FINANCIAL STATEMENTS YEARS ENDED DECEMBER 31, 2022 AND 2021

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INDEPENDENT AUDITOR'S REPORT

To the Board of the Norfolk County Retirement System Canton, Massachusetts

Opinions

We have audited the accompanying financial statements of Norfolk County Retirement System (the System), which comprise the statements of fiduciary net position as of December 31, 2022 and 2021 and the related statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements, which collectively comprise the System's basic 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 fiduciary net position of Norfolk County Retirement System as of December 31, 2022 and 2021, and the changes in fiduciary net position for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audits 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 System 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 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 System'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 opinions. 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 judgment made by a reasonable user based on the financial statements.

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

- Exercise professional judgment 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 audit 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 System'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 judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System'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 the Management's Discussion and Analysis on pages 3 through 7 and the supplementary Schedule of Changes in Net Pension Liability and Related Ratios, Investment Return, and Contributions, and the notes to the required supplementary information on pages 28 through 31 be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic 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 basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated September 27, 2023 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and 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 the System's 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 System's internal control over financial reporting and compliance.

DI PESA & COMPANY

Di Pesa & Company

Certified Public Accountants Quincy, Massachusetts September 27, 2023



REQUIRED SUPPLEMENTARY INFORMATION MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) DECEMBER 31, 2022 AND 2021

The following discussion provides an overview and analysis of the fiduciary net position and changes in fiduciary net position of the Norfolk County Retirement System (the System or Plan) by management for the years ended December 31, 2022 and 2021. Please refer to the audited financial statements when reading this discussion.

Overview of the Financial Statements

The System's financial statements comprise the statements of fiduciary net position, statements of changes in fiduciary net position, notes to the financial statements and required supplementary information.

The Statement of Fiduciary Net Position presents information on the System's assets and liabilities and the resulting net position restricted for pension benefits. This statement reflects the System's investments at fair value, as well as cash, receivables, and other assets and liabilities.

The Statement of Changes in Fiduciary Net Position presents information showing how the System's net position restricted for pension benefits changed during the years ended December 31, 2022 and 2021. It reflects in total the contributions by members and participating employers, along with deductions for retirement benefits, refunds and withdrawals, and administrative expenses. Investment income from investing and securities lending activities is also presented.

The Notes to the Financial Statements are considered an integral part of the financial statements and provide additional information that is essential for the reader to gain a full understanding of the data provided in the financial statements.

The Required Supplementary Information includes management's discussion and analysis, schedules of changes in net pension liability and related ratios, schedule of investment return, schedules of contributions and related notes.

Financial Highlights and Analysis

• The net position restricted for pension benefits is available for payment of monthly retirement benefits and other qualified distributions to the System's participants. Net position restricted for pension benefits was \$1.3 billion at December 31. 2022 compared to \$1.4 billion at December 31, 2021. The decrease in net position of \$164 million resulted primarily from a decrease in the fair value of portfolio investments.

REQUIRED SUPPLEMENTARY INFORMATION

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) (Continued)

DECEMBER 31, 2022 AND 2021

The following tables present the current and prior year condensed data on the System's financial statements.

Fiduciary Net Position

	<u>2022</u>	<u>2021</u>
Assets		
Cash and cash equivalents	\$ 62,633,683	\$ 33,483,696
Investments	1,197,469,774	1,390,544,668
Receivables	3,843,200	<u>5,606,605</u>
Total assets	1,263,946,657	1,429,634,969
Liabilities		
Accounts payable	<u>3,295,335</u>	5,177,989
Net Position		
Net position restricted for pensions	\$ <u>1,260,651,322</u>	\$ <u>1,424,456,980</u>
Changes in Fiduciary Net Position		
Additions		
Contributions	\$ 130,034,290	\$ 121,043,695
Net investment income	(166,125,779)	222,203,572
Other	4,323,693	<u>3,818,150</u>
Total additions (deductions)	(31,767,796)	347,065,417
Deductions		
Benefits paid	127,789,178	119,566,434
Other	4,248,684	3,806,130
Total deductions	132,037,862	123,372,564
Change in net position	(163,805,658)	223,692,853
Net position restricted for pension		
benefits – beginning of year	<u>1,424,456,980</u>	1,200,764,127
Net position restricted for pension	_	
benefits – end of year	\$ <u>1,260,651,322</u>	\$ <u>1,424,456,980</u>

REQUIRED SUPPLEMENTARY INFORMATION

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) (Continued)

DECEMBER 31, 2022 AND 2021

Norfolk County Retirement System 2022 Performance Summary

- The Norfolk County Retirement System ("Norfolk") investment portfolio for 2022 fell 11.82%. This performance slightly underperformed the Primary Investment Policy Benchmarks, which fell 11.80%.
- Domestic Equity managers represented 30.2% of the portfolio as of December 31, 2022. Approximately 46% of the domestic equity assets were allocated to large capitalization equity mandates and the remaining assets were allocated to mid and small capitalization managers. Domestic equities fell 18.66% for 2022 and outperformed the Russell 3000 index which was down 22.79%.
- International Equity managers represented 13.8% of the portfolio as of December 31, 2022. Approximately 71% of the international equity assets were allocated to developed markets and the remaining to emerging markets. The international equity portfolio fell 18.38%, which underperformed the MSCI AC World ex US (NET) benchmark return, which fell 17.67%.
- Domestic Fixed Income Managers represented 19.3% of the portfolio as of December 31, 2022. The overall net return for these managers fell 12.15% for the year, which exceeded the return of the Barclays Aggregate Bond Index, which fell 13.46%.
- Real Estate investment managers had a net return of 7.41% in 2022 and represented 8.4% of the total portfolio as of year-end 2022. Norfolk's real estate exposure is comprised of core, value-add and opportunistic investment strategies. The real estate portfolio outperformed the NCREIF Property Index that returned 2.22% in 2022.
- Private Equity had a net return which fell 4.83% in 2022 and represented 10.7% of the total portfolio as of year-end 2022. Norfolk's private equity portfolio outperformed the Cambridge Associates U.S. Private Equity index, which fell 5.54%.
- Hedge Funds had a net return which fell 2.94% in 2022, which outperformed the HFRI Hedge Fund-of- Funds Composite Index, which fell 5.50% Hedge funds represented 10.7% of the plan assets as of year-end 2022.
- Real Assets represented 2.6% of the portfolio as of December 31, 2022. Norfolk's real asset investment managers had a net return of 3.47% in 2022, which underperformed the Real Assets Index benchmark of 4.29%.

REQUIRED SUPPLEMENTARY INFORMATION

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) (Continued)

DECEMBER 31, 2022 AND 2021

Norfolk County Retirement System 2021 Performance Summary

- The net performance for the Norfolk County Retirement System ("Norfolk") for 2021 was 18.52%. This performance exceeded the Primary Investment Policy Benchmarks, which returned 13.31%.
- Domestic Equity managers represented 33.8% of the portfolio as of December 31, 2021. Approximately 47% of the domestic equity assets were allocated to large capitalization equity mandates and the remaining assets were allocated to mid and small capitalization managers. Domestic equities had a 2021 net return of 22.6% and underperformed the Russell 3000 index that returned 25.7%.
- International Equity managers represented 15.1% of the portfolio as of December 31, 2021. Approximately 68% of the international equity assets were allocated to developed markets and the remaining to emerging markets. International equity managers' net return was 8.7%, which outperformed the MSCI AC World ex US (NET) benchmark return of 6.1%.
- Domestic Fixed Income Managers represented 20.4% of the portfolio as of December 31, 2021. The overall net return for these managers was 2.2% for the year, which exceeded the return of the Barclays Aggregate Bond Index of -1.5%.
- Real estate investment managers had a net return of 16.7% in 2021 and represented 7.3% of the total portfolio as of year-end 2021. Norfolk's real estate exposure is comprised of core, value- add and opportunistic investment strategies. The real estate portfolio underperformed the NCREIF Property Index that returned 17.7% in 2021.
- Private equity had a net return of 91.8% in 2021 and represented 10.0% of the total portfolio as of year-end 2021. Norfolk's private equity portfolio outperformed the Cambridge Associates U.S. Private Equity Index, which returned 32.8%.
- Hedge funds had a net return of 8.4% in 2021, which outperformed the 6.2% return of the HFRI Hedge Fund-of- Funds Composite Index. Hedge funds represented 9.9% of the plan assets as of year-end 2021.
- Real Assets represented 1.7% of the portfolio as of December 31, 2021. Norfolk's Real Asset investment managers had a net return of 9.4% in 2021, which outperformed the Real Assets Index benchmark of 3.2%.

REQUIRED SUPPLEMENTARY INFORMATION MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) (Continued) DECEMBER 31, 2022 AND 2021

Other Information

This financial report is designed to provide a general overview of the System's finances. Questions concerning the information provided in this report or requests for additional financial information should be addressed to the Norfolk County Retirement Board, 480 Neponset Street #15, Canton, MA 02021.

STATEMENTS OF FIDUCIARY NET POSITION

DECEMBER 31, 2022 AND 2021

ASSETS

	<u>A55E15</u>	2022		<u>2021</u>
CASH AND CASH EQUIVALENTS		\$ 62,633,683	\$	33,483,696
INVESTMENTS, AT FAIR VALUE:				
Equities		185,128,801		214,745,141
Fixed Income		95,695,505		112,194,231
Pooled Funds:				
Equity		364,246,509		473,383,081
Fixed Income		144,826,796		177,894,534
Private Equity		167,746,933		167,299,450
Real Estate		105,287,094		104,383,044
Hedge		134,538,136		140,645,187
TOTAL INVESTMENTS, AT FAIR VALUE		1,197,469,774		1,390,544,668
RECEIVABLES:				
Member Contributions		1,834,249		2,603,890
Intergovernmental		131,042		1,928,797
Interest and Dividend Income Due		1,450,972		1,070,918
Receivable for Investments Sold		423,937		-
Miscellaneous		3,000		3,000
TOTAL RECEIVABLES		3,843,200		5,606,605
TOTAL ASSETS		1,263,946,657		1,429,634,969
	LIABILITIES			
LIABILITIES:				
Accounts Payable		783,380		1,052,100
Payable for Investments Purchased		2,511,955		4,125,889
TOTAL LIABILITIES		3,295,335		5,177,989
NET POSITION RESTRICTED FOR PENSION E	BENEFITS	\$ 1,260,651,322	\$ ^	1,424,456,980

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

YEARS ENDED DECEMBER 31, 2022 AND 2021

	<u>2022</u>	<u>2021</u>	
ADDITIONS:			
Contributions:			
Employer	\$ 91,885,045	\$ 85,675,573	
Member	38,149,245	35,368,122	
Total Contributions	130,034,290	121,043,695	
Investment Income:			
Net Change in Fair Value of Investments	(169,007,664)	219,897,315	
Interest and Dividends	11,515,505	11,041,605	
Total Investment Income	(157,492,159)	230,938,920	
Less Investment Expenses	8,633,620	8,735,348	
Net Investment Income	(166,125,779)	222,203,572	
Other	4,323,693	3,818,150	
TOTAL ADDITIONS	(31,767,796)	347,065,417	
DEDUCTIONS:			
Benefits Paid	127,789,178	119,566,434	
Refunds of Contributions	2,735,555	2,384,004	
Administrative Expenses	1,513,129	1,422,126	
TOTAL DEDUCTIONS	132,037,862	123,372,564	
CHANGE IN NET POSITION	(163,805,658)	223,692,853	
NET POSITION RESTRICTED FOR PENSION BENEFITS:			
BEGINNING OF YEAR	1,424,456,980	1,200,764,127	
END OF YEAR	\$ 1,260,651,322	\$ 1,424,456,980	

NOTE 1 – PLAN DESCRIPTION

The Norfolk County Retirement System (the System or the Plan) is a cost-sharing multiple-employer contributory defined benefit governmental pension plan established under Chapter 32 of the Massachusetts General Laws ("MGL") covering all employees of governmental member units deemed eligible by the Norfolk 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 Plan is mandatory immediately upon the commencement of employment for all non-teaching permanent, full time employees.

The System is governed by a five member Board who establish the policies under which the System operates. Board members also approve all of the System's financial transactions, including the approval of retirement benefits to members.

The day-to-day operations of the System are managed by the Executive Director. The legislative body for the System is an Advisory Council consisting of full-time treasurers or other qualified officials of the member units. The Advisory Council meets at least twice annually and is responsible for supervising and certifying the procedures involved in the election of members to the retirement board.

As of December 31, 2022 and 2021, the Plan's membership consisted of:

	<u>2022</u>	<u>2021</u>
Retirees and beneficiaries	3,855	3,728
Active participants	6,902	6,685
Inactive with a vested right to benefits or to receive		
refund of their contributions.	3,399	3,098

The number of participating employers was 42 for both 2022 and 2021.

The System is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of MGL. The 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 System 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 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.

NOTE 1 – PLAN DESCRIPTION (Continued)

There are three classes of membership in the retirement system: group 1, group 2, and group 4. Group 1 consists of general employees which includes clerical, administrative, technical and all other employees not otherwise classified positions. Group 2 consists of positions that have been specified as hazardous. Lastly, group 4 consists of police officers, firefighters, and other hazardous positions.

Members become vested after ten years of creditable service. A superannuation retirement allowance may be received upon the completion of 20 years of service or upon reaching the age of 55 with 10 years of service if hired after 1978 and if classified in groups 1 or 2. A person who became a member on or after April 2, 2012 is eligible for a superannuation retirement allowance upon reaching the age of 60 with 10 years of service if in group 1, 55 years of age with 10 years of service if in group 2, and 55 years of age if hired prior to 1978 or if classified in group 4. Normal retirement for most employees occurs at age 65 (except for certain hazardous duty and public safety positions, whose normal retirement is at age 55).

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. The average retirement benefit is approximately 80-85% pension and 15-20% annuity.

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

The pension portion of any retirement benefit is paid from the Pension Fund of the System. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. In past years, retirement systems were paying only the actual retirement benefits that were due each year. Systems had no statutory authorization to put aside money for the future benefits of employees who are currently employed. Large unfunded liabilities resulted from operating under this pay-as-you-go basis. In 1977, legislation authorized local governments to appropriate funds to meet future pension obligations. In 1983, additional legislation was passed requiring the transfer of investment earnings (in excess of the amount credited to member accounts) into the Pension Reserve Fund. These initiatives have significantly reduced the rate of growth of the Retirement System's unfunded liabilities, and in some Systems have actually reduced such liability.

NOTE 1 – PLAN DESCRIPTION (Continued)

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

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

Employees who resign from service and who are not eligible to receive a retirement allowance or are under the age of 55 are entitled to request a refund of their accumulated total deductions. In addition, with at least ten years of creditable service, such employees are entitled to receive one hundred (100%) percent of the regular interest which has accrued upon those deductions. Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – <u>SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES</u>

Basis of Accounting and Financial Statement Presentation

The financial statements have been prepared using the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the standard-setting body for establishing governmental accounting and financial reporting principles. The significant accounting policies are described herein.

Reporting Entity

The System was established to provide retirement benefits to eligible employees of its member employers and their beneficiaries.

Cash and Cash Equivalents

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

Investments

Investments are reported at fair value. Fair values of securities held directly are based on quotations from national securities exchanges, except for pooled funds, alternative investments, real estate, and hedge funds, for which fair values are estimated as detailed below.

Pooled Equity and Fixed Income Funds – The fair value of shares in managed investment pools is based on unit values reported by the managers of those respective funds.

Pooled Private Equity Funds – Pooled private equity funds include holdings through equity interests in various limited partnerships. These investments are carried at the limited partnership interest or redemption value, the equivalent of net asset value, which approximates fair value. Values assigned to such investments are based on available information and do not necessarily represent amounts

NOTE 2 – <u>SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES</u> (Continued)

Investments (Continued)

that may ultimately be realized in liquidation. Liquidation values depend largely on future circumstances, including marketability, and frequently cannot reasonably be estimated until at, or near, the liquidation date.

Pooled Real Estate Funds – Real estate investments consist of interests in commercial properties held by various partnerships and other limited liability entities, some of which utilize debt financing. Fair values of such holdings are reported based on net asset values of the entities, which are estimated using third-party appraisals and other information provided by the property managers.

Pooled Hedge Funds – The fair value of shares in managed hedge funds is based on unit values reported by the managers of those respective funds.

Investments Sold and Investments Purchased

Receivables for investments sold represent amounts due from brokers for unsettled security sales transactions at year end. Liabilities for investments purchased represent amounts due to brokers for unsettled purchases at year end.

Revenue Recognition

Contributions are recognized as additions in the period when they become due pursuant to formal statutory obligations. Investment income is recognized when earned.

Benefit Payments and Refunds of Contributions

Benefits and refunds to Plan members and beneficiaries are recognized as expenses when due and payable in accordance with the terms of the Plan.

Intergovernmental, Reimbursements and Transfers to Other Systems

When members transfer to or from other Massachusetts public retirement systems, their cumulative contributions are transferred from the prior employer to the respective Massachusetts public retirement system, and are recognized as receipts or expenses when paid.

Leases

The System leases office space as described in Note 9. Accounting for this lease under GASB No. 87 was determined to be immaterial to the financial statements. The adoption of the standard had no effect on the financial statements.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions during the reporting period. Actual results could differ from estimates. Fair values of real estate, alternative investment and hedge fund holdings are generally estimated absent readily available market values, and such estimates may be materially different from values that would have been used if a ready market existed.

NOTE 3 – PLAN ADMINISTRATION

The System is administered by a five-person Board of Retirement. Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the System. The Board must annually file a financial statement of condition for the System with PERAC.

The Advisory Council consists of the full time treasurers, elected or appointed, for each town, unit or district within the System. The members of the Advisory Council elect the second member of the Board of Retirement as well as a Chair from among its members. The Advisory Council is required by statute to meet twice per year.

The investment of the System's funds is the responsibility of the Board. Disability retirement allowances must be approved by the Board and are then submitted to the PERAC Actuary for verification prior to payment. All expenses incurred by the System must be approved by a majority vote of the Board.

Board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts. The MACRS program for the System provides \$50,000,000 fiduciary protection for Trustees and employees, as well as a \$1,000,000 fidelity policy for crime coverage.

NOTE 4 – FAIR VALUE MEASUREMENTS OF INVESTMENTS

The System's investments are measured and reported at fair value. The fair value hierarchy categorizes the inputs to valuation techniques used for fair value measurement into three levels as follows:

- Level 1 Inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets that can be accessed at the measurement date.
- Level 2 Inputs other than quoted prices that are observable for an asset or liability either directly or indirectly, including inputs in markets that are not considered to be active.
- Level 3 Unobservable inputs based on the best information available, using assumptions in determining the fair value of investments.

The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest to Level 3 inputs.

In certain instances, where the determination of the fair value measurement is based on inputs from different levels of the fair value hierarchy, the level in the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement.

NOTE 4 – FAIR VALUE MEASUREMENTS OF INVESTMENTS (Continued)

Fair value of certain investments that do not have a readily determinable fair value is established using net asset value (or its equivalent) as a practical expedient. These investments are not categorized according to the fair value hierarchy.

The following tables present a summary of the fair value hierarchy of investments and short-term holdings that are measured at fair value on a recurring basis at December 31, 2022 and 2021 (in thousands):

2022

			<u>Fair Value Measurements Using</u> Quoted Prices					
			In Ac	ctive Markets or Identical Assets	_	nificant Other Observable Inputs		Significant nobservable Inputs
Investments by Fair Value Level	7	otal	(Level 1)		(Level 2)		(Level 3)
Short-Term Investment					•			<u>, , , , , , , , , , , , , , , , , , , </u>
Funds Equities:	\$	56,070	\$	-	\$	56,070	\$	-
Common Stock		185,129		185,129		_		_
Total Equities		185,129	-	185,129				
Fixed Income:		100,120		100,120		_		
Corporate Bonds		57,761		-		57,761		-
Government Issues		37,772		12,340		25,432		-
Municipals		162				162		<u>-</u>
Total Fixed Income		95,695		12,340		83,355		
Pooled Funds: Equity		364,247						364,247
Fixed Income		104,760		-		-		104,760
Private Equity		-		-		_		-
Real Estate		51,744		-		-		51,744
Hedge						<u>-</u>		<u>-</u>
Total Pooled Funds		520,751		<u>-</u>		<u>-</u>		520,751
Total Investments by Fair Value	е							
Level	\$	<u>857,645</u>	\$	197,469	\$	139,425	\$	520,751
Investments Measured at Net Asset Value (NAV):								
Pooled Fixed Income Funds	\$	40,067						
Pooled Private Equity Funds		167,747						
Pooled Real Estate Funds		53,543						
Pooled Hedge Funds Total Investments Measured at		134,538						
NAV		395,895						
Total Investments Measure at Fa	ir	000,000						
Value	<u>\$ 1,</u>	253,540						

NOTE 4 – FAIR VALUE MEASUREMENTS OF INVESTMENTS (Continued)

<u> 2021</u>

	Fair Value Measurements Using							
		Quoted Prices						
			ln .	Active Markets	Si	gnificant Other		Significant
				For Identical		Observable	Į	Jnobservable
				Assets		Inputs		Inputs
Investments by Fair Value Level		<u>Total</u>		(Level 1)		(Level 2)		(Level 3)
Short-Term Investment Funds	\$	24,697	\$	-	\$	24,697	\$	-
Equities:								
Common Stock		214,745		88,165		82,051		44,529
Total Equities		214,745		88,165		82,051		44,529
Fixed Income:								
Corporate Bonds		63,839		33,778		29,415		646
Government Issues		48,022		47,964		-		58
Municipals		333		333				
Total Fixed Income		112,194		82,075		29,415		704
Pooled Funds:						_		_
Equity		473,383		-		-		473,383
Fixed Income		136,398		-		-		136,398
Private Equity		-		-		-		-
Real Estate		37,367		-		-		37,367
Hedge		<u>-</u>	_	<u>-</u>	_	_		_
Total Pooled Funds		647,148		<u>-</u>				647,148
Total Investments by Fair Value								
Level	\$	998,784	\$	170,240	\$	136,163	\$	692,381
Investments Measured at Net								
Asset Value (NAV):								
Pooled Fixed Income Funds	\$	41,497						
Pooled Private Equity Funds		167,300						
Pooled Real Estate Funds		67,016						
Pooled Hedge Funds		140,645						
Total Investments Measured at		440.4=0						
NAV		416,458						
Total Investments Measure at Fair	_							
Value	\$	1,415,242						

Reconciliation of Total Investments Measured at Fair Value (listed above) to the Statement of Fiduciary Net Position (in thousands):

	_	2022	 2021
Total Investments Measured at Fair Value per above	\$	1,253,540	\$ 1,415,242
Short-Term Investment Funds classified as Cash and Cash Equivalents on Statement of Fiduciary Net Position		(56,070)	 (24,697)
Total Investments on Statement of Fiduciary Net Position	\$	1,197,470	\$ 1,390,545

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2022 AND 2021

NOTE 5 - <u>DEPOSIT AND INVESTMENT RISK DISCLOSURES</u>

The following disclosures represent essential risk information about the System's deposits and investments.

Custodial Credit Risk - Deposits

Custodial credit risk is the risk that in the event of bank failure, the System's deposits may not be returned. The System carries deposits that are insured by FDIC insurance up to \$250,000 per financial institution. The System evaluates each financial institution and assesses the level of risk of each institution and only uses those institutions with an acceptable level of risk. At December 31, 2022 and 2021, the System had cash balances at two financial institutions in excess of FDIC limits of approximately \$6,362,000 and \$10,164,000, respectively.

Investment Policy

The provisions of M.G.L. Chapter 32 § 23 (2) and the Plan's own investment policy govern the System's investment practice. The Board retains an investment consultant to assure that strategic investment diversification is attained, to employ investment managers with expertise in their respective asset classes, and to closely monitor the implementation and performance of the respective investment strategies. The System invests in stocks (domestic and foreign), fixed income securities (domestic and foreign), private equity, real estate and hedge funds.

Custodial Credit Risk - Investments

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the System would not be able to recover the value of investment or securities. The System's investments are held by the System's custodian and registered in the System's name. All of the System's securities are held by the System's custodial bank in the System's name, except for investments in pooled funds, which by their nature, do not have securities that are used as evidence of the investment.

NOTE 5 – <u>DEPOSIT AND INVESTMENT RISK DISCLOSURES</u> (Continued)

Interest Rate Risk

The following is a listing of the System's fixed income investments (in thousands) and related maturity schedule (in years) as of December 31, 2022 and 2021:

20	22
----	----

Investment Type	Fair Value	Less than 1	<u>1 – 5</u>	<u>6 – 10</u>	More than 10
U.S. Agencies Domestic Corporate Domestic Government	\$ 37,772 57,761 162 \$ <u>95,695</u>	\$ 5,027 1,422 \$ <u>6,449</u>	\$ 527 16,043 - \$ <u>16,570</u>	\$ 1,265 8,249 162 \$ 9,676	\$30,953 32,047 \$ <u>63,000</u>
		<u>2021</u>			
Investment Type	Fair Value	Less than 1	<u>1 – 5</u>	<u>6 – 10</u>	More than 10
U.S. Agencies Domestic Corporate Domestic Government	\$ 48,022 63,839 333 \$ <u>112,194</u>	\$ - 1,060 - \$ <u>1,060</u>	\$ 7,378 16,580 333 \$ <u>24,291</u>	\$ 4,462 7,447 ——- \$ <u>11,909</u>	\$36,182 38,752 \$ <u>74,934</u>

The System's guidelines do not specifically address limits on maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The managers of each fixed income portfolio are responsible for determining the maturity and commensurate returns of their portfolio.

Credit Risk

The System allows investment managers to apply discretion under the Prudent Person rule. Investments are made, as a prudent person would be expected to act with discretion and intelligence, to seek reasonable income, preserve capital and, in general, avoid speculative investments.

The System's fixed income investments as of December 31, 2022 and 2021 were rated by Standard & Poor's and/or an equivalent national rating organization and the ratings are presented below (in thousands) using the Standard & Poor's rating scale:

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2022 AND 2021

NOTE 5 – <u>DEPOSIT AND INVESTMENT RISK DISCLOSURES</u> (Continued)

Credit Risk (Continued)

<u>2022</u>

Investment <u>Type</u>	Fair <u>Value</u>	<u>AAA</u>	<u>AA</u>	<u>A</u>	<u>BBB</u>	<u>BB</u>	<u>B</u>	CC to D	Not <u>Rated</u>
U.S. Agencies Domestic	\$ 37,772	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 37,772
Corporate Domestic	57,761	3,752	754	7,537	25,382	3,422	284	323	16,307
Government	162	-	162	-	-	-	-	-	-
Pooled Funds_	144,827	-	-	-	-	-	-	-	144,827
	\$ 240,522	\$ 3,752	\$ 916	\$ 7,537	\$ 25,382	\$ 3,422	\$ 284	\$ 323	\$ 198,906

<u>2021</u>

Investment <u>Type</u>	Fair <u>Value</u>	<u>AAA</u>	<u>AA</u>	<u>A</u>	<u>BBB</u>	<u>BB</u>	<u>B</u>	CC to D	Not <u>Rated</u>
U.S. Agencies Domestic	\$ 48,022	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48,022
Corporate Domestic	63,839	4,874	915	9,510	27,032	4,004	1,226	470	15,808
Government	333	-	-	-	333	-	_	-	-
Pooled Funds	177,894	-	-	-	-	-	-	-	177,894
_	\$ 290,088	\$ 4,874	\$ 915	\$ 9,510	\$ 27,365	\$ 4,004	\$1,226	\$ 470	\$ 241,724

Concentration Risk

Other than investments in two and four pooled funds, respectively, the System has no individual investment at fair value that exceeds 5% of total investments at December 31, 2022 and 2021. The System adheres to the provisions of MGL Chapter 32 § 23, the rules and regulations of PERAC, and the Plan's own investment policy when managing concentration risk.

NOTE 5 – <u>DEPOSIT AND INVESTMENT RISK DISCLOSURES</u> (Continued)

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. Similar to the investments in domestic equities, the System employs or encourages its investment advisor to employ diversification, asset allocation, and quality strategies. Risk of loss arises from changes in currency exchange rates. The System's exposure to foreign currency risk as of December 31, 2022 and 2021 is presented on the following tables (in thousands):

2022

<u>Currency</u>	Cash and Cash <u>Equiva</u> <u>lents</u>	<u>Equity</u>	Fixed Income	Pooled <u>Funds</u>	<u>Total</u>
Australian Dollar	\$ -	\$ -	\$ -	\$ 3,156	\$ 3,156
Bermudian Dollar	=	-	-	239	239
Brazilian Real	-	-	-	3,280	3,280
British Pound Sterling	-	10,518	-	10,489	21,007
Canadian Dollar	-	1,846	-	522	2,368
Cayman Islands Dollar	=	-	-	542	542
Chinese Yuan Renminbi	=	-	-	19,506	19,506
Czech Koruna	-	-	-	445	445
Danish Kroner	=	2,685	-	165	2,850
Egyptian Pound	-	-	-	102	102
Euro Currency	-	34,960	-	33,007	67,967
Hong Kong Dollar	=	2,104	-	1,590	3,694
Indian Rupee	=	-	-	6,195	6,195
Indonesian Rupiah	-	-	-	1,656	1,656
Israeli Shekel	-	-	-	85	85
Japanese Yen	-	11,544	-	12,692	24,236
Jordanian Dinar	-	-	-	92	92
Kenyan Shilling	-	-	-	266	266
Mexican Peso	-	-	-	429	429
Mongolian Tughrik	-	-	-	266	266
New Russian Ruble	-	-	-	82	82
Norwegian Krone	-	-	-	1,101	1,101
Philippine Peso	-	-	-	746	746
Saudi Riyal	-	-	-	557	557
Singapore Dollar	-	1,388	-	666	2,054
South African Rand	-	-	-	1,344	1,344
South Korean Won	-	-	-	3,458	3,458
Swedish Krona	-	-	-	991	991

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2022 AND 2021

NOTE 5 – <u>DEPOSIT AND INVESTMENT RISK DISCLOSURES</u> (Continued)

Foreign Currency Risk (Continued)

2022 (Continued)

<u>Currency</u>	Cash and Cash <u>Equiva</u> <u>lents</u>	<u>Equity</u>	Fixed <u>Income</u>	Pooled <u>Funds</u>	<u>Total</u>
Swiss Franc	-	13,891	-	1,113	15,004
Thai Baht	-	-	-	1,845	1,845
Taiwan New Dollar	-	-	-	5,558	5,558
UAE Emirati Dirham Total Securities Subject to				<u>296</u>	<u>296</u>
Foreign Currency Risk	\$ <u></u>	\$ <u>78,936</u>	\$ <u> </u>	\$ <u>112,481</u>	\$ <u>191,417</u>

2021

<u>Currency</u>	Cash and Cash <u>Equiva</u> <u>lents</u>	<u>Equity</u>	Fixed Income	Pooled <u>Funds</u>	<u>Total</u>
Argentine Peso	\$ -	\$ -	\$ -	\$ 26	\$ 26
Australian Dollar	-	-	-	3,348	3,348
Bermudian Dollar	-	-	-	303	303
Brazilian Real	-	-	-	2,748	2,748
British Pound Sterling	-	16,552	-	11,215	27,767
Canadian Dollar	-	10,432	-	400	10,832
Cayman Islands Dollar	-	-	-	406	406
Chinese Yuan Renminbi	-	-	-	25,361	25,361
Czech Koruna	-	-	-	596	596
Danish Kroner	-	3,264	-	210	3,474
Euro Currency	-	40,244	-	41,762	82,006
Hong Kong Dollar	-	1,494	-	792	2,286
Indian Rupee	-	-	-	7,192	7,192
Indonesian Rupiah	-	-	-	1,659	1,659
Israeli Shekel	-	-	-	263	263
Japanese Yen	-	17,792	-	16,262	34,054
Jordanian Dinar	-	-	-	115	115
Kazakhstani Tenge	-	-	-	74	74
Kenyan Shilling	-	-	-	325	325
Macanase Pataca	-	-	-	508	508
Mexican Peso	-	-	-	378	378
New Russian Ruble	-	-	-	3,622	3,622

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2022 AND 2021

NOTE 5 – <u>DEPOSIT AND INVESTMENT RISK DISCLOSURES</u> (Continued)

Foreign Currency Risk (Continued)

2021 (Continued)

	Cash and				
	Cash <u>Equiva</u>		Fixed	Pooled	
<u>Currency</u>	<u>lents</u>	<u>Equity</u>	<u>Income</u>	<u>Funds</u>	<u>Total</u>
Peruvian Sol	-	-	-	575	575
Philippine Peso	-	-	-	745	745
Singapore Dollar	-	313	-	-	313
South African Rand	-	-	-	2,166	2,166
South Korean Won	-	-	-	9,018	9,018
Swedish Krona	-	-	-	1,608	1,608
Swiss Franc	-	15,584	-	1,051	16,635
Tanzanian Shilling	-	-	-	274	274
Thai Baht	-	-	-	1,361	1,361
Taiwan New Dollar	-	-	-	9,296	9,296
Turkish Lira	-	-	-	521	521
Ukranian Hryvnia Total Securities Subject to	<u>-</u>	 -		88	<u>88</u>
Foreign Currency Risk	\$ <u></u>	\$ <u>105,675</u>	\$ <u></u>	\$ <u>144,268</u>	\$ <u>249,943</u>

NOTE 6 - LEGALLY REQUIRED RESERVES

The System's legally required reserves are all funded at levels required by state statute and were as follows as of December 31:

	<u>2022</u>	<u>2021</u>
Annuity Savings Fund	\$ 321,628,998	\$ 314,733,667
Annuity Reserve Fund	93,239,704	89,264,339
Military Service Fund	38,067	38,029
Pension Fund	8,975,700	12,717,120
Pension Reserve Fund	836,768,853	1,007,703,825
Expense Fund	, , , , <u>-</u>	-
•	\$1, <u>260,651,322</u>	\$ <u>1,424,456,980</u>

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2022 AND 2021

NOTE 6 – <u>LEGALLY REQUIRED RESERVES</u> (Continued)

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

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

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

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

The *Pension Reserve Fund* contains the amounts set aside by the system for the purpose of establishing a reserve to meet future pension liabilities. Any investment income in excess of the amount required to credit interest to the Annuity Savings Fund, Annuity Reserve Fund and Military Service Fund is credited to the Pension Reserve Fund. Any profit or loss realized on the sale or maturity of any investment or on the unrealized gain or loss of market valued investments as of the valuation date is credited to the Pension Reserve Fund.

The *Expense Fund* contains amounts transferred from investment income for the purpose of administering the System.

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

NOTE 7 – FUNDING POLICY

Participating employers are required to pay into the System their share of the remaining actuarially determined contribution and plan administration costs, which are apportioned among the participating employers based on an actuarial computation.

The participating employers' budgeted contributions to the System for the employer fiscal years ended June 30, 2023 and 2022 were as follows (in thousands):

	ŕ	<u>2023</u>	<u>2022</u>
Town of Avon	\$	1,705	\$ 1,590
Avon Housing Authority		16	15
Town of Bellingham		3,601	3,338
Bellingham Housing Authority		55	51
Town of Canton		7,058	6,581
Canton Housing Authority		121	113
Town of Cohasset		3,493	3,274
Cohasset Housing Authority		21	20
Norfolk County		4,558	4,302
Charles River Pollution Control		184	172
Town of Dover		1,615	1,504
Dover-Sherborn Regional High School		895	834
Town of Foxboro		5,981	5,576
Foxboro Housing Authority		124	115
Town of Franklin		7,317	6,819
Franklin Housing Authority		115	107
Town of Holbrook		2,622	2,444
Holbrook Housing Authority		62	58
King Philip Regional School District		959	894
Town of Medfield		3,394	3,162
Medfield Housing Authority		19	17
Town of Medway		3,576	3,332
Medway Housing Authority		87	81
Metacomet Emergency Communication		398	371
Town of Millis		2,408	2,243
Millis Housing Authority		62	58
Town of Norfolk		2,823	2,633
Norfolk Housing Authority		42	39
Norfolk Mosquito Control		264	246
Town of Plainville		2,616	2,438
Town of Randolph		7,688	7,170
Randolph Housing Authority		125	117

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2022 AND 2021

NOTE 7 – <u>FUNDING POLICY</u> (Continued)

Town of Sharon	5,395	5,027
Sharon Housing Authority	44	41
Town of Stoughton	7,326	6,829
Stoughton Housing Authority	123	114
Town of Walpole	6,525	6,083
Walpole Housing Authority	74	69
Town of Westwood	6,696	6,242
Town of Wrentham	2,632	2,452
Wrentham Housing Authority	34	32
Dedham Westwood Water District	683_	636
	\$93,536	\$87,239

NOTE 8 – <u>NET PENSION LIABILITY</u>

The components of the net pension liability of the System as of December 31, 2022 and 2021, are as follows:

	<u>2022</u>	<u>2021</u>
Total Pension Liability	\$1,838,943,253	\$1,793,000,074
Fiduciary Net Position	<u>1,260,651,322</u>	<u>1,424,456,980</u>
System's Net Pension Liability	\$ <u>578,291,931</u>	\$ <u>368,543,094</u>
Fiducian, Not Decition as a necessary of		

Fiduciary Net Position as a percentage of

total pension liability 68.6% 79.4%

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of January 1, 2022. The following actuarial assumptions were applied to all periods included in the measurement:

Actuarial cost method: Entry Age Normal Cost Method

Amortization method Open-Level percent of payroll

Asset valuation method Market value

Investment rate of return 7.75%

Projected salary increases 3.5% - 5.5%

Inflation 3.0%

Cost of living increases 3.0% of first \$18,000

Mortality: The RP-2014 Blue Collar Mortality Table with Scale

with MP-2014

NOTE 8 - NET PENSION LIABILITY (Continued)

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

			Long-terr	n
	Targ	et	Expected F	Real
Asset Class	Alloca	<u>tion</u>	Rate of Re	<u>turn</u>
	<u> 2022</u>	<u>2021</u>	<u>2022</u>	2021
Domestic Equity	30.5%	30.5%	7.0%	7.0%
International Equities	15.5	15.5	7.7%	7.7%
Fixed Income	20.5	20.5	4.3%	4.3%
Real Estate	9.5	9.5	6.9%	6.9%
Private Equity	10.0	10.0	9.4%	9.4%
Hedge Funds	11.5	11.5	8.6%	8.6%
Real Assets	2.5	2.5	8.9%	8.9%
Total	<u>100.0</u> %	<u>100.0</u> %		

The annual money-weighted rate of return on investments, net of investment expense was -11.82% and 18.52% for the years ended December 31, 2022 and 2021, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. The above was the Board's adopted asset allocation policy and best estimates of real rates of return for each major asset class as of December 31, 2022 and 2021.

Discount Rate

The discount rate used to measure the total pension liability as of December 31, 2022 and 2021 was 7.75%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at contractually required rates, actuarially determined. Under Chapter 32 of the MGL, employers are required to make the necessary contributions such that the Plan reaches full funding status by 2040. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current Plan members. Therefore, the long-term expected rate of return on Plan investments was applied to all periods of projected benefit payments to determine total pension liability.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the System as of December 31, 2022 and 2021. For 2022 and 2021, the net pension liability was calculated using the discount rate of 7.75%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is one-percentage point lower (6.75%) or one-percentage point higher (8.75%) than the current rate.

NOTE 8 – NET PENSION LIABILITY (Continued)

Sensitivity of the Net Pension Liability to Changes in the Discount Rate (Continued)

	<u>2022</u>		
	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
System's Net Pension Liability	\$768,213,463	\$578,291,931	\$416,834,744
	<u>2021</u>		
	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
System's Net Pension Liability	\$555,622,368	\$368,543,094	\$209,554,987

NOTE 9 – LEASE COMMITMENTS

The System leases office space under an operating lease through August 2026. The lease also provides for the payment of common area costs, real estate taxes and utilities. Future minimum lease payments under the lease is as follows:

<u>Year</u>	<u>Amount</u>
2023	\$ 50,750
2024	52,250
2025	53,750
2026	36,500
Total	\$ <u>193,250</u>

Rent expense for the years ended December 31, 2022 and 2021 was \$63,843 and \$62,546, respectively.

NOTE 10 – UNCERTAINTIES

The System is, from time to time, involved in legal matters arising in the normal course of its administration of member benefits that, in the opinion of management, will not have a material effect on the net assets of the System.

NOTE 11 - SUBSEQUENT EVENTS

The System has performed an evaluation of subsequent events through September 27, 2023, the date the basic financial statements were available to be issued. No material events were identified by the System.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULES OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

YEARS ENDED DECEMBER 31, 2014 - 2022

	2022	<u>2021</u>	2020	2019	2018	<u>2017</u>	<u>2016</u>	<u>2015</u>	2014
TOTAL PENSION LIABILITY:									
Service Cost	39,418,902				\$ 33,120,792	\$ 34,738,004	\$ 33,401,927	\$ 31,963,567	\$ 31,799,628
Interest on Liability and Service Cost	137,049,010	131,012,909	127,157,996	119,795,961	116,162,593	107,709,293	103,990,120	106,603,992	102,271,303
Difference Between Actual and Expected Experience	-	33,610,962	-	41,916,868	-	61,837,812	-	13,828,826	-
Assumption Changes	-	-	-	-	-	36,207,214	-	(57,518,820)	-
Change in Plan Provisions	-	-	-	5,395,128	-	12,205,895	-	-	-
Benefit Payments, Including Refunds of Contributions	(130,524,733)	(121,950,438)	(110,709,576)	(108,549,848)	(102,577,621)	(94,665,189)	(89,903,327)	(84,888,359)	(81,095,471)
NET CHANGE IN TOTAL PENSION LIABILITY	45,943,179	81,481,373	53,944,014	94,785,736	46,705,764	158,033,029	47,488,720	9,989,206	52,975,460
TOTAL PENSION LIABILITY - BEGINNING OF YEAR	1,793,000,074	1,711,518,701	1,657,574,687	1,562,788,951	1,516,083,187	1,358,050,158	1,310,561,438	1,300,572,232	1,247,596,772
TOTAL PENSION LIABILITY - END OF YEAR (a)	\$ 1,838,943,253	\$ 1,793,000,074	\$ 1,711,518,701	\$ 1,657,574,687	\$ 1,562,788,951	\$ 1,516,083,187	\$ 1,358,050,158	\$1,310,561,438	\$ 1,300,572,232
CHANGE IN FIDUCIARY NET POSITION									
Contributions - Employer	91,885,045	85,675,573	80,090,560	74,899,528	69,957,756	\$ 64,009,904	\$ 58,539,478	\$ 53,201,068	\$ 48,383,549
Contributions - Member	38,149,245	35,368,122	33,847,164	33,722,562	32,290,608	29,351,605	29,448,483	26,920,012	26,322,747
Net Investment Income	(166,125,779)	222,203,572	124,093,043	156,013,794	(53,017,332)	125,637,080	68,848,066	(11,383,452)	34,539,916
Benefit Payments, Including Refunds of Contributions	(130,524,733)	(121,950,438)	(110,709,576)	(108,549,848)	(102,577,621)	(94,665,189)	(89,903,327)	(84,888,359)	(81,095,471)
Administrative Expenses	(1,513,129)	(1,422,126)	(1,165,174)	(1,233,819)	(1,215,116)	(1,215,601)	(1,193,583)	(1,158,971)	(1,077,892)
Other	4,323,693	3,818,150	4,146,800	3,760,532	3,331,428	3,933,503	2,939,696	2,711,397	2,021,260
NET CHANGE IN FIDUCIARY NET POSITION	(163,805,658)	223,692,853	130,302,817	158,612,749	(51,230,277)	127,051,302	68,678,813	(14,598,305)	29,094,109
FIDUCIARY NET POSITION - BEGINNING OF YEAR	1,424,456,980	1,200,764,127	1,070,461,310	911,848,561	963,078,838	836,027,536	767,348,723	781,947,028	752,852,919
FIDUCIARY NET POSITION - END OF YEAR (b)	\$ 1,260,651,322	\$ 1,424,456,980	\$ 1,200,764,127	\$ 1,070,461,310	\$ 911,848,561	\$ 963,078,838	\$ 836,027,536	\$ 767,348,723	\$ 781,947,028
NET PENSION LIABILITY - END OF YEAR (a) - (b)	\$ 578,291,931	\$ 368,543,094	\$ 510,754,574	\$ 587,113,377	\$ 650,940,390	\$ 553,004,349	\$ 522,022,622	\$ 543,212,715	\$ 518,625,204
FIDUCIARY NET POSITION as a PERCENTAGE OF									
TOTAL PENSION LIABILITY	68.6%	79.4%	70.2%	64.6%	58.3%	63.5%	61.6%	58.6%	60.1%
COVERED EMPLOYEE PAYROLL	351,456,210	\$ 339,571,217	\$ 322,391,403	\$ 311,489,280	\$ 299,245,268	\$ 289,125,863	\$ 279,489,744	\$ 267,454,300	\$ 246,722,941
NET DENOION LIABILITY DEDOENTAGE OF									
NET PENSION LIABILTY as a PERCENTAGE OF	404.50/	400.50/	450.40/	400.50/	047.50/	404.00/	400.00/	000.40/	040.00/
COVERED EMPLOYEE PAYROLL	164.5%	108.5%	158.4%	188.5%	217.5%	191.3%	186.8%	203.1%	210.2%

This schedule is intended to present 10 years of data. Additional year will be presented when available.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF INVESTMENT RETURN

YEARS ENDED DECEMBER 31, 2014 - 2022

Annual Money-Weighted Rate of Return, Net of Investment Expense:

2022	-11.82%
2021	18.52%
2020	11.93%
2019	16.28%
2018	-4.54%
2017	14.81%
2016	8.59%
2015	-0.75%
2014	5.07%

This schedule is intended to present 10 years of data. Additional year will be presented when available.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULES OF CONTRIBUTIONS

YEARS ENDED DECEMBER 31, 2014 - 2022

	2	2022	20	021	2	2020	2	019		<u>2018</u>	<u>2017</u>		<u>2016</u>		<u>2015</u>		<u>2014</u>
Actuarially Determined Contribution	\$ 93	3,536,000	\$ 87,	,239,000	\$ 81	1,552,000	\$ 76	,217,000	\$	71,227,000	\$ 65,170,000	\$	59,628,000	\$	54,208,000	\$	49,280,000
Actual Contributions in Relation to Actuarially Determined Contribution	93	3,536,000	87,	,239,000	81	1,552,000	76	,217,000	-	71,227,000	 65,170,000		59,628,000		54,208,000		49,280,000
Contribution Deficiency (Excess)	\$		\$		\$		\$		\$	<u>-</u>	\$ 	\$		\$		\$	<u>-</u>
Covered-Employee Payroll	\$ 351	1,456,210	\$ 339,	,571,217	\$ 322	2,391,403	\$ 311	,489,280	\$ 2	299,245,268	\$ 289,125,863	\$ 2	79,489,744	\$ 2	267,454,300	\$ 2	46,722,941
Contributions as a Percentage of Covered-Employee Payroll		26.6%		25.7%		25.3%		24.5%		23.8%	22.5%		21.3%		20.3%		20.0%

This schedule is intended to present 10 years of data. Additional year will be presented when available.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

DECEMBER 31, 2022 AND 2021

1. SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

The total pension liability presented in the schedule were provided by the System's actuarial consultant, Sherman Actuarial Services, LLC. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the System. The related ratios show Plan net position as a percentage of the total pension liability and the net pension liability as a percentage of covered employee payroll.

2. SCHEDULE OF INVESTMENT RETURN

The annual money-weighted rate of return is calculated as the internal rate of return on Plan investments, net of Plan investment expense. A money-weighted rate of return expresses investment performance, net of Plan investment expense, adjusted for changing amounts actually invested.

3. SCHEDULE OF CONTRIBUTIONS

The actuarially determined contribution amount in the schedule of contributions was calculated as of January 1, 2022 (for 2022 and 2021); January 1, 2020 (for 2020 and 2019); January 1, 2018 (for 2018 and 2017); January 1, 2016 (for 2016 and 2015) and as of January 1, 2015 for 2014. The following actuarial methods and assumptions were used to determine the contribution amount reported in that schedule:

Actuarial Cost Method	Individual	entry ad	ge normal	actuarial	l cost method

Amortization Method Open – Level percent of payroll

Payroll assumed to grow 3.5%-5.5% per year

(January 1, 2022, 2020, 2018 and 2016) and 4% per year

(January 1, 2015)

Asset Valuation Method Market value as reported to PERAC

Inflation 3.0% (January 1, 2022 and 2020)

4.0% (January 1, 2018 and 2016)

4.5% (January 1, 2015)

Investment Rate of Return 7.75% (January 1, 2022, 2020 and 2018)

8.0% (January 1, 2016) 8.25% (January 1, 2015)

Cost of Living Adjustments 3.0% of first \$18,000 (January 1, 2022 and 2020) and

3% of first \$17,000 (January 1, 2018) and 3% of first \$15,000 (January 1, 2016 and 2015) of

retirement income

Mortality Table RP-2014 Blue Collar Mortality Table with Scale with

MP-2014 (January 1, 2022, 2020, 2018 and 2016) RP-2000 Mortality Table adjusted with Scale AA

(January 1, 2015)

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INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

To the Board of the Norfolk County Retirement System Canton, Massachusetts

We have audited, in accordance with the 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, the financial statements of the Norfolk County Retirement System, as of and for the years ended December 31, 2022 and 2021, and the related notes to the financial statements, which collectively comprise the Norfolk County Retirement System's basic financial statements, and have issued our report thereon dated September 27, 2023.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Norfolk County Retirement System's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Norfolk County Retirement System's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that were not identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether Norfolk County Retirement System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

DI PESA & COMPANY

Di Pesa & Compay

Certified Public Accountants Quincy, Massachusetts

September 27, 2023