

PLYMOUTH COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2021

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Financial Section

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Independent Auditor's Report

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

Opinion

We have audited the accompanying financial statements of the Plymouth County Retirement Association (Association) as of and for the year ended December 31, 2021, and the related notes to the financial statements, which collectively comprise the Association's financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Association as of December 31, 2021, and the changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

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. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Association and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management 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, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Association's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a

guarantee that an audit conducted in accordance with generally accepted auditing standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgement made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards, we:

- Exercise professional judgement and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or
 error, and design and perform auditing procedures responsive to those risks. Such procedures include
 examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 Association's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgement, there are conditions or events, considered in the aggregate, that
 raise substantial doubt about the Association's ability to continue as a going concern for a reasonable
 period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis; the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Returns be presented to supplement the financial statements. Such information is the responsibility of management and, although not a part of the financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 13, 2022, on our consideration of the 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 solely 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 effectiveness of Association' 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 Association's internal control over financial reporting and compliance.

Restriction on Use

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

October 13, 2022

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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, 2021. 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 \$1.4 billion (net position).
- The Association's net position increased by \$200.7 million for the year ended December 31, 2021.
- Total investment income was \$234.4 million; investment expenses were \$30.1 million; and net investment income was \$204.2 million.
- Total contributions were \$127.3 million including \$30.6 million from members, \$89.1 million from employers and \$7.6 million from other sources.
- Retirement benefits, refunds and transfers amounted to \$128.9 million.
- Administrative expenses and depreciation expense were \$1.8 million and \$74,000, respectively.
- The total pension liability was \$1.9 billion as of December 31, 2021, while the net pension liability was \$467.8 million.
- The fiduciary net position as a percentage of the total pension liability was 75.49%.

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 less liabilities with the difference reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position is improving or deteriorating.

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

Notes to the Financial Statements

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

Required Supplementary Information

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

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the Association's financial position. The Association's net position exceeded liabilities by \$1.4 billion at the close of 2021.

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 \$1.4 billion, cash of \$37.8 million, capital assets of \$3 million, as well as accounts receivable of \$8.8 million.

In 2021, total contributions received by the Association were \$127.3 million and net investment income was \$204.2 million while retirement benefit payments, refunds, transfers and administration expenses were \$130.8 million, which resulted in a current increase of \$200.7 million.

During 2021, net position increased by \$200.7 million, which was primarily the result of the \$204.2 million net investment income. In 2021, current contributions were substantially sufficient to support the current expenses with only \$3.5 million of net investment income needed. The annual money weighted rate of return was 14.41% and 12.91% in 2021, and 2020, 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. During 2021, improvements were made to the building and the System moved to the new location. The System has since subdivided the property into two lots and advertised the warehouse lot and building for sale.

The following tables present summarized financial information for the year.

	2021		2020
Statement of Fiduciary Net Position		•	
Assets:			
Cash\$	37,833,063	\$	21,227,465
Investments	1,399,558,086		1,217,496,853
Accounts receivable	8,841,653		7,577,111
Other assets	-		337,927
Capital assets, net of accumulated depreciation	2,994,531		2,394,672
Total assets	1,449,227,333		1,249,034,028
Liabilities:			
Accounts payable	8,873,014	•	9,422,197
Net Position Restricted for Pensions\$	1,440,354,319	\$	1,239,611,831

	2021	2020
Statement of Changes in Fiduciary Net Position		
Additions:		
Contributions:		
Member contributions \$	30,579,452	\$ 29,471,227
Employer contributions	89,068,346	84,456,699
Other contributions	7,622,063	7,722,738
Total contributions	127,269,861	121,650,664
Net investment income:		
Total investment income	234,370,257	160,310,662
Less, investment expenses	(30,127,791)	(15,900,626)
•		
Net investment income	204,242,466	144,410,036
Total additions	331,512,327	266,060,700
Deductions:		
Administration	1,821,575	1,814,276
Retirement benefits, refunds and transfers	128,873,828	119,549,784
Depreciation	74,436	12,913
Total deductions	130,769,839	121,376,973
Net increase (decrease) in fiduciary net position	200,742,488	144,683,727
Fiduciary net position at beginning of year	1,239,611,831	1,094,928,104
Fiduciary net position at end of year\$	1,440,354,319	\$ 1,239,611,831

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, 60 Industrial Park Road, Plymouth, Massachusetts 02360.

Financial Statements

STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2021

Assets	
CURRENT:	
	37,833,063
Investments:	0.,000,000
Fixed income	232,531,956
Domestic equities	372,308,427
International equities	175,160,597
Real estate funds	140,841,414
Venture capital funds	377,158,191
Hedge funds	90,691,703
Bank loan	10,865,798
	10,000,100
Total investments	1,399,558,086
Accounts receivable:	
Member contributions	1,845,115
Employer pension appropriation	231,098
3(8)c Reimbursements from other systems	3,916,550
Due from Commonwealth - sheriff retirees (See Note 8)	440,494
Other accounts receivable	2,408,396
-	0.044.050
Total accounts receivable	8,841,653
Total current assets	1,446,232,802
-	.,,
NONCURRENT:	
Capital assets, nondepreciable	341,500
Capital assets, net of accumulated depreciation	2,653,031
· · · · · · · · · · · · · · · · · · ·	
Total noncurrent assets	2,994,531
Total Assets	1,449,227,333
Liabilities	
Accounts payable	8,873,014
Net Position Restricted for Pensions\$	1,440,354,319

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2021

Additions: Contributions:	
Employer pension assessments	\$ 85,994,057
Employer additional contributions	3,074,289
Member contributions	30,579,452
Transfers from other systems	3,061,438
3(8)(c) contributions from other systems	3,917,130
Workers' compensation settlements	24,000
Federal grant reimbursements	35,417
State COLA reimbursements	7,072
Members' makeup payments and redeposits	448,698
Interest not refunded	61,598
Reimbursement of 91A overearnings	64,247
Other revenue	2,463
Total contributions	127,269,861
Net investment income:	
Investment income	234,370,257
Less: investment expense	
Net investment income	204,242,466
Total additions	331,512,327
Deductions:	
Administration	1,821,575
Retirement benefits and refunds	124,310,720
Transfers to other systems	2,871,246
3(8)(c) transfer to other systems	1,691,862
Depreciation	74,436
Total deductions	130,769,839
Net increase (decrease) in fiduciary net position	200,742,488
Fiduciary net position at beginning of year	1,239,611,831
Fiduciary net position at end of year	\$1,440,354,319

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

Established in 1937, the Plymouth County Retirement Association (Association) is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Plymouth County Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the Association is mandatory immediately upon the commencement of employment for all permanent employees working a minimum of 20 hours per week. The Association has 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 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

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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

Company

NOTE 4 - CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2021, the carrying amount of the Association's deposits totaled \$37.8 million and the bank balance of \$38.3 million was covered by Federal Depository Insurance.

Investments

The Association's investments were as follows:

		Maturity						
	Fair Value	Under 1 Year		1-5 Years		6-10 Years		Over 10 Years
Investment Type								
Debt Securities:								
Fixed Income\$	232,531,956	\$ 2,325,320	\$	67,434,267	\$	90,687,463	\$	72,084,906
Other Investments:								
Money Market Mutual Funds	233,096							
Domestic Equities	372,308,427							
International Equities	175,160,597							
Real Estate Funds	140,841,414							
Venture Capital Funds	377,158,191							
Hedge Funds	90,691,703							
Bank Loan	10,865,798							
Total Investments\$	1,399,791,182							

The Association's annual money-weighted rate of return on pension plan investments was a gain of 14.41%. 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. As investing is a key part of the Association'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, 2021:

	Fair Value Measurements Using							
Investment Type	December 31, 2021		Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)	Unfunded Commitments
Investments Measured at Fair Value:								
Fixed Income\$ Domestic Equities	167,887,180 372,308,427 152,724,179 97,373,995 269,687,293 10,645,829 10,865,798 233,096		372,308,427 152,724,179 - - 233,096	\$	167,887,180 - - - - - 10,865,798 -		97,373,995 269,687,293 10,645,829	\$ 58,769,195 128,032,110 - -
Total Investments by fair value level	1,081,725,796	\$	525,265,702	\$	178,752,978	\$	3//,/0/,116	186,801,305
Investments Measured at Net Asset Value: Fixed Income	64,644,776							_
International Equities	22,436,418							-
Real Estate Funds	43,467,420							11,462,423
Venture Capital Funds	107,470,899							30,649,389
Hedge Funds	80,045,874							1,942,822
Total Investments\$	1,399,791,182							\$ 230,855,939

Domestic equities, international equities and money market mutual funds classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Fixed income and bank loans classified in Level 2 of the fair value hierarchy are valued using matrix pricing techniques. Real estate funds, venture capital funds and hedge funds classified in Level 3 of the fair value hierarchy require significant management judgement or estimation.

Remaining investments are valued using the net asset value (NAV) method.

NOTE 5 - CAPITAL ASSETS

Capital asset activity for the year ended December 31, 2021, was as follows:

	Beginning Balance		Increases		Decreases	Ending Balance
Capital assets not being depreciated: Land\$	341,500	\$	-	\$	_	\$ 341,500
Capital assets being depreciated: Buildings and improvements	2,066,085	-	674,295	ı		 2,740,380
Less accumulated depreciation for: Buildings and improvements	(12,913)	•	(74,436)			 (87,349)
Total capital assets being depreciated, net	2,053,172		599,859	į.		 2,653,031
Total capital assets, net\$	2,394,672	\$	599,859	\$		\$ 2,994,531

NOTE 6 - MEMBERSHIP

The following table represents the Association's membership at December 31, 2021:

Retirees and beneficiaries currently receiving benefits	4,582
Inactive members	1,883
Active members	5,836
Total	12,301

NOTE 7 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2021, were as follows:

Total pension liability\$	1,908,113,972
Less: Association's fiduciary net position	(1,440,354,319)
The net pension liability\$	467,759,653
The Association's fiduciary net position as a percentage of the total pension liability	75.49%

The total pension liability was determined by an actuarial valuation as of January 1, 2022, using the following actuarial assumptions, applied to all periods included in the measurement date of December 31, 2021:

Valuation date...... January 1, 2022

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.

Investment rate of return/Discount rate.... 7.875% nominal rate, net of investment expense.

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).

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 for retired members for Group 4 is represented by the RP-2014 Blue Collar Mortality Table set forward three years for males, and six years for

females, fully generational.

Mortality for disabled members for Group 1 and 2 is represented by the RP-

2000 Mortality Table set forward six years.

Mortality for disabled members for Group 4 is represented by the RP-2000 $\,$

Mortality Table set forward two years. Generational adjusting is based on

Scale MP-2016.

Investment 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, 2021, are summarized in the following table:

	Long-Term Expected	
	Nominal	Long-Term Expected
Asset Class	Rate of Return	Asset Allocation
Domestic equity	6.80%	23.00%
International developed equity	7.50%	3.00%
Emerging markets equity	4.60%	9.00%
Global equity	7.20%	11.00%
Core bonds	2.40%	10.00%
Value-added fixed income	4.00%	7.00%
Hedge funds	4.40%	7.00%
Real estate	7.40%	10.00%
Private equity	7.30%	12.00%
Real assets	7.70%	6.00%
Cash and Cash Equivalent	1.70%	2.00%
		100.00%

Discount rate: The discount rate used to measure the total pension liability was 7.875% as of December 31, 2021 and as of December 31, 2020. 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	Discount	1% Increase
	(6.875%)	(7.875%)	(8.875%)
Plymouth County Retirement Association's net			
pension liability as of December 31, 2021\$	662,891,949 \$	467,759,653 \$	301,432,010

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 fiscal year 2011 through fiscal year 2022 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 2021. The two remaining payments totaling \$440,494, 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, 2021.

NOTE 10 - IMPLEMENTATION OF GASB PRONOUNCEMENTS

There were no GASB pronouncements required to be implemented in 2021, 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 October 13, 2022, which is the date the financial statements were available to be issued.

The Association carries its investments at fair (market) value in accordance with Generally Accepted Accounting Principles (GAAP). Market value adjustments are recorded monthly. The Association's investments had declined in value consistent with recent trends in the overall financial securities market.

In accordance with GAAP, the Association has not recorded the losses in its financial statements as the impairments were not known as of December 31, 2021. The Association has recorded the losses associated with the investment during the year 2022.

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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\$	30,880,169	\$	32,038,175	\$ 33,239,607	\$ 26,807,632
Interest	111,727,069		115,962,263	116,054,394	119,404,812
Changes in benefit terms	-		-	6,700,296	-
Differences between expected and actual experience	-		-	21,421,023	-
Changes in assumptions	-		-	(23,402,726)	-
Benefit payments	(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)\$	1,417,490,111	\$	1,466,863,880	\$ 1,520,090,445	\$ 1,555,495,352
Plan fiduciary net position:					
Employer pension appropriation\$	58,130,647	\$	62,772,260	\$ 66,393,381	\$ 69,896,514
Member contributions	23,025,761		30,649,234	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		-			
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	50.000/		50 700/	50.000/	05 500/
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, 2018	December 31, 2019		December 31, 2020	December 31, 2021
\$ 27,772,477 122,120,554	\$ 28,883,376 129,044,546	\$	30,398,893 137,728,408	\$ 31,462,854 141,277,497
59,806,942	15,202,584 55,982,071		-	38,494,413
19,750,049 (115,748,560)	(121,133,872)		(119,549,784)	(128,873,828)
113,701,462	107,978,705		48,577,517	82,360,936
1,555,495,352	1,669,196,814		1,777,175,519	1,825,753,036
\$ 1,669,196,814	\$ 1,777,175,519	\$	1,825,753,036	\$ 1,908,113,972
\$ 72,811,482	\$ 74,462,092	\$	84,456,699	\$ 89,068,346
27,326,242	29,270,635		29,471,227	30,579,452
6,940,373	8,614,587		7,722,738	7,622,063
(72,568,400)	168,963,372		144,410,036	204,242,466
(1,828,777)	(1,888,516)		(1,814,276)	(1,821,575)
(115,748,560)	(121,133,872)		(119,549,784)	(128,873,828)
<u> </u>	<u>-</u>	-	(12,913)	(74,436)
(83,067,640)	158,288,298		144,683,727	200,742,488
1,019,707,446	936,639,806		1,094,928,104	1,239,611,831
\$ 936,639,806	\$ 1,094,928,104	\$	1,239,611,831	\$ 1,440,354,319
\$ 732,557,008	\$ 682,247,415	\$	586,141,205	\$ 467,759,653
-0 4404	24.2424		o= 000/	
56.11%	61.61%		67.90%	75.49%
\$ 281,665,696	\$ 294,614,062	\$	293,870,741	\$ 315,856,987
260.08%	231.57%		199.46%	148.09%

SCHEDULE OF CONTRIBUTIONS

Year	Actuarially determined contribution	Contributions in relation to the actuarially determined contribution	Contribution deficiency (excess)	Covered payroll	Contributions as a percentage of covered payroll
December 31, 2021 \$	85,994,057 \$	(89,068,346) \$	(3,074,289) \$	315,856,987	28.20%
December 31, 2020	80,090,098	(84,456,699)	(4,366,601)	293,870,741	28.74%
December 31, 2019	73,787,092	(74,462,092)	(675,000)	294,614,062	25.27%
December 31, 2018	72,127,482	(72,811,482)	(684,000)	281,665,696	25.85%
December 31, 2017	68,534,029	(69,896,514)	(1,362,485)	275,630,362	25.36%
December 31, 2016	66,255,664	(66,393,381)	(137,717)	265,029,190	25.05%
December 31, 2015	62,772,260	(62,772,260)	-	255,955,074	24.52%
December 31, 2014	58,130,647	(58,130,647)	-	246,703,686	23.56%

Note: this schedule is intended to present information for 10 years.

Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF INVESTMENT RETURNS

Annual money-weighted rate of return,

Year	rate of return, net of investment expense
December 31, 2021	14.41%
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
$N \cup I \cup D = I$	CHANGESIN	ASSUME HOMS

None.

NOTE E - CHANGES IN PLAN PROVISIONS

None.

Audit of Specific Elements, Accounts and Items of Financial Statements

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Independent Auditor's Report

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

Report on the Audit of the Schedule of Employer Allocations and Schedule of Pension Amounts by Employer

Opinions

We have audited the accompanying schedule of employer allocations of the Plymouth County Retirement Association (Association) as of and for the year ended December 31, 2021, 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 pension amounts by employer of the Association as of and for the year ended December 31, 2021, and the related notes.

In our opinion, the accompanying schedule of employer allocations and schedule of pension amounts by employer present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Association as of and for the year ended December 31, 2021, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Schedules section of our report. We are required to be independent of the Association and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Schedules

Management is responsible for the preparation and fair presentation of the schedules in accordance with accounting principles generally accepted in the United States of America and for 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 Responsibilities for the Audit of the Schedules

Our objectives are to obtain reasonable assurance about whether the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer as a whole are free from material

misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgement made by a reasonable user based on the schedules.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgement and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the schedules, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the schedules.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are
 appropriate in the circumstances, but not for the purposes of expressing an opinion on the effectiveness of the
 Association's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the schedules.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Other Matter

We have audited, in accordance with GAAS, the financial statements of the Association as of and for the year ended December 31, 2021, and our report thereon, dated October 13, 2022, expressed an unmodified opinion on those financial statements.

Restriction on Use

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

October 13, 2022

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SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2021

	Employer Allocation	Net Pension		
Employer	Percentage	Liability		
Plymouth County	1.5874% \$	7,425,21		
Town of Abington	3.6432%	17,041,41		
Town of Bridgewater	5.1351%	24,019,926		
	0.0714%			
Bridgewater Housing Authority		333,980 10,994,223		
Bridgewater/Raynham Regional School	2.3504%			
Town of Carver	2.8284%	13,230,114		
Town of Duxbury	5.5916%	26,155,249		
Duxbury Housing Authority	0.0282%	131,908		
Town of East Bridgewater	3.5740%	16,717,73		
East Bridgewater Housing Authority	0.0567%	265,220		
Town of Halifax	1.6947%	7,927,12		
Town of Hanover	4.8278%	22,582,50		
Town of Hanson	2.2217%	10,392,21		
Town of Kingston	3.4892%	16,321,07		
Kingston Housing Authority	0.0063%	29,46		
Town of Lakeville	1.4794%	6,920,030		
Town of Marion	1.6567%	7,749,37		
Town of Marshfield	8.2145%	38,424,11		
Marshfield Housing Authority	0.0544%	254,46		
Town of Mattapoisett	1.7505%	8,188,133		
Town of Middleborough	9.0923%	42,530,11		
Middleborough Housing Authority	0.1725%	806,88		
Town of Norwell	3.7029%	17,320,67		
Norwell Housing Authority	0.0480%	224,52		
Old Rochester Regional School	0.9581%	4,481,60		
Onset Fire District	0.3666%	1,714,80		
Town of Pembroke	4.7046%	22,006,22		
Plymouth County Mosquito Control	0.2187%	1,022,99		
Town of Plympton	0.7069%	3,306,59		
Town of Rochester	1.1260%	5,266,97		
Town of Rockland	5.5131%	25,788,05		
Town of Scituate	6.6998%	31,338,96		
Scituate Housing Authority	0.1116%	522,02		
Silver Lake Regional School	1.0012%	4,683,21		
South Shore Regional School	0.4926%	2,304,18		
Town of Wareham	5.5012%	25,732,39		
Wareham Fire District	1.2433%	5,815,65		
Wareham Housing Authority	0.0609%	284,860		
- · · · · · · · · · · · · · · · · · · ·	2.9962%			
Town of West Bridgewater		14,015,01		
Town of Whitman	2.8819%	13,480,36		
Whitman/Hanson Regional School	1.5807%	7,393,87		
Whitman Housing Authority	0.1092%	510,79		
Abington Housing Authority	0.0459%	214,70		
Pembroke Housing Authority	0.1177%	550,55		
Hanson Housing Authority	0.0355%	166,05		
Rockland Housing Authority	0.0499%	233,41		
Mattapoisett Housing Authority	0.0336%	157,16		
West Bridgewater Housing Authority	0.0210%	98,23		
South Shore Tri-Town Development	0.1465%	685,26		
Total	100.0000% \$	467,759,65		

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, 2021

	_	Plymouth County	-	Town of Abington	-	Town of Bridgewater
Net Pension Liability	e	27 450 466	ď	24 060 052	ď	20 170 720
Beginning net pension liability	. Ф	27,450,166	Ф	21,060,053	Ф	28,178,738
Ending net pension liability	. \$	7,425,217	\$	17,041,417	\$	24,019,926
<u>Deferred Outflows of Resources</u>						
Differences between expected and actual experience	. \$	823,521	\$	1,890,043	\$	2,664,018
Changes of assumptions		25,225		57,895		81,601
Changes in proportion and differences between						
employer contributions and proportionate share of contributions		261 692		226 772		905,935
Share of contributions	_	261,682	-	226,772		905,955
Total Deferred Outflows of Resources	· \$ _	1,110,428	\$	2,174,710	\$	3,651,554
Deferred Inflows of Resources						
Net difference between projected and actual						
investment earnings on pension plan investments	. \$	2,037,365	\$	4,675,901	\$	6,590,698
Changes in proportion and differences between						
employer contributions and proportionate						
share of contributions	-	9,368,236	-	711,826		131,772
Total Deferred Inflows of Resources	\$_	11,405,601	\$	5,387,727	\$	6,722,470
Pension Expense						
Proportionate share of plan pension expense	. \$	672,963	\$	1,544,488	\$	2,176,986
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		(4,965,684)	_	(187,291)		496,460
Total Employer Pension Expense	. \$ _	(4,292,721)	\$	1,357,197	\$	2,673,446
Contributions Statutory required contribution Contribution in relation to statutory required contribution		3,103,195 (6,027,484)	-	3,144,709 (3,144,709)		4,115,684 (4,115,684)
Contribution deficiency/(excess)	\$ _	(2,924,289)	\$		\$	-
Contributions as a percentage of covered payroll		79.24%		25.94%		26.39%
Deferred (Inflows)/Outflows Recognized in						
Future Pension Expense June 30, 2023	•	(2,718,389)	•	34,127	¢	518,084
June 30, 2024		(3,473,363)		(1,645,356)	Ψ	(1,755,239)
June 30, 2025		(2,978,988)		(942,011)		(972,675)
June 30, 2026		(1,124,433)	-	(659,777)		(861,086)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	. \$ _	(10,295,173)	\$	(3,213,017)	\$	(3,070,916)
Discount Rate Sensitivity						
1% decrease (6.875%)	. \$	10,522,747	\$	24,150,476	\$	34,040,165
Current discount rate (7.875%)	. \$	7,425,217	\$	17,041,417	\$	24,019,926
1% increase (8.875%)	. \$	4,784,932	\$	10,981,769	\$	15,478,835
Covered Payroll as of the January 1, 2022, valuation	. \$	3,916,347	\$	12,122,927	\$	15,593,676
See notes to schedule of employer allocations and schedule of pension amounts by employer.						
N/A = Not Applicable						(continued)

	_	Bridgewater Housing Authority		Bridgewater/ Raynham Regional School		Town of Carver		Carver/Marion Wareham Regional Refuse
Net Pension Liability								
Beginning net pension liability	\$	487,669	\$	13,854,620	\$	16,128,848	\$	397,404
Ending net pension liability	\$	333,980	\$	10,994,223	\$	13,230,114	\$	-
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience	\$	37,041	\$	1,219,355	\$	1,467,334	\$	-
Changes of assumptions		1,135		37,350		44,946		-
Changes in proportion and differences between employer contributions and proportionate share of contributions		-		83,151		207,772		52,054
Total Deferred Outflows of Resources	\$_	38,176	\$	1,339,856	\$	1,720,052	\$	52,054
Deferred Inflows of Resources Net difference between projected and actual investment earnings on pension plan investments	\$	91,639	\$	3,016,646	\$	3,630,140	\$	-
employer contributions and proportionate share of contributions		65,685		94,394		230,669		268,414
Total Deferred Inflows of Resources	\$ _	157,324	\$	3,111,040	\$	3,860,809	\$	268,414
Pension Expense Proportionate share of plan pension expense	\$	30,270	\$	996,431	\$	1,199,081	\$	-
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		(61.734)		(196,571)		(52,394)		(216,343)
Total Employer Pension Expense		,		,				
Contributions Statutory required contribution	\$	63,836	\$	1,964,050	\$	2,406,381	\$	-
Contribution in relation to statutory required contribution	_	(63,836)		(1,964,050)	,	(2,406,381)		
Contribution deficiency/(excess)	\$	-	\$	-	\$		\$	
Contributions as a percentage of covered payroll		66.54%		25.05%		28.51%		N/A
Deferred (Inflows)/Outflows Recognized in								
Future Pension Expense June 30, 2023	ď	(28,490)	ď	125.698	¢.	71,318	ď	(54,816)
June 30, 2024	Ψ	(46,205)	Ψ	(895,985)	Ψ	(1,090,974)	Ψ	(75,796)
June 30, 2025		(28,089)		(562,943)		(618,967)		(67,547)
June 30, 2026		(16,364)		(437,954)		(502,134)		(18,201)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$	(119,148)	\$	(1,771,184)	\$	(2,140,757)	\$	(216,360)
Discount Rate Sensitivity 1% decrease (6.875%)	\$	473,304	\$	15,580,613	\$	18,749,236	\$	-
Current discount rate (7.875%)	\$	333,980	\$	10,994,223	\$	13,230,114	\$	-
1% increase (8.875%)	\$	215,222	\$	7,084,858	\$	8,525,703	\$	-
Covered Payroll as of the January 1, 2022, valuation	\$	95,942	\$	7,840,505	\$	8,439,390	\$	N/A
See notes to schedule of employer allocations and schedule of pension amounts by employer.								
N/A = Not Applicable								(continued)

	-	Town of Duxbury	_	Duxbury Housing Authority	Town of East Bridgewater	East Bridgewater Housing Authority
Net Pension Liability Beginning net pension liability	\$	31,611,181	\$	182,290	\$ 20,262,901	\$ 308,896
Ending net pension liability	\$	26,155,249	\$	131,908	\$ 16,717,730	\$ 265,220
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience	\$	2,900,844	\$	14,630	\$ 1,854,141	\$ 29,415
Changes of assumptions		88,855		448	56,794	901
Changes in proportion and differences between employer contributions and proportionate share of contributions	_	1,144,495	-	1,480	379,050	17,003
Total Deferred Outflows of Resources	\$	4,134,194	\$	16,558	\$ 2,289,985	\$ 47,319
Deferred Inflows of Resources Net difference between projected and actual investment earnings on pension plan investments Changes in proportion and differences between	\$	7,176,598	\$	36,194	\$ 4,587,088	\$ 72,772
employer contributions and proportionate share of contributions	_	_	_	12,902	173,198	12,527
Total Deferred Inflows of Resources	\$	7,176,598	\$	49,096	\$ 4,760,286	\$ 85,299
Pension Expense Proportionate share of plan pension expense	\$	2,370,514	\$	11,956	\$ 1,515,171	\$ 24,039
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	-	619,683	_	(11,735)	82,526	(865)
Total Employer Pension Expense	\$	2,990,197	\$	221	\$ 1,597,697	\$ 23,174
<u>Contributions</u> Statutory required contribution	\$	4,672,835	\$	25,467	\$ 2,960,238	\$ 44,203
Contribution in relation to statutory required contribution	-		-	(25,467)	(2,960,238)	(44,203)
Contribution deficiency/(excess)	\$	-	\$		\$ 	\$
Contributions as a percentage of covered payroll		24.64%		48.34%	24.09%	21.93%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense June 30, 2023	\$	819,764	\$	(2,727)	\$ 276,574	\$ (4)
June 30, 2024		(1,771,420) (1,110,642) (980,106)		(14,199) (9,621) (5,991)	(1,331,163) (786,604) (629,108)	(19,142) (9,430) (9,404)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$	(3,042,404)	\$	(32,538)	\$ (2,470,301)	\$ (37,980)
<u>Discount Rate Sensitivity</u> 1% decrease (6.875%)	\$	37,066,267	\$	186,935	\$ 23,691,758	\$ 375,860
Current discount rate (7.875%)	\$	26,155,249	\$	131,908	\$ 16,717,730	\$ 265,220
1% increase (8.875%)	\$	16,854,872	\$	85,004	\$ 10,773,180	\$ 170,912
Covered Payroll as of the January 1, 2022, valuation	\$	18,965,050	\$	52,680	\$ 12,286,425	\$ 201,577
See notes to schedule of employer allocations and schedule of pension amounts by employer.						
N/A = Not Applicable						(continued)

	_	Town of Halifax	•	Town of Hanover	=	Town of Hanson	=	Town of Kingston
Net Pension Liability Beginning net pension liability	\$	9,313,198	\$	27,555,670	\$	12,390,439	\$	19,329,179
Ending net pension liability	\$	7,927,123	\$	22,582,501	\$	10,392,216	\$	16,321,070
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience	\$	879,187	\$	2,504,595	\$	1,152,587	\$	1,810,148
Changes of assumptions		26,930		76,718		35,305		55,446
Changes in proportion and differences between employer contributions and proportionate		245 200		675 072		252 140		1,006,066
share of contributions	_			675,972	-	352,140	-	1,000,000
Total Deferred Outflows of Resources	\$ _	1,221,407	\$	3,257,285	\$	1,540,032	\$ _	2,871,660
Deferred Inflows of Resources Net difference between projected and actual investment earnings on pension plan investments	\$	2,175,081	\$	6,196,291	\$	2,851,464	\$	4,478,250
Changes in proportion and differences between employer contributions and proportionate share of contributions	_	42,491			-	24,074	-	16,083
Total Deferred Inflows of Resources	\$_	2,217,572	\$	6,196,291	\$	2,875,538	\$	4,494,333
Pension Expense	_						-	
Proportionate share of plan pension expense	\$	718,457	\$	2,046,706	\$	941,871	\$	1,479,219
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	_	261,914		312,107	_	246,487	_	570,777
Total Employer Pension Expense	\$_	980,371	\$	2,358,813	\$	1,188,358	\$	2,049,996
Contributions Statutory required contribution		1,462,365	\$	4,056,304	\$	1,886,532	\$	2,882,108
Contribution in relation to statutory required contribution	=	(1,462,365)		(4,056,304)	-	(1,886,532)	-	(2,882,108)
Contribution deficiency/(excess)	\$ _	_	\$	<u>-</u>	\$	<u>-</u>	\$	<u>-</u>
Contributions as a percentage of covered payroll		26.91%		22.90%		29.14%		26.47%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense								
June 30, 2023		179,997 (567,559) (323,803) (284,800)	\$	576,387 (1,636,874) (1,020,269) (858,250)	\$	240,173 (750,686) (443,336) (381,657)	\$	581,119 (993,228) (617,125) (593,439)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$ _	(996,165)	\$	(2,939,006)	\$	(1,335,506)	\$ _	(1,622,673)
Discount Rate Sensitivity 1% decrease (6.875%)	\$	11,234,030	\$	32,003,098	\$	14,727,470	\$	23,129,626
Current discount rate (7.875%)	\$	7,927,123	\$	22,582,501	\$	10,392,216	\$	16,321,070
1% increase (8.875%)	\$	5,108,368	\$	14,552,535	\$	6,696,915	\$	10,517,566
Covered Payroll as of the January 1, 2022, valuation	\$	5,434,876	\$	17,710,627	\$	6,475,013	\$	10,888,390
See notes to schedule of employer allocations and schedule of pension amounts by employer.								
N/A = Not Applicable								(continued)

	_	Kingston Housing Authority	_	Town of Lakeville	_	Town of Marion	_	Town of Marshfield
Net Pension Liability								
Beginning net pension liability	\$	14,067	\$	8,340,203	\$	8,740,538	\$	47,445,200
Ending net pension liability	\$	29,469	\$	6,920,036	\$	7,749,374	\$	38,424,117
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience	\$	3,268	\$	767,492	\$	859,473	\$	4,261,568
Changes of assumptions		100		23,509		26,326		130,535
Changes in proportion and differences between employer contributions and proportionate		40.744		040.040		000 050		470 500
share of contributions	-	10,711	-	218,042	-	622,852	-	479,560
Total Deferred Outflows of Resources	\$ _	14,079	\$	1,009,043	\$	1,508,651	\$ _	4,871,663
<u>Deferred Inflows of Resources</u> Net difference between projected and actual investment earnings on pension plan investments	\$	8,086	\$	1,898,751	\$	2,126,309	\$	10,542,987
Changes in proportion and differences between employer contributions and proportionate share of contributions	_	1,918	-	18,169	_	6,964	-	38,661
Total Deferred Inflows of Resources	\$_	10,004	\$	1,916,920	\$_	2,133,273	\$_	10,581,648
Pension Expense Proportionate share of plan pension expense	\$	2,673	\$	627,178	\$	702,345	\$	3,482,473
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	_	6,706	_	152,782	-	406,472	-	35,157
Total Employer Pension Expense	\$ _	9,379	\$	779,960	\$_	1,108,817	\$_	3,517,630
<u>Contributions</u> Statutory required contribution	\$	1,926	\$	1,286,448	\$	1,289,828	\$	6,955,238
Contribution in relation to statutory required contribution	_	(1,926)	-	(1,286,448)	-	(1,289,828)	-	(6,955,238)
Contribution deficiency/(excess)	\$ _	_	\$		\$		\$	
Contributions as a percentage of covered payroll		N/A		25.62%		23.89%		27.07%
Deferred (Inflows)/Outflows Recognized in								
Future Pension Expense June 30, 2023. June 30, 2024. June 30, 2025. June 30, 2026.		2,002 600 1,593 (120)	\$	155,266 (501,389) (303,512) (258,242)	\$	312,719 (434,789) (240,804) (261,748)		678,351 (3,028,550) (1,873,860) (1,485,926)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$	4,075	\$	(907,877)	\$	(624,622)	\$	(5,709,985)
Discount Rate Sensitivity 1% decrease (6.875%)	\$	41,762	\$	9,806,823	\$	10,982,131	\$	54,453,260
Current discount rate (7.875%)	\$	29,469	\$	6,920,036	\$	7,749,374	\$	38,424,117
1% increase (8.875%)	\$	18,990	\$	4,459,385	\$	4,993,824	\$	24,761,133
Covered Payroll as of the January 1, 2022, valuation	\$	N/A	\$	5,021,021	\$	5,398,381	\$	25,695,810
See notes to schedule of employer allocations and schedule of pension amounts by employer.								
N/A = Not Applicable								(continued)

	_	Marshfield Housing Authority		Town of Mattapoisett		Town of Middleborough		Middleborough Housing Authority
Net Pension Liability								
Beginning net pension liability	\$	329,411	\$	9,570,514	\$	52,717,540	\$	962,444
Ending net pension liability	\$	254,461	\$	8,188,133	\$	42,530,111	\$	806,885
Deferred Outflows of Resources								
Differences between expected and actual experience	\$	28,222	\$	908,135	\$	4,716,958	\$	89,491
Changes of assumptions		864		27,817		144,484		2,741
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		29,873		502,561		435,752		53.533
Share of contributions	-	23,070		302,301		400,702		30,000
Total Deferred Outflows of Resources	\$ _	58,959	\$	1,438,513	\$	5,297,194	\$	145,765
Deferred Inflows of Resources								
Net difference between projected and actual investment earnings on pension plan investments	\$	69,820	\$	2,246,698	\$	11,669,608	\$	221,397
Changes in proportion and differences between								
employer contributions and proportionate		7 400		0.4.700		007.400		0.440
share of contributions	-	7,496		24,736		207,168		2,448
Total Deferred Inflows of Resources	\$ _	77,316	\$	2,271,434	\$	11,876,776	\$	223,845
Pension Expense Proportionate share of plan pension expense	\$	23,064	\$	742,113	\$	3.854.612	\$	73.130
	•		•	. :=,	•	2,00 1,01	•	,
Net amortization of deferred amounts from changes in proportion and differences between employer		4.000		050.070		(70.450)		05.000
contributions and proportionate share of contributions	-	4,298		356,976		(78,459)		35,203
Total Employer Pension Expense	\$ _	27,362	\$	1,099,089	\$	3,776,153	\$	108,333
Contributions								
Statutory required contribution	\$	49,286	\$	1,494,792	\$	7,750,693	\$	151,466
Contribution in relation to statutory required contribution		(49,286)		(1,494,792)		(7,750,693)		(151,466)
Contribution deficiency/(excess)								
Continuation deliciency/(excess)	Ψ =		φ		φ		φ	
Contributions as a percentage of covered payroll		65.97%		25.21%		28.40%		29.45%
Deferred (Inflows)/Outflows Recognized in								
Future Pension Expense June 30, 2023	s	12,189	\$	267,271	\$	661,550	\$	28,345
June 30, 2024		(9,915)	Ψ	(506,723)	Ψ	(3,456,095)	Ψ	(46,809)
June 30, 2025		(10,091)		(301,549)		(2,131,061)		(29,963)
June 30, 2026	_	(10,540)		(291,920)		(1,653,976)		(29,653)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$_	(18,357)	\$	(832,921)	\$	(6,579,582)	\$	(78,080)
Discount Rate Sensitivity								
1% decrease (6.875%)	\$	360,613	\$	11,603,924	\$	60,272,125	\$	1,143,488
Current discount rate (7.875%)	\$	254,461	\$	8,188,133	\$	42,530,111	\$	806,885
1% increase (8.875%)	\$	163,979	\$	5,276,568	\$	27,407,103	\$	519,970
Covered Payroll as of the January 1, 2022, valuation	\$	74,712	\$	5,930,398	\$	27,293,703	\$	514,270
See notes to schedule of employer allocations and schedule of pension amounts by employer.								
N/A = Not Applicable								(continued)

	_	Town of Norwell	•	Norwell Housing Authority	-	Old Rochester Regional School		Onset Fire District
Net Pension Liability Beginning net pension liability	\$	20,536,043	\$	263,764	\$	5,613,474	\$	1,981,743
Ending net pension liability	\$	17,320,672	\$	224,525	\$	4,481,605	\$	1,714,807
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience	\$	1,921,013	\$	24,902	\$	497,049	\$	190,187
Changes of assumptions		58,842		763		15,225		5,826
Changes in proportion and differences between employer contributions and proportionate share of contributions		598,737		11,085	_	57,773		133,347
Total Deferred Outflows of Resources	\$	2,578,592	\$	36,750	\$	570,047	\$	329,360
Deferred Inflows of Resources Net difference between projected and actual investment earnings on pension plan investments Changes in proportion and differences between	\$	4,752,526	\$	61,606	\$	1,229,683	\$	470,517
employer contributions and proportionate share of contributions		45,806		1,064		-		29,926
Total Deferred Inflows of Resources	\$	4,798,332	\$	62,670	\$	1,229,683	\$	500,443
Pension Expense Proportionate share of plan pension expense	\$	1,569,814	\$	20,348	\$	406,179	\$	155,420
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions Total Employer Pension Expense				3,523 23,871	\$	(15,325) 390,854	\$	45,651 201,071
p.;;;	Ψ=	1,000,010	. "	20,0	Ψ=	333,33	Ψ.	201,011
Contributions Statutory required contribution	\$	3,089,469	\$	34,198	\$	800,827	\$	289,082
Contribution in relation to statutory required contribution	=	(3,089,469)		(34,198)	-	(800,827)		(289,082)
Contribution deficiency/(excess)	\$	-	\$		\$		\$	
Contributions as a percentage of covered payroll		25.78%		18.63%		26.99%		35.89%
<u>Deferred (Inflows)/Outflows Recognized in</u> <u>Future Pension Expense</u> June 30, 2023	\$	403,378	\$	7,659	\$	96,777	\$	44,233
June 30, 2024 June 30, 2025 June 30, 2026		(1,261,017) (731,262) (630,839)		(16,256) (9,259) (8,064)	_	(353,631) (225,823) (176,959)		(98,869) (56,346) (60,101)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	\$	(2,219,740)	\$	(25,920)	\$	(659,636)	\$	(171,083)
Discount Rate Sensitivity 1% decrease (6.875%)	\$	24,546,226	\$	318,189	\$	6,351,167	\$	2,430,162
Current discount rate (7.875%)	\$	17,320,672	\$	224,525	\$	4,481,605	\$	1,714,807
1% increase (8.875%)	\$	11,161,726	\$	144,688	\$	2,888,020	\$	1,105,050
Covered Payroll as of the January 1, 2022, valuation	\$	11,984,822	\$	183,526	\$	2,966,805	\$	805,441
See notes to schedule of employer allocations and schedule of pension amounts by employer.								
N/A = Not Applicable								(continued)

		Town of Pembroke	·	Plymouth County Mosquito Control		Town of Plympton	•	Town of Rochester
Net Pension Liability Beginning net pension liability	\$	26,980,080	\$	1,385,052	\$	3,818,124	\$	6,169,722
Ending net pension liability	\$	22,006,221	\$	1,022,990	\$	3,306,593	\$	5,266,974
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience	\$	2,440,681	\$	113,458	\$	366,730	\$	584,153
Changes of assumptions		74,760		3,475		11,233		17,893
Changes in proportion and differences between employer contributions and proportionate share of contributions		490,622		662		174,588		287,582
Total Deferred Outflows of Resources	\$	3,006,063	\$	117,595	\$	552,551	\$	889,628
Deferred Inflows of Resources Net difference between projected and actual investment earnings on pension plan investments	\$	6,038,168	\$	280,693	\$	907,278	\$	1,445,177
employer contributions and proportionate share of contributions	_	37,301		167,733		46,593	_	41,848
Total Deferred Inflows of Resources	\$	6,075,469	\$	448,426	\$	953,871	\$	1,487,025
Pension Expense Proportionate share of plan pension expense	\$	1,994,479	\$	92,714	\$	299,686	\$	477,359
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		176,629		(118,445)		83,746		179,988
Total Employer Pension Expense	\$	2,171,108	\$	(25,731)	\$	383,432	\$	657,347
Contributions Statutory required contribution	\$	3,990,309	\$	195,592	\$	568,080	\$	938,903
Contribution in relation to statutory required contribution			,	(195,592)		(568,080)		(938,903)
Contribution deficiency/(excess)			\$		\$		\$	
Contributions as a percentage of covered payroll		28.82%		24.27%		23.35%		30.09%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense June 30, 2023	.=	464,328 (1,659,329) (1,032,213) (842,192)		(62,489) (143,675) (79,524) (45,143)		60,387 (224,941) (121,023) (115,743)		142,497 (352,597) (198,904) (188,393)
Future Pension Expense	\$	(3,069,406)	\$	(330,831)	ф	(401,320)	ъ.	(597,397)
Discount Rate Sensitivity 1% decrease (6.875%)	\$	31,186,415	\$	1,449,744	\$	4,685,983	\$	7,464,164
Current discount rate (7.875%)	\$	22,006,221	\$	1,022,990	\$	3,306,593	\$	5,266,974
1% increase (8.875%)	\$	14,181,171	\$	659,232	\$	2,130,823	\$	3,394,125
Covered Payroll as of the January 1, 2022, valuation	\$	13,847,318	\$	806,057	\$	2,433,350	\$	3,119,925
See notes to schedule of employer allocations and schedule of pension amounts by employer.								
N/A = Not Applicable								(continued)

	_	Town of Rockland		Town of Scituate	_	Scituate Housing Authority	_	Silver Lake Regional School
Net Pension Liability								
Beginning net pension liability	\$	31,091,860	\$	38,129,072	\$	706,300	\$	6,145,104
Ending net pension liability	\$	25,788,057	\$	31,338,961	\$	522,020	\$	4,683,210
Deferred Outflows of Resources								
Differences between expected and actual experience	\$	2,860,119	\$	3,475,763	\$	57,897	\$	519,409
Changes of assumptions		87,608		106,465		1,773		15,910
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		667,406		637,886		5,801		130,268
Share of contributions	-	007,400		007,000	-	3,001	-	100,200
Total Deferred Outflows of Resources	\$ _	3,615,133	\$	4,220,114	\$_	65,471	\$_	665,587
Deferred Inflows of Resources								
Net difference between projected and actual investment earnings on pension plan investments	s	7,075,846	\$	8,598,929	\$	143,234	\$	1,285,001
	•	,,-	•	-,,-	•	-, -	•	,,
Changes in proportion and differences between employer contributions and proportionate								
share of contributions	_	310,898		225,648	_	74,827	_	137,324
Total Deferred Inflows of Resources	\$_	7,386,744	\$	8,824,577	\$_	218,061	\$_	1,422,325
Panaina Funanca					_		-	
Pension Expense Proportionate share of plan pension expense	\$	2,337,234	\$	2,840,328	\$	47,314	\$	424,450
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	_	231,896		320,080	_	(50,882)	_	(106,521)
Total Employer Panaian Evpana	¢.	2 560 120	æ	2 160 409	¢.	(2.569)	œ	317,929
Total Employer Pension Expense	Ψ =	2,309,130	φ	3,160,408	Ψ_	(3,568)	Ψ-	317,929
Contributions								
Contributions Statutory required contribution	\$	4,601,255	\$	5,759,996	\$	101,092	\$	890,159
Contribution in relation to statutory required contribution		(4.601.255)		(5,759,996)		(101,092)		(890,159)
	_				-		_	
Contribution deficiency/(excess)	Ψ =		φ		Ψ_		Ψ.	
Contributions as a percentage of covered payroll		26.56%		27.86%		40.00%		22.72%
Deferred (Inflows)/Outflows Recognized in								
Future Pension Expense	•	404 705	•	500,000	•	(00.055)	•	70 775
June 30, 2023		431,705 (2,044,330)		532,983 (2,472,818)	Ъ	(26,955) (66,195)	Ъ	73,775 (373,251)
June 30, 2025		(1,196,100)		(1,478,689)		(36,426)		(259,556)
June 30, 2026	_	(962,886)		(1,185,939)	_	(23,014)	_	(197,706)
Total Deferred (Inflows)/Outflows Recognized in	•	(2 771 611)	•	(4 604 463)	•	(1E2 E00)	•	(756 739)
Future Pension Expense	\$ =	(3,771,611)	\$	(4,604,463)	۵ =	(152,590)	۵ -	(756,738)
Discount Rate Sensitivity								
1% decrease (6.875%)	\$	36,545,895	\$	44,412,434	\$	739,788	\$	6,636,875
Current discount rate (7.875%)	\$	25,788,057	\$	31,338,961	\$	522,020	\$	4,683,210
1% increase (8.875%)	\$	16,618,248	\$	20,195,342	\$	336,398	\$	3,017,938
Covered Payroll as of the January 1, 2022, valuation	\$	17,324,738	\$	20,676,989	\$	252,732	\$	3,917,994
See notes to schedule of employer allocations and schedule of pension amounts by employer.								
N/A = Not Applicable								(continued)

	_	South Shore Regional School		Town of Wareham		Wareham Fire District	_	Wareham Housing Authority
Net Pension Liability								
Beginning net pension liability	\$	3,137,614	\$	30,515,683	\$	6,603,467	\$	393,887
Ending net pension liability	\$	2,304,184	\$	25,732,394	\$	5,815,656	\$	284,866
<u>Deferred Outflows of Resources</u>								
Differences between expected and actual experience	\$	255,554	\$	2,853,946	\$	645,007	\$	31,594
Changes of assumptions		7,828		87,419		19,757		968
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		60,452		806,184		488,327		59.043
	-					<u>, </u>	-	,
Total Deferred Outflows of Resources	\$ _	323,834	\$	3,747,549	\$	1,153,091	\$ _	91,605
<u>Deferred Inflows of Resources</u>								
Net difference between projected and actual investment earnings on pension plan investments	\$	632,233	\$	7,060,573	\$	1.595.727	\$	78,163
	•	,	•	, , .	•	,,	•	,
Changes in proportion and differences between employer contributions and proportionate								
share of contributions	_	115,669		473,574		10,353	_	17,066
Total Deferred Inflows of Resources	\$_	747,902	\$	7,534,147	\$	1,606,080	\$_	95,229
Pension Expense	_						_	
Proportionate share of plan pension expense	\$	208,835	\$	2,332,190	\$	527,088	\$	25,818
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	_	(113,832)		463,310		395,382	_	7,190
Total Employer Pension Expense	\$	95,003	\$	2,795,500	\$	922,470	\$	33,008
Contributions								
Statutory required contribution	\$	434,147	\$	4,566,527	\$	1,069,908	\$	54,736
Contribution in relation to statutory required contribution	_	(434,147)		(4,716,527)		(1,069,908)	-	(54,736)
Contribution deficiency/(excess)	\$	_	\$	(150,000)	\$		\$	_
Contributions as a percentage of covered payroll		22.65%		25.68%		29.70%		65.97%
Deferred (Inflows)/Outflows Recognized in								
Future Pension Expense								
June 30, 2023		24,817	\$	316,963	\$	238,684	\$	24,790
June 30, 2024		(201,125) (145,261)		(2,046,877) (1,119,188)		(315,374) (177,851)		(4,371) (11,097)
June 30, 2026		(102,499)		(937,496)		(198,448)		(12,946)
Total Deferred (Inflows)/Outflows Recognized in	-					, ,	-	
Future Pension Expense	\$ _	(424,068)	\$	(3,786,598)	\$	(452,989)	\$ _	(3,624)
Discount Rate Sensitivity								
	\$	3,265,406	\$	36,467,012	\$	8,241,736	\$	403,702
1% decrease (6.875%)			•	25,732,394	\$	5,815,656	\$	284,866
1% decrease (6.875%)	\$	2,304,184	ф	-, - ,				
		2,304,184 1,484,854		16,582,378	\$	3,747,704	\$	183,572
Current discount rate (7.875%)	\$, ,	\$			3,747,704 3,601,801		183,572 82,977
Current discount rate (7.875%)	\$	1,484,854	\$	16,582,378				,

		Town of West Bridgewater	•	Town of Whitman	-	Whitman/ Hanson Regional School	Whitman Housing Authority
Net Pension Liability Beginning net pension liability	\$	17,135,252	\$	16,122,986	\$	9,221,760	\$ 601,967
Ending net pension liability	\$	14,015,015	\$	13,480,365	\$	7,393,877	\$ 510,794
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience	. \$	1,554,387	\$	1,495,089	\$	820,045	\$ 56,651
Changes of assumptions		47,612		45,796		25,119	1,735
Changes in proportion and differences between employer contributions and proportionate share of contributions		527,851		520,871	_	48,291	131,597
Total Deferred Outflows of Resources	\$	2,129,850	\$	2,061,756	\$	893,455	\$ 189,983
Deferred Inflows of Resources Net difference between projected and actual investment earnings on pension plan investments Changes in proportion and differences between	. \$	3,845,504	\$	3,698,805	\$	2,028,766	\$ 140,154
employer contributions and proportionate share of contributions				29,277	_	141,141	90,648
Total Deferred Inflows of Resources	\$	3,845,504	\$	3,728,082	\$	2,169,907	\$ 230,802
Pension Expense Proportionate share of plan pension expense	\$	1,270,215	\$	1,221,760	\$	670,126	\$ 46,297
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		235,061		292,255		(55,336)	(3,462)
Total Employer Pension Expense	. \$	1,505,276	\$	1,514,015	\$	614,790	\$ 42,835
Contributions							
Statutory required contribution	. \$	2,515,249	\$	2,407,960	\$	1,381,333	\$ 86,461
Contribution in relation to statutory required contribution		(2,515,249)		(2,407,960)	-	(1,381,333)	(86,461)
Contribution deficiency/(excess)	\$	-	\$		\$	-	\$
Contributions as a percentage of covered payroll		26.26%		30.65%		25.89%	21.87%
<u>Deferred (Inflows)/Outflows Recognized in</u> Future Pension Expense							
June 30, 2023	\$	411,943		342,976	\$	62,390	\$ (3,332)
June 30, 2024 June 30, 2025		(972,439) (620,972)		(943,432) (568,480)		(654,107) (394,588)	(14,706) (4,342)
June 30, 2026		(534,186)		(497,390)		(290,147)	(18,439)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense	. \$	(1,715,654)	\$	(1,666,326)	\$	(1,276,452)	\$ (40,819)
			•		=		
Discount Rate Sensitivity 1% decrease (6.875%)	\$	19,861,569	\$	19,103,882	\$	10,478,333	\$ 723,879
Current discount rate (7.875%)	\$	14,015,015	\$	13,480,365	\$	7,393,877	\$ 510,794
1% increase (8.875%)	\$	9,031,506	\$	8,686,969	\$	4,764,736	\$ 329,164
Covered Payroll as of the January 1, 2022, valuation	\$	9,578,626	\$	7,856,112	\$	5,334,495	\$ 395,262
See notes to schedule of employer allocations and schedule of pension amounts by employer.							
N/A = Not Applicable							(continued)

	_	Abington Housing Authority		Pembroke Housing Authority	_	Hanson Housing Authority	-	Rockland Housing Authority
Net Pension Liability								
Beginning net pension liability	\$	334,100	\$	746,744	\$	228,009	\$	321,792
Ending net pension liability	\$	214,702	\$	550,553	\$	166,055	\$	233,412
Deferred Outflows of Resources								
Differences between expected and actual experience	\$	23,812	\$	61,061	\$	18,417	\$	25,887
Changes of assumptions		729		1,870		564		793
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		6,253		8,502		147		4,044
share of contributions	-	0,233		0,302	-	177	-	4,044
Total Deferred Outflows of Resources	\$_	30,794	\$	71,433	\$ _	19,128	\$ _	30,724
Deferred Inflows of Resources								
Net difference between projected and actual	•	50.044	•	454.000	•	45 500	•	C4 045
investment earnings on pension plan investments	\$	58,911	\$	151,063	\$	45,563	\$	64,045
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		20.000		20.007		10.010		75 570
Share of contributions	-	30,068		36,697	-	13,310	-	75,576
Total Deferred Inflows of Resources	\$ _	88,979	\$	187,760	\$	58,873	\$ _	139,621
Pension Expense								
Proportionate share of plan pension expense	\$	19,461	\$	49,898	\$	15,048	\$	21,153
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		(29,593)		(17,415)		(12,001)		(31,300)
				,	_	,	-	
Total Employer Pension Expense	\$ _	(10,132)	\$	32,483	\$_	3,047	\$ _	(10,147)
Contributions								
Statutory required contribution	\$	42,603	\$	112,197	\$	32,537	\$	49,731
Contribution in relation to statutory required contribution		(42 603)		(112,197)		(32,537)		(49,731)
	_				_		_	
Contribution deficiency/(excess)	\$ =	-	\$	-	\$	-	\$ _	<u> </u>
Contributions as a percentage of covered payroll		38.04%		23.47%		49.64%		33.02%
Deferred (Inflows)/Outflows Recognized in								
Future Pension Expense								
June 30, 2023		(2,650)	\$	2,966	\$	(2,590)	\$	(23,251)
June 30, 2024 June 30, 2025		(24,664) (19,410)		(57,173) (37,766)		(17,868) (11,814)		(49,581) (25,498)
June 30, 2026		(11,461)		(24,354)		(7,473)		(10,567)
Total Deferred (Inflows)/Outflows Recognized in	_				-	,	_	, , , ,
Future Pension Expense	\$ _	(58,185)	\$	(116,327)	\$	(39,745)	\$ _	(108,897)
Discount Rate Sensitivity								
1% decrease (6.875%)	\$	304,268	\$	780,224	\$	235,327	\$	330,783
Current discount rate (7.875%)	\$	214,702	\$	550,553	\$	166,055	\$	233,412
1% increase (8.875%)	s	138,357	\$	354,785	\$	107,009	s	150,415
Covered Payroll as of the January 1, 2022, valuation								
See notes to schedule of employer allocations and schedule	φ	111,994	φ	478,015	φ	65,548	φ	150,628
of pension amounts by employer.								
N/A = Not Applicable								(continued)

	_	Halifax Housing Authority		Mattapoisett Housing Authority		Acushnet/ Rochester/ Marion Health District	-	West Bridgewater Housing Authority
Net Pension Liability								
Beginning net pension liability	\$	17,584	\$	36,927	\$	132,468	\$	101,402
Ending net pension liability	\$	-	\$	157,167	\$	-	\$	98,230
<u>Deferred Outflows of Resources</u>								
Differences between expected and actual experience	\$	-	\$	17,431	\$	-	\$	10,895
Changes of assumptions		-		534		-		334
Changes in proportion and differences between								
employer contributions and proportionate		11 520		72.052		4 796		11 150
share of contributions	_	11,538		73,953		4,786	-	11,150
Total Deferred Outflows of Resources	\$ _	11,538	\$	91,918	\$	4,786	\$	22,379
Deferred Inflows of Resources								
Net difference between projected and actual								
investment earnings on pension plan investments	\$	-	\$	43,124	\$	-	\$	26,953
Changes in proportion and differences between								
employer contributions and proportionate								
share of contributions	_	123,454		43,242		61,221	-	2,127
Total Deferred Inflows of Resources	\$	123,454	\$	86,366	\$	61,221	\$	29,080
	Ψ =	120, 10 1	Ψ		Ψ	01,221	Ψ=	20,000
Pension Expense								
Proportionate share of plan pension expense	\$	1	\$	14,242	\$	1	\$	8,905
Net amortization of deferred amounts from changes								
in proportion and differences between employer								
contributions and proportionate share of contributions	_	(63,801)		66,976		(49,287)	_	11,902
Total Employer Pension Expense	\$ <u>_</u>	(63,800)	\$	81,218	\$	(49,286)	\$	20,807
Contributions Statute or a positional positional contribution	•		Φ.	20.022	•	10.025	•	40.200
Statutory required contribution	. Ф	-	\$	28,632	\$	19,935	Ф	18,369
Contribution in relation to statutory required contribution	_	-		(28,632)		(19,935)	_	(18,369)
Contribution deficiency/(excess)	\$_		\$		\$		\$	
Contributions as a percentage of covered payroll		N/A	-	49.07%		N/A	_	29.90%
Deferred (Inflame) (Outflame Deserviced in								
<u>Deferred (Inflows)/Outflows Recognized in</u> Future Pension Expense								
June 30, 2023	. \$	(60,595)	\$	5,689	\$	(15,876)	\$	4,462
June 30, 2024		(40,677)		(8,869)		(16,659)		(5,914)
June 30, 2025		(9,837)		7,613		(17,834)		(2,361)
June 30, 2026	_	(807)		1,119		(6,066)		(2,888)
Total Deferred (Inflows)/Outflows Recognized in	•	(111 016)	•	5 552	•	(56.435)	•	(6.701)
Future Pension Expense	۵ =	(111,916)	\$	5,552	\$	(56,435)	ъ	(6,701)
Discount Rate Sensitivity								
1% decrease (6.875%)	\$	-	\$	222,731	\$	-	\$	139,208
O month discount mate (7.075%)	•		•	457.407	•		•	00.000
Current discount rate (7.875%)			\$	157,167	\$		\$	98,230
1% increase (8.875%)	\$	-	\$	101,281	\$	-	\$	63,301
Covered Payroll as of the January 1, 2022, valuation	\$	N/A	\$	58,344	\$	N/A	\$	61,437
See notes to schedule of employer allocations and schedule								
of pension amounts by employer.								

		South Shore Tri-Town Development	_	Carver Housing Authority		Totals
Net Pension Liability						
Beginning net pension liability	\$	1,038,056	\$	-	\$	586,141,205
Ending net pension liability	\$	685,268	\$	-	\$	467,759,653
<u>Deferred Outflows of Resources</u>						
Differences between expected and actual experience	\$	76,002	\$	-	\$	51,878,605
Changes of assumptions		2,328		-		1,589,084
Changes in proportion and differences between						
employer contributions and proportionate share of contributions		43,030		924		13,984,446
7.1.0 (10.0 (0			-	201		
Total Deferred Outflows of Resources	\$	121,360	\$_	924	\$	67,452,135
<u>Deferred Inflows of Resources</u>						
Net difference between projected and actual investment earnings on pension plan investments	¢	188.027	æ	_	\$	128,346,052
investment carnings on pension plan investments	Ψ	100,021	Ψ		Ψ	120,040,002
Changes in proportion and differences between employer contributions and proportionate						
share of contributions		82,892	_	59,332		13,984,446
Total Deferred Inflows of Resources	e	270 010	ď	50 332	ď	142 330 408
Total Deferred filliows of Nesources	Ф	270,919	Φ_	39,332	Ф	142,330,430
Pension Expense Proportionate share of plan pension expense	\$	62,108	\$	-	\$	42,394,211
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		(49.775)		(24.118)		_
Total Employer Pension Expense	\$	12,333	\$_	(24,118)	\$	42,394,211
Contributions						
Statutory required contribution	\$	147,186	\$	-	\$	85,994,057
Contribution in relation to statutory required contribution		(147,186)	=			(89,068,346)
Contribution deficiency/(excess)	\$		\$		\$	(3,074,289)
Contributions as a percentage of covered payroll		132.68%		N/A		27.23%
Deferred (Inflows)/Outflows Recognized in						
Future Pension Expense June 30, 2023	•	44.004	•	(04.070)	•	0.040.400
June 30, 2023		11,684 (69,719)	\$	(24,373) (24,985)	\$	6,219,483 (38,586,308)
June 30, 2025		(56,237)		(9,050)		(24,030,395)
June 30, 2026 Total Deferred (Inflows)/Outflows Recognized in		(35,287)	-			(18,481,143)
Future Pension Expense	\$	(149,559)	\$	(58,408)	\$	(74,878,363)
Discount Rate Sensitivity						
1% decrease (6.875%)	\$	971,137	\$	-	\$	662,891,949
Current discount rate (7.875%)	\$	685,268	\$	-	\$	467,759,653
1% increase (8.875%)	\$	441,598	\$	-	\$	301,432,010
Covered Payroll as of the January 1, 2022, valuation	\$	110,937	\$	N/A	\$	315,856,987
See notes to schedule of employer allocations and schedule of pension amounts by employer.						
N/A = Not Applicable						(concluded)

NOTE A – 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 PERAC's annual report rate of return for each year since the excess contribution was received. The Association's net position, less the excess contributions net of investment income, is then allocated to the member units based on their proportionate share of the total pension liability. 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.

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 B - 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.