

BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2022

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#### FINANCIAL STATEMENTS

#### YEAR ENDED DECEMBER 31, 2022

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# **Financial Section**

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#### Independent Auditor's Report

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

#### Opinion

We have audited the accompanying financial statements of Barnstable County Retirement Association as of and for the year ended December 31, 2022, and the related notes to the financial statements, which collectively comprise the Barnstable County Retirement Association's financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Barnstable County Retirement Association as of December 31, 2022, 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 Barnstable County Retirement Association and to meet our 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 Barnstable County Retirement 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 Barnstable County Retirement 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 Barnstable County Retirement 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, 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 July 31, 2023, on our consideration of the Barnstable County Retirement Association's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is 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 Barnstable County Retirement Association'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 Barnstable County Retirement Association's internal control over financial reporting and compliance.

#### **Restriction on Use**

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

Powers & Sullivan LLC

July 31, 2023

# Management's Discussion and Analysis

As management of the Barnstable County Retirement Association (Association), we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2022. The Association complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

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

# **Financial Highlights**

- The Association's assets exceeded its liabilities at the close of the most recent year by \$1.5 billion (net position).
- The Association's net position decreased by \$195.5 million for the year ended December 31, 2022.
- Total investment income (loss) was (\$178.2 million); investment expenses were \$7.6 million; and net investment income (loss) was (\$185.8 million).
- Total contributions were \$117.6 million including \$77.9 million from employers, \$32.8 million from members, and \$6.9 million from other contributions.
- Retirement benefits, refunds and transfers to other systems amounted to \$125.9 million.
- Administrative expenses totaled \$1.4 million.
- The Total Pension Liability is \$2.3 billion as of December 31, 2022, while the Net Pension Liability is \$829.9 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 63.77%.

# **Overview of the Financial Statements**

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

#### **Fiduciary Financial Statements**

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

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

#### Notes to the Financial Statements

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

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#### **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 assets exceeded liabilities by \$1.5 billion at the close of 2022. 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 \$1.5 billion, cash and cash equivalents of \$5.4 million and accounts receivable of \$2.2 million.

In 2022, the Association's contributions totaled \$117.6 million and net investment income (loss) totaled (\$185.8 million) while retirement benefit payments, refunds, transfers and administration expenses totaled \$127.3 million, which resulted in a current year decrease of \$195.5 million. In 2021, the Association's contributions totaled \$110.4 million and net investment income totaled \$273.3 million while retirement benefit payments, refunds, transfers and administration expenses totaled, transfers and administration expenses totaled \$118.6 million, which resulted in a prior year increase of \$265.1 million.

In 2022, the Association's current contributions of \$117.6 million did not fully support deductions totaling \$127.3 million, which resulted in a current deficiency of \$9.8 million. In 2021, the current contributions also did not fully support the current expenses, which resulted in a prior year current deficiency of \$8.2 million.

The main difference between the change in net position for the two years was the change in net investment income (loss). The Association experienced a net investment loss of \$185.8 million in 2022, compared to a net investment gain of \$273.3 million in 2021. The annual money weighted rate of return was -11.28% and 19.75% in 2022 and 2021, respectively. Fluctuations in the Association's annual investment returns are expected.

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

	2022	 2021
Assets:		
Cash and cash equivalents\$	5,400,425	\$ 3,716,098
Investments	1,452,984,399	1,649,017,340
Receivables	2,179,611	3,291,744
Other assets	-	 1,189
Total assets	1,460,564,435	 1,656,026,371
Liabilities:		
Accounts payable	56,615	 10,455
Net Position Restricted for Pension Benefits \$	1,460,507,820	\$ 1,656,015,916

	2022		2021
Additions:			
Contributions:			
Member contributions\$	32,780,828	\$	31,357,984
Employer contributions	77,900,188		73,648,922
Other contributions	6,907,317		5,401,150
Total contributions	117,588,333		110,408,056
Net investment income:			
Total investment income (loss)	(178,159,883)		280,798,003
Less, investment expenses	(7,592,845)		(7,511,766)
Net investment income	(185,752,728)		273,286,237
Total additions	(68,164,395)	,	383,694,293
Deductions:			
Administration	1,421,861		1,369,090
Retirement benefits, refunds and transfers	125,921,840		117,219,498
Total deductions	127,343,701		118,588,588
Net increase (decrease) in fiduciary net position	(195,508,096)		265,105,705
Fiduciary net position at beginning of year	1,656,015,916		1,390,910,211
Fiduciary net position at end of year\$	1,460,507,820	\$	1,656,015,916

# **Requests for Information**

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

# STATEMENT OF FIDUCIARY NET POSITION

# DECEMBER 31, 2022

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Assets	
Cash and cash equivalents\$	5,400,425
Investments:	
Investments in Pension Reserve Investment Trust	1,452,984,399
Receivables, net of allowance for uncollectibles:	
Member deductions	1,423,866
Employer pension appropriation	514,429
Other accounts receivable	241,316
Total Assets	1,460,564,435
Liabilities	
Accounts payable	56,615
Net Position Restricted for Pensions \$	1,460,507,820

See notes to financial statements.

# STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

# YEAR ENDED DECEMBER 31, 2022

Additions:		
Contributions:		
Employer pension appropriation	\$	77,900,188
Member contributions		32,780,828
Transfers from other systems		3,259,300
3(8)c reimbursements from other systems		2,941,817
Workers compensation settlements		28,000
Federal grant reimbursements		68,848
State COLA reimbursements		351,682
Member makeup payments and redeposits		193,991
Interest not refunded		38,509
Reimbursement of 91A overearnings	-	25,170
Total contributions	-	117,588,333
Net investment income:		
Investment income (loss)		(178,159,883)
Less: investment expense	_	(7,592,845)
Net investment income (loss)	-	(185,752,728)
Total additions	-	(68,164,395)
Deductions:		
Administration		1,421,861
Benefits and refunds		121,544,408
Transfers to other systems		2,013,333
3(8)c reimbursements to other systems	_	2,364,099
Total deductions	-	127,343,701
Net increase (decrease) in fiduciary net position		(195,508,096)
Fiduciary net position at beginning of year	-	1,656,015,916
Fiduciary net position at end of year	\$_	1,460,507,820

See notes to financial statements.

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# **NOTE 1 – PLAN DESCRIPTION**

The Barnstable 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 Barnstable County Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers' Retirement System. Membership in the Association is mandatory immediately upon the commencement of employment for all permanent employees working a minimum of 25 hours per week. The Association has 50 participating employers.

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

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

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

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

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

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

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

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

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

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

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

The pension portion of any retirement benefit is paid from the Pension Fund of the Association. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The Association adopted Section 22d of Chapter 32 in April of 1989. The Association's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2037.

Administrative expenses are paid from investment income.

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

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

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

# NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

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

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 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

#### Notes to Financial Statements

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

#### Fair Value Measurements

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

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

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

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

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

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

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

#### Accounts Receivable

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

#### Deferred Outflows/Inflows of Resources

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

# NOTE 3 – PLAN ADMINISTRATION

The Association is administered by a five-person Board of Retirement consisting of the County Finance Director/Treasurer or a designee as allowed under M.G.L. chapter 32, section 20(7), who shall be a member exofficio, a second member appointed by the governing authority (the County Commission), a third and fourth member who shall be elected by the members in or retired from the service of such Association, and a fifth member who shall be a member of and elected by the Advisory Council consisting of representatives from the member units.

Chairman	Carol Coppola	ol Coppola Term Expires:	
Appointed Member	Ronald Bergstrom	Term Expires:	1/5/2024
Elected Member	Harold S. Brunelle	Term Expires:	1/6/2024
Elected Member	Robert F. Rolanti	Term Expires:	1/6/2026
Council Member	TK Menesale	Term Expires:	Indefinite

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

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

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

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

# NOTE 4 – CASH AND INVESTMENTS

#### Custodial Credit Risk - Deposits

At December 31, 2022, the carrying amount of the Association's deposits totaled \$5,400,425; this is comprised of \$3,870,707 of cash deposited with banks along with \$1,529,718 in the PRIT cash fund. Of the \$3,870,707, the bank balance totaled \$4,654,792, which was covered by Federal Depository Insurance. The \$1,529,718 in the PRIT cash fund is uninsured and uncollateralized.

#### Investments

The Association's investments at December 31, 2022, consist of \$1,452,984,399 in PRIT pooled funds.

100% of the Retirement Association's investments are in Pension Reserve Investment Trust (PRIT), which meets the criteria of an external investment pool. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Association does not have the ability to control any of the investment decisions relative to its funds in PRIT. PRIT investments are valued using the net asset value (NAV) method.

The Association's annual money-weighted rate of return on pension plan investments was -11.28%. The moneyweighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

#### **NOTE 5 – MEMBERSHIP**

The following table represents the Association's membership at December 31, 2022:

Retirees and beneficiaries currently receiving benefits	3,739
Inactive members	1,280
Active members	4,986
Total	10,005

#### NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2022 were as follows:

Total pension liability\$	2,290,402,833
The pension plan's fiduciary net position	(1,460,507,820)
The net pension liability\$	829,895,013
The pension plan's fiduciary net position as a percentage of the total pension liability	63.77%

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 that was rolled forward to December 31, 2022:

Valuation	ı date	January 1, 2022
Actuarial	cost method	Entry Age Actuarial Cost Method
Projected	salary increases	3.25%
Cost of li	ving adjustments	3% of the first \$18,000
Investme	nt rate of return/Discount rate	6.90%
Mortality	Rates: Pre-Retirement	RP-2014 Blue Collar Employee Mortality Table projected generationally with Scale MP-2021
Mortality		

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

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin.

The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity International developed markets equity International emerging markets equity	20.50% 12.00% 4.50%	6.59% 6.87% 8.30%
Core fixed income	15.00%	1.53%
High-yield fixed income	8.00%	3.54%
Real estate	10.00% 4.00%	3.44% 4.01%
Timberland Hedge fund, GTAA, Risk parity	4.00%	3.06%
Private equity	16.00%	9.49%
Total	100.00%	_

*Discount Rate*: The discount rate used to measure the total pension liability was 6.90% as of December 31, 2022, and as of December 31, 2021. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rate. For this purpose, only employer contributions that are intended to fund the service costs for future plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members, are not included. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate: The following presents the net pension liability, calculated using the discount rate of 6.90%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (5.90%) or 1-percentage-point higher (7.90%) than the current rate:

	Current			
	1% Decrease	Discount Rate	1% Increase	
	(5.90%)	(6.90%)	(7.90%)	
Barnstable County Retirement Association's net				
pension liability as of December 31, 2022\$	1,095,339,141 \$	829,895,013 \$	606,592,691	

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

# NOTE 7 – COMMITMENTS AND CONTINGENCIES

Various legal actions and claims are pending against the Association. Litigation is subject to many uncertainties, and the outcome of individual litigated matters is not always predictable. Although the amount of liability, if any, at December 31, 2022, cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2022.

# **NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS**

There were no GASB pronouncements required to be implemented in 2022, 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 9 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through July 31, 2023, which is the date the financial statements were available to be issued.

# Required Supplementary Information

#### SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

Total pension liability:	December 31, 2014		December 31, 2015		December 31, 2016
Service cost\$	36,820,342	¢	38,962,546	\$	42,095,884
Interest	105,040,822	Ψ	110,695,407	Ψ	116,551,753
Changes in benefit terms			-		23,494,437
Differences between expected and actual experience	_		_		(10,802,611)
Changes in assumptions	_		-		50,013,040
Benefit payments	(69,038,553)		(73,639,192)		(79,260,605)
Solon paymone	(00,000,000)	•	(10,000,102)		(10,200,000)
Net change in total pension liability	72,822,611		76,018,761		142,091,898
Total pension liability - beginning	1,353,810,101		1,426,632,712		1,502,651,473
Total pension liability - ending (a)\$	1,426,632,712	\$	1,502,651,473	\$	1,644,743,371
Plan fiduciary net position:					
Employer pension appropriation\$	51,562,171	\$	53,626,350	\$	56,269,527
Member contributions	24,847,689		25,867,837		26,411,361
Other contributions	3,779,205		3,575,730		4,900,585
Net investment income (loss)	60,614,682		5,470,561		64,678,206
Administrative expenses	(1,210,998)		(1,288,422)		(1,384,804)
Retirement benefits and refunds	(69,038,553)		(73,639,192)		(79,260,605)
Other retirement deductions	(2,469,197)		(2,680,065)		(2,453,642)
Net increase (decrease) in fiduciary net position	68,084,999		10,932,799		69,160,628
Fiduciary net position - beginning of year	793,984,293		862,069,292		873,002,091
Fiduciary net position - end of year (b)\$	862,069,292	\$	873,002,091	\$	942,162,719
Net pension liability - ending (a)-(b)\$	564,563,420	\$	629,649,382	\$	702,580,652
Plan fiduciary net position as a percentage of the total pension liability	60.43%		58.10%		57.28%
Covered payroll \$	253,920,107	\$	264,076,910	\$	269,672,807
Net pension liability as a percentage of covered payroll	222.34%		238.43%		260.53%

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

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

See notes to required supplementary information.

	December 31, 2017	_	December 31, 2018		December 31, 2019	December 31, 2020	December 31, 2021	-	December 31, 2022
\$	41,043,966 125,242,091	\$	42,023,138 131,278,572	\$	44,614,451 137,186,701	\$ 50,038,189 142,341,970	\$ 49,882,413 148,345,470	\$	54,411,264 151,674,619
	- (3,055,533) 61,743,785 (85,780,394)	_	- - - (91,853,586)		- (1,444,828) 47,758,691 (98,552,543)	- - - (105,603,669)	- (3,152,211) 41,741,389 (112,680,075)	_	- - - (121,544,408)
	139,193,915		81,448,124		129,562,472	86,776,490	124,136,986		84,541,475
-	1,644,743,371	-	1,783,937,286		1,865,385,410	1,994,947,882	2,081,724,372	-	2,205,861,358
\$	1,783,937,286	\$	1,865,385,410	\$	1,994,947,882	\$ 2,081,724,372	\$ 2,205,861,358	\$ -	2,290,402,833
\$	27,339,086 4,753,312 160,812,163 (1,282,473) (85,780,394) (3,715,199) 161,331,096 942,162,719	\$ - -	62,518,733 28,253,747 4,862,203 (26,151,281) (1,385,431) (91,853,586) (4,727,431) (28,483,046) <u>1,103,493,815</u> 1,075,010,769	\$	65,893,243 29,386,045 5,280,351 172,169,036 (1,481,835) (98,552,543) (4,040,419) 168,653,878 1,075,010,769 1,243,664,647	\$ 69,873,352 30,684,917 5,861,416 151,249,973 (1,364,653) (105,603,669) (3,455,772) 147,245,564 1,243,664,647 1,390,910,211	\$ 73,648,922 31,357,984 5,401,150 273,286,237 (1,369,090) (112,680,075) (4,539,423) 265,105,705 1,390,910,211 1,656,015,916	\$ 	77,900,188 32,780,828 6,907,317 (185,752,728) (1,421,861) (121,544,408) (4,377,432) (195,508,096) 1,656,015,916 1,460,507,820
\$	680,443,471	• \$	790,374,641	\$	751,283,235	\$ 690,814,161	\$ 549,845,442	= \$	829,895,013
:		=		:				=	
	61.86%		57.63%		62.34%	66.82%	75.07%		63.77%
\$	271,510,348	\$	283,145,854	\$	293,746,441	\$ 306,402,979	\$ 307,779,848	\$	320,950,554
	250.61%		279.14%		255.76%	225.46%	178.65%		258.57%

# SCHEDULE OF CONTRIBUTIONS

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

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

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

See notes to required supplementary information.

December 31, 2017	December 31, 2018	-	December 31, 2019	December 31, 2020		December 31, 2021		December 31, 2022
\$ 59,204,601	62,518,733	\$	65,893,243	\$ 69,873,352	\$	73,648,922	\$	77,900,188
(59,204,601)	(62,518,733)	-	(65,893,243)	(69,873,352)	•	(73,648,922)	•	(77,900,188)
\$ 	۰ <u>-</u>	\$		\$ 	\$		\$	-
\$ 271,510,348	\$ 283,145,854	\$	293,746,441	\$ 306,402,979	\$	307,779,848	\$	320,950,554
21.81%	22.08%		22.43%	22.80%		23.93%		24.27%

# SCHEDULE OF INVESTMENT RETURNS

Year	Annual money-weighted rate of return, net of investment expense
December 31, 2022	-11.28%
December 31, 2021	19.75%
December 31, 2020	12.20%
December 31, 2019	16.09%
December 31, 2018	-2.34%
December 31, 2017	17.17%
December 31, 2016	7.40%
December 31, 2015	0.57%
December 31, 2014	7.58%

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

See notes to required supplementary information.

# NOTE A - CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the Association's total pension liability, changes in the 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 covered payroll.

# NOTE C – MONEY WEIGHTED RATE OF RETURN

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

#### NOTE D - CHANGES IN ACTUARIAL ASSUMPTIONS AND PLAN PROVISIONS

Changes in Assumptions

None.

Changes in Plan Provisions

None.

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

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#### Independent Auditor's Report

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

# 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 Barnstable County Retirement Association (Association) as of and for the year ended December 31, 2022, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the Association Pension Plan as of and for the year ended December 31, 2022, and the related notes.

In our opinions, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Barnstable County Retirement Association as of and for the year ended December 31, 2022, 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. 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 these schedules in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatement, whether due to fraud or error.

#### Auditor's 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 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 general 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 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 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 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 auditing standards generally accepted in the United States of America, the financial statements of the Barnstable County Retirement Association as of and for the year ended December 31, 2022, and our report thereon, date July 31, 2023, expressed an unmodified opinion on those financial statements.

#### **Restriction on Use**

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

Powers & Sullivan LLC

July 31, 2023

#### SCHEDULE OF EMPLOYER ALLOCATIONS

#### FOR THE YEAR ENDED DECEMBER 31, 2022

Employer	FY2023 Pension Fund Appropriation	Direct Appropriation E.R.I., Sheriff and Hospital	FY2023 Total Appropriation	Share of Net Pension Liability	Percent of Total Net Pension Liability
Barnstable County	\$ 3,201,752 \$	459,823	\$ 3,661,575	\$ 38,331,009	4.619%
Barnstable County Hospital	-	8,838	8,838	112,094	0.014%
Barnstable County Retired Sheriffs		1,878,012	1,878,012	24,632,272	2.968%
Town of Barnstable		118,755	11,484,216	120,221,924	14.486%
Barnstable Fire District		4,968	596,761	6,247,162	0.753%
Barnstable Housing Authority		4,463	270,011	2,826,596	0.341%
Town of Bourne	,	92,263	4,492,775	47,032,383	5.667%
Bourne Housing Authority			75,871	794,252	0.096%
Bourne Recreation Authority		19,636	178,965	1,873,486	0.226%
Bourne Water District		5,691	142,259	1,489,231	0.179%
Town of Brewster		19,494	2,910,175	30,465,017	3.671%
		19,494	, ,		0.019%
Brewster Housing Authority		-	15,174	158,848	
Buzzards Bay Water District		-	106,219	1,111,948	0.134%
Cape Light Compact JPE	,	0.445	394,529	4,130,106	0.498%
Cape Cod Mosquito Control District		3,115	359,708	3,765,585	0.454%
Cape Cod Regional Technical High School	,	-	477,987	5,003,782	0.603%
Centerville/Osterville/Marstons Mills Fire District	1,722,269	5,688	1,727,957	18,089,029	2.180%
Town of Chatham	2,503,740	-	2,503,740	26,210,273	3.158%
Chatham Housing Authority	68,284	-	68,284	714,828	0.086%
Cotuit Fire District	424,877	-	424,877	4,447,803	0.536%
Town of Dennis	3,990,809	-	3,990,809	41,777,578	5.034%
Dennis Housing Authority	91,045	2,974	94,019	984,233	0.119%
Dennis Water District	311,071	-	311,071	3,256,431	0.392%
Dennis/Yarmouth Regional School District	1,714,682	-	1,714,682	17,950,060	2.163%
Town of Eastham	2,048,514	27,354	2,075,868	21,731,117	2.619%
Town of Harwich	3,565,932	-	3,565,932	37,329,775	4.498%
Hyannis Fire District	1,600,876	1,965	1,602,841	16,779,258	2.022%
Town of Mashpee	4,021,158	43,662	4,064,820	42,552,359	5.127%
Mashpee Housing Authority	60,697	-	60,697	635,403	0.077%
Mashpee Water District		4,950	217,389	2,275,726	0.274%
Town of Nantucket		137,486	8,043,234	84,200,180	10.146%
Nantucket Housing Authority		-	22,761	238,272	0.029%
County of Nantucket		-	303,484	3,177,007	0.383%
Nantucket Regional Transit Authority		-	45,523	476,555	0.057%
Nauset Regional School District		-	887,690	9,292,737	1.120%
North Sagamore Water District		-	68,284	714,828	0.086%
Town of Orleans		-	2,458,217	25,733,718	3.101%
Orleans Housing Authority		-	60,697	635,403	0.077%
Town of Provincetown	, ,	-	2,223,017	23,271,539	2.804%
Town of Sandwich	4,886,086	-	4,886,086	51,149,739	6.163%
Sandwich Housing Authority		-	68,284 235,200	714,828 2,462,179	0.086%
Sandwich Water District Town of Truro	235,200 1,365,676	15 020	,	2,462,179 14,463,365	0.297% 1.743%
Veterans District		15,939	1,381,615		
Town of Wellfleet	,	4,775 16,694	103,407 1,602,396	1,082,511 16,774,600	0.130% 2.021%
Town of Yarmouth	, , -	46,742	5,334,944	55,848,586	6.730%
Yarmouth Housing Authority	, ,	40,742	5,334,944 57,899	55,848,586 606,113	0.073%
West Barnstable Fire District	,	4,709	166,916	1,747,352	0.211%
Cape Cod Regional Transit Authority		-	197,264	2,065,048	0.249%
Monomoy Regional School District	,		1,175,999	12,310,885	1.483%
Total	\$ 75,870,902 \$	2,928,076	\$ 78,798,978	\$ 829,895,013	100.000%

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

#### SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

		Barnstable County		Barnstable County Hospital		Barnstable County Retired Sheriffs	_	Town of Barnstable
Net Pension Liability Beginning net pension liability	¢	23,982,014	¢	74,993	¢	16,408,515	¢	81,521,703
				,				
Ending net pension liability	\$	38,331,009	\$	112,094	\$	24,632,272	\$	120,221,924
Deferred Outflows of Resources Net difference between projected and actual investment earnings on pension plan investments		4,232,051		12,376		2,719,600		13,273,462
Changes of assumptions	\$	2,020,584	\$	5,909	\$	1,298,468	\$	6,337,386
Changes in proportion and differences between employer contributions and proportionate share of contributions		4,482,300		796				1,969,782
Total Deferred Outflows of Resources	\$	10.734.935	\$	19.081	\$	4.018.068	\$	21,580,630
	* =	., . ,	Ť		Ť		Ť =	,,
Deferred Inflows of Resources Differences between expected and actual experience	¢	119,307	¢	349	¢	76,669	¢	374,195
Differences between expected and actual experience	Ψ	119,507	Ψ	545	ψ	10,009	ψ	574,195
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		2,308,090		5,554		1.541.639		5,619,302
					¢	1,618,308	- -	5,993,497
Total Deferred Inflows of Resources	φ	2,427,397	φ	5,905	φ	1,010,300	φ =	5,555,457
Pension Expense Proportionate share of plan pension expense	\$	4,498,239	\$	13,154	\$	2,890,660	\$	14,108,358
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		(500 634)		(4,123)		(619,089)		(339,414
	_					`, · · · ,	-	
Total Employer Pension Expense	\$	3,997,605	\$	9,031	\$	2,271,571	\$ _	13,768,944
Contributions Statutory required contribution	\$	3,566,756	\$	8,687	\$	1,878,012	\$	11,287,644
Contribution in relation to statutory required contribution	_	(3,566,756)		(8,687)		(1,878,012)	-	(11,287,644
Contribution deficiency/(excess)	\$	-	\$	-	\$		\$_	-
Contributions as a percentage of covered payroll		26.33%		Not Applicable		Not Applicable		23.48%
Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense		100 157		(000)		(070.000)		
June 30, 2024 June 30, 2025	\$	123,457 1,572,056	\$	(806) 1,942	\$	(279,890) 303,621	\$	522,742 3,502,795
June 30, 2026.		2,210,665		3,774		659,040		3,209,974
June 30, 2027		4,113,664		8,715		1,805,836		8,726,692
June 30, 2028		287,696		(447)		(88,847)		(375,070
Total Deferred Outflows/(Inflows) Recognized in							_	
Future Pension Expense	\$	8,307,538	\$	13,178	\$	2,399,760	\$ =	15,587,133
<u>Discount Rate Sensitivity</u> 1% decrease (5.90%)	\$	50,591,284	\$	147,948	\$	32,510,970	\$	158,675,226
Current discount rate (6.90%)	\$	38,331,009	\$	112,094	\$	24,632,272	\$	120,221,924
1% increase (7.90%)	\$	28,017,170	\$	81,933	\$	18,004,393	\$	87,873,455

# SCHEDULE OF PENSION AMOUNTS BY EMPLOYER FOR THE YEAR ENDED DECEMBER 31, 2022

	_	Barnstable Fire District	_	Barnstable Housing Authority	-	Town of Bourne	_	Bourne Housing Authority
Net Pension Liability Beginning net pension liability	\$	3,912,717	\$	1,655,914	\$	31,515,093	\$	524,008
Ending net pension liability	\$	6,247,162	\$	2,826,596	\$	47,032,383	\$	794,252
Deferred Outflows of Resources								
Net difference between projected and actual investment earnings on pension plan investments		689,737		312,079		5,192,752		87,692
Changes of assumptions	\$	329,313	\$	149,001	\$	2,479,269	\$	41,868
Changes in proportion and differences between employer contributions and proportionate		516 020		406 182		850 800		29.154
share of contributions	-		-	406,182	-	859,800	_	38,154
Total Deferred Outflows of Resources	\$ =	1,535,079	\$ =	867,262	\$	8,531,821	\$ _	167,714
Deferred Inflows of Resources Differences between expected and actual experience	\$	19,445	\$	8,798	\$	146,390	\$	2,472
Changes in proportion and differences between employer contributions and proportionate share of contributions		117 601		160,344		1,759,055		32,880
Total Deferred Inflows of Resources	-		- \$		- \$	1,905,445	- \$	35,352
	* =		* =		Ť	.,,	* =	
Pension Expense Proportionate share of plan pension expense	\$	733,122	\$	331,708	\$	5,519,368	\$	93,208
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	_	82,590	_	12,483	-	(319,702)	_	(28,926
Total Employer Pension Expense	\$ _	815,712	\$ _	344,191	\$	5,199,666	\$_	64,282
Contributions								
Statutory required contribution	\$	586,546	\$	270,011	\$	4,461,164	\$	75,871
Contribution in relation to statutory required contribution	_	(586,546)	_	(270,011)	-	(4,461,164)	_	(75,871
Contribution deficiency/(excess)	\$_	-	\$	-	\$	-	\$ _	-
Contributions as a percentage of covered payroll		23.43%		24.04%		23.97%		23.64%
Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense June 30, 2024	\$	133,097	¢	78,884	\$	202,961	\$	(1,270
June 30, 2025	Ψ	324,639	Ψ	161,269	Ψ	1,330,996	Ψ	26,829
June 30, 2026		304,582		176,301		1,733,426		42,122
June 30, 2027		588,804		236,177		3,420,726		63,952
June 30, 2028	_	46,911	_	45,489	-	(61,733)	_	729
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$	1,398,033	\$	698,120	\$	6,626,376	\$	132,362
	-		_		-		_	
<u>Discount Rate Sensitivity</u> 1% decrease (5.90%)	\$	8,245,333	\$	3,730,690	\$	62,075,816	\$	1,048,296
Current discount rate (6.90%)	\$	6,247,162	\$	2,826,596	\$	47,032,383	\$	794,252
1% increase (7.90%)	\$	4,566,220	\$	2,066,035	\$	34,377,240	\$	580,540
Covered Payroll	¢	2,503,414	¢	1,123,327	¢	18,615,132	¢	320,951

of pension amounts by employer.

(continued)

# SCHEDULE OF PENSION AMOUNTS BY EMPLOYER FOR THE YEAR ENDED DECEMBER 31, 2022

_	Recreation Authority		Water District	_	Town of Brewster		Housing Authority
. \$	1,029,364	\$	1,245,373	\$	20,731,085	\$	104,802
. \$	1,873,486	\$	1,489,231	\$	30,465,017	\$	158,848
	206,848		164,423		3,363,582		17,538
. \$	98,759	\$	78,503	\$	1,605,935	\$	8,374
··· -	230,167		152,315	_	415,494	_	783
• \$ _	535,774	\$	395,241	\$ =	5,385,011	\$ _	26,695
. \$	5,831	\$	4,635	\$	94,824	\$	494
	53,287	_	351,188	_	643,047		64
. \$ _	59,118	\$	355,823	\$ _	737,871	\$	558
. \$	219,856	\$	174,765	\$	3,575,148	\$	18,642
	38.526		(32.171)		225.485		290
_				\$		\$	18,932
_							
. \$	175,902	\$	139,824	\$	2,860,362	\$	14,914
· _	(175,902)	_	(139,824)	_	(2,860,362)	_	(14,914
\$	-	\$	-	\$_	-	\$	
	26.10%		24.20%		23.39%		23.23%
	57,009	\$	(37,677)	\$		\$	1,794
	88,604		(4,274)		939,672		5,308
			47,386		1,161,518		6,145
	188,802		86,982		2,356,169		12,788
· _	43,638		(52,999)	_	(110,021)	_	102
. \$ _	476,656	\$	39,418	\$_	4,647,140	\$	26,137
¢	0 470 70-	•	4 005 505	•	40.000.00	•	
							209,656
							158,848
. \$	1,369,382	\$	1,088,519	Ф	22,267,704	ъ	116,106
		. \$       1,029,364         . \$       1,873,486         . \$       1,873,486         . \$       98,759         \$       98,759         \$       98,759         \$       535,774         . \$       5,831         \$       5,831         \$       5,831         \$       5,831         \$       59,118         \$       219,856         \$       219,856         \$       258,382         \$       258,382         \$       275,902         . \$       26,10%         . \$       57,009         . \$       88,604         . 98,603       188,802         . \$       43,638         \$       2,476,656         . \$       2,472,725         . \$       1,873,486	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	. \$       1,029,364       \$       1,245,373       \$       20,731,085         . \$       1,873,486       \$       1,489,231       \$       30,465,017          206,848       164,423       3,363,582         . \$       98,759       \$       78,503       \$       1,605,935          230,167       152,315       415,494          \$       535,774       \$       395,241       \$       5,385,011          \$       5,831       \$       4,635       \$       94,824          \$       59,118       355,823       \$       737,871          \$       219,856       \$       174,765       \$       3,575,148          \$       219,856       \$       174,765       \$       3,800,633          \$       219,856       \$       174,765       \$       3,800,633          \$       219,856       \$       174,765       \$       3,800,633          \$       219,856       \$       174,765       \$       3,800,633          \$       2258,382       \$       142,594       \$	. \$       1,029,364 \$       1,245,373 \$       20,731,085 \$         . \$       1,873,486 \$       1,489,231 \$       30,465,017 \$         206,848       164,423 3,363,582         . \$       98,759 \$       78,503 \$       1,605,935 \$         230,167       152,315 415,494       -         \$       535,774 \$       395,241 \$       5,385,011 \$         \$       5,831 \$       4,635 \$       94,824 \$         \$       5,831 \$       4,635 \$       94,824 \$         \$       5,831 \$       4,635 \$       94,824 \$         \$       5,831 \$       4,635 \$       94,824 \$         \$       59,118 \$       355,823 \$       737,871 \$         \$       219,856 \$       174,765 \$       3,575,148 \$         \$       219,856 \$       142,594 \$       3,800,633 \$         \$       2175,902 \$       139,824 \$       2,860,362 \$         \$       175,902 \$       139,824 \$       2,860,362 \$         \$       \$       \$       \$       \$         \$       \$       \$       \$       \$         \$       \$       \$       \$       \$

of pension amounts by employer.

(continued)

						Cape Cod
	Buzzards Bay Water District	Cape Light Compact JPE		Cape Cod Mosquito Control District	_	Regional Technical High School
Net Pension Liability Beginning net pension liability	\$ 681,211	\$ 2,462,840	\$	2,432,416	\$	3,353,654
Ending net pension liability	\$ 1,111,948	\$ 4,130,106	\$	3,765,585	\$	5,003,782
Deferred Outflows of Resources Net difference between projected and actual investment earnings on pension plan investments	122,768	455,997		415,751		552,458
Changes of assumptions	\$ 58,615	\$ 217,715	\$	198,499	\$	263,770
Changes in proportion and differences between employer contributions and proportionate share of contributions	71,757	853,420	-	90,244	_	268,520
Total Deferred Outflows of Resources	\$ 253,140	\$ 1,527,132	\$	704,494	\$_	1,084,748
Deferred Inflows of Resources Differences between expected and actual experience	\$ 3,461	\$ 12,855	\$	11,721	\$	15,574
Changes in proportion and differences between employer contributions and proportionate share of contributions	428	128,835		53,424	_	922,913
Total Deferred Inflows of Resources	\$ 3,889	\$ 141,690	\$	65,145	\$ _	938,487
Pension Expense Proportionate share of plan pension expense	\$ 130,491	\$ 484,677	\$	441,901	\$	587,207
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	33,595	542,631		(7,245)	_	(152,929)
Total Employer Pension Expense	\$ 164,086	\$ 1,027,308	\$	434,656	\$ =	434,278
Contributions Statutory required contribution		387,776		,	\$	469,805
Contribution in relation to statutory required contribution		(387,776)		(353,551)	-	(469,805)
Contribution deficiency/(excess)					\$ =	-
Contributions as a percentage of covered payroll	23.64%	23.23%		23.44%		23.23%
Deferred Outflows/(Inflows) Recognized in <u>Future Pension Expense</u> June 30, 2024	\$ 34,124	\$ 583,186	\$	59,239	\$	(44,736)
June 30, 2025 June 30, 2026 June 30, 2027 June 30, 2027 June 30, 2028	48,434 54,331 100,584 11,778	204,744 178,460 362,597 56,455	-	122,876 143,299 300,841 13,094	_	(56,846) 46,723 208,647 (7,527)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$ 249,251	\$ 1,385,442	\$	639,349	\$ <u>-</u>	146,261
Discount Rate Sensitivity 1% decrease (5.90%)	\$ 1,467,608	\$ 5,451,131	\$	4,970,017	\$	6,604,255
Current discount rate (6.90%)	\$ 1,111,948	\$ 4,130,106	\$	3,765,585	\$	5,003,782
1% increase (7.90%)	\$ 812,753	\$ 3,018,806	\$	2,752,368	\$	3,657,399

#### FOR THE YEAR ENDED DECEMBER 31, 2022

		Centerville/ Osterville/ Martsons Mills Fire District		Town of Chatham	_	Chatham Housing Authority	Cotuit Fire District
<u>Net Pension Liability</u> Beginning net pension liability	\$	12,039,926	\$	18,343,232	\$	314,405 \$	2,410,439
Ending net pension liability	\$	18,089,029	\$	26,210,273	\$	714,828 \$	4,447,803
Deferred Outflows of Resources							
Net difference between projected and actual investment earnings on pension plan investments		1,997,174		2,893,824		78,923	491,073
Changes of assumptions	\$	953,547	\$	1,381,651	\$	37,682 \$	234,462
Changes in proportion and differences between employer contributions and proportionate							
share of contributions		312,963		1,016,501	-	187,113	586,569
Total Deferred Outflows of Resources	\$	3,263,684	\$	5,291,976	\$ =	303,718 \$	1,312,104
Deferred Inflows of Resources Differences between expected and actual experience	\$	56,303	\$	81,581	\$	2,225 \$	13,844
Changes in proportion and differences between employer contributions and proportionate							
share of contributions		398,530		1,487,409	-	34,142	219,738
Total Deferred Inflows of Resources	\$	454,833	\$	1,568,990	\$ _	36,367 \$	233,582
Pension Expense Proportionate share of plan pension expense	\$	2,122,792	\$	3,075,842	\$	83,887 \$	521,962
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		(17,108)		(72,482)		33,060	115,955
Total Employer Pension Expense	\$	2,105,684	\$	3,003,360	\$_	116,947 \$	637,917
Contributions Statutory required contribution	¢	1 707 057	¢	2 460 884	6	69.094 €	417 605
				2,460,884		68,284 \$	417,605
Contribution in relation to statutory required contribution				(2,460,884)	-	(68,284)	(417,605)
Contribution deficiency/(excess)	\$	-	\$_	-	\$ =	- \$	-
Contributions as a percentage of covered payroll		23.72%		23.23%		23.64%	23.23%
<u>Deferred Outflows/(Inflows) Recognized in</u> <u>Future Pension Expense</u>							
June 30, 2024	\$	163,457	\$	189,026	\$	39,885 \$	118,913
June 30, 2025		537,204		763,755		55,776	208,104
June 30, 2026		723,915		852,300		48,723	221,799
June 30, 2027		1,389,357		2,116,736		90,038	419,259
June 30, 2028		(5,082)		(198,831)	_	32,929	110,447
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$	2,808,851	\$_	3,722,986	\$ _	267,351 \$	1,078,522
Discount Rate Sensitivity							
1% decrease (5.90%)	\$	23,874,853	\$	34,593,699	\$	943,468 \$	5,870,445
Current discount rate (6.90%)	\$	18,089,029	\$	26,210,273	\$	714,828 \$	4,447,803
1% increase (7.90%)	\$	13,221,760	\$	19,157,797	\$	522,487 \$	3,251,019
Covered Payroll		7,285,578		10,591,368		288,855 \$	1,797,323

of pension amounts by employer.

	Town of Dennis		Dennis Housing Authority		Dennis Water District		Dennis/Yarmouth Regional School District
Net Pension Liability Beginning net pension liability\$	28,506,069	\$	649,797	\$	2,253,236	\$	10,480,170
Ending net pension liability \$	41,777,578	\$	984,233	\$	3,256,431	\$	17,950,060
Deferred Outflows of Resources Net difference between projected and actual							
investment earnings on pension plan investments	4,612,580		108,667		359,536		1,981,831
Changes of assumptions \$	2,202,267	\$	51,883	\$	171,660	\$	946,221
Changes in proportion and differences between employer contributions and proportionate share of contributions	230,090		92,451		42,314		1,570,997
Total Deferred Outflows of Resources\$	7,044,937	\$	253,001	\$	573,510	\$	4,499,049
Deferred Inflows of Resources							
Differences between expected and actual experience \$	130,035	\$	3,063	\$	10,136	\$	55,870
Changes in proportion and differences between employer contributions and proportionate share of contributions	883,379		53,333		150,220		589,214
Total Deferred Inflows of Resources\$	1,013,414	\$	56,396	\$	160,356	\$	645,084
Pension Expense							
Proportionate share of plan pension expense\$	4,902,705	\$	115,502	\$	382,151	\$	2,106,484
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(59,761)	<u> </u>	12,252		(29,163)		87,813
Total Employer Pension Expense \$	4,842,944	= \$ _	127,754	\$	352,988	\$	2,194,297
Contributions							
Statutory required contribution\$	3,922,500	\$	94,019	\$	305,746	\$	1,685,332
Contribution in relation to statutory required contribution	(3,922,500)	<u> </u>	(94,019)		(305,746)		(1,685,332)
Contribution deficiency/(excess) \$	-	_ \$ _	-	\$	-	\$	-
Contributions as a percentage of covered payroll	23.23%		24.41%		23.23%		23.23%
<u>Deferred Outflows/(Inflows) Recognized in</u> Future Pension Expense							
June 30, 2024\$	252,828	\$	11,630	\$	(7,822)	\$	311,134
June 30, 2025	1,238,996		33,475		85,684		640,379
June 30, 2026	1,479,701		49,132		103,575		935,817
June 30, 2027 June 30, 2028	3,226,664 (166,666)		101,556 812		251,129 (19,412)		1,675,351 291,284
Total Deferred Outflows/(Inflows) Recognized in	(100,000)		012		(13,412)		231,204
Future Pension Expense\$	6,031,523	= \$ =	196,605	\$ _	413,154	\$	3,853,965
Discount Rate Sensitivity 1% decrease (5.90%)\$	55,140,247	\$	1,299,043	\$	4,298,009	\$	23,691,434
Current discount rate (6.90%)\$	41,777,578	\$	984,233	\$	3,256,431	\$	17,950,060
1% increase (7.90%) \$	30,536,361	\$	719,402	\$	2,380,213	\$	13,120,184
	16,881,999		385,141	•	1,315,897	¢	7,253,483

		Town of Eastham		Town of Harwich		Hyannis Fire District		Town of Mashpee
let Poppion Liphility			• •		-			•
<u>Vet Pension Liability</u> Beginning net pension liability	\$	13,974,428	\$	24,209,199	\$	10,808,436	\$	27,137,314
Ending net pension liability	\$	21,731,117	\$	37,329,775	\$	16,779,258	\$	42,552,359
Deferred Outflows of Resources Net difference between projected and actual investment earnings on pension plan investments		2,399,290		4,121,507		1,852,565		4,698,122
Changes of assumptions	\$	1,145,536	\$	1,967,805	\$	884,503	\$	2,243,109
Changes in proportion and differences between employer contributions and proportionate share of contributions		781,319		962,102		1,261,061		2,088,805
Total Deferred Outflows of Resources				7,051,414	\$	3,998,129	\$	9,030,036
	-				=			
Deferred Inflows of Resources Differences between expected and actual experience	\$	67,639	\$	116,191	\$	52,226	\$	132,446
Changes in proportion and differences between employer contributions and proportionate share of contributions		396 658		843,288		102,666		410,460
			• •		-			
Total Deferred Inflows of Resources	\$ _	464,297	\$	959,479	\$	154,892	\$ =	542,906
Pension Expense Proportionate share of plan pension expense	\$	2,550,202	\$	4,380,743	\$	1,969,089	\$	4,993,624
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	·	98,899		49,707	-	235,310		338,267
Total Employer Pension Expense	\$	2,649,101	\$	4,430,450	\$	2,204,399	\$	5,331,891
Statutory required contribution	¢	2,040,336	¢	3,504,895	¢	1,575,406	¢	2 005 244
Statutory required contribution	φ	2,040,330	φ	3,504,695	φ	1,575,400	φ	3,995,244
Contribution in relation to statutory required contribution		(2,040,336)		(3,504,895)	-	(1,575,406)		(3,995,244)
Contribution deficiency/(excess)	\$_	-	\$	-	\$	-	\$_	-
Contributions as a percentage of covered payroll		23.55%		23.23%		23.26%		23.49%
Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense	•	250 675	•	270 070	•	407 400	•	044 040
June 30, 2024	\$	359,675	\$	379,678	\$	407,488	\$	941,018
June 30, 2025 June 30, 2026		856,732 812,402		1,318,084 1,327,320		886,298 902,836		1,862,564 1,944,066
June 30, 2020		1,744,546		2,956,695		1,582,054		3,519,713
June 30, 2028		88,493		110,158		64,561		219,769
Total Deferred Outflows/(Inflows) Recognized in		00,400	• •	110,100	-	04,001		210,700
Future Pension Expense	\$	3,861,848	\$	6,091,935	\$	3,843,237	\$	8,487,130
Discount Rate Sensitivity								
1% decrease (5.90%)	\$	28,681,873	\$	49,269,803	\$	22,146,148	\$	56,162,844
Current discount rate (6.90%)	\$	21,731,117	\$	37,329,775	\$	16,779,258	\$	42,552,359
1% increase (7.90%)	\$	15,883,861	\$	27,285,341	\$	12,264,413	\$	31,102,669
	\$							17,010,379

of pension amounts by employer.

FOR THE YEAR ENDED DECEMBER 31, 2022	

		Mashpee Housing Authority		Mashpee Water District		Town of Nantucket	-	Nantucket Housing Authority
<u>Net Pension Liability</u> Beginning net pension liability	\$	628,810	\$	1,449,752	\$	56,934,193	\$	157,203
Ending net pension liability	\$	635,403	\$	2,275,726	\$	84,200,180	\$	238,272
Deferred Outflows of Resources								
Net difference between projected and actual investment earnings on pension plan investments		70,154		251,258		9,296,375		26,307
Changes of assumptions	\$	33,495	\$	119,963	\$	4,438,535	\$	12,560
Changes in proportion and differences between employer contributions and proportionate								
share of contributions	_	78,400		100,512		2,934,445	-	23,192
Total Deferred Outflows of Resources	\$	182,049	\$	471,733	\$	16,669,355	\$	62,059
Deferred Inflows of Resources Differences between expected and actual experience	\$	1,978	\$	7,083	\$	262,077	\$	742
Changes in proportion and differences between employer contributions and proportionate								
share of contributions		213,095		10,330		2,888,747	-	44,231
Total Deferred Inflows of Resources	\$	215,073	\$	17,413	\$	3,150,824	\$ _	44,973
Pension Expense Proportionate share of plan pension expense	\$	74,565	\$	267,061	\$	9,881,105	\$	27,962
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		(9,076)		(7,669)		343,269		(10,184
						040,200	-	(10,104
Total Employer Pension Expense	\$ _	65,489	\$	259,392	\$	10,224,374	\$ _	17,778
Contributions Statutory required contribution	\$	59,658	\$	213,668	\$	7,905,560	\$	22,761
Contribution in relation to statutory required contribution		,	Ŷ	(213,668)	Ŷ	(7,905,560)	Ŷ	(22,761
Contribution deficiency/(excess)			\$		\$		\$	
Contributions as a percentage of covered payroll		23.23%		23.78%		23.64%	_	23.64%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense								
June 30, 2024	\$	(3,116)	\$	34,489	\$	1,381,107	\$	(7,972
June 30, 2025		574		95,835		2,957,553		7,636
June 30, 2026		(7,090)		108,311		3,341,432		(2,043
June 30, 2027 June 30, 2028		19,227 (42,619)		203,609 12,076		6,067,990 (229,551)		19,247 218
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense		(33,024)	\$	454,320	\$	13,518,531	\$	17,086
	-						=	
Discount Rate Sensitivity 1% decrease (5.90%)	\$	838,638	\$	3,003,623	\$	111,131,832	\$	314,484
Current discount rate (6.90%)	\$	635,403	\$	2,275,726	\$	84,200,180	\$	238,272
1% increase (7.90%)	\$	464,433	\$	1,663,390	\$	61,544,187	\$	174,159
Covered Payroll	\$	256,760	\$	898,662	\$	33,443,048	\$	96,285
See notes to schedule of employer allocations and schedule								

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

		County of Nantucket		Nantucket Regional Transit Authority		Nauset Regional School District		North Sagamore Water District
<u>let Pension Liability</u> Beginning net pension liability\$	6	2,148,435	\$	314,405	\$	6,183,300	\$	576,409
Ending net pension liability\$	5	3,177,007	\$	476,555	\$	9,292,737	\$	714,828
Deferred Outflows of Resources								
Net difference between projected and actual investment earnings on pension plan investments		350,767		52,615		1,025,993		78,923
Changes of assumptions \$	6	167,473	\$	25,121	\$	489,858	\$	37,682
Changes in proportion and differences between employer contributions and proportionate								
share of contributions		165,889		3,001		186,927		69,092
Total Deferred Outflows of Resources\$	s_	684,129	\$	80,737	\$	1,702,778	\$	185,697
Deferred Inflows of Resources Differences between expected and actual experience\$	6	9,889	\$	1,483	\$	28,924	\$	2,225
Changes in proportion and differences between employer contributions and proportionate								
share of contributions	_	43,530		200		1,468,377		106,529
Total Deferred Inflows of Resources\$	5_	53,419	\$	1,683	\$	1,497,301	\$	108,754
Pension Expense Proportionate share of plan pension expense\$	6	372,829	\$	55,926	\$	1,090,526	\$	83,886
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		107 120		1,019		(344,235)		1,869
			•		•		•	
Total Employer Pension Expense \$	° —	479,959	\$	56,945	\$	746,291	\$	85,755
Contributions Statutory required contribution\$	6	298,289	\$	45,523	\$	891,752	\$	67,115
Contribution in relation to statutory required contribution		(298,289)		(45,523)		(891,752)		(67,115
Contribution deficiency/(excess)\$	s_	-	\$		\$		\$	
Contributions as a percentage of covered payroll		23.23%		23.64%		23.75%		23.23%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense								
June 30, 2024\$	6	87,801	\$	5,503	\$	(278,275)	\$	8,764
June 30, 2025 June 30, 2026		127,888 145,422		16,054 18,565		(10,307) 83,955		24,753 28,689
June 30, 2027		278,305		38,494		411,652		35,790
June 30, 2028		(8,706)		438		(1,548)		(21,053
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense\$	5_	630,710	\$	79,054	\$	205,477	\$	76,943
Discount Rate Sensitivity			~		~	40.005.5.5	•	<b></b>
1% decrease (5.90%)\$		4,193,181	\$	628,982	\$	12,265,044	\$	943,468
Current discount rate (6.90%)\$		3,177,007	\$	476,555	\$	9,292,737	\$	714,828
1% increase (7.90%) \$		2,322,160	\$	348,327	\$	6,792,313	\$	522,487
Covered Payroll \$	5	1,283,802	\$	192,570	\$	3,755,121	\$	288,855

of pension amounts by employer.

	_	Town of Orleans		Orleans Housing Authority	Town of Provincetown	_	Town of Sandwich
et Pension Liability Beginning net pension liability	\$	17,397,089	\$	419,207	\$ 15,458,250	\$	34,427,365
Ending net pension liability	\$	25,733,718		635,403	\$ 23,271,539	\$	51,149,739
eferred Outflows of Resources		-,, -		,	-, ,		-, -,
Net difference between projected and actual							
investment earnings on pension plan investments		2,841,209		70,154	2,569,365		5,647,342
Changes of assumptions	\$	1,356,529	\$	33,495	\$ 1,226,738	\$	2,696,312
Changes in proportion and differences between employer contributions and proportionate							
share of contributions		558,348		26,096	347,768		4,065,919
						-	
Total Deferred Outflows of Resources	\$ =	4,756,086	\$	129,745	\$ 4,143,871	\$ =	12,409,573
eferred Inflows of Resources Differences between expected and actual experience	\$	80,097	\$	1,978	\$ 72,434	\$	159,206
Changes in proportion and differences between							
employer contributions and proportionate							
share of contributions	-	1,003,037		10,442	232,845	-	2,916,454
Total Deferred Inflows of Resources	\$ _	1,083,134	\$	12,420	\$ 305,279	\$ _	3,075,660
ension Expense							
Proportionate share of plan pension expense	\$	3,019,918	\$	74,566	\$ 2,730,974	\$	6,002,551
Net amortization of deferred amounts from changes							
in proportion and differences between employer		(45 447)		0.050	105.040		000 570
contributions and proportionate share of contributions		(45,447)		2,052	125,243	-	292,579
Total Employer Pension Expense	\$ _	2,974,471	\$	76,618	\$ 2,856,217	\$ _	6,295,130
ontributions							
Statutory required contribution	\$	2,416,140	\$	60,697	\$ 2,184,966	\$	4,802,452
Contribution in relation to statutory required contribution	_	(2,416,140)		(60,697)	(2,184,966)	_	(4,802,452
Contribution deficiency/(excess)	\$		\$		\$ 	\$	
Contributions as a percentage of covered payroll		23.23%		23.64%	23.23%		23.23%
eferred Outflows/(Inflows) Recognized in							
Future Pension Expense							
June 30, 2024	\$	42,307	\$	8,040	\$ 379,877	\$	625,852
June 30, 2025		659,226	·	32,462	735,160	·	1,728,756
June 30, 2026		1,073,483		24,913	906,910		2,097,392
June 30, 2027		1,967,384		51,326	1,823,136		4,988,740
June 30, 2028		(69,448)		584	(6,491)		(106,827
Total Deferred Outflows/(Inflows) Recognized in		(00,110)	÷		(0,101)	-	(100,021
Future Pension Expense	\$	3,672,952	\$	117,325	\$ 3,838,592	\$	9,333,913
iscount Pate Sensitivity	_					_	
iscount Rate Sensitivity 1% decrease (5.90%)	\$	33,964,716	\$	838,638	\$ 30,715,003	\$	67,510,119
Current discount rate (6.90%)		25,733,718		635,403	\$ 23,271,539	\$	51,149,739
· · · ·	·						
1% increase (7.90%)	\$	18,809,470	\$	464,433	\$ 17,009,797	\$	37,386,726

of pension amounts by employer.

### FOR THE YEAR ENDED DECEMBER 31, 2022

		Sandwich Housing Authority	Sandwich Water District		Town of Truro	-	Veterans District
Net Pension Liability							
Beginning net pension liability	\$	314,405	\$ 1,572,025	\$	9,859,020	\$	662,499
Ending net pension liability	\$	714,828	\$ 2,462,179	\$	14,463,365	\$	1,082,511
Deferred Outflows of Resources Net difference between projected and actual							
investment earnings on pension plan investments		78,923	271,844		1,596,872		119,518
Changes of assumptions	\$	37,682	\$ 129,792	\$	762,423	\$	57,064
Changes in proportion and differences between employer contributions and proportionate share of contributions		210 949	105,218		365,182		131,541
Total Deferred Outflows of Resources	_			¢		- -	308,123
	* —	327,554	\$ 506,854	\$	2,724,477	» =	300,123
Deferred Inflows of Resources Differences between expected and actual experience	\$	2,225	\$ 7,664	\$	45,018	\$	3,369
Changes in proportion and differences between employer contributions and proportionate							
share of contributions			101,430		544,337	-	58
Total Deferred Inflows of Resources	\$	2,225	\$ 109,094	\$	589,355	\$ _	3,427
Pension Expense Proportionate share of plan pension expense	\$	83,887	\$ 288,942	\$	1,697,312	\$	127,034
Net amortization of deferred amounts from changes							
in proportion and differences between employer contributions and proportionate share of contributions		45,113	(9,734)		3,094	_	42,992
Total Employer Pension Expense	\$	129,000	\$ 279,208	\$	1,700,406	\$_	170,026
Contributions							
Statutory required contribution	\$	68,284	\$ 231,174	\$	1,362,268	\$	101,637
Contribution in relation to statutory required contribution		(68,284)	(231,174)		(1,362,268)	-	(101,637
Contribution deficiency/(excess)	\$		\$ 	\$		\$ _	
Contributions as a percentage of covered payroll		23.64%	23.23%		23.58%		24.36%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense							
June 30, 2024	\$	51,744	\$ 13,991	\$	139,907	\$	43,636
June 30, 2025		67,657	69,067		412,098		67,960
June 30, 2026		71,579	82,605		567,733		73,890
June 30, 2027		101,420	219,750		1,070,363		107,899
June 30, 2028 Total Deferred Outflows/(Inflows) Recognized in		32,929	12,347		(54,979)	-	11,311
Future Pension Expense	\$	325,329	\$ 397,760	\$	2,135,122	\$ _	304,696
Discount Rate Sensitivity							
1% decrease (5.90%)	\$	943,468	\$ 3,249,714	\$	19,089,511	\$	1,428,755
Current discount rate (6.90%)	\$	714,828	\$ 2,462,179	\$	14,463,365	\$	1,082,511
1% increase (7.90%)	\$	522,487	\$ 1,799,673	\$	10,571,664	\$	791,237
Covered Payroll	\$	288,855	\$ 994,947	\$	5,777,110	\$	417,236
See notes to schedule of employer allocations and schedule of pension amounts by employer.							(continued

-	Town of Wellfleet	-	Town of Yarmouth	-	Yarmouth Housing Authority	-	West Barnstable Fire District
Net Pension Liability							
Beginning net pension liability \$	11,174,369	\$	36,473,184	\$	348,197	\$	1,152,819
Ending net pension liability\$	16,774,600	\$	55,848,586	\$	606,113	\$	1,747,352
Deferred Outflows of Resources Net difference between projected and actual investment earnings on pension plan investments	1,852,050		6,166,132		66,920		192,922
Changes of assumptions \$	884,258	\$	2,944,007	\$	31,951	\$	92,110
Changes in proportion and differences between employer contributions and proportionate share of contributions	650,480	_	745,537		77,635	_	117,479
Total Deferred Outflows of Resources \$	3.386.788	\$	9.855.676	\$	176,506	\$	402,511
-	-,,	Ť		Ψ.		Ф =	
Deferred Inflows of Resources Differences between expected and actual experience\$	52,212	\$	173,831	\$	1,887	\$	5,439
Changes in proportion and differences between employer contributions and proportionate	02,212	Ŷ	110,001	Ŷ	1,007	Ŷ	0,100
share of contributions	309,024	_	819,629		38,565	_	30,919
Total Deferred Inflows of Resources\$	361,236	\$	993,460	\$	40,452	\$	36,358
Pension Expense							
Proportionate share of plan pension expense\$	1,968,541	\$	6,553,971	\$	71,129	\$	205,057
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	201.376		(284,342)		(85)		4,181
		-			· · ·	-	
Total Employer Pension Expense \$	2,109,917	<b>⇒</b>	0,209,029	\$	71,044	۵ <u>-</u>	209,238
Contributions							
Statutory required contribution\$	1,574,968	\$	5,243,627	\$	56,908	\$	164,059
Contribution in relation to statutory required contribution	(1,574,968)	-	(5,243,627)		(56,908)	-	(164,059
Contribution deficiency/(excess) \$	-	\$		\$	-	\$	-
Contributions as a percentage of covered payroll	23.48%		23.44%		25.33%		23.23%
Deferred Outflows/(Inflows) Recognized in							
Future Pension Expense							
June 30, 2024\$	293,369	\$	390,802	\$	15,832	\$	21,032
June 30, 2025 June 30, 2026	586,314		1,646,014		29,367		91,122
	809,400		2,088,790		21,570		89,887
June 30, 2027 June 30, 2028	1,347,665		4,623,973 112,637		58,283 11,002		162,984 1,128
Total Deferred Outflows/(Inflows) Recognized in	(11,196)	-	112,007	-	11,002	-	1,120
Future Pension Expense\$	3,025,552	\$	8,862,216	\$	136,054	\$	366,153
Discount Rate Sensitivity							
1% decrease (5.90%)\$	22,140,000	\$	73,711,905	\$	799,980	\$	2,306,247
Current discount rate (6.90%) \$	16,774,600	\$	55,848,586	\$	606,113	\$	1,747,352
1% increase (7.90%) \$	12,261,008	\$	40,821,241	\$	443,024	\$	1,277,187

#### FOR THE YEAR ENDED DECEMBER 31, 2022

	-	Cape Cod Regional Transit Authority	Monomoy Regional School District	Provincetown Housing Authority	-	Totals
Net Pension Liability Beginning net pension liability	\$	1,676,827	\$ 7,755,326	\$ -	\$	549,845,442
Ending net pension liability			\$ 12,310,885	-	\$	829,895,013
Deferred Outflows of Resources						
Net difference between projected and actual						
investment earnings on pension plan investments		227,998	1,359,220	-		91,627,067
Changes of assumptions	\$	108,857	\$ 648,957	\$ -	\$	43,747,156
Changes in proportion and differences between						
employer contributions and proportionate		04.000	440.050			
share of contributions	•	24,206	416,852	-	-	30,892,696
Total Deferred Outflows of Resources	\$	361,061	\$ 2,425,029	\$ 	\$ _	166,266,919
Deferred Inflows of Resources						
Differences between expected and actual experience	\$	6,428	\$ 38,318	\$ -	\$	2,583,086
Changes in proportion and differences between						
employer contributions and proportionate						
share of contributions		329,935	493,633	20,661	-	30,892,696
Total Deferred Inflows of Resources	\$	336,363	\$ 531,951	\$ 20,661	\$ _	33,475,782
Pension Expense						
Proportionate share of plan pension expense	\$	242,339	\$ 1,444,713	\$ -	\$	97,390,281
Net amortization of deferred amounts from changes						
in proportion and differences between employer						
contributions and proportionate share of contributions	-	8,068	(30,618)	(20,604)	-	140,107
Total Employer Pension Expense	\$	250,407	\$ 1,414,095	\$ (20,604)	\$	97,530,388
	-				=	
Contributions						
Statutory required contribution	. \$	193,887	\$ 1,155,870	\$ -	\$	77,562,515
Contribution in relation to statutory required contribution		(193,887)	(1,155,870)	-		(77,562,515)
	-				-	(11,302,513)
Contribution deficiency/(excess)	\$	-	\$ 	\$ -	\$ _	-
Contributions as a percentage of covered payroll		23.23%	23.23%	N/A		24.17%
Deferred Outflows/(Inflows) Recognized in						
Future Pension Expense						
June 30, 2024 June 30, 2025		(42,153) 14,355	\$ 57,996 333,370	\$ (20,661)	\$	8,148,698 26,752,630
June 30, 2026		14,555	411,957	-		31,529,995
June 30, 2027		100,998	1,006,505	-		66,359,814
June 30, 2028		(63,212)	83,250	-	_	-
Total Deferred Outflows/(Inflows) Recognized in						
Future Pension Expense	\$	24,698	\$ 1,893,078	\$ (20,661)	\$ =	132,791,137
Discount Rate Sensitivity						
1% decrease (5.90%)	\$	2,725,559	\$ 16,248,554	\$ -	\$	1,095,339,141
Current discount rate (6.90%)	\$	2,065,048	\$ 12,310,885	\$ -	\$	829,895,013
1% increase (7.90%)	\$	1,509,399	\$ 8,998,359	\$ -	\$	606,592,691
Covered Payroll	\$	834,471	\$ 4,974,734	\$ -	\$	320,950,554
See notes to schedule of employer allocations and schedule of pension amounts by employer.						(concluded)

# **NOTE I – Schedule of Employer Allocations**

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

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

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the Association who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2021, were applied to allocate the Association's December 31, 2022, pension fund appropriation by member unit.

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

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

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC completes an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP. The accrued liability for the members who accept the ERIP as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP, and is separately identified in the Association's funding schedule. The 2003 ERIP amortization is occurring over 25 years from fiscal year 2004 through fiscal year 2028, increasing 4.5% per year.

The allocation percentage of the total net pension liability is a blended rate of the following three items. (1) The proportionate share of active employer's covered payroll is applied to the fiscal year 2023, pension fund appropriation calculated by the actuary. (2) ERI is a direct charge calculated by PERAC for only the employers that accepted the ERI. (3) The direct amortization of the actuarially determined net pension liability for Barnstable County Sheriff and Barnstable County Hospital since they no longer have active covered payroll.

# NOTE II – Schedule of Pension Amounts by Employer

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

Changes in Assumptions

None.

Changes in Plan Provisions

None.

### NOTE III – Change in Member Unit

### Provincetown Housing Authority

Each member unit's share of the net pension liability is based on the pension fund appropriation, which is based on the covered payroll of the member unit. The Provincetown Housing Authority did not have covered payroll and, as a result, had no pension fund appropriation or net pension liability for the year ended December 31, 2022.



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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 Honorable Barnstable Retirement Board Barnstable County Retirement Association Barnstable, Massachusetts

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to the financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Barnstable County Retirement Association, as of and for the year ended December 31, 2022, and the related notes to the financial statements, which collectively comprise the Barnstable County Retirement Association's financial statements, and have issued our report thereon dated July 31, 2023.

### **Report on Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the Barnstable County Retirement Association's internal control over financial reporting (internal control) to determine the 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 an opinion on the effectiveness of the Barnstable County Retirement Association's internal control. Accordingly, we do not express an opinion on the effectiveness of Barnstable County Retirement Association'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 may exist that have not been identified.

### **Report on Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the Barnstable County Retirement Association's financial statements are free of 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 determination of financial statement amounts. 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.

Powers & Sullivan LLC

July 31, 2023