943	\$ 1,364,217	\$ 1,756,337	\$ 54,574
Contributions				
Statutory required contribution.....	\$ 80,272	\$ 1,626,551	\$ 1,989,254	\$ 56,702
Contribution in relation to statutory required contribution.....	(80,272)	(1,626,551)	(1,989,254)	(56,702)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	35.63%	25.22%	28.07%	31.30%
Deferred (Inflows)/Outflows Recognized in				
Future Pension Expense				
June 30, 2019.....	\$ 45,101	\$ 253,951	\$ 405,219	\$ 11,447
June 30, 2020.....	37,447	93,489	209,270	5,923
June 30, 2021.....	9,659	(275,039)	(313,872)	289
June 30, 2022.....	(9,490)	(357,082)	(446,221)	(6,425)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 82,717	\$ (284,681)	\$ (145,604)	\$ 11,234
Discount Rate Sensitivity				
1% decrease (7.00%).....	\$ 803,814	\$ 16,603,994	\$ 20,306,430	\$ 567,562
Current discount rate (8.00%).....	\$ 619,641	\$ 12,798,569	\$ 15,652,446	\$ 437,470
1% increase (9.00%).....	\$ 460,084	\$ 9,503,744	\$ 11,622,933	\$ 324,860
Covered Payroll.....	\$ 225,322	\$ 6,450,426	\$ 7,087,175	\$ 181,185

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 Duxbury	Duxbury Housing Authority	Town of East Bridgewater	East Bridgewater Housing Authority
Net Pension Liability				
Beginning net pension liability.....	\$ 32,703,852	\$ 202,049	\$ 22,324,421	\$ 369,786
Ending net pension liability.....	\$ 26,793,727	\$ 199,915	\$ 19,102,197	\$ 321,650
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 583,259	\$ 4,351	\$ 415,826	\$ 7,001
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	523,210	22,119	220,015	52,625
Total Deferred Outflows of Resources.....	\$ 1,106,469	\$ 26,470	\$ 635,841	\$ 59,626
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	1,029,026	7,677	733,629	12,352
Changes of assumptions.....	637,215	4,753	454,294	7,650
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	785,019	16,811	106,539	-
Total Deferred Inflows of Resources.....	\$ 2,451,260	\$ 29,241	\$ 1,294,462	\$ 20,002
Pension Expense				
Proportionate share of plan pension expense.....	\$ 2,851,129	\$ 8,800	\$ 2,032,648	\$ 34,242
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(280,851)	12,623	(103,539)	19,447
Total Employer Pension Expense.....	\$ 2,570,278	\$ 21,423	\$ 1,929,109	\$ 53,689
Contributions				
Statutory required contribution.....	\$ 3,405,229	\$ 25,908	\$ 2,427,677	\$ 40,902
Contribution in relation to statutory required contribution.....	(3,405,229)	(25,908)	(2,427,677)	(40,902)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	20.31%	58.01%	22.19%	19.65%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2019.....	\$ 307,147	\$ 1,615	\$ 259,175	\$ 25,195
June 30, 2020.....	(28,841)	(956)	18,677	21,211
June 30, 2021.....	(788,889)	(591)	(421,700)	1,392
June 30, 2022.....	(834,208)	(2,839)	(514,773)	(8,174)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (1,344,791)	\$ (2,771)	\$ (658,621)	\$ 39,624
Discount Rate Sensitivity				
1% decrease (7.00%).....	\$ 34,760,397	\$ 259,317	\$ 24,781,925	\$ 417,284
Current discount rate (8.00%).....	\$ 26,793,727	\$ 199,915	\$ 19,102,197	\$ 321,650
1% increase (9.00%).....	\$ 19,896,051	\$ 148,427	\$ 14,184,603	\$ 238,844
Covered Payroll.....	\$ 16,762,991	\$ 44,663	\$ 10,940,724	\$ 208,122
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 Halifax	Town of Hanover	Town of Hanson	Town of Kingston
Net Pension Liability				
Beginning net pension liability.....	\$ 10,103,681	\$ 29,044,748	\$ 13,302,778	\$ 19,577,709
Ending net pension liability.....	\$ 8,888,119	\$ 24,148,907	\$ 11,552,942	\$ 16,687,404
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 193,481	\$ 525,684	\$ 251,489	\$ 363,259
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	248,309	178,503	211,167	97,701
Total Deferred Outflows of Resources.....	\$ 441,790	\$ 704,187	\$ 462,656	\$ 460,960
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	341,354	927,450	443,696	640,889
Changes of assumptions.....	211,380	574,317	274,755	396,865
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	149,196	441,350	224,478	62,943
Total Deferred Inflows of Resources.....	\$ 701,930	\$ 1,943,117	\$ 942,929	\$ 1,100,697
Pension Expense				
Proportionate share of plan pension expense.....	\$ 945,780	\$ 2,569,687	\$ 1,229,379	\$ 1,775,680
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(34,246)	(275,229)	(101,564)	(112,980)
Total Employer Pension Expense.....	\$ 911,534	\$ 2,294,458	\$ 1,127,815	\$ 1,662,700
Contributions				
Statutory required contribution.....	\$ 1,129,620	\$ 3,069,053	\$ 1,468,264	\$ 2,120,777
Contribution in relation to statutory required contribution.....	(1,129,620)	(3,069,053)	(1,468,264)	(2,120,777)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	21.68%	20.36%	27.25%	20.99%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2019.....	\$ 118,332	\$ 230,187	\$ 106,457	\$ 208,185
June 30, 2020.....	6,640	(72,885)	(39,114)	(1,465)
June 30, 2021.....	(168,477)	(679,127)	(252,328)	(390,676)
June 30, 2022.....	(216,635)	(717,105)	(295,288)	(455,781)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (260,140)	\$ (1,238,930)	\$ (480,273)	\$ (639,737)
Discount Rate Sensitivity				
1% decrease (7.00%).....	\$ 11,530,882	\$ 31,329,162	\$ 14,987,979	\$ 21,649,148
Current discount rate (8.00%).....	\$ 8,888,119	\$ 24,148,907	\$ 11,552,942	\$ 16,687,404
1% increase (9.00%).....	\$ 6,600,011	\$ 17,932,091	\$ 8,578,774	\$ 12,391,474
Covered Payroll.....	\$ 5,210,403	\$ 15,072,632	\$ 5,389,049	\$ 10,106,048
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

	Kingston Housing Authority	Town of Lakeville	Town of Marion	Town of Marshfield
Net Pension Liability				
Beginning net pension liability.....	\$ 15,884	\$ 8,883,767	\$ 8,991,145	\$ 51,194,441
Ending net pension liability.....	\$ 37,747	\$ 7,749,171	\$ 7,657,010	\$ 43,582,541
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 820	\$ 168,688	\$ 166,682	\$ 948,722
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	18,780	167,348	25,457	579,158
Total Deferred Outflows of Resources.....	\$ 19,600	\$ 336,036	\$ 192,139	\$ 1,527,880
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	1,447	297,611	294,073	1,673,805
Changes of assumptions.....	898	184,293	182,103	1,036,491
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	9,647	98,187	36,886	71,514
Total Deferred Inflows of Resources.....	\$ 11,992	\$ 580,091	\$ 513,062	\$ 2,781,810
Pension Expense				
Proportionate share of plan pension expense.....	\$ 4,050	\$ 824,582	\$ 814,768	\$ 4,637,712
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	2,907	(34,270)	(62,982)	(113,988)
Total Employer Pension Expense.....	\$ 6,957	\$ 790,312	\$ 751,786	\$ 4,523,724
Contributions				
Statutory required contribution.....	\$ 4,889	\$ 984,828	\$ 973,158	\$ 5,538,881
Contribution in relation to statutory required contribution.....	(4,889)	(984,828)	(973,158)	(5,538,881)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	N/A	24.39%	19.97%	24.05%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2019.....	\$ 1,923	\$ 103,042	\$ 84,817	\$ 728,386
June 30, 2020.....	1,442	5,859	(11,385)	182,217
June 30, 2021.....	2,983	(158,048)	(184,585)	(969,054)
June 30, 2022.....	1,260	(194,908)	(209,770)	(1,195,479)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 7,608	\$ (244,055)	\$ (320,923)	\$ (1,253,930)
Discount Rate Sensitivity				
1% decrease (7.00%).....	\$ 48,928	\$ 10,053,262	\$ 9,933,739	\$ 56,540,952
Current discount rate (8.00%).....	\$ 37,747	\$ 7,749,171	\$ 7,657,010	\$ 43,582,541
1% increase (9.00%).....	\$ 28,005	\$ 5,754,256	\$ 5,685,843	\$ 32,362,739
Covered Payroll.....	\$ -	\$ 4,038,389	\$ 4,873,884	\$ 23,034,352
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

	Marshfield Housing Authority	Town of Mattapoisett	Town of Middleborough	Middleborough Housing Authority
Net Pension Liability				
Beginning net pension liability.....	\$ 269,397	\$ 9,864,146	\$ 57,384,233	\$ 942,256
Ending net pension liability.....	\$ 268,310	\$ 8,677,987	\$ 48,732,595	\$ 836,225
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 5,840	\$ 188,908	\$ 1,060,831	\$ 18,203
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	31,657	242,884	56,339	28,795
Total Deferred Outflows of Resources.....	\$ 37,497	\$ 431,792	\$ 1,117,170	\$ 46,998
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	10,305	333,284	1,871,599	32,114
Changes of assumptions.....	6,381	206,383	1,158,972	19,885
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	13,680	328,315	518,682	34,487
Total Deferred Inflows of Resources.....	\$ 30,366	\$ 867,982	\$ 3,549,253	\$ 86,486
Pension Expense				
Proportionate share of plan pension expense.....	\$ 28,542	\$ 923,381	\$ 5,185,640	\$ 36,748
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	4,498	(110,010)	(558,728)	44,347
Total Employer Pension Expense.....	\$ 33,040	\$ 813,371	\$ 4,626,912	\$ 81,095
Contributions				
Statutory required contribution.....	\$ 34,076	\$ 1,102,860	\$ 6,193,391	\$ 108,316
Contribution in relation to statutory required contribution.....	(34,076)	(1,102,860)	(6,193,391)	(108,316)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	15.97%	20.85%	26.48%	27.84%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2019.....	\$ 7,086	\$ 38,951	\$ 391,177	\$ 3,908
June 30, 2020.....	3,741	(70,333)	(221,168)	(6,668)
June 30, 2021.....	(28)	(193,349)	(1,254,036)	(17,014)
June 30, 2022.....	(3,668)	(211,459)	(1,348,056)	(19,714)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 7,131	\$ (436,190)	\$ (2,432,083)	\$ (39,488)
Discount Rate Sensitivity				
1% decrease (7.00%).....	\$ 348,086	\$ 11,258,284	\$ 63,222,391	\$ 1,084,799
Current discount rate (8.00%).....	\$ 268,310	\$ 8,677,987	\$ 48,732,595	\$ 836,225
1% increase (9.00%).....	\$ 199,237	\$ 6,443,983	\$ 36,187,041	\$ 620,914
Covered Payroll.....	\$ 213,339	\$ 5,289,801	\$ 23,392,363	\$ 389,118
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 Norwell	Norwell Housing Authority	Old Rochester Regional School	Onset Fire District
Net Pension Liability				
Beginning net pension liability.....	\$ 22,255,166	\$ 287,824	\$ 5,981,388	\$ 2,068,134
Ending net pension liability.....	\$ 19,037,029	\$ 209,594	\$ 4,802,058	\$ 1,952,482
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 414,406	\$ 4,562	\$ 104,534	\$ 42,503
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	326,706	13,670	148,872	153,994
Total Deferred Outflows of Resources.....	\$ 741,112	\$ 18,232	\$ 253,406	\$ 196,497
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	731,127	8,049	184,427	74,987
Changes of assumptions.....	452,743	4,985	114,205	46,435
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	60,885	27,497	222,599	114,805
Total Deferred Inflows of Resources.....	\$ 1,244,755	\$ 40,531	\$ 521,231	\$ 236,227
Pension Expense				
Proportionate share of plan pension expense.....	\$ 2,025,732	\$ 22,317	\$ 510,980	\$ 207,730
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(36,329)	(6,374)	(58,960)	(3,909)
Total Employer Pension Expense.....	\$ 1,989,403	\$ 15,943	\$ 452,020	\$ 203,821
Contributions				
Statutory required contribution.....	\$ 2,419,382	\$ 26,641	\$ 610,322	\$ 248,134
Contribution in relation to statutory required contribution.....	(2,419,382)	(26,641)	(610,322)	(248,134)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	23.47%	18.20%	20.73%	32.81%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2019.....	\$ 325,547	\$ 48	\$ 53,258	\$ 20,989
June 30, 2020.....	86,540	(2,584)	(7,005)	(3,582)
June 30, 2021.....	(402,153)	(10,657)	(154,884)	(21,761)
June 30, 2022.....	(513,577)	(9,106)	(159,194)	(35,376)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (503,643)	\$ (22,299)	\$ (267,825)	\$ (39,730)
Discount Rate Sensitivity				
1% decrease (7.00%).....	24,697,349	\$ 271,899	\$ 6,229,905	\$ 2,533,061
Current discount rate (8.00%).....	19,037,029	\$ 209,594	\$ 4,802,058	\$ 1,952,482
1% increase (9.00%).....	14,136,194	\$ 155,629	\$ 3,565,854	\$ 1,449,866
Covered Payroll.....	\$ 10,307,611	\$ 146,381	\$ 2,944,787	\$ 756,207
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 Pembroke	Plymouth County Mosquito Control	Town of Plympton	Town of Rochester
Net Pension Liability				
Beginning net pension liability.....	\$ 28,683,221	\$ 1,923,905	\$ 4,143,259	\$ 6,686,652
Ending net pension liability.....	\$ 24,672,623	\$ 1,603,410	\$ 3,834,420	\$ 5,443,207
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 537,083	\$ 34,904	\$ 83,471	\$ 118,490
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	823,659	28,682	526,383	344,138
Total Deferred Outflows of Resources.....	\$ 1,360,742	\$ 63,586	\$ 609,854	\$ 462,628
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	947,563	61,579	147,264	209,050
Changes of assumptions.....	586,770	38,132	91,193	129,453
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	55,159	26,382	-	175,694
Total Deferred Inflows of Resources.....	\$ 1,589,492	\$ 126,093	\$ 238,457	\$ 514,197
Pension Expense				
Proportionate share of plan pension expense.....	\$ 2,625,454	\$ 170,631	\$ 408,006	\$ 579,205
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	126,434	(10,220)	191,938	36,609
Total Employer Pension Expense.....	\$ 2,751,888	\$ 160,411	\$ 599,944	\$ 615,814
Contributions				
Statutory required contribution.....	\$ 3,135,629	\$ 203,766	\$ 496,716	\$ 691,796
Contribution in relation to statutory required contribution.....	(3,135,629)	(203,766)	(496,716)	(691,796)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	25.15%	30.29%	24.71%	20.35%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2019.....	\$ 586,294	\$ 23,080	\$ 236,095	\$ 158,495
June 30, 2020.....	276,884	2,956	188,339	90,446
June 30, 2021.....	(439,236)	(41,296)	23,031	(127,589)
June 30, 2022.....	(652,692)	(47,247)	(76,068)	(172,921)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (228,750)	\$ (62,507)	\$ 371,397	\$ (51,569)
Discount Rate Sensitivity				
1% decrease (7.00%).....	\$ 32,008,559	\$ 2,080,130	\$ 4,974,558	\$ 7,061,678
Current discount rate (8.00%).....	\$ 24,672,623	\$ 1,603,410	\$ 3,834,420	\$ 5,443,207
1% increase (9.00%).....	\$ 18,320,962	\$ 1,190,619	\$ 2,847,323	\$ 4,041,942
Covered Payroll.....	\$ 12,469,592	\$ 672,741	\$ 2,010,088	\$ 3,399,750
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 Rockland	Town of Scituate	Scituate Housing Authority	Silver Lake Regional School
Net Pension Liability				
Beginning net pension liability.....	\$ 34,338,665	\$ 41,548,935	\$ 953,057	\$ 6,372,144
Ending net pension liability.....	\$ 29,499,523	\$ 35,785,407	\$ 720,298	\$ 5,299,427
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 642,157	\$ 778,991	\$ 15,681	\$ 115,359
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	295,467	551,337	120,004	-
Total Deferred Outflows of Resources.....	\$ 937,624	\$ 1,330,328	\$ 135,685	\$ 115,359
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	1,132,941	1,374,353	27,664	203,526
Changes of assumptions.....	701,565	676,862	17,131	126,031
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	545,082	261,778	68,024	596,880
Total Deferred Inflows of Resources.....	\$ 2,379,588	\$ 2,312,993	\$ 112,819	\$ 926,437
Pension Expense				
Proportionate share of plan pension expense.....	\$ 3,139,109	\$ 3,978,209	\$ 4,789	\$ 563,972
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(335,534)	(101,232)	93,260	(286,389)
Total Employer Pension Expense.....	\$ 2,803,575	\$ 3,876,977	\$ 98,049	\$ 277,583
Contributions				
Statutory required contribution.....	\$ 3,749,072	\$ 4,530,275	\$ 93,333	\$ 673,517
Contribution in relation to statutory required contribution.....	(3,749,072)	(4,530,275)	(111,133)	(673,517)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ (17,800)	\$ -
Contributions as a percentage of covered payroll.....	25.27%	24.72%	31.97%	18.51%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2019.....	\$ 216,793	\$ 590,068	\$ 39,672	\$ (175,582)
June 30, 2020.....	(154,052)	141,187	30,856	(242,678)
June 30, 2021.....	(720,780)	(757,834)	(19,280)	(235,582)
June 30, 2022.....	(783,925)	(956,086)	(28,382)	(157,236)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (1,441,964)	\$ (982,665)	\$ 22,866	\$ (811,078)
Discount Rate Sensitivity				
1% decrease (7.00%).....	\$ 38,270,617	\$ 46,425,481	\$ 934,521	\$ 6,875,053
Current discount rate (8.00%).....	\$ 29,499,523	\$ 35,785,407	\$ 720,298	\$ 5,299,427
1% increase (9.00%).....	\$ 21,905,220	\$ 26,572,877	\$ 534,898	\$ 3,935,122
Covered Payroll.....	\$ 14,835,033	\$ 18,325,397	\$ 291,965	\$ 3,638,343
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

	South Shore Regional School	Town of Wareham	Wareham Fire District	Wareham Housing Authority
Net Pension Liability				
Beginning net pension liability.....	\$ 3,242,937	\$ 35,073,155	\$ 6,747,647	\$ 251,608
Ending net pension liability.....	\$ 2,690,095	\$ 29,313,050	\$ 5,631,293	\$ 190,237
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 58,559	\$ 638,099	\$ 122,583	\$ 4,141
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	41,373	467,446	265,824	2,515
Total Deferred Outflows of Resources.....	\$ 99,932	\$ 1,105,545	\$ 388,407	\$ 6,656
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	103,314	1,125,783	216,272	7,305
Changes of assumptions.....	63,977	697,132	133,925	4,523
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	52,444	388,920	93,921	21,380
Total Deferred Inflows of Resources.....	\$ 219,735	\$ 2,211,835	\$ 444,118	\$ 33,208
Pension Expense				
Proportionate share of plan pension expense.....	\$ 286,247	\$ 3,119,229	\$ 599,250	\$ 8,380
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(22,842)	(171,727)	31,004	3,529
Total Employer Pension Expense.....	\$ 263,405	\$ 2,947,502	\$ 630,254	\$ 11,909
Contributions				
Statutory required contribution.....	\$ 341,872	\$ 3,725,405	\$ 715,653	\$ 24,616
Contribution in relation to statutory required contribution.....	(341,872)	(3,725,405)	(715,653)	(24,616)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	18.75%	25.18%	25.12%	29.12%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2019.....	\$ 33,886	\$ 431,332	\$ 147,429	\$ (3,541)
June 30, 2020.....	149	63,846	76,996	(5,920)
June 30, 2021.....	(73,355)	(745,746)	(114,952)	(9,599)
June 30, 2022.....	(80,483)	(855,722)	(165,184)	(7,492)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (119,803)	\$ (1,106,290)	\$ (55,711)	\$ (26,552)
Discount Rate Sensitivity				
1% decrease (7.00%).....	\$ 3,489,949	\$ 38,028,774	\$ 7,305,618	\$ 246,736
Current discount rate (8.00%).....	\$ 2,690,095	\$ 29,313,050	\$ 5,631,293	\$ 190,237
1% increase (9.00%).....	\$ 1,997,567	\$ 21,766,795	\$ 4,181,567	\$ 141,226
Covered Payroll.....	\$ 1,823,124	\$ 14,793,194	\$ 2,849,094	\$ 84,543
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 West Bridgewater	Town of Whitman	Whitman/ Hanson Regional School	Whitman Housing Authority
Net Pension Liability				
Beginning net pension liability.....	\$ 17,710,352	\$ 17,050,836	\$ 10,364,184	\$ 709,074
Ending net pension liability.....	\$ 14,579,742	\$ 14,781,808	\$ 8,777,677	\$ 523,179
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 317,378	\$ 321,776	\$ 191,076	\$ 11,388
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	119,400	250,396	-	2,864
Total Deferred Outflows of Resources.....	\$ 436,778	\$ 572,172	\$ 191,076	\$ 14,252
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	559,942	567,702	337,112	20,091
Changes of assumptions.....	346,740	351,544	208,754	12,441
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	406,346	287,334	362,304	74,855
Total Deferred Inflows of Resources.....	\$ 1,313,028	\$ 1,206,580	\$ 908,170	\$ 107,387
Pension Expense				
Proportionate share of plan pension expense.....	\$ 1,551,415	\$ 1,572,946	\$ 934,017	\$ 23,022
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(217,260)	(134,198)	(215,944)	2,725
Total Employer Pension Expense.....	\$ 1,334,155	\$ 1,438,748	\$ 718,073	\$ 25,747
Contributions				
Statutory required contribution.....	\$ 1,852,901	\$ 1,878,591	\$ 1,115,553	\$ 67,761
Contribution in relation to statutory required contribution.....	(1,852,901)	(1,878,591)	(1,115,553)	(67,761)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	24.13%	27.13%	22.55%	21.39%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2019.....	\$ 97,854	\$ 133,694	\$ (43,243)	\$ (15,723)
June 30, 2020.....	(84,504)	(51,190)	(153,031)	(22,266)
June 30, 2021.....	(442,557)	(336,667)	(275,735)	(33,170)
June 30, 2022.....	(447,043)	(380,245)	(245,085)	(21,976)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (876,250)	\$ (634,408)	\$ (717,094)	\$ (93,135)
Discount Rate Sensitivity				
1% decrease (7.00%).....	\$ 18,914,784	\$ 19,176,897	\$ 11,387,593	\$ 678,698
Current discount rate (8.00%).....	\$ 14,579,742	\$ 14,781,808	\$ 8,777,677	\$ 523,179
1% increase (9.00%).....	\$ 10,826,387	\$ 10,976,414	\$ 6,517,996	\$ 388,471
Covered Payroll.....	\$ 7,678,138	\$ 6,925,668	\$ 4,946,883	\$ 316,808
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

	Abington Housing Authority	Pembroke Housing Authority	Hanson Housing Authority	Rockland Housing Authority
Net Pension Liability				
Beginning net pension liability.....	\$ 341,830	\$ 822,808	\$ 254,149	\$ 528,630
Ending net pension liability.....	\$ 276,376	\$ 599,102	\$ 228,413	\$ 386,281
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 6,016	\$ 13,041	\$ 4,973	\$ 8,409
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	5,685	-	17,501	27,859
Total Deferred Outflows of Resources.....	\$ 11,701	\$ 13,041	\$ 22,474	\$ 36,268
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	10,615	23,009	8,772	14,835
Changes of assumptions.....	6,573	14,249	5,433	9,186
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	11,539	85,941	-	47,992
Total Deferred Inflows of Resources.....	\$ 28,727	\$ 123,199	\$ 14,205	\$ 72,013
Pension Expense				
Proportionate share of plan pension expense.....	\$ 29,411	\$ 26,353	\$ 9,968	\$ 16,947
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(4,126)	1,538	20,280	15,717
Total Employer Pension Expense.....	\$ 25,285	\$ 27,891	\$ 30,248	\$ 32,664
Contributions				
Statutory required contribution.....	\$ 35,155	\$ 77,596	\$ 29,608	\$ 50,064
Contribution in relation to statutory required contribution.....	(35,155)	(77,596)	(29,608)	(50,064)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	22.77%	25.38%	15.53%	28.95%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2019.....	\$ 2,180	\$ (18,936)	\$ 8,999	\$ 2,347
June 30, 2020.....	(1,276)	(26,429)	6,142	(2,485)
June 30, 2021.....	(8,965)	(38,757)	(1,748)	(18,973)
June 30, 2022.....	(8,965)	(26,036)	(5,124)	(16,634)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (17,026)	\$ (110,158)	\$ 8,269	\$ (35,745)
Discount Rate Sensitivity				
1% decrease (7.00%).....	\$ 358,571	\$ 777,253	\$ 296,363	\$ 501,160
Current discount rate (8.00%).....	\$ 276,376	\$ 599,102	\$ 228,413	\$ 386,281
1% increase (9.00%).....	\$ 205,238	\$ 444,882	\$ 169,631	\$ 286,853
Covered Payroll.....	\$ 154,399	\$ 305,718	\$ 190,637	\$ 172,960
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

	Halifax Housing Authority	Mattapoisett Housing Authority	Acushnet/ Rochester/ Marion Health District	West Bridgewater Housing Authority
Net Pension Liability				
Beginning net pension liability.....	\$ 446,030	\$ 165,832	\$ 127,710	\$ 114,367
Ending net pension liability.....	\$ 194,000	\$ 149,802	\$ 102,377	\$ 84,096
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 4,223	\$ 3,260	\$ 2,229	\$ 1,830
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	66,256	7,095	-	5,068
Total Deferred Outflows of Resources.....	\$ 70,479	\$ 10,355	\$ 2,229	\$ 6,898
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	7,449	5,752	3,931	3,228
Changes of assumptions.....	4,613	3,562	2,435	1,999
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	150,940	8,983	20,689	10,015
Total Deferred Inflows of Resources.....	\$ 163,002	\$ 18,297	\$ 27,055	\$ 15,242
Pension Expense				
Proportionate share of plan pension expense.....	\$ 8,551	\$ 15,972	\$ 4,528	\$ 8,982
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(19,564)	(2,087)	(2,819)	(2,066)
Total Employer Pension Expense.....	\$ (11,013)	\$ 13,885	\$ 1,709	\$ 6,916
Contributions				
Statutory required contribution.....	\$ 25,139	\$ 19,423	\$ 13,280	\$ 10,876
Contribution in relation to statutory required contribution.....	(25,139)	(19,423)	(13,280)	(10,876)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	106.72%	19.85%	17.95%	20.06%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2019.....	\$ (15,995)	\$ (146)	\$ (7,058)	\$ 248
June 30, 2020.....	(18,421)	(2,019)	(8,339)	(803)
June 30, 2021.....	(35,188)	(2,485)	(6,018)	(4,224)
June 30, 2022.....	(22,919)	(3,292)	(3,411)	(3,565)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (92,523)	\$ (7,942)	\$ (24,826)	\$ (8,344)
Discount Rate Sensitivity				
1% decrease (7.00%).....	\$ 251,629	\$ 194,313	\$ 132,804	\$ 109,039
Current discount rate (8.00%).....	\$ 194,000	\$ 149,802	\$ 102,377	\$ 84,096
1% increase (9.00%).....	\$ 144,026	\$ 111,220	\$ 76,014	\$ 62,411
Covered Payroll.....	\$ 23,557	\$ 97,870	\$ 73,971	\$ 54,230

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

	South Shore Tri-Town Development	Carver Housing Authority	Plymouth County Retirement Association	Totals
Net Pension Liability				
Beginning net pension liability.....	\$ 1,042,010	\$ 172,185	\$ -	\$ 633,505,708
Ending net pension liability.....	\$ 646,526	\$ 142,275	\$ -	\$ 535,787,906
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 14,075	\$ 3,095	\$ -	\$ 12,712,783
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	179,712	-	-	11,071,037
Total Deferred Outflows of Resources.....	\$ 193,787	\$ 3,095	\$ -	\$ 23,783,820
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments.....	24,830	5,462	-	20,650,450
Changes of assumptions.....	15,377	3,383	-	12,613,429
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	183,624	20,596	-	11,071,037
Total Deferred Inflows of Resources.....	\$ 223,831	\$ 29,441	\$ -	\$ 44,334,916
Pension Expense				
Proportionate share of plan pension expense.....	\$ 71,779	\$ 15,187	\$ 139,663	\$ 56,538,073
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	2,651	(9,186)	-	(4,325,339)
Total Employer Pension Expense.....	\$ 74,430	\$ 6,001	\$ 139,663	\$ 52,212,734
Contributions				
Statutory required contribution.....	\$ 83,720	\$ 18,444	\$ 139,663	\$ 68,534,029
Contribution in relation to statutory required contribution.....	(83,720)	(18,444)	(139,663)	(69,896,514)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ (1,362,485)
Contributions as a percentage of covered payroll.....	31.15%	N/A	N/A	24.86%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2019.....	\$ 29,685	\$ (6,502)	\$ -	\$ 6,957,963
June 30, 2020.....	21,598	(8,281)	-	235,738
June 30, 2021.....	(40,801)	(7,248)	-	(13,080,826)
June 30, 2022.....	(40,526)	(4,315)	-	(14,663,971)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (30,044)	\$ (26,346)	\$ -	\$ (20,551,096)
Discount Rate Sensitivity				
1% decrease (7.00%).....	\$ 838,762	\$ 184,528	\$ -	\$ 695,089,721
Current discount rate (8.00%).....	\$ 646,526	\$ 142,275	\$ -	\$ 535,787,906
1% increase (9.00%).....	\$ 480,088	\$ 105,619	\$ -	\$ 397,853,354
Covered Payroll.....	\$ 268,731	\$ -	\$ -	\$ 275,630,359

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, pension expense, and contributions.

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 the 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. The Public Employee Retirement Administration Commission (PERAC) approves each Association's proportionate share of the annual required contribution. PERAC can accept alternative allocation methodologies and as such, the Association has elected to use an actuarial based allocation methodology. Accordingly, each member unit's proportionate share of the total pension liability is calculated based on each member unit's actual current employees, retirees and inactive participants. The liability of the Association is allocated to each member unit. Each member's share of the Association's net position at year-end is calculated by first segregating the historical excess contributions of each individual member unit. Investment income is applied to each excess contribution utilizing the Association's money-weighted rate of return of each year since the excess contribution was received. The Association's net position, less the excess contributions net of investment income, is then allocated to the member unit's based on their proportionate share of the total pension liability. The excess contributions net of investment income are then assigned to the appropriate member unit. The difference between the total pension liability and the net position is reported as the net pension liability.

The Plymouth County Hospital was operated by Plymouth County from the early 1900s to 1992, when it was closed and all employees were terminated. The remaining retirement allowances due from the Plymouth County Retirement Association to the former employees of the Plymouth County Hospital were actuarially determined and are included with the County's liability. Plymouth County continues to pay for the retirement obligations related to previously retired Hospital employees.

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. All Early Retirement Incentive Programs are being amortized using a straight-line basis.

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.