## PLYMOUTH COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2020

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### TABLE OF CONTENTS

Financial Section	1
Independent Auditor's Report	3
Management's Discussion and Analysis	5
Financial Statements	8
Statement of Fiduciary Net Position	9
Statement of Changes in Fiduciary Net Position	10
Notes to Financial Statements	11
Required Supplementary Information	21
Schedule of Changes in the Net Pension Liability and Related Ratios	22
Schedule of Contributions	24
Schedule of Investment Returns	26
Notes to Required Supplementary Information	27
Audit of Specific Elements, Accounts and Items of Financial Statements	28
Independent Auditor's Report	29
Pension Plan Schedules	31
Schedule of Employer Allocations	31
Schedule of Pension Amounts by Employer	32
Notes to Schedule of Employer Allocations and Schedule of Pension Amounts by Employer	46

# **Financial Section**

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# Powers & Sullivan, LLC

Certified Publie Accountants



100 Quannapowitt Parkway Suite 101 Wakefield, MA 01880 T. 781-914-1700 F. 781-914-1701 www.powersandsullivan.com

#### 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, 2020, 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, 2020, 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 September 21, 2021, 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.

wers full: CC

September 21, 2021

## 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, 2020. 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 \$1.2 billion (net position).
- The Association's net position increased by \$144.7 million for the year ended December 31, 2020.
- Total investment income was \$160.3 million; investment expenses were \$15.9 million; and net investment income was \$144.4 million.
- Total contributions were \$121.7 million including \$29.5 million from members, \$84.5 million from employers and \$7.7 million from other sources.
- Retirement benefits, refunds and transfers amounted to \$119.5 million.
- Administrative expenses and depreciation expense were \$1.8 million and \$13,000, respectively.
- The total pension liability was \$1.8 billion as of December 31, 2020, while the net pension liability was \$586.1 million.
- The fiduciary net position as a percentage of the total pension liability was 67.90%.

### **Overview of the Financial Statements**

This discussion and analysis is intended to serve as an introduction to the Association's fiduciary financial statements. These fiduciary financial statements are comprised 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.

5

#### **Required Supplementary Information**

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

### **Financial Analysis**

As noted earlier, net position may serve over time as a useful indicator of the Association's financial position. The Association's net position exceeded liabilities by \$1.2 billion at the close of 2020.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year-end the Association's net position includes investments of \$1.2 billion, cash of \$21.2 million, capital assets of \$2.4 million, as well as accounts receivable and other assets of \$7.9 million.

In 2020, the Association's total contributions were \$121.7 million and net investment income was \$144.4 million while retirement benefit payments, refunds, transfers and administration expenses were \$121.4 million, which resulted in a current increase of \$144.7 million.

During 2020, net position increased by \$144.7 million. This increase was primarily the result of the \$144.4 million net investment income. In 2020, for the first time, current contributions were sufficient to support the current expenses and therefore net investment income was not needed to support expenses. The annual money weighted rate of return was 12.91% and 16.88% in 2020, and 2019, respectively. Fluctuations in the Association's annual investment returns are expected.

On September 24, 2020, the Association purchased land and a building for approximately \$2.4 million for the purpose of relocating their office operations.

The following tables present summarized financial information for the year.

	2020	2019
Statement of Fiduciary Net Position		
Assets:		
Cash\$	21,227,465	\$ 23,775,930
Investments	1,217,496,853	1,070,781,893
Accounts receivable	7,577,111	11,390,285
Other assets	337,927	338,618
Capital assets, nondepreciable	341,500	-
Capital assets, net of accumulated depreciation	2,053,172	
Total assets	1,249,034,028	1,106,286,726
Liabilities:		
Accounts payable	9,422,197	11,358,622
Net Position Restricted for Pensions\$	1,239,611,831	\$ 1,094,928,104

	2020	2019
Statement of Changes in Fiduciary Net Position		
Additions:		
Contributions:		
Member contributions\$	29,471,227	\$ 28,759,454
Employer contributions	84,456,699	74,462,092
Other contributions	7,722,738	9,125,768
Total contributions	121,650,664	112,347,314
Net investment income:		
Total investment income	160,310,662	181,696,874
Less, investment expenses	(15,900,626)	(12,733,502)
Net investment income	144,410,036	168,963,372
Total additions	266,060,700	281,310,686
Deductions:		
Administration	1,814,276	1,888,516
Retirement benefits, refunds and transfers	119,549,784	121,133,872
Depreciation	12,913	
Total deductions	121,376,973	123,022,388
Net increase (decrease) in fiduciary net position	144,683,727	158,288,298
Fiduciary net position at beginning of year	1,094,928,104	936,639,806
Fiduciary net position at end of year\$	1,239,611,831	\$ 1,094,928,104

### **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.

7

# **Financial Statements**

#### STATEMENT OF FIDUCIARY NET POSITION

### DECEMBER 31, 2020

Assets	
CURRENT:	
Cash and cash equivalents \$	21,227,465
Investments:	
Fixed income	136,982,001
Domestic equities	358,769,047
International equities	227,767,857
Real estate funds	116,655,366
Venture capital funds	277,087,879
Hedge funds	77,646,692
Bank loan	22,588,011
Total investments	1,217,496,853
Accounts receivable:	
Member contributions	1,789,741
Employer pension appropriation	583,771
3(8)c Reimbursements from other systems	3,546,208
Due from Commonwealth - sheriff retirees (See Note 8)	660,741
Other accounts receivable	996,650
Total accounts receivable	7,577,111
Interest and dividends	306,252
Other assets	31,675
Total current assets	1,246,639,356
NONCURRENT:	
Capital assets, nondepreciable	341,500
Capital assets, net of accumulated depreciation	2,053,172
Total noncurrent assets	2,394,672
Total Assets	1,249,034,028
Liabilities Accounts payable	9,422,197
Net Position Restricted for Pensions\$	1,239,611,831

See notes to financial statements.

#### STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

### YEAR ENDED DECEMBER 31, 2020

Additions:	
Contributions:	¢ 70 705 470
Employer pension assessments	
Employer additional contributions	4,721,220
Member contributions	29,471,227
Transfers from other systems	2,652,812
3(8)(c) contributions from other systems	4,145,560
Workers' compensation settlements	18,800
Federal grant reimbursements	19,871
State COLA reimbursements	443,089
Members' makeup payments and redeposits	352,096
Interest not refunded	56,857
Reimbursement of 91A overearnings	33,653
Total contributions	121,650,664
Net investment income:	
Investment income	160,310,662
Less: investment expense	(15,900,626)
Net investment income	144,410,036
Total additions	266,060,700
Deductions:	
Administration	1,814,276
Retirement benefits and refunds	117,193,507
Transfers to other systems	1,262,642
3(8)(c) transfer to other systems	1,093,635
Depreciation	12,913
Total deductions	121,376,973
Net increase (decrease) in fiduciary net position	144,683,727
Fiduciary net position at beginning of year	1,094,928,104
Fiduciary net position at end of year	\$ 1,239,611,831

See notes to financial statements.

#### **NOTE 1 – PLAN DESCRIPTION**

Established in 1937, the Plymouth County Retirement Association (Association) is a multiple-employer, costsharing, 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 52 participating employers.

The Association is governed by a five-member Board that establishes the policies under which the Association operates. Board members also approve most 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 related 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 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 contributions, pension fund appropriations, 3(8)c reimbursements from other systems, 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, generally included in this category, encompass actively traded equity and debt securities, U.S. government obligations, and mutual funds with quoted market prices in active markets.

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

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

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

Market price is affected by a number of factors, including the type of instrument and the characteristics specific to the instrument. Instruments with readily available active quoted prices generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value. It is reasonably possible that change in values of these instruments will occur in the near term and that such changes could materially affect amounts reported in these financial statements. For more information on the fair value of the 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 Plymouth County Treasurer, who shall be a member ex-officio, a second member appointed by the governing authority (the Plymouth 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 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 four members of 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, 2020, the carrying amount of the Association's deposits totaled \$21.2 million and the bank balance of \$22.0 million was covered by Federal Depository Insurance.

#### Investments

The Association's investments were as follows:

		_	Maturity						
	Fair Value		Under 1 Year		6-10 Years		6-10 Years		Over 10 Years
Investment Type		-		-		•			
Debt Securities:									
Fixed Income\$	136,982,001	\$_	1,369,820	\$_	39,724,780	\$	53,422,981	\$	42,464,420
Other Investments:									
Domestic Equities	358,769,047								
International Equities	227,767,857								
Real Estate Funds	116,655,366								
Venture Capital Funds	277,087,879								
Hedge Funds	77,646,692								
Bank Loan	22,588,011								
-	4 047 400 050								
Total Investments\$	1,217,496,853								

The Association's annual money-weighted rate of return on pension plan investments was a gain of 12.91%. 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 Association 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 Association 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 had the following recurring fair value measurements as of December 31, 2020:
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		Fair Value Measurements Using					
	December 31,		Quoted Prices in Active Markets for Identical Assets		Significant Other Observable		Significant Unobservable Inputs
Investment Type	2020	-	(Level 1)		Inputs (Level 2)		(Level 3)
Investments by fair value level:							
Debt Securities:							
Fixed Income\$	136,982,001	\$	-	\$	136,982,001	\$	-
Other Investments:							
Domestic Equities	358,769,047		358,769,047		-		-
International Equities	227,767,857		227,767,857		-		-
Real Estate Funds	116,655,366		-		-		116,655,366
Venture Capital Funds	277,087,879		-		-		277,087,879
Hedge Funds	77,646,692		-		-		77,646,692
Bank Loan	22,588,011				22,588,011		
Total Investments by fair value level\$	1,217,496,853	\$	586,536,904	\$	159,570,012	\$	471,389,937

#### **NOTE 5 – CAPITAL ASSETS**

On September 24, 2020, the Association purchased land and a building for approximately \$2.4 million for the purpose of relocating their office operations.

Capital asset activity for the year ended December 31, 2020, was as follows:

	Beginning Balance	Increases	Decreases	Ending Balance
<u>Capital assets not being depreciated:</u> Land\$		\$\$		\$ 341,500
Capital assets being depreciated: Buildings and improvements		2,066,085		2,066,085
Less accumulated depreciation for: Buildings and improvements		(12,913)		(12,913)
Total capital assets being depreciated, net		2,053,172		2,053,172
Total capital assets, net\$		\$ 2,394,672 \$		\$ 2,394,672

#### NOTE 6 – MEMBERSHIP

The following table represents the Association's membership at December 31, 2020:

Retirees and beneficiaries currently receiving benefits	4,436
Inactive members	1,773
Active members	5,695
Total	11,904

#### NOTE 7 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2020, were as follows:

Total pension liability\$	1,825,753,036
The pension plan's fiduciary net position	(1,239,611,831)
The net pension liability\$	586,141,205
The pension plan's fiduciary net position as a percentage of the total pension liability	67.90%

The total pension liability was determined by an actuarial valuation as of January 1, 2020, using the following actuarial assumptions, applied to all periods included in the measurement date of December 31, 2020:

Valuation date	January 1, 2020
Actuarial cost method	Individual Entry Age Normal Cost Method.
Asset valuation method	Assets held by the fund are valued at fair value as reported by the Public Employees' Retirement Administration Commission (PERAC). The actuarial value of assets is determined using 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 \$16,000 of retirement income.
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).
Investment rate of return/Discount rate	7.875% nominal rate, net of investment expense.

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 three years for females, fully generational. Mortality 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 policy:* The Association'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 Association's target asset allocation as of December 31, 2020, are summarized in the following table:

	Long-Term Expected	
	Nominal	Long-Term Expected
Asset Class	Rate of Return	Asset Allocation
Domestic equity	6.80%	27.00%
International developed equity	7.10%	4.00%
Emerging markets equity	8.10%	10.00%
Global equity	7.10%	11.00%
Core bonds	1.80%	9.00%
Value-added fixed income	4.00%	9.00%
Hedge funds	4.30%	6.00%
Real estate	6.90%	9.00%
Private equity	9.10%	8.00%
Real assets	8.10%	6.00%
Cash and Cash Equivalent	0.00%	1.00%
		100.00%

*Discount rate*: The discount rate used to measure the total pension liability was 7.875% as of December 31, 2020 and as of December 31, 2019. 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 Association's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate: The following presents the net pension liability, calculated using the discount rate of 7.875%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.875%) or 1-percentage-point higher (8.875%) than the current rate:

		Current	
	1% Decrease (6.875%)	Discount (7.875%)	1% Increase (8.875%)
Plymouth County Retirement Association's net	<u> </u>	` <i></i> _	` <i>`</i>
pension liability as of December 31, 2020 \$	810,781,133 \$	586,141,205 \$	427,627,926

*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 8 – 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 required payment of \$220,247 was received in 2020. The three remaining payments totaling \$660,741, at year-end, have been recorded as a receivable.

#### **NOTE 9 – COMMITMENTS AND CONTINGENCIES**

There are no legal actions or claims pending that would materially affect the financial position at December 31, 2020.

#### **NOTE 10 – IMPLEMENTATION OF GASB PRONOUNCEMENTS**

There were no GASB pronouncements required to be implemented in 2020, that impacted the Association's financial statements.

None of the issued GASB statements that are required to be implemented in future years are anticipated to impact the Association's financial statements.

#### NOTE 11 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through September 21, 2021, which is the date the financial statements were available to be issued and there are no events of note to report.

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# 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 \$	, ,	\$	32,038,175	\$		\$	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	(90,825,319)	-	(98,626,669)		(100,786,029)	-	(110,807,537)
Net change in total pension liability	51,781,919		49,373,769		53,226,565		35,404,907
Total pension liability - beginning	1,365,708,192	_	1,417,490,111		1,466,863,880	-	1,520,090,445
Total pension liability - ending (a)\$	5 1,417,490,111	\$	1,466,863,880	\$	1,520,090,445	\$_	1,555,495,352
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	(91,939,449)		(94,903,555)		(100,786,030)		(110,807,537)
Depreciation expense		_			-	-	<u> </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	811,013,847	-	834,581,969		832,637,492	-	886,584,737
Fiduciary net position - end of year (b)\$	834,581,969	\$	832,637,492	\$	886,584,737	\$	1,019,707,446
Net pension liability - ending (a)-(b)\$	582,908,142	\$	634,226,388	\$	633,505,708	\$	535,787,906
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	\$	275,630,362
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.

	December 31,		December 31,		December 31,
	2018		2019	-	2020
\$	27,772,477	¢	28,883,376	\$	30,398,893
φ	122,120,554	\$	129,044,546	φ	137,728,408
	122,120,334		15,202,584		137,720,400
	-				-
	59,806,942		55,982,071		-
	19,750,049		-		-
	(115,748,560)		(121,133,872)	-	(119,549,784)
	113,701,462		107,978,705		48,577,517
	1,555,495,352		1,669,196,814	_	1,777,175,519
				-	
\$	1,669,196,814	\$	1,777,175,519	\$	1,825,753,036
\$	72,811,482	\$	74,462,092	\$	84,456,699
Ψ	27,326,242	Ψ	29,270,635	Ψ	29,471,227
	6,940,373		8,614,587		7,722,738
	(72,568,400)		168,963,372		144,410,036
	(1,828,777)		(1,888,516)		(1,814,276)
	(115,748,560)		(121,133,872)		(119,549,784)
	-		(121,100,012)		(12,913)
				-	(12,010)
	(83,067,640)		158,288,298		144,683,727
	1,019,707,446		936,639,806	-	1,094,928,104
•	000 000 000	•	4 004 000 404	•	4 000 044 004
\$	936,639,806	\$	1,094,928,104	\$	1,239,611,831
\$	732,557,008	\$	682,247,415	\$	586,141,205
				=	
	FC 440/		C4 C49/		C7 00%
	56.11%		61.61%		67.90%
\$	281,665,696	\$	294,614,062	\$	293,870,741
	260.08%		231.57%		199.46%
	200.0070		201.0770		100.4070

#### 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	(58,130,647)	(62,772,260)	(66,393,381)	-	(69,896,514)
Contribution deficiency (excess) \$		\$ -	\$ (137,717)	\$_	(1,362,485)
Covered payroll \$	246,703,686	\$ 255,955,074	\$ 265,029,190	\$	275,630,362
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.

-	December 31, 2018	December 31, 2019	-	December 31, 2020
\$	72,127,482	\$ 73,787,092	\$	79,735,479
-	(72,811,482)	(74,462,092)	-	(84,456,699)
\$	(684,000)	\$ (675,000)	\$	(4,721,220)
\$	281,665,696	\$ 294,614,062	\$	293,870,741
	25.85%	25.27%		28.74%

#### SCHEDULE OF INVESTMENT RETURNS

Year	Annual money-weighted rate of return, net of investment expense
December 31, 2020	12.91%
December 31, 2019	16.88%
December 31, 2018	-7.10%
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**

None.

#### NOTE E – CHANGES IN PLAN PROVISIONS

None.

# Audit of Specific Elements, Accounts and Items of Financial Statements

# Powers & Sullivan, LLC

Certified Publie Accountants

**Independent Auditor's Report** 



100 Quannapowitt Parkway Suite 101 Wakefield, MA 01880 T. 781-914-1700 F. 781-914-1701 www.powersandsullivan.com

## To the Llongraphic Diverse the Definence

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, 2020, 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 as of and for the year ended December 31, 2020, 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 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, 2020, 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, 2020, and our report thereon, dated September 21, 2021, 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.

Powers Allica

September 21, 2021

#### SCHEDULE OF EMPLOYER ALLOCATIONS

#### FOR THE YEAR ENDED DECEMBER 31, 2020

	E su la su	Ohanaaf		Contribution	
	Employer	Share of		In Excess of	Not Dension
Freelower	Allocation	Net Pension		Annual	Net Pension
Employer	Percentage	Liability	<b>ה</b>	Appropriation	Liability
Plymouth County	4.6832% \$	36,617,976	\$	(9,167,810) \$	27,450,166
Town of Abington	3.5930%	21,060,053		-	21,060,053
Town of Bridgewater	4.8075%	28,178,738		-	28,178,738
Bridgewater Housing Authority	0.0832%	487,669		-	487,669
Bridgewater/Raynham Regional School	2.3637%	13,854,620		-	13,854,620
Town of Carver	2.7517%	16,181,174		(52,326)	16,128,848
Carver/Marion/Wareham Regional Refuse	0.0678%	397,404		-	397,404
Town of Duxbury	5.3931%	31,611,181		-	31,611,181
Duxbury Housing Authority	0.0311%	182,290		-	182,290
Town of East Bridgewater	3.4570%	20,262,901		-	20,262,901
East Bridgewater Housing Authority	0.0527%	308,896		-	308,896
Town of Halifax	1.5889%	9,313,198		-	9,313,198
Town of Hanover	4.7012%	27,555,670		-	27,555,670
Town of Hanson	2.1139%	12,390,439		-	12,390,439
Town of Kingston	3.2977%	19,329,179		-	19,329,179
Kingston Housing Authority	0.0024%	14,067		-	14,067
Town of Lakeville	1.4229%	8,340,203		-	8,340,203
Town of Marion	1.4912%	8,740,538		-	8,740,538
Town of Marshfield	8.0945%	47,445,200		-	47,445,200
Marshfield Housing Authority	0.0562%	329,411		-	329,411
Town of Mattapoisett	1.6328%	9,570,514		-	9,570,514
Town of Middleborough	8.9940%	52,717,540		-	52,717,540
Middleborough Housing Authority	0.1642%	962,444		-	962,444
Town of Norwell	3.5036%	20,536,043		-	20,536,043
Norwell Housing Authority	0.0450%	263,764		-	263,764
Old Rochester Regional School	0.9577%	5,613,474		-	5,613,474
Onset Fire District	0.3381%	1,981,743		-	1,981,743
Town of Pembroke	4.6030%	26,980,080		-	26,980,080
Plymouth County Mosquito Control	0.2363%	1,385,052		-	1,385,052
Town of Plympton	0.6514%	3,818,124		-	3,818,124
Town of Rochester	1.0526%	6,169,722		-	6,169,722
Town of Rockland	5.3045%	31,091,860		-	31,091,860
Town of Scituate	6.5051%	38,129,072		-	38,129,072
Scituate Housing Authority	0.1205%	706,300		-	706,300
Silver Lake Regional School	1.0484%	6,145,104		-	6,145,104
South Shore Regional School	0.5353%	3,137,614		-	3,137,614
Town of Wareham	5.2062%	30,515,683		-	30,515,683
Wareham Fire District	1.1266%	6,603,467		-	6,603,467
Wareham Housing Authority	0.0672%	393,887		-	393,887
Town of West Bridgewater	2.9234%	17,135,252		-	17,135,252
Town of Whitman.	2.7507%	16,122,986		-	16,122,986
Whitman/Hanson Regional School	1.5733%	9,221,760		-	9,221,760
Whitman Housing Authority	0.1027%	601,967		-	601,967
Abington Housing Authority	0.0570%	334,100		-	334,100
Pembroke Housing Authority	0.1274%	746,744		-	746,744
Hanson Housing Authority	0.0389%	228,009		-	228,009
Rockland Housing Authority	0.0549%	321,792		-	321,792
Halifax Housing Authority	0.0030%	17,584		-	17,584
Mattapoisett Housing Authority	0.0063%	36,927		_	36,927
Acushnet/Rochester/Marion Health District	0.0226%	132,468		_	132,468
West Bridgewater Housing Authority	0.0173%	101,402		_	101,402
South Shore Tri-Town Development	0.1771%	1,038,056			1,038,056
Total	100.00% \$	595,361,341	\$	(9,220,136) \$	586,141,205

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, 2020

	_	Plymouth County	-	Town of Abington	-	Town of Bridgewater
Net Pension Liability Beginning net pension liability	\$	33,706,568	\$	24,998,762	\$	32,997,164
Ending net pension liability	\$	27,450,166	\$	21,060,053	\$	28,178,738
Deferred Outflows of Resources Differences between expected and actual experience	\$	2,288,352	\$	1,755,647	\$	2,349,089
Changes of assumptions		287,049		220,225		294,667
Changes in proportion and differences between employer contributions and proportionate share of contributions		1 100 543		206 157		71 264
	_		-	206,157	-	71,364
Total Deferred Outflows of Resources	\$ =	3,675,944	\$	2,182,029	\$	2,715,120
Deferred Inflows of Resources Net difference between projected and actual investment earnings on pension plan investments Changes in proportion and differences between	\$	2,723,904	\$	2,089,804	\$	2,796,201
employer contributions and proportionate share of contributions	. <u> </u>	1,542,469	_	1,074,118		273,261
Total Deferred Inflows of Resources	\$	4,266,373	\$	3,163,922	\$	3,069,462
Pension Expense Proportionate share of plan pension expense	\$	2,024,211	\$	4,070,045	\$	2,986,629
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		3,704,953	-	(1,199,193)	-	(425,790)
Total Employer Pension Expense	\$	5,729,164	\$	2,870,852	\$	2,560,839
Contributions						
Statutory required contribution				2,888,071	\$	3,864,267
Contribution in relation to statutory required contribution	_	(7,419,908)	-	(2,888,071)		(3,864,267)
Contribution deficiency/(excess)	\$ =	(4,300,000)	\$	-	\$	-
Contributions as a percentage of covered payroll		79.65%		26.36%		27.89%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense						
June 30, 2022 June 30, 2023 June 30, 2024 June 30, 2024		1,011,447 579,089 (1,562,981) (617,984)	\$	315,500 440,183 (1,216,807) (520,769)	\$	663,837 833,340 (1,293,199) (558,320)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$	(590,429)	\$	(981,893)	\$	(354,342)
Discount Rate Sensitivity 1% decrease (6.875%)	\$	37,970,504	\$	29,131,365	\$	38,978,302
Current discount rate (7.875%)	\$	27,450,166	\$	21,060,053	\$	28,178,738
1% increase (8.875%)	\$	20,026,672	\$	15,364,671	\$	20,558,212
Covered Payroll as of the January 1, 2020, valuation	\$	3,916,900	\$	10,957,546	\$	13,856,777
See notes to schedule of employer allocations and schedule of pension amounts by employer.						
N/A - Not Applicable						(continued)

#### SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

#### FOR THE YEAR ENDED DECEMBER 31, 2020

48,393 65,858 114,251 51,618 (20,087)	\$ \$ \$ \$ \$ \$	1,374,808 <u>118,407</u> <u>1,493,215</u> 1,469,304 (11,953)	\$ \$ \$ <del>}</del> \$ <del>}</del>	18,859,725 16,128,848 1,344,563 168,661 	\$ \$ \$ \$ \$	725,137 397,404 33,129 4,156 96,067 133,352 39,436 129,215 168,651 41,420 289,680
40,654 5,100 7,738 53,492 48,393 65,858 114,251 51,618 (20,087)	\$ \$ \$ \$ \$ \$	1,154,975 144,879 <u>118,384</u> 1,418,238 1,374,808 <u>118,407</u> <u>1,493,215</u> 1,469,304 (11,953)	\$ 	1,344,563 168,661 <u>-</u> <u>1,513,224</u> 1,600,478 <u>414,463</u> <u>2,014,941</u> 1,709,548	\$ \$ \$ \$	33,129 4,156 96,067 133,352 39,436 129,215 168,651 41,420
5,100 7,738 53,492 48,393 65,858 114,251 51,618 (20,087)	\$ \$ \$	144,879 118,384 1,418,238 1,374,808 118,407 1,493,215 1,469,304 (11,953)	·	168,661 <u>1,513,224</u> 1,600,478 <u>414,463</u> <u>2,014,941</u> 1,709,548	\$ \$ \$	4,156 96,067 133,352 39,436 129,215 168,651 41,420
5,100 7,738 53,492 48,393 65,858 114,251 51,618 (20,087)	\$ \$ \$	144,879 118,384 1,418,238 1,374,808 118,407 1,493,215 1,469,304 (11,953)	·	168,661 <u>1,513,224</u> 1,600,478 <u>414,463</u> <u>2,014,941</u> 1,709,548	\$ \$ \$	4,156 96,067 133,352 39,436 129,215 168,651 41,420
53,492 48,393 65,858 114,251 51,618 (20,087)	\$	1,418,238 1,374,808 118,407 1,493,215 1,469,304 (11,953)		1,600,478 414,463 2,014,941 1,709,548	\$ \$ \$	133,352 39,436 129,215 168,651 41,420
53,492 48,393 65,858 114,251 51,618 (20,087)	\$	1,418,238 1,374,808 118,407 1,493,215 1,469,304 (11,953)		1,600,478 414,463 2,014,941 1,709,548	\$ \$ \$	133,352 39,436 129,215 168,651 41,420
48,393 65,858 114,251 51,618 (20,087)	\$	1,374,808 <u>118,407</u> <u>1,493,215</u> 1,469,304 (11,953)	\$ \$ \$	1,600,478 414,463 2,014,941 1,709,548	\$ \$ \$	39,436 129,215 168,651 41,420
65,858 114,251 51,618 (20,087)	\$	118,407 1,493,215 1,469,304 (11,953)	\$ \$	414,463 2,014,941 1,709,548	\$	<u>129,215</u> <u>168,651</u> 41,420
65,858 114,251 51,618 (20,087)	\$	118,407 1,493,215 1,469,304 (11,953)	\$ \$	414,463 2,014,941 1,709,548	\$	129,215 168,651 41,420
51,618 (20,087)	\$	1,493,215 1,469,304 (11,953)	\$	2,014,941 1,709,548	\$	<u>168,651</u> 41,420
51,618 (20,087)	\$	1,493,215 1,469,304 (11,953)	\$	2,014,941 1,709,548	\$	<u>168,651</u> 41,420
51,618 (20,087)	\$	1,469,304 (11,953)	\$	1,709,548	\$	41,420
(20,087)		(11,953)				
	-			(194,601)	_	289,680
31,531	\$					
		1,457,351	\$	1,514,947	\$	331,100
66,894	\$	1,899,914	\$	2,211,815	\$	54,521
(66,894)		(1,899,914)	· -	(2,261,815)	-	(425,741)
-	\$_	-	\$ _	(50,000)	\$	(371,220
27.35%		27.33%		29.29%		159.08%
(11,378)	\$	345,154	\$	246,899	\$	10,161
(7,738)		433,392		348,797		13,046
						(38,312) (20,194)
(10,903)	-	(239,273)		(318,285)	-	(20, 194
(60,759)	\$	(74,977)	\$ _	(501,717)	\$	(35,299)
674,569	\$	19,164,434	\$	22,310,265	\$	549,710
487,669	\$	13,854,620	\$	16,128,848	\$	397,404
355,786	\$	10,107,842	\$	11,767,038	\$	289,932
244,588	\$	6,952,105	\$	7,550,248	\$	34,273
	(11,378) (7,738) (30,738) (10,905) (60,759) 674,569 487,669 355,786	(11,378) \$ (7,738) (30,738) (10,905) (60,759) \$	(11,378)       \$ 345,154         (7,738)       433,392         (30,738)       (594,250)         (10,905)       (259,273)         (60,759)       \$ (74,977)         674,569       \$ 19,164,434         487,669       \$ 13,854,620         355,786       \$ 10,107,842	(11,378)       \$ 345,154       \$         (7,738)       433,392         (30,738)       (594,250)         (10,905)       (259,273)         (60,759)       \$ (74,977)         674,569       \$ 19,164,434         487,669       \$ 13,854,620         355,786       \$ 10,107,842	(11,378)       \$ 345,154       \$ 246,899         (7,738)       433,392       348,797         (30,738)       (594,250)       (779,128)         (10,905)       (259,273)       (318,285)         (60,759)       \$ (74,977)       \$ (501,717)         674,569       \$ 19,164,434       \$ 22,310,265         487,669       \$ 13,854,620       \$ 16,128,848         355,786       \$ 10,107,842       \$ 11,767,038	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

N/A - Not Applicable

(continued)

#### SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

#### FOR THE YEAR ENDED DECEMBER 31, 2020

	_	Town of Duxbury		Duxbury Housing Authority		Town of East Bridgewater		East Bridgewater Housing Authority
Net Pension Liability Beginning net pension liability	\$	35,384,645	\$	223,014	\$	24,132,704	\$	340,677
Ending net pension liability		31,611,181		182,290		20,262,901		308,896
	Ŷ	01,011,101	Ŷ	102,200	Ψ	20,202,001	Ŷ	000,000
Deferred Outflows of Resources Differences between expected and actual experience	\$	2,635,231		15,196	\$	1,689,194	\$	25,751
Changes of assumptions		330,561		1,906		211,891		3,230
Changes in proportion and differences between employer contributions and proportionate share of contributions		991,132		5,285		124,126		9,551
Total Deferred Outflows of Resources	-				¢		-	
	ф =	3,930,924	φ	22,307	φ	2,020,211	φ.	36,332
Deferred Inflows of Resources Net difference between projected and actual investment earnings on pension plan investments	\$	3,136,806	\$	18,086	\$	2,010,704	\$	30,650
Changes in proportion and differences between employer contributions and proportionate share of contributions	_	89,228		11,703		302,178		23,215
Total Deferred Inflows of Resources	\$	3,226,034	\$	29,789	\$	2,312,882	\$	53,865
Pension Expense	-							
Proportionate share of plan pension expense	\$	3,354,828	\$	19,294	\$	2,146,544	\$	32,796
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	_	475,761		(6,017)		(354,717)	-	5,000
Total Employer Pension Expense	\$ _	3,830,589	\$	13,277	\$	1,791,827	\$	37,796
Contributions Statutory required contribution	\$	4,334,944	\$	24,975	\$	2,778,694	\$	42,331
Contribution in relation to statutory required contribution	-	(4,334,944)		(24,975)		(2,778,694)	-	(42,331)
Contribution deficiency/(excess)	\$_	-	\$		\$		\$	
Contributions as a percentage of covered payroll		23.99%		51.15%		24.18%		18.95%
Deferred (Inflows)/Outflows Recognized in								
Future Pension Expense June 30. 2022.	\$	1.139.245	\$	2,016	\$	474.123	\$	944
June 30, 2023	*	1,321,417	•	3,708	Ŧ	607,102	•	3,095
June 30, 2024		(1,180,828)		(9,063)		(948,213)		(14,251)
June 30, 2025	_	(548,944)		(4,063)		(420,683)	-	(5,121)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$	730,890	\$	(7,402)	\$	(287,671)	\$	(15,333)
Discount Rate Sensitivity								
1% decrease (6.875%)	\$	43,726,237	\$	252,153	\$	28,028,703	\$	427,281
Current discount rate (7.875%)	\$	31,611,181	\$	182,290	\$	20,262,901	\$	308,896
1% increase (8.875%)	\$	23,062,401	\$	132,992	\$	14,783,097	\$	225,360
Covered Payroll as of the January 1, 2020, valuation	\$	18,073,102	\$	48,826	\$	11,493,973	\$	223,386
See notes to schedule of employer allocations and schedule of pension amounts by employer.								

N/A - Not Applicable

(continued)

### FOR THE YEAR ENDED DECEMBER 31, 2020

	_	Town of Halifax		Town of Hanover		Town of Hanson	-	Town of Kingston
Net Pension Liability								
Beginning net pension liability	\$	10,924,945	\$	31,382,708	\$	14,400,815	\$	21,176,743
Ending net pension liability	\$	9,313,198	\$	27,555,670	\$	12,390,439	\$	19,329,179
Deferred Outflows of Resources Differences between expected and actual experience	\$	776,384	\$	2,297,147	\$	1,032,915	\$	1,611,355
			Ť		Ť		Ť	
Changes of assumptions		97,389		288,152		129,568		202,127
Changes in proportion and differences between employer contributions and proportionate								
share of contributions	_	80,277		531,408		124,428	-	719,923
Total Deferred Outflows of Resources	\$_	954,050	\$	3,116,707	\$	1,286,911	\$	2,533,405
Deferred Inflows of Resources								
Net difference between projected and actual investment earnings on pension plan investments	\$	924,156	\$	2,734,372	\$	1,229,517	\$	1,918,052
	Ŷ	021,100	Ŷ	2,701,012	Ψ	1,220,011	Ŷ	1,010,002
Changes in proportion and differences between employer contributions and proportionate								
share of contributions	-	121,978		45,663		92,851	-	62,029
Total Deferred Inflows of Resources	\$	1,046,134	\$	2,780,035	\$	1,322,368	\$_	1,980,081
Pension Expense								
Proportionate share of plan pension expense	\$	987,040	\$	2,922,974	\$	1,313,538	\$	2,052,605
Net amortization of deferred amounts from changes								
in proportion and differences between employer contributions and proportionate share of contributions	_	(101,943)		135,204		(80,674)	_	480,026
Total Employer Pension Expense	\$	885,097	\$	3,058,178	\$	1,232,864	\$	2,532,631
Contributions Statutory required contribution	¢	1,277,154	¢	3,778,828	¢	1,699,136	¢	2,650,687
					φ		φ	
Contribution in relation to statutory required contribution	-			(3,778,828)		(1,699,136)	-	(2,650,687)
Contribution deficiency/(excess)	\$_	-	\$	-	\$	-	\$_	-
Contributions as a percentage of covered payroll		22.66%		22.60%		28.56%		25.69%
Deferred (Inflows)/Outflows Recognized in								
Future Pension Expense June 30, 2022	\$	220,794	\$	888,545	\$	326,394	\$	702,816
June 30, 2023		286,356	Ψ	1,054,342	Ŷ	410,535	Ψ	826,455
June 30, 2024		(413,795)		(1,102,196)		(532,023)		(662,088)
June 30, 2025	_	(185,439)		(504,019)		(240,363)	-	(313,859)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	¢	(92,084)	¢	336,672	¢	(25.457)	¢	552 224
	ф =	(92,004)	φ	330,072	φ	(35,457)	φ =	553,324
Discount Rate Sensitivity		10 000 500				17 100 100		~~ ~~ ~~ ~~
1% decrease (6.875%)	\$	12,882,502	\$	38,116,442	\$	17,139,102	\$	26,737,130
Current discount rate (7.875%)	\$	9,313,198	\$	27,555,670	\$	12,390,439	\$	19,329,179
1% increase (8.875%)	\$	6,794,580	\$	20,103,644	\$	9,039,627	\$	14,101,886
Covered Payroll as of the January 1, 2020, valuation	\$	5,636,109	\$	16,723,142	\$	5,948,619	\$	10,317,018
See notes to schedule of employer allocations and schedule of pension amounts by employer.								
N/A N/A // //								<i>, ,</i> , , ,

N/A - Not Applicable

### FOR THE YEAR ENDED DECEMBER 31, 2020

	Kingston Housing Authority		Town of Lakeville		Town of Marion		Town of Marshfield
Net Pension Liability							
Beginning net pension liability \$	17,786	\$	9,606,700	\$	9,722,996	\$	55,321,130
Ending net pension liability \$	14,067	\$	8,340,203	\$	8,740,538	\$	47,445,200
Deferred Outflows of Resources							
Differences between expected and actual experience \$	1,173	\$	695,272	\$	728,645	\$	3,955,216
Changes of assumptions	147		87,214		91,400		496,138
Changes in proportion and differences between							
employer contributions and proportionate share of contributions	2,563		121,005		259,673		279,287
				-			
Total Deferred Outflows of Resources \$	3,883	\$	903,491	\$	1,079,718	= * =	4,730,641
Deferred Inflows of Resources							
Net difference between projected and actual	1 206	¢	827.605	¢	867.329	¢	4 708 020
investment earnings on pension plan investments\$	1,396	Ф	827,605	Ф	807,329	Ф	4,708,029
Changes in proportion and differences between							
employer contributions and proportionate share of contributions	6,361		70,084		26,858		149,122
Total Deferred Inflows of Passaurase	7,757	 ~	907 690	<del>-</del>	894,187		4 957 151
Total Deferred Inflows of Resources\$	1,151	- <sup>Φ</sup> -	897,689	φ =	094,107	= <sup>\$</sup> =	4,857,151
Pension Expense	4 407	•	004 200	•	007 770	•	F 000 00F
Proportionate share of plan pension expense\$	5 1,487	\$	884,396	\$	927,776	\$	5,029,295
Net amortization of deferred amounts from changes							
in proportion and differences between employer contributions and proportionate share of contributions	(978)		(11,527)		146,543		(270,234)
Total Employer Pension Expense\$	509	\$_	872,869	\$_	1,074,319	= \$ _	4,759,061
Contributions							
Statutory required contribution \$	1,916	\$	1,143,753	\$	1,198,637	\$	6,506,332
Contribution in relation to statutory required contribution	(1,916)		(1,143,753)		(1,198,637)		(6,506,332)
Contribution deficiency/(excess)\$			-	-		_	
		= Ψ =		Ψ=		_ \$ _	
Contributions as a percentage of covered payroll	N/A		25.52%		25.04%		26.60%
Deferred (Inflows)/Outflows Recognized in							
Future Pension Expense June 30, 2022\$	(1,652)	¢	226,811	¢	298,650	¢	1,281,274
June 30, 2022	(1,032)		284,006	Ψ	354,565	Ψ	1,587,087
June 30, 2024	(767)		(347,334)		(318,789)		(2,066,047)
June 30, 2025	(342)		(157,681)	_	(148,895)		(928,824)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense\$	(3.874)	\$	5,802	\$	185,531	\$	(126,510)
							x
Discount Rate Sensitivity 1% decrease (6.875%)	19,458	¢	11,536,604	¢	12,090,369	\$	65,628,679
t // decrease (0.07370)	19,400	φ	11,550,004	φ	12,030,303	φ	00,020,079
Current discount rate (7.875%) \$	14,067	\$	8,340,203	\$	8,740,538	\$	47,445,200
1% increase (8.875%) \$	10,263	\$	6,084,718	\$	6,376,788	\$	34,614,343
Covered Payroll as of the January 1, 2020, valuation\$	N/A	\$	4,482,469	\$	4,786,787	\$	24,456,407
See notes to schedule of employer allocations and schedule of pension amounts by employer.							
N/A - Not Applicable							(continued)

### FOR THE YEAR ENDED DECEMBER 31, 2020

	_	Marshfield Housing Authority	_	Town of Mattapoisett	_	Town of Middleborough		Middleborough Housing Authority
Net Pension Liability								
Beginning net pension liability	\$	290,739	\$	10,677,304	\$	62,077,904	\$	1,023,401
Ending net pension liability	\$	329,411	\$	9,570,514	\$	52,717,540	\$	962,444
Deferred Outflows of Resources								
Differences between expected and actual experience	\$	27,461	\$	797,835	\$	4,394,738	\$	80,233
Changes of assumptions		3,445		100,080		551,271		10,064
Changes in proportion and differences between								
employer contributions and proportionate				200.040		200.004		47 740
share of contributions			-	300,940	•	300,994		47,740
Total Deferred Outflows of Resources	\$ =	77,460	\$	1,198,855	\$	5,247,003	\$	138,037
Deferred Inflows of Resources								
Net difference between projected and actual	•	00.007	•	0.40,000	•	5 004 000	~	05 500
investment earnings on pension plan investments	\$	32,687	\$	949,690	\$	5,231,202	\$	95,503
Changes in proportion and differences between								
employer contributions and proportionate		10 104		05 409		292 404		0 1 0 0
share of contributions	-	10,104	-	95,408	•	382,494		8,188
Total Deferred Inflows of Resources	\$_	42,791	\$	1,045,098	\$	5,613,696	\$	103,691
Pension Expense								
Proportionate share of plan pension expense	\$	35,172	\$	1,015,794	\$	5,586,529	\$	102,287
Net amortization of deferred amounts from changes								
in proportion and differences between employer								
contributions and proportionate share of contributions	_	39,072	_	115,300		(712,387)		34,876
Total Employer Pension Expense	\$_	74,244	\$	1,131,094	\$	4,874,142	\$	137,163
Contributions								
Statutory required contribution	\$	45,138	\$	1,312,405	\$	7,229,368	\$	131,978
Contribution in relation to statutory required contribution	_	(45,138)	_	(1,312,405)		(7,229,368)		(131,978)
Contribution deficiency/(excess)	\$	-	\$	-	\$	-	\$	-
					•		Ť	
Contributions as a percentage of covered payroll		22.66%		22.28%		28.57%		29.67%
Deferred (Inflows)/Outflows Recognized in								
Future Pension Expense June 30, 2022	¢	17,994	¢	302,106	¢	1,363,931	¢	36,652
June 30, 2022		20,803	φ	368,709	φ	1,701,951	φ	41,642
June 30, 2024		(2,107)		(352,550)		(2,371,650)		(29,793)
June 30, 2025	_	(2,021)	_	(164,508)		(1,060,925)		(14,155)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$	34,669	\$	153,757	\$	(366,693)	\$	34,346
			-	· · ·		,		
Discount Rate Sensitivity 1% decrease (6.875%)	\$	455,659	\$	13,238,435	\$	72,921,655	\$	1,331,303
Current discount rate (7.875%)	\$	329,411		9,570,514		52,717,540		962,444
1% increase (8.875%)		240,327		6,982,309		38,460,856		702,165
Covered Payroll as of the January 1, 2020, valuation		199,165				25,302,468		
See notes to schedule of employer allocations and schedule	φ	199,100	Φ	5,891,579	φ	20,302,408	φ	444,793
of pension amounts by employer.								

N/A - Not Applicable

### FOR THE YEAR ENDED DECEMBER 31, 2020

	-	Town of Norwell		Norwell Housing Authority	_	Old Rochester Regional School	_	Onset Fire District
Net Pension Liability Beginning net pension liability	\$	24,043,088	\$	311,262	\$	6,465,351	\$	2,132,314
Ending net pension liability	\$	20,536,043	\$	263,764	\$	5,613,474	\$	1,981,743
Deferred Outflows of Resources								
Differences between expected and actual experience	\$	1,711,964	\$	21,988	\$	467,961	\$	165,206
Changes of assumptions		214,747		2,758		58,701		20,723
Changes in proportion and differences between employer contributions and proportionate share of contributions		117,864	-	9,214	_	118,304	_	98,845
Total Deferred Outflows of Resources	\$	2,044,575	\$	33,960	\$	644,966	\$	284,774
Deferred Inflows of Resources Net difference between projected and actual investment earnings on pension plan investments	\$	2,037,808	\$	26,175	\$	557,031	\$	196,650
Changes in proportion and differences between employer contributions and proportionate share of contributions	· _	119,759		4,793	-	25,675	_	80,282
Total Deferred Inflows of Resources	\$	2,157,567	\$	30,968	\$_	582,706	\$_	276,932
Pension Expense Proportionate share of plan pension expense	\$	2,176,603	\$	27,953	\$	595,255	\$	210,548
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	_	(156,392)		(2,943)	_	6,262	-	41,068
Total Employer Pension Expense	\$	2,020,211	\$	25,010	\$_	601,517	\$_	251,616
Contributions Statutory required contribution	\$	2,816,209	\$	36,181	\$	769,779	\$	271,801
Contribution in relation to statutory required contribution	-	(2,816,209)		(36,181)	-	(769,779)	-	(271,801)
Contribution deficiency/(excess)	\$	-	\$		\$_	-	\$_	-
Contributions as a percentage of covered payroll		24.71%		25.98%		26.54%		35.69%
Deferred (Inflows)/Outflows Recognized in <u>Future Pension Expense</u> June 30, 2022		533,436	\$	9,570	\$	185,837	\$	45,265
June 30, 2023 June 30, 2024 June 30, 2025		667,675 (907,424) (406,679)		10,667 (11,903) (5,342)	_	216,377 (233,852) (106,102)	_	61,622 (68,710) (30,335)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$	(112,992)	\$	2,992	\$_	62,260	\$_	7,842
Discount Rate Sensitivity 1% decrease (6.875%)	\$	28,406,527	\$	364,852	\$	7,764,850	\$	2,741,250
Current discount rate (7.875%)	\$	20,536,043	\$	263,764	\$	5,613,474	\$	1,981,743
1% increase (8.875%)	\$	14,982,372	\$	192,433	\$	4,095,392	\$	1,445,810
Covered Payroll as of the January 1, 2020, valuation	\$	11,396,561	\$	139,261	\$	2,900,258	\$	761,640
See notes to schedule of employer allocations and schedule of pension amounts by employer.								

N/A - Not Applicable

### FOR THE YEAR ENDED DECEMBER 31, 2020

	-	Town of Pembroke		Plymouth County Mosquito Control	_	Town of Plympton	_	Town of Rochester
Net Pension Liability								
Beginning net pension liability	\$	31,158,326	\$	1,883,304	\$	4,378,187	\$	6,948,320
Ending net pension liability	\$	26,980,080	\$	1,385,052	\$	3,818,124	\$	6,169,722
Deferred Outflows of Resources								
Differences between expected and actual experience	\$	2,249,164	\$	115,463	\$	318,294	\$	514,332
Changes of assumptions		282,133		14,484		39,926		64,517
Changes in proportion and differences between employer contributions and proportionate								151 000
share of contributions	-	375,088	-	2,557	-	65,062	-	151,368
Total Deferred Outflows of Resources	\$	2,906,385	\$	132,504	\$_	423,282	\$_	730,217
Deferred Inflows of Resources Net difference between projected and actual investment earnings on pension plan investments	\$	2,677,255	\$	137,439	\$	378,875	\$	612,227
Changes in proportion and differences between employer contributions and proportionate share of contributions		143,878		185,157	_	118,844	_	94,195
Total Deferred Inflows of Resources	\$	2,821,133	\$	322,596	\$	497,719	\$	706,422
Panajan Evinanda								
Pension Expense Proportionate share of plan pension expense	\$	2,860,757	\$	146,097	\$	404,926	\$	654,668
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	- -	71,974		(158,602)	_	49,097	_	68,015
Total Employer Pension Expense	\$	2,932,731	\$	(12,505)	\$_	454,023	\$_	722,683
Contributions								
Statutory required contribution	\$	3,699,885	\$	189,900	\$	523,613	\$	846,103
Contribution in relation to statutory required contribution	-	(3,699,885)		(189,900)	-	(523,613)	-	(846,103)
Contribution deficiency/(excess)	\$	-	\$	-	\$	-	\$	-
Contributions as a percentage of covered payroll		29.14%		22.52%		26.76%		26.59%
Deferred (Inflows)/Outflows Recognized in								
Future Pension Expense			•	(00.000)	•		•	
June 30, 2022 June 30, 2023		773,567 951,876	\$	(26,220) (17,480)	\$	70,523 93,374	\$	175,024 210,059
June 30, 2024		(1,126,259)		(106,552)		(167,087)		(252,149)
June 30, 2025		(513,932)		(39,840)		(71,247)		(109,139)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$	85,252	\$	(190,092)	\$	(74,437)	\$	23,795
	-				-		-	
Discount Rate Sensitivity 1% decrease (6.875%)	\$	37,320,256	\$	1,915,876	\$	5,281,429	\$	8,534,282
Current discount rate (7.875%)	\$	26,980,080	\$	1,385,052	\$	3,818,124	\$	6,169,722
1% increase (8.875%)	\$	19,683,714	\$	1,010,485	\$	2,785,568	\$	4,501,211
Covered Payroll as of the January 1, 2020, valuation	\$	12,698,517	\$	843,089	\$	1,956,540	\$	3,182,539
See notes to schedule of employer allocations and schedule of pension amounts by employer.								

N/A - Not Applicable

### FOR THE YEAR ENDED DECEMBER 31, 2020

	Town of Rockland		Town of Scituate	_	Scituate Housing Authority		Silver Lake Regional School
Net Pension Liability							
Beginning net pension liability \$	37,151,654	\$	45,072,067	\$	874,269	\$	6,762,247
Ending net pension liability \$	31,091,860	\$	38,129,072	\$	706,300	\$	6,145,104
Deferred Outflows of Resources Differences between expected and actual experience \$	2,591,938	\$	3,178,587	\$	58,880	\$	512,280
Changes of assumptions	325,130		398,719		7,386		64,260
Changes in proportion and differences between employer contributions and proportionate share of contributions	213,860		230,589	_	22,380	. <u>-</u>	192,486
Total Deferred Outflows of Resources \$	3,130,928	\$_	3,807,895	\$_	88,646	\$	769,026
Deferred Inflows of Resources Net difference between projected and actual investment earnings on pension plan investments	3,085,272	\$	3,783,579	\$	70,087	\$	609,786
employer contributions and proportionate share of contributions	545,589		438,256		91,529		26,314
Total Deferred Inflows of Resources	3,630,861	\$	4,221,835	\$	161,616	\$	636,100
Pension Expense Proportionate share of plan pension expense \$ Net amortization of deferred amounts from changes	3,293,384	\$	4,040,115	\$	74,734	\$	652,482
in proportion and differences between employer contributions and proportionate share of contributions	(683,633)		(502,427)	_	(39,078)		30,127
Total Employer Pension Expense \$	2,609,751	\$	3,537,688	\$_	35,656	\$	682,609
Contributions Statutory required contribution\$	4,263,777	\$	5,228,790	\$	96,873	\$	842,701
Contribution in relation to statutory required contribution	(4,263,777)		(5,228,790)	_	(96,873)		(842,701)
Contribution deficiency/(excess)	<u> </u>	\$	-	\$_	_	\$	-
Contributions as a percentage of covered payroll	27.69%		26.34%		42.50%		22.27%
Deferred (Inflows)/Outflows Recognized in							
Future Pension Expense           June 30, 2022	5 707,092 913,416 (1,469,154) (651,287)	\$	925,686 1,177,239 (1,741,327) (775,538)	\$	(5,372) (4,069) (47,297) (16,232)		209,462 246,415 (221,758) (101,193)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	6 (499,933)	\$	(413,940)	\$_	(72,970)	\$	132,926
Discount Rate Sensitivity 1% decrease (6.875%)\$	6 43,007,885	\$	52,742,124	\$	976,991	\$	8,500,229
Current discount rate (7.875%)	31,091,860	\$	38,129,072	\$	706,300	\$	6,145,104
1% increase (8.875%) \$	22,683,523	\$	27,817,625	\$	515,292	\$	4,483,251
Covered Payroll as of the January 1, 2020, valuation \$	15,398,021	\$	19,850,207	\$	227,923	\$	3,783,251
See notes to schedule of employer allocations and schedule of pension amounts by employer.							

N/A - Not Applicable

### FOR THE YEAR ENDED DECEMBER 31, 2020

		South Shore Regional School	-	Town of Wareham	-	Wareham Fire District		Wareham Housing Authority
Net Pension Liability								
Beginning net pension liability	\$	3,496,393	\$	36,399,837	\$	7,159,020	\$	277,057
Ending net pension liability	\$	3,137,614	\$	30,515,683	\$	6,603,467	\$	393,887
Deferred Outflows of Resources								
Differences between expected and actual experience	\$	261,564	\$	2,543,906	\$	550,491	\$	32,836
Changes of assumptions		32,810		319,105		69,053		4,119
Changes in proportion and differences between employer contributions and proportionate share of contributions		92,878		27,240	-	249,682		88,004
Total Deferred Outflows of Resources	\$	387,252	\$	2,890,251	\$	869,226	\$	124,959
Deferred Inflows of Resources Net difference between projected and actual investment earnings on pension plan investments	\$	311,346	\$	3,028,098	\$	655,267	\$	39,086
employer contributions and proportionate share of contributions		5,688		786,489		26,575		2,204
Total Deferred Inflows of Resources	\$	317,034	\$	3,814,587	\$	681,842	\$	41,290
Pension Expense Proportionate share of plan pension expense Net amortization of deferred amounts from changes	\$	333,030	\$	3,232,520	\$	701,439	\$	42,244
in proportion and differences between employer contributions and proportionate share of contributions		52,233		(775,769)	-	213,752		78,921
Total Employer Pension Expense	\$	385,263	\$	2,456,751	\$	915,191	\$	121,165
Contributions Statutory required contribution	\$	430,279	\$	4,184,691	\$	905,558	\$	54,019
Contribution in relation to statutory required contribution		,	·	(4,184,691)	·	(905,558)	·	(54,019)
Contribution deficiency/(excess)	¢	_	¢		¢	_	¢	_
					Ψ.		Ψ=	00.50%
Contributions as a percentage of covered payroll Deferred (Inflows)/Outflows Recognized in		24.49%		27.13%		26.93%		66.59%
Future Pension Expense								
June 30, 2022		110,523	\$	522,132	\$	237,595	\$	37,276
June 30, 2023		129,254		710,702		277,597		38,723
June 30, 2024 June 30, 2025		(115,819) (53,740)		(1,520,959) (636,211)		(224,172) (103,636)		6,739 931
Total Deferred (Inflows)/Outflows Recognized in		(00,110)	•	(000,211)	-	(100,000)	-	001
Future Pension Expense	\$	70,218	\$	(924,336)	\$	187,384	\$	83,669
Discount Rate Sensitivity 1% decrease (6.875%)	\$	4,340,112	\$	42,210,887	\$	9,134,260	\$	544,845
Current discount rate (7.875%)	\$	3,137,614	\$	30,515,683	\$	6,603,467	\$	393,887
1% increase (8.875%)	\$	2,289,092	\$	22,263,165	\$	4,817,656	\$	287,366
Covered Payroll as of the January 1, 2020, valuation	\$	1,757,100	\$	15,425,355	\$	3,362,383	\$	81,118
See notes to schedule of employer allocations and schedule of pension amounts by employer.								

N/A - Not Applicable

### FOR THE YEAR ENDED DECEMBER 31, 2020

		Town of West Bridgewater	•	Town of Whitman	-	Whitman/ Hanson Regional School	-	Whitman Housing Authority
Net Pension Liability Beginning net pension liability	\$	19,159,357	\$	18,452,007	\$	11,200,634	\$	352,307
Ending net pension liability		17,135,252			\$	9,221,760		601,967
Deferred Outflows of Resources								
Differences between expected and actual experience	\$	1,428,461	\$	1,344,075	\$	768,762	\$	50,182
Changes of assumptions		179,185		168,599		96,433		6,295
Changes in proportion and differences between employer contributions and proportionate share of contributions		528 975		282,501		49,013		174,715
					-		-	
Total Deferred Outflows of Resources	\$	2,136,621	\$	1,795,175	\$_	914,208	\$	231,192
Deferred Inflows of Resources Net difference between projected and actual investment earnings on pension plan investments	\$	1,700,346	\$	1,599,897	\$	915,081	\$	59,732
Changes in proportion and differences between employer contributions and proportionate share of contributions		41,665		112,928	_	214,239	-	164,732
Total Deferred Inflows of Resources	\$	1,742,011	\$	1,712,825	\$_	1,129,320	\$	224,464
Pension Expense Proportionate share of plan pension expense	\$	1,818,582	\$	1,710,009	\$	976,317	\$	64,753
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		241,173		14,034	-	(325,808)	-	80,374
Total Employer Pension Expense	\$	2,059,755	\$	1,724,043	\$ _	650,509	\$ _	145,127
Contributions								
Statutory required contribution	\$	2,349,842	\$	2,211,038	\$	1,264,645	\$	82,579
Contribution in relation to statutory required contribution		(2,349,842)	-	(2,211,038)	_	(1,264,645)	-	(82,579)
Contribution deficiency/(excess)	\$	_	\$		\$	_	\$	_
Contributions as a percentage of covered payroll		26.32%		28.91%		27.60%		28.06%
Deferred (Inflows)/Outflows Recognized in								
Future Pension Expense June 30, 2022	¢	614 024	¢	462 001	¢	102 022	¢	2.716
June 30, 2022	φ	614,234 714 344	φ	==0,000	φ	193,922	φ	0,010
		(637,419)		572,606		252,962		3,840
June 30, 2024				(655,016)		(460,219)		(4,623)
June 30, 2025		(296,549)	-	(299,161)	-	(201,777)	-	4,795
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$	394,610	\$	82,350	\$_	(215,112)	\$	6,728
Discount Data Consitivity								
Discount Rate Sensitivity 1% decrease (6.875%)	\$	23,702,376	\$	22,302,156	\$	12,756,020	\$	832,672
Current discount rate (7.875%)	\$	17,135,252	\$	16,122,986	\$	9,221,760	\$	601,967
1% increase (8.875%)	\$	12,501,275	\$	11,762,761	\$	6,727,870	\$	439,174
Covered Payroll as of the January 1, 2020, valuation	\$	8,927,767	\$	7,648,077	\$	4,582,201	\$	294,285
See notes to schedule of employer allocations and schedule of pension amounts by employer.								

N/A - Not Applicable

### FOR THE YEAR ENDED DECEMBER 31, 2020

	_	Abington Housing Authority		Pembroke Housing Authority	_	Hanson Housing Authority	_	Rockland Housing Authority
Net Pension Liability								
Beginning net pension liability	\$	376,250	\$	905,053	\$	277,057	\$	574,637
Ending net pension liability	\$	334,100	\$	746,744	\$	228,009	\$	321,792
Deferred Outflows of Resources								
Differences between expected and actual experience	\$	27,852	\$	62,251	\$	19,008	\$	26,826
Changes of assumptions		3,494		7,809		2,384		3,365
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		11,563		28,403		1,484		15,602
Total Deferred Outflows of Resources	e –	42,909	\$	98,463	- \$	22,876	e -	45,793
Total Deletted Outhows of Resources	ф –	42,909	φ	90,403	φ =	22,070	ф =	40,795
Deferred Inflows of Resources Net difference between projected and actual								
investment earnings on pension plan investments	\$	33,151	\$	74,100	\$	22,626	\$	31,933
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		1 280		24,213		7.531		94,255
	-		-		-	7,001	-	34,233
Total Deferred Inflows of Resources	\$ _	34,431	\$	98,313	\$ _	30,157	\$ -	126,188
Pension Expense		05 440	•	70.000	•	04.400		00 574
Proportionate share of plan pension expense	\$	35,449	\$	79,063	\$	24,139	\$	33,574
Net amortization of deferred amounts from changes in proportion and differences between employer								
contributions and proportionate share of contributions	_	4,719		(25,347)	_	(4,758)	-	(90,232)
Total Employer Pension Expense	\$_	40,168	\$	53,716	\$_	19,381	\$	(56,658)
Contributions Statutory required contribution	¢	45,779	¢	102,395	¢	31,305	¢	44,123
			Ψ		Ψ	,	Ψ	,
Contribution in relation to statutory required contribution	-			(102,395)	-	(31,305)	-	(44,123)
Contribution deficiency/(excess)	\$ _	-	\$		\$ _	-	\$ -	-
Contributions as a percentage of covered payroll		40.27%		24.05%		53.30%		31.67%
Deferred (Inflows)/Outflows Recognized in								
Future Pension Expense June 30, 2022	¢	40.050	¢	20.040	¢	2 00 4	¢	(40.070)
June 30, 2022 June 30, 2023		12,953 14,211	\$	26,049 27,418	\$	3,994 5,261	\$	(12,073) (11,997)
June 30, 2024		(12,778)		(37,068)		(11,542)		(40,568)
June 30, 2025		(5,908)		(16,249)		(4,994)		(15,757)
Total Deferred (Inflows)/Outflows Recognized in	-				-		-	
Future Pension Expense	\$_	8,478	\$	150	\$ _	(7,281)	\$_	(80,395)
Discount Rate Sensitivity								
1% decrease (6.875%)	\$	462,145	\$	1,032,935	\$	315,394	\$	445,120
Current discount rate (7.875%)	\$	334,100	\$	746,744	\$	228,009	\$	321,792
1% increase (8.875%)	\$	243,748	\$	544,798	\$	166,347	\$	234,768
Covered Payroll as of the January 1, 2020, valuation	\$	113,682	\$	425,759	\$	58,730	\$	139,315
See notes to schedule of employer allocations and schedule of pension amounts by employer.								

N/A - Not Applicable

### FOR THE YEAR ENDED DECEMBER 31, 2020

		Halifax Housing Authority		Mattapoisett Housing Authority		Acushnet/ Rochester/ Marion Health District		West Bridgewater Housing Authority
Net Pension Liability				400.000				405 400
Beginning net pension liability	\$	176,496	\$	180,600	\$	142,975	\$	125,189
Ending net pension liability	\$	17,584	\$	36,927	\$	132,468	\$	101,402
Deferred Outflows of Resources								
Differences between expected and actual experience	\$	1,466	\$	3,078	\$	11,043	\$	8,453
Changes of assumptions		184		386		1,385		1,060
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		44,506		873		8,093		3,712
						0,035	• •	5,712
Total Deferred Outflows of Resources	\$	46,156	\$	4,337	\$	20,521	\$	13,225
Deferred Inflows of Resources								
Net difference between projected and actual investment earnings on pension plan investments	\$	1,742	\$	3,664	\$	13,144	\$	10,060
Changes in proportion and differences between employer contributions and proportionate								
share of contributions		202,546		62,775		565	. <u>-</u>	4,256
Total Deferred Inflows of Resources	\$	204,288	\$	66,439	\$	13,709	\$	14,316
Pension Expense								
Proportionate share of plan pension expense	\$	1,445	\$	3,545	\$	14,073	\$	10,726
Net amortization of deferred amounts from changes								
in proportion and differences between employer contributions and proportionate share of contributions		(116,917)		(62,364)		2,451		(3,456)
Total Employer Pension Expense	\$	(115,472)	\$	(58,819)	\$	16,524	\$	7,270
Contributions								
Statutory required contribution	\$	2,387	\$	5,078	\$	18,197	\$	13,930
Contribution in relation to statutory required contribution		(2,387)	_	(5,078)		(18,197)	_	(13,930)
Contribution deficiency/(excess)	\$	-	\$	-	\$	-	\$	-
Contributions as a percentage of covered payroll		N/A		15.96%		22.97%		24.53%
		10/73		10.0070		22.0170		24.0070
Deferred (Inflows)/Outflows Recognized in <u>Future Pension Expense</u>								
June 30, 2022	\$	(53,781)	\$	(17,674)	\$	6,279	\$	3,164
June 30, 2023	•	(57,591)	·	(17,428)	·	6,745	·	3,389
June 30, 2024		(39,018)		(19,754)		(4,163)		(5,329)
June 30, 2025		(7,742)		(7,246)		(2,049)		(2,315)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$	(158,132)	\$	(62,102)	\$	6,812	\$	(1,091)
	·					· · · ·		
Discount Rate Sensitivity 1% decrease (6.875%)	\$	24,323	\$	51,079	\$	183,237	\$	140,265
Current discount rate (7.875%).		17,584		36,927	\$	132,468		101,402
1% increase (8.875%)	\$	12,829	\$	26,941	\$	96,644	\$	73,979
Covered Payroll as of the January 1, 2020, valuation	\$	N/A	\$	31,816	\$	79,231	\$	56,780
See notes to schedule of employer allocations and schedule of pension amounts by employer.								

N/A - Not Applicable

### FOR THE YEAR ENDED DECEMBER 31, 2020

		South Shore Tri-Town Development		Carver Housing Authority		Totals
Net Pension Liability						
Beginning net pension liability	\$	1,130,120	\$	190,862	\$	682,247,415
Ending net pension liability	\$	1,038,056	\$	-	\$	586,141,205
Deferred Outflows of Resources						
Differences between expected and actual experience	\$	86,537	\$	-	\$	48,863,003
Changes of assumptions		10,855		-		6,129,325
Changes in proportion and differences between						
employer contributions and proportionate share of contributions		96,544		2,306		8,848,850
		30,344		2,300		0,040,000
Total Deferred Outflows of Resources	\$	193,936	\$ =	2,306	\$	63,841,178
Deferred Inflows of Resources						
Net difference between projected and actual investment earnings on pension plan investments	\$	103 009	\$	-	\$	58,163,274
	Ψ	100,000	Ψ		Ψ	00,100,211
Changes in proportion and differences between employer contributions and proportionate						
share of contributions		22,551		84,832		8,848,850
Total Deferred Inflows of Descurees	¢	125 560	<u>،</u>	04 022	¢	67 012 124
Total Deferred Inflows of Resources	Ф	125,500	- <sup>ф</sup> =	04,032	Φ	67,012,124
Pension Expense Proportionate share of plan pension expense	\$	110,251	\$	-	\$	63,093,811
Net amortization of deferred amounts from changes						
in proportion and differences between employer						
contributions and proportionate share of contributions		45,956		(88,744)		
Total Employer Pension Expense	\$	156,207	\$	(88,744)	\$	63,093,811
Contributions Statutory required contribution	¢	142 356	¢		\$	79,735,479
	φ	142,330	φ		·	
Contribution in relation to statutory required contribution		(142,356)		-		(84,456,699)
Contribution deficiency/(excess)	\$		\$ _	-	\$	(4,721,220)
Contributions as a percentage of covered payroll		68.09%		N/A		27.13%
Deferred (Inflows)/Outflows Recognized in						
Future Pension Expense						
June 30, 2022 June 30, 2023		58,682 60,662	\$	(24,118) (24,373)	\$	15,651,927 18,744,265
June 30, 2024		(34,452)		(24,985)		(26,061,526)
June 30, 2025		(16,516)		(9,050)		(11,505,612)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$	68,376	\$	(82,526)	\$	(3,170,946)
Discount Poto Sonsitivity						
Discount Rate Sensitivity 1% decrease (6.875%)	\$	1,435,893	\$	-	\$	810,781,133
Current discount rate (7.875%)	\$	1,038,056	\$	-	\$	586,141,205
1% increase (8.875%)	\$	757,329	\$	-	\$	427,627,926
Covered Payroll as of the January 1, 2020, valuation	\$	209,055	\$	N/A	\$	293,870,741
See notes to schedule of employer allocations and schedule of pension amounts by employer.						
N/A - Not Applicable						(concluded)

N/A - Not Applicable

(concluded)

# NOTE I – Schedule of Employer Allocations

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a costsharing 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 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 paid for the retirement obligations related to previously retired Hospital employees until 2020 when the County paid off the remaining unfunded liability.

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.

46