#### **BARNSTABLE COUNTY RETIREMENT ASSOCIATION**

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2021

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#### YEAR ENDED DECEMBER 31, 2021

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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 (BCRA) as of and for the year ended December 31, 2021, 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, 2021, and the changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

#### **Basis for Opinion**

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the BCRA 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 BCRA'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 BCRA'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 BCRA'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 August 23, 2022, 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 to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the 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.

August 23, 2022

Powers & Sullivan LLC

#### Management's Discussion and Analysis

As management of the Barnstable County Retirement Association, we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2021. The Association complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

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

#### **Financial Highlights**

- The Association's assets exceeded its liabilities at the close of the most recent year by \$1.7 billion (net position).
- The Association's net position increased by \$265.1 million for the year ended December 31, 2021.
- Total investment income was \$280.8 million; investment expenses were \$7.5 million; and net investment income was \$273.3 million.
- Total contributions were \$110.4 million including \$73.6 million from employers, \$31.4 million from members, and \$5.4 million from other contributions.
- Retirement benefits, refunds and transfers to other systems amounted to \$117.2 million.
- Administrative expenses totaled \$1.4 million.
- The Total Pension Liability is \$2.2 billion as of December 31, 2021, while the Net Pension Liability is \$549.8 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 75.07%.

#### 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.

#### **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 \$1.7 billion at the close of 2021. The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year-end the Association's net position mainly includes investments of \$1.6 billion, cash and cash equivalents of \$3.7 million and accounts receivable of \$3.3 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 \$118.6 million, which resulted in a current year increase of \$265.1 million. In 2020, the Association's contributions totaled \$106.4 million and net investment income totaled \$151.2 million while retirement benefit payments, refunds, transfers and administration expenses totaled \$110.4 million, which resulted in a prior year increase of \$147.2 million.

In 2021, the Association's current contributions of \$110.4 million did not fully support deductions totaling \$118.6 million, which resulted in a current deficiency of \$8.2 million. In 2020, the current contributions also did not fully support the current expenses, which resulted in a prior year current deficiency of \$4.0 million.

The main difference between the change in net position for the two years was the change in net investment income. Net investment income was \$273.3 million in 2021, compared to a net investment income of \$151.2 million in 2020. The annual money weighted rate of return was 19.75% and 12.20% in 2021 and 2020, respectively. Fluctuations in the Association's annual investment returns are expected.

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

	2021		2020
Assets:  Cash and cash equivalents\$ InvestmentsReceivablesOther assets	3,716,098 1,649,017,340 3,291,744 1,189	\$	2,597,983 1,385,605,002 2,709,342 1,712
Total assets	1,656,026,371		1,390,914,039
Liabilities: Accounts payable	10,455		3,828
Net Position Restricted for Pension Benefits \$	1,656,015,916	\$	1,390,910,211

_	2021		2020	
Additions:				
Contributions:				
Member contributions\$	31,357,984	\$	30,684,917	
Employer contributions	73,648,922	Ψ	69,873,352	
Other contributions	5,401,150		5,861,416	
-	3, 13 1, 133	•	3,001,110	
Total contributions	110,408,056		106,419,685	
·	· · · · · ·	•		
Net investment income:				
Total investment income	280,798,003		157,278,651	
Less, investment expenses	(7,511,766)		(6,028,678)	
	_		_	
Net investment income	273,286,237		151,249,973	
Total additions	383,694,293		257,669,658	
<b>-</b>				
Deductions:	4 000 000		4 004 050	
Administration	1,369,090		1,364,653	
Retirement benefits, refunds and transfers	117,219,498	-	109,059,441	
Total deductions	110 500 500		110 424 004	
Total deductions	118,588,588		110,424,094	
Net increase (decrease) in fiduciary net position	265,105,705		147,245,564	
The morease (decrease) in ilductary her position	200, 100, 700		147,243,304	
Fiduciary net position at beginning of year	1,390,910,211		1,243,664,647	
	-,,	•	.,,,, .,, .,	
Fiduciary net position at end of year \$	1,656,015,916	\$	1,390,910,211	

#### 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, 2021

Assets	
Cash and cash equivalents\$	3,716,098
Investments:	
Investments in Pension Reserve Investment Trust	1,649,017,340
Receivables, net of allowance for uncollectibles:	
Member deductions	1,797,864
Employer pension appropriation	902,796
Other accounts receivable	591,084
Other assets	1,189
Total Assets	1,656,026,371
Liabilities	
Accounts payable	10,455
Net Position Restricted for Pensions\$	1,656,015,916

See notes to financial statements.

#### STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

#### YEAR ENDED DECEMBER 31, 2021

Additions:	
Contributions:	
Employer pension appropriation	73,648,922
Member contributions	31,357,984
Transfers from other systems	1,931,121
3(8)c reimbursements from other systems	2,767,757
Workers compensation settlements	53,000
Federal grant reimbursements	73,854
State COLA reimbursements	378,041
Member makeup payments and redeposits	148,706
Interest not refunded	19,779
Reimbursement of 91A overearnings	11,616
Other revenue	17,276
Total contributions	110,408,056
Net investment income:	
Investment income	280,798,003
Less: investment expense	(7,511,766)
Net investment income	273,286,237
Total additions	383,694,293
Deductions:	
Administration	1,369,090
Benefits and refunds	112,680,075
Transfers to other systems	2,072,711
3(8)c reimbursements to other systems	2,466,712
Total deductions	118,588,588
Net increase (decrease) in fiduciary net position	265,105,705
Fiduciary net position at beginning of year	1,390,910,211
Fiduciary net position at end of year	\$ 1,656,015,916

See notes to financial statements.

#### **NOTE 1 – PLAN DESCRIPTION**

The Barnstable County Retirement Association is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the 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.

BCRA 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

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 position that applies to a future period(s) and so will not be recognized as an outflow of resources (deduction) until then. The Association did not have any items that qualify for reporting in this category.

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

#### **NOTE 3 – PLAN ADMINISTRATION**

The Association is administered by a five-person Board of Retirement consisting of the County Finance Director/Treasurer 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	Term Expires:	Indefinite
Appointed Member	Ronald Bergstrom	Term Expires:	1/5/2023
Elected Member	Harold S. Brunelle	Term Expires:	1/6/2024
Elected Member	Robert F. Rolanti	Term Expires:	1/6/2023
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, 2021, the carrying amount of the Association's deposits totaled \$3,716,098; this is comprised of \$1,715,691 of cash deposited with banks along with \$2,000,407 in the PRIT cash fund. Of the \$1,715,689, the bank balance totaled \$3,474,669, which was covered by Federal Depository Insurance. The \$2,000,407 in the PRIT cash fund is uninsured and uncollateralized.

#### **Investments**

The Association's investments at December 31, 2021, consist of \$1,649,017,340 in PRIT pooled funds. Subsequent to year end the market value of the PRIT investment declined by approximately (\$125.2 million). Please refer to Note 9 for further information on this matter.

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 19.75%. The money—weighted 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, 2021:

Retirees and beneficiaries currently receiving benefits	3,607
Inactive members	1,106
Active members	4,909
Total	9,622

#### **NOTE 6 – ACTUARIAL VALUATION**

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

Total pension liability\$	2,205,861,358
The pension plan's fiduciary net position	(1,656,015,916)
The net pension liability\$	549,845,442
The pension plan's fiduciary net position as a percentage of the total pension liability	75.07%

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 back to December 31, 2021:

Valuation date	January 1, 2022
Actuarial cost method	Entry Age Actuarial Cost Method
Projected salary increases	3.25%
Cost of living adjustments	3% of the first \$18,000
Investment rate of return/Discount rate	6.90%
Mortality Rates: Pre-Retirement	RP-2014 Blue Collar Employee Mortality Table projected generationally with Scale MP-2021
Healthy Retiree	RP-2014 Blue Collar Healthy Annuitant Mortality Table projected generationally with Scale MP- 2021
Disabled Retiree	RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year and projected generationally with Scale MP-2021

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	22.00%	6.11%
International developed markets equity	11.50%	6.49%
International emerging markets equity	4.50%	8.12%
Core fixed income	15.00%	0.38%
High-yield fixed income	8.00%	2.48%
Real estate	10.00%	3.72%
Timberland	4.00%	3.44%
Hedge fund, GTAA, Risk parity	10.00%	2.63%
Private equity	15.00%	9.93%
Total	100.00%	_

Discount Rate: The discount rate used to measure the total pension liability was 6.90% as of December 31, 2021, and 7.15% as of December 31, 2020. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that 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 and their beneficiaries, as well as projected contributions from 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 (5.90%)	Discount Rate (6.90%)	1% Increase (7.90%)	
Barnstable County Retirement Association's net				
pension liability as of December 31, 2021\$	808,591,442 \$	549,845,442 \$	332,198,191	

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, 2021, cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2021.

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

There were no GASB pronouncements required to be implemented in 2021, that impacted the Association's financial statements.

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

#### **NOTE 9 – SUBSEQUENT EVENTS**

Management has evaluated subsequent events through August 23, 2022, which is the date the financial statements were available to be issued.

The Association carries its investments at fair (market) value in accordance with Generally Accepted Accounting Principles (GAAP). Market value adjustments are recorded monthly. Subsequent to year end, the Association's investments of \$1,649,017,340 in PRIT have declined in value by approximately (\$125.2 million). The market value decline is consistent with recent trends in the overall financial securities market.

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

# Required Supplementary Information

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

	December 31, 2014	December 31, 2015	December 31, 2016
Total pension liability:			
Service cost\$	36,820,342	\$ 38,962,546	\$ 42,095,884
Interest	105,040,822	110,695,407	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)
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.

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See notes to required supplementary information.

	December 31, 2017		December 31, 2018		December 31, 2019		December 31, 2020		December 31, 2021
\$	41,043,966	\$	42,023,138	\$	44,614,451	\$	50,038,189	\$	49,882,413
*	125,242,091	*	131,278,572	*	137,186,701	*	142,341,970	*	148,345,470
	-		-		-		-		-
	(3,055,533)		-		(1,444,828)		-		(3,152,211)
	61,743,785		-		47,758,691		-		41,741,389
	(85,780,394)		(91,853,586)		(98,552,543)		(105,603,669)		(112,680,075)
	139,193,915		81,448,124		129,562,472		86,776,490		124,136,986
	1,644,743,371		1,783,937,286		1,865,385,410		1,994,947,882		2,081,724,372
\$	1,783,937,286	\$	1,865,385,410	\$	1,994,947,882	\$	2,081,724,372	\$	2,205,861,358
1									
•	50 004 004	•	00 540 700	•	05 000 040	•	00 070 050	•	70.040.000
\$	59,204,601	\$	62,518,733	\$	65,893,243	\$	69,873,352	\$	73,648,922
	27,339,086 4,753,312		28,253,747 4,862,203		29,386,045		30,684,917 5,861,416		31,357,984
	160,812,163		(26,151,281)		5,280,351 172,169,036		151,249,973		5,401,150 273,286,237
	(1,282,473)		(1,385,431)		(1,481,835)		(1,364,653)		(1,369,090)
	(85,780,394)		(91,853,586)		(98,552,543)		(105,603,669)		(1,309,090)
	(3,715,199)		(4,727,431)		(4,040,419)		(3,455,772)		(4,539,423)
•	(0,7 10,100)		(1,727,101)		(1,010,110)		(0,100,172)		(1,000,120)
	161,331,096		(28,483,046)		168,653,878		147,245,564		265,105,705
,	942,162,719		1,103,493,815		1,075,010,769		1,243,664,647		1,390,910,211
\$	1,103,493,815	\$	1,075,010,769	\$	1,243,664,647	\$	1,390,910,211	\$	1,656,015,916
\$	680,443,471	\$	790,374,641	\$	751,283,235	\$	690,814,161	\$	549,845,442
	61.86%		57.63%		62.34%		66.82%		75.07%
\$	271,510,348	\$	283,145,854	\$	293,746,441	\$	306,402,979	\$	307,779,848
	250.61%		279.14%		255.76%		225.46%		178.65%

#### **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
\$	59,204,601	\$ 62,518,733	\$	65,893,243	\$ 69,873,352	\$ 73,648,922
•	(59,204,601)	(62,518,733)		(65,893,243)	(69,873,352)	(73,648,922)
\$	-	\$ 	\$	-	\$ -	\$ 
\$	271,510,348	\$ 283,145,854	\$	293,746,441	\$ 306,402,979	\$ 307,779,848
	21.81%	22.08%		22.43%	22.80%	23.93%

#### **SCHEDULE OF INVESTMENT RETURNS**

Annual money-weighted rate of return,

Year	rate of return, net of investment expense
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.

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#### 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

The net investment return assumption was lowered from 7.15% to 6.90%. Also, the morality improvement scale was updated from Scale MP-2017 to Scale MP-2021.

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 (BCRA) as of and for the year ended December 31, 2021, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the BCRA Pension Plan as of and for the year ended December 31, 2021, 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, 2021, in accordance with accounting principles generally accepted in the United States of America.

#### **Basis for Opinions**

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. 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 BCRA 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
  BCRA'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, 2021, and our report thereon, date August 23, 2022, 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.

August 23, 2022

Powers & Sellivan LLC

#### SCHEDULE OF EMPLOYER ALLOCATIONS

#### FOR THE YEAR ENDED DECEMBER 31, 2021

Employer	FY2022 Pension Fund Appropriation		Direct Appropriation E.R.I., Sheriff and Hospital	-	FY2022 Total Appropriation	_	Share of Net Pension Liability	Percent of Total Net Pension Liability
Barnstable County	\$ 2,813,555	\$	454,628	\$	3,268,183	\$	23,982,014	4.362%
Barnstable County Hospital	-	•	8,498	•	8,498	•	74,993	0.014%
Barnstable County Retired Sheriffs	_		1,786,032		1,786,032		16,408,515	2.984%
Town of Barnstable	10,890,027		219,459		11,109,486		81,521,703	14.826%
Barnstable Fire District	528,434		4,777		533,211		3,912,717	0.712%
Barnstable Housing Authority	221,371		4,291		225,662		1,655,914	0.301%
Town of Bourne	4,206,050		88,714		4,294,764		31,515,093	5.732%
Bourne Housing Authority	71,410		00,7 14		71,410		524,008	0.095%
g ,			18,881					0.187%
Bourne Recreation Authority	121,397		,		140,278		1,029,364	
Bourne Water District	164,243		5,472		169,715		1,245,373	0.226%
Town of Brewster	2,806,414		18,744		2,825,158		20,731,085	3.770%
Brewster Housing Authority	14,282		-		14,282		104,802	0.019%
Buzzards Bay Water District	92,833		-		92,833		681,211	0.124%
Cape Light Compact JPE	335,627		-		335,627		2,462,840	0.448%
Cape Cod Mosquito Control District	328,486		2,995		331,481		2,432,416	0.442%
Cape Cod Regional Technical High School	457,024				457,024		3,353,654	0.610%
Centerville/Osterville/Marstons Mills Fire District	1,635,289		5,469		1,640,758		12,039,926	2.190%
Town of Chatham	2,399,377		100,373		2,499,750		18,343,232	3.336%
Chatham Housing Authority	42,846		-		42,846		314,405	0.057%
Cotuit Fire District	328,486		-		328,486		2,410,439	0.438%
Town of Dennis	3,884,705		=		3,884,705		28,506,069	5.184%
Dennis Housing Authority	85,692		2,860		88,552		649,797	0.118%
Dennis Water District	307,063		-		307,063		2,253,236	0.410%
Dennis/Yarmouth Regional School District	1,428,200		-		1,428,200		10,480,170	1.906%
Town of Eastham	1,878,083		26,302		1,904,385		13,974,428	2.542%
Town of Harwich	3,299,143		_		3,299,143		24,209,199	4.403%
Hyannis Fire District	1,471,046		1,889		1,472,935		10,808,436	1.966%
Town of Mashpee	3,656,193		41,983		3,698,176		27,137,314	4.935%
Mashpee Housing Authority	85,692		-		85,692		628,810	0.114%
Mashpee Water District	192,807		4,760		197,567		1,449,752	0.264%
Town of Nantucket	7,626,589		132,199		7,758,788		56,934,193	10.355%
Nantucket Housing Authority	21,423		-		21,423		157,203	0.029%
County of Nantucket	292,781		-		292,781		2,148,435	0.391%
Nantucket Regional Transit Authority	42,846		-		42,846		314,405	0.057%
Nauset Regional School District	842,638		-		842,638		6,183,300	1.125%
North Sagamore Water District	78,551		-		78,551		576,409	0.105%
Town of Orleans	2,370,813		-		2,370,813		17,397,089	3.164%
Orleans Housing Authority	57,128		-		57,128		419,207	0.076%
Town of Provincetown	2,106,595		-		2,106,595		15,458,250	2.811%
Town of Sandwich	4,691,638		-		4,691,638		34,427,365	6.261%
Sandwich Housing Authority	42,846		-		42,846		314,405	0.057%
Sandwich Water District	214,230		-		214,230		1,572,025	0.286%
Town of Truro	1,328,226		15,326		1,343,552		9,859,020	1.793%
Veterans District	85,692		4,591		90,283		662,499	0.120%
Town of Wellfleet	1,506,751		16,052		1,522,803		11,174,369	2.032%
Town of Yarmouth	4,870,163		100,272		4,970,435		36,473,184	6.633%
Yarmouth Housing Authority	42,846		4,605		47,451		348,197	0.063%
West Barnstable Fire District	157,102		-		157,102		1,152,819	0.210%
Cape Cod Regional Transit Authority  Monomoy Regional School District	228,512 1,056,868		-	_	228,512 1,056,868	_	1,676,827 7,755,326	0.305% 1.410%
Total	\$ 71,410,013	\$	3,069,172	\$	74,479,185	\$_	549,845,442	100.000%

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

#### SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

#### FOR THE YEAR ENDED DECEMBER 31, 2021

<u>-</u>	Barnstable County	;	Barnstable County Hospital		Barnstable County Retired Sheriffs	_	Town of Barnstable
Net Pension Liability  Beginning net pension liability\$	25.729.135	\$	91,471	\$	20,631,559	\$	105,434,281
Ending net pension liability\$	23,982,014	\$	74,993		16,408,515		81,521,703
	20,002,011	Ψ	7 1,000	Ψ	10, 100,010	Ψ	01,021,700
Deferred Outflows of Resources  Changes of assumptions\$	3,007,512	\$	9,405	\$	2,057,743	\$	10,223,391
Changes in proportion and differences between employer contributions and proportionate share of contributions	3,804,775		995			_	3,272,950
Total Deferred Outflows of Resources\$	6,812,287	\$	10,400	\$	2,057,743	\$_	13,496,341
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience\$	168,293	\$	526	\$	115,146	\$	572,074
Net difference between projected and actual investment earnings on pension plan investments	8,397,225		26,259		5,745,389		28,544,559
Changes in proportion and differences between employer contributions and proportionate share of contributions	3,857,377		7,194		1,627,646		5,011,496
Total Deferred Inflows of Resources\$	12,422,895	\$	33,979	\$	7,488,181	\$	34,128,129
Pension Expense Proportionate share of plan pension expense\$	1,577,120	\$	4,931	\$	1,079,065	\$	5,361,075
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(753,705)		(5,526)		(649,723)	_	(22,876)
Total Employer Pension Expense\$	823,415	\$	(595)	\$	429,342	\$_	5,338,199
Contributions Statutory required contribution\$	3,212,242	\$	8,353	\$	1,755,461	\$	10,919,329
Contribution in relation to statutory required contribution	(3,212,242)		(8,353)		(1,755,461)	_	(10,919,329)
Contribution deficiency/(excess)\$	-	\$	-	\$		\$ _	-
Contributions as a percentage of covered payroll	26.49%		Not Applicable		Not Applicable		23.26%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense June 30, 2023\$	(1,682,836)	\$	(6,473)	\$	(1,142,262)	\$	(3,005,047)
June 30, 2024	(2,799,022) (1,398,272)		(8,522)		(1,978,115) (1,391,612)		(7,959,638)
June 30, 2025	(771,950)		(5,749) (3,911)		(1,035,424)		(4,916,344) (5,192,929)
June 30, 2027	1,041,472		1,076		116,975	_	442,170
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense\$	(5,610,608)	\$	(23,579)	\$	(5,430,438)	\$ _	(20,631,788)
Discount Rate Sensitivity							
1% decrease (5.90%)\$	35,267,458	\$	110,283	\$	24,130,026	\$	119,884,145
Current discount rate (6.90%)\$	23,982,014	\$	74,993	\$	16,408,515	\$	81,521,703
1% increase (7.90%)\$	14,489,129	\$	45,308	\$	9,913,475	\$	49,252,678
Covered Payroll\$	12,126,526	\$	-	\$	-	\$	46,936,418
See notes to schedule of employer allocations and schedule of pension amounts by employer.							(continued)

#### SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

#### FOR THE YEAR ENDED DECEMBER 31, 2021

	_	Barnstable Fire District	_	Barnstable Housing Authority	•	Town of Bourne	_	Bourne Housing Authority
Net Pension Liability Beginning net pension liability	\$	4,672,284	\$	2,290,084	\$	41,276,125	Φ.	660,308
Ending net pension liability	ф	3,912,717	Ф	1,655,914	Þ	31,515,093	Ф	524,008
Deferred Outflows of Resources Changes of assumptions	\$	490,682	\$	207,663	\$	3,952,213	\$	65,714
Changes in proportion and differences between								
employer contributions and proportionate share of contributions	_	390,688	-	238,729		1,146,401	_	46,013
Total Deferred Outflows of Resources	\$	881,370	\$	446,392	\$	5,098,614	\$_	111,727
Deferred Inflows of Resources								
Differences between expected and actual experience	\$	27,457	\$	11,620	\$	221,156	\$	3,677
Net difference between projected and actual investment earnings on pension plan investments		1,370,025		579,813		11,034,909		183,480
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		191,134		253,341		1,994,961		74,041
Total Deferred Inflows of Resources	\$	1,588,616	\$	844,774	\$	13,251,026	\$	261,198
	=		•					
Pension Expense Proportionate share of plan pension expense	\$	257,309		108,897	\$	2,072,515	æ.	34,459
Troportionate share of plan pension expense	Ψ	237,309		100,037	Ψ	2,072,515	Ψ	34,433
Net amortization of deferred amounts from changes								
in proportion and differences between employer contributions and proportionate share of contributions	_	55,069	-	14,062		(444,313)	_	(38,445)
Total Employer Pension Expense	\$_	312,378	\$	122,959	\$	1,628,202	\$ _	(3,986)
<u>Contributions</u> Statutory required contribution	Ф	524,084	Ф	225,662	Ф	4,271,908	æ	70,188
, ,							φ	
Contribution in relation to statutory required contribution	-	(524,084)	-	(225,662)		(4,271,908)	_	(70,188)
Contribution deficiency/(excess)	\$ _	-	\$		\$	<u> </u>	\$ _	
Contributions as a percentage of covered payroll		23.01%		23.65%		23.56%		22.80%
Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense	•	(440.050)	•	(04.700)	•	(4.422.450)	•	(40.202)
June 30, 2023		(110,259)		(94,769)		(1,433,450)	\$	(49,202)
June 30, 2024		(343,618)		(150,298) (75,251)		(3,164,927) (2,024,920)		(59,143) (31,121)
June 30, 2026.		(159,736) (181,759)		(62,102)		(1,619,415)		(15,847)
June 30, 2027		88,126		(15,962)		90,300		5,842
Total Deferred Outflows/(Inflows) Recognized in	-	00,120	-	(10,002)	-	00,000	_	0,012
Future Pension Expense	\$	(707,246)	\$	(398,382)	\$	(8,152,412)	\$ _	(149,471)
Discount Rate Sensitivity								
1% decrease (5.90%)	\$	5,753,961	\$	2,435,153	\$	46,345,450	\$	770,595
Current discount rate (6.90%)	\$	3,912,717	\$	1,655,914	\$	31,515,093	\$	524,008
1% increase (7.90%)	\$	2,363,932	\$	1,000,448	\$	19,040,363	\$	316,588
Covered Payroll	\$	2,277,571	\$	954,118	\$	18,128,233	\$	307,780
See notes to schedule of employer allocations and schedule of pension amounts by employer.								(continued)

#### SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

#### FOR THE YEAR ENDED DECEMBER 31, 2021

	_	Bourne Recreation Authority	_	Bourne Water District		Town of Brewster	_	Brewster Housing Authority
Net Pension Liability Beginning net pension liability	ď	1 220 702	¢.	1.444.099	ď	25 002 666	¢.	122.059
		1,320,782		, ,	·	25,882,666		132,058
Ending net pension liability	\$	1,029,364	\$	1,245,373	\$	20,731,085	\$	104,802
<u>Deferred Outflows of Resources</u> Changes of assumptions	\$	129,089	\$	156,178	\$	2,599,823	\$	13,143
Changes in proportion and differences between employer contributions and proportionate share of contributions		23,166		246 257		797,471		477
	-		-	216,257		,	-	
Total Deferred Outflows of Resources	\$	152,255	\$ _	372,435	\$	3,397,294	\$ _	13,620
<u>Deferred Inflows of Resources</u>								
Differences between expected and actual experience	\$	7,224	\$	8,739	\$	145,479	\$	735
Net difference between projected and actual investment earnings on pension plan investments		360,429		436,063		7,258,923		36,696
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		69,588		129,303		139,413		80
Total Deferred Inflows of Resources	\$	437,241	\$_	574,105	\$	7,543,815	\$	37,511
Pension Expense								
Proportionate share of plan pension expense	\$	67,694	\$	81,899	\$	1,363,331	\$	6,891
Net amortization of deferred amounts from changes in proportion and differences between employer		(00.407)		(45.707)		044 770		055
contributions and proportionate share of contributions	-	(23,167)	-	(15,727)		211,773	_	255
Total Employer Pension Expense	\$	44,527	\$ _	66,172	\$	1,575,104	\$ _	7,146
Contributions								
Statutory required contribution	\$	137,877	\$	166,810	\$	2,776,801	\$	14,282
Contribution in relation to statutory required contribution	_	(137,877)	_	(166,810)		(2,776,801)	_	(14,282)
Contribution deficiency/(excess)	\$	-	\$_	-	\$	-	\$ _	-
Contributions as a percentage of covered payroll		26.35%		23.56%		22.96%		23.20%
Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense								
June 30, 2023		(43,508)	\$	(25,619)	\$	(437,742)	\$	(3,721)
June 30, 2024 June 30, 2025		(101,961) (77,536)		(116,579) (74,423)		(1,841,581) (1,183,220)		(9,737) (6,238)
June 30, 2026.		(69,378)		(20,516)		(956,625)		(5,405)
June 30, 2027.		7,397		35,467		272,647		1,210
Total Deferred Outflows/(Inflows) Recognized in	-	.,	-				-	1,= : :
Future Pension Expense	\$	(284,986)	\$ _	(201,670)	\$	(4,146,521)	\$ _	(23,891)
Discount Rate Sensitivity								
1% decrease (5.90%)	\$	1,513,762	\$	1,831,420	\$	30,486,709	\$	154,120
Current discount rate (6.90%)	\$	1,029,364	\$	1,245,373	\$	20,731,085	\$	104,802
1% increase (7.90%)	\$	621,907	\$	752,413	\$	12,525,027	\$	63,318
Covered Payroll	\$	523,226	\$	707,894	\$	12,095,748	\$	61,556
See notes to schedule of employer allocations and schedule of pension amounts by employer.								(continued)

	-	Buzzards Bay Water District		Cape Light Compact JPE		Cape Cod Mosquito Control District		Cape Cod Regional Technical High School
Net Pension Liability Beginning net pension liability	\$	858,395	\$	3,235,493	\$	3,134,869	\$	5,282,437
Ending net pension liability	\$	681,211	\$	2,462,840	\$	2,432,416	\$	3,353,654
<u>Deferred Outflows of Resources</u> Changes of assumptions	\$	85,429	\$	308,857	\$	305,042	\$	420,572
Changes in proportion and differences between employer contributions and proportionate share of contributions	_	34,791		1,092,234		47,300		440,879
Total Deferred Outflows of Resources	\$	120,220	\$	1,401,091	\$	352,342	\$	861,451
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience	\$	4,780	\$	17,283	\$	17,069	\$	23,534
Net difference between projected and actual investment earnings on pension plan investments		238,524		862,356		851,703		1,174,271
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	535		163,744		96,285	•	1,203,040
Total Deferred Inflows of Resources	\$_	243,839	\$	1,043,383	\$	965,057	\$	2,400,845
Pension Expense Proportionate share of plan pension expense	\$	44,798	\$	161,963	\$	159,963	\$	220,543
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	_	12,965		486,179		17,138	,	(199,472)
Total Employer Pension Expense	\$	57,763	\$	648,142	\$	177,101	\$	21,071
Contributions Statutory required contribution	\$	92,833	\$	329,882	\$	325,807	\$	449,201
Contribution in relation to statutory required contribution	-	(92,833)		(329,882)		(325,807)		(449,201)
Contribution deficiency/(excess)	\$_		\$	-	\$		\$	-
Contributions as a percentage of covered payroll		23.20%		22.80%		23.01%		22.80%
<u>Deferred Outflows/(Inflows) Recognized in</u> <u>Future Pension Expense</u> June 30, 2023	•	(3,591)	e	394,318	•	(111,062)	¢	(270,490)
June 30, 2024		(52,722) (40,291) (34,876) 7,861	Ψ	254,248 (133,449) (162,109) 4,700	Ψ	(219,891) (158,369) (138,489) 15,096	Ψ	(402,160) (412,969) (309,066) (144,709)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	-		\$		\$		\$	
<u>Discount Rate Sensitivity</u> 1% decrease (5.90%)	\$	1,001,775	\$	3,621,802	\$	3,577,061	\$	4,931,815
Current discount rate (6.90%)	\$	681,211	\$	2,462,840	\$	2,432,416	\$	3,353,654
1% increase (7.90%)	\$	411,565	\$	1,487,965	\$	1,469,584	\$	2,026,165
Covered Payroll	\$	400,114	\$	1,446,565	\$	1,415,787	\$	1,969,791
See notes to schedule of employer allocations and schedule of pension amounts by employer.								(continued)

		Centerville/				Chatham		
		Osterville/ Martsons Mills Fire District		Town of Chatham	_	Chatham Housing Authority	_	Cotuit Fire District
Net Pension Liability								
Beginning net pension liability	\$	15,442,513	\$	21,781,373	\$	396,183	\$	3,301,522
Ending net pension liability	\$	12,039,926	\$	18,343,232	\$	314,405	\$	2,410,439
Deferred Outflows of Resources	•	4 500 004	•	0.000.070	•	00.400	•	000 000
Changes of assumptions	\$	1,509,891	Ъ	2,300,370	<b>Þ</b>	39,429	\$	302,286
Changes in proportion and differences between employer contributions and proportionate								
share of contributions		438,453	_	1,311,424	-	33,962	-	97,476
Total Deferred Outflows of Resources	\$	1,948,344	\$	3,611,794	\$	73,391	\$	399,762
Deferred Inflows of Resources								
Differences between expected and actual experience	\$	84,490	\$	128,723	\$	2,206	\$	16,915
Net difference between projected and actual investment earnings on pension plan investments		4,215,742		6,422,824		110,088		844,007
		1,210,112		0, .22,02 .				011,001
Changes in proportion and differences between employer contributions and proportionate								
share of contributions		510,637	-	661,826	-	45,506	-	277,370
Total Deferred Inflows of Resources	\$	4,810,869	\$_	7,213,373	\$	157,800	\$	1,138,292
Pension Expense Proportionate share of plan pension expense	æ	791,777	Œ	1,206,297	æ	20,676	æ	150 515
	Ф	791,777	Ф	1,200,297	Ф	20,676	Ф	158,515
Net amortization of deferred amounts from changes in proportion and differences between employer								
contributions and proportionate share of contributions		(45,497)	_	159,568	-	322	-	24,567
Total Employer Pension Expense	\$	746,280	\$ _	1,365,865	\$	20,998	\$	183,082
Contributions								
Statutory required contribution	\$	1,620,421	\$	2,456,963	\$	42,846	\$	322,863
Contribution in relation to statutory required contribution		(1,620,421)	_	(2,456,963)		(42,846)	_	(322,863)
Contribution deficiency/(excess)	\$	-	\$	-	\$	-	\$	-
Contributions as a percentage of covered payroll			=	23.76%	=	23.20%	=	22.80%
		22.0070		20.1070		20.2070		22.0070
<u>Deferred Outflows/(Inflows) Recognized in</u> <u>Future Pension Expense</u>								
June 30, 2023	\$	(461,105)	\$	(557,832)	\$	(11,597)	\$	(84,396)
June 30, 2024		(1,142,891)		(1,596,904)		(29,672)		(262,201)
June 30, 2025 June 30, 2026		(767,280) (580,090)		(989,096) (892,056)		(19,166)		(191,160)
June 30, 2027		88,841		434,309		(27,602) 3,628		(182,126) (18,647)
Total Deferred Outflows/(Inflows) Recognized in		00,011	-	101,000		0,020	-	(10,017)
Future Pension Expense	\$	(2,862,525)	\$ _	(3,601,579)	\$	(84,409)	\$	(738,530)
Discount Rate Sensitivity								
1% decrease (5.90%)	\$	17,705,669	\$	26,975,181	\$	462,358	\$	3,544,742
Current discount rate (6.90%)	\$	12,039,926	\$	18,343,232	\$	314,405	\$	2,410,439
1% increase (7.90%)	\$	7,274,120	\$	11,082,366	\$	189,953	\$	1,456,306
Covered Payroll	\$	7,048,159	\$	10,341,403	\$	184,668	\$	1,415,787
See notes to schedule of employer allocations and schedule								(oorlinus I)
of pension amounts by employer.								(continued)

	_	Town of Dennis	-	Dennis Housing Authority		Dennis Water District		Dennis/Yarmouth Regional School District
Net Pension Liability		05.504.004	•		•	0.770.004	•	40.470.040
Beginning net pension liability	\$	35,524,384	\$	690,337	\$	2,773,281	\$	13,470,213
Ending net pension liability	\$	28,506,069	\$	649,797	\$	2,253,236	\$	10,480,170
<u>Deferred Outflows of Resources</u> Changes of assumptions	\$	3,574,861	\$	81,489	\$	282,572	\$	1,314,287
Changes in proportion and differences between employer contributions and proportionate share of contributions	. <u>_</u>	386,835	_	120,940		63,949		201,533
Total Deferred Outflows of Resources	\$_	3,961,696	\$	202,429	\$	346,521	\$	1,515,820
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience	. \$	200,040	\$	4,560	\$	15,812	\$	73,544
Net difference between projected and actual investment earnings on pension plan investments		9,981,309		227,524		788,963		3,669,598
Changes in proportion and differences between employer contributions and proportionate share of contributions	. <u> </u>	99,889	-	74,441		84,545	-	879,638
Total Deferred Inflows of Resources	\$ _	10,281,238	\$	306,525	\$	889,320	\$	4,622,780
Pension Expense Proportionate share of plan pension expense	. \$	1,874,632	\$	42,733	\$	148,177	\$	689,202
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		(41,616)		11,766		(45,901)		(145,034)
Total Employer Pension Expense	. \$ _	1,833,016	\$	54,499	\$	102,276	\$	544,168
Contributions Statutory required contribution	. \$	3,818,212	\$	88,552	\$	301,807	\$	1,403,754
Contribution in relation to statutory required contribution	_	(3,818,212)	_	(88,552)		(301,807)		(1,403,754)
Contribution deficiency/(excess)	\$ _	-	\$		\$	-	\$	-
Contributions as a percentage of covered payroll		22.80%		23.98%		22.80%		22.80%
Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense June 30, 2023. June 30, 2024. June 30, 2025. June 30, 2026. June 30, 2027. Total Deferred Outflows/(Inflows) Recognized in		(956,341) (2,675,168) (1,661,039) (1,413,153) 386,159		(12,796) (60,038) (38,271) (22,635) 29,644		(93,792) (232,574) (135,831) (117,109) 36,507		(594,367) (1,143,332) (861,881) (578,716) 71,336
Future Pension Expense	. \$ _	(6,319,542)	\$	(104,096)	\$	(542,799)	\$	(3,106,960)
<u>Discount Rate Sensitivity</u> 1% decrease (5.90%)	\$	41,920,441	\$	955,578	\$	3,313,563	\$	15,411,923
Current discount rate (6.90%)	. \$	28,506,069	\$	649,797	\$	2,253,236	\$	10,480,170
1% increase (7.90%)	\$	17,222,412	\$	392,586	\$	1,361,330	\$	6,331,768
Covered Payroll	\$	16,743,224	\$	369,336	\$	1,323,453	\$	6,155,597
See notes to schedule of employer allocations and schedule of pension amounts by employer.								(continued)

	_	Town of Eastham	_	Town of Harwich	Hyannis Fire District		Town of Mashpee
Net Pension Liability							
Beginning net pension liability	\$	18,038,371	\$	31,232,400	\$ 12,565,623	\$	34,710,633
Ending net pension liability	\$	13,974,428	\$	24,209,199	\$ 10,808,436	\$	27,137,314
<u>Deferred Outflows of Resources</u> Changes of assumptions	\$	1,752,491	\$	3,036,003	\$ 1,355,454	\$	3,403,209
Changes in proportion and differences between employer contributions and proportionate share of contributions	. <u>_</u>	508,281	_	653,535	1,219,094		1,396,002
Total Deferred Outflows of Resources	\$_	2,260,772	\$	3,689,538	\$ 2,574,548	\$	4,799,211
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience	\$	98,065	\$	169,887	\$ 75,848	\$	190,435
Net difference between projected and actual investment earnings on pension plan investments		4,893,101		8,476,774	3,784,539		9,502,044
Changes in proportion and differences between employer contributions and proportionate share of contributions	_	555,682	=	1,145,963	212,753		698,000
Total Deferred Inflows of Resources	\$_	5,546,848	\$	9,792,624	\$ 4,073,140	\$	10,390,479
Pension Expense Proportionate share of plan pension expense	. \$	918,994	\$	1,592,061	\$ 710,790	\$	1,784,620
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		96,718		167,253	228,758		226,572
Total Employer Pension Expense	\$	1,015,712	\$	1,759,314	\$ 939,548	\$	2,011,192
Contributions Statutory required contribution	\$	1,871,788	\$	3,242,673	\$ 1,447,723	\$	3,640,546
Contribution in relation to statutory required contribution	_	(1,871,788)		(3,242,673)	(1,447,723)		(3,640,546)
Contribution deficiency/(excess)	\$ _		\$	_	\$ 	\$	
Contributions as a percentage of covered payroll		23.12%		22.80%	22.83%		23.10%
<u>Deferred Outflows/(Inflows) Recognized in</u> <u>Future Pension Expense</u>							
June 30, 2023		(510,829)	\$	(963,430)	\$ (232,392)	\$	(893,692)
June 30, 2024		(1,258,183)		(2,376,828)	(839,671)		(2,252,124)
June 30, 2025		(775,455)		(1,456,137)	(371,303)		(1,366,296)
June 30, 2026		(823,464) 81,855		(1,451,450) 144,759	(357,447) 302,221		(1,293,966) 214,810
Total Deferred Outflows/(Inflows) Recognized in	_	01,000	-	144,733	302,221	•	214,010
Future Pension Expense	\$_	(3,286,076)	\$_	(6,103,086)	\$ (1,498,592)	\$	(5,591,268)
Discount Rate Sensitivity							
1% decrease (5.90%)	\$	20,550,508	\$	35,601,552	\$ 15,894,665	\$	39,907,578
Current discount rate (6.90%)	\$	13,974,428	\$	24,209,199	\$ 10,808,436	\$	27,137,314
1% increase (7.90%)	\$	8,442,881	\$	14,626,387	\$ 6,530,095	\$	16,395,456
Covered Payroll	\$	8,094,610	\$	14,219,429	\$ 6,340,265	\$	15,758,328
See notes to schedule of employer allocations and schedule of pension amounts by employer.							(continued)

	-	Mashpee Housing Authority	-	Mashpee Water District		Town of Nantucket		Nantucket Housing Authority
Net Pension Liability Beginning net pension liability	\$	726,337	\$	1,766,770	\$	74,087,657	\$	198,087
Ending net pension liability	\$	628,810	\$	1,449,752	\$	56,934,193	\$	157,203
<u>Deferred Outflows of Resources</u> Changes of assumptions	\$	78,857	\$	181,809	\$	7,139,946	\$	19,714
Changes in proportion and differences between employer contributions and proportionate share of contributions		111,946		50,530		4,153,592		33,275
Total Deferred Outflows of Resources	\$_	190,803	\$	232,339	\$	11,293,538	\$	52,989
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience	. \$	4,413	\$	10,174	\$	399,533	\$	1,103
Net difference between projected and actual investment earnings on pension plan investments		220,176		507,626		19,935,325		55,044
Changes in proportion and differences between employer contributions and proportionate share of contributions		-		40,469		2,387,322		65,808
Total Deferred Inflows of Resources	\$ _	224,589	\$	558,269	\$	22,722,180	\$	121,955
Pension Expense Proportionate share of plan pension expense	\$	41,353	\$	95,339	\$	3,744,139	\$	10,337
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		43,029		(19,375)		945,057		(10,271)
Total Employer Pension Expense	\$_	84,382	\$	75,964	\$	4,689,196	\$	66
Contributions Statutory required contribution	. \$	84,225	\$	194,185	\$	7,625,983	\$	21,423
Contribution in relation to statutory required contribution				(194,185)	Ť	(7,625,983)	Ť	(21,423)
Contribution deficiency/(excess)	\$ _	-	\$		\$		\$	
Contributions as a percentage of covered payroll		22.80%		23.37%		23.20%		23.20%
<u>Deferred Outflows/(Inflows) Recognized in</u> Future Pension Expense								
June 30, 2023  June 30, 2024  June 30, 2025  June 30, 2026  June 30, 2027		10,092 (25,952) (15,230) (21,089) 18,393		(73,816) (136,457) (77,075) (65,102) 26,520		(1,550,770) (4,577,657) (2,962,387) (2,568,538) 230,710	\$	(16,268) (25,332) (9,748) (19,433) 1,815
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	. \$ _	(33,786)	\$	(325,930)	\$	(11,428,642)	\$	(68,966)
<u>Discount Rate Sensitivity</u> 1% decrease (5.90%)	\$	924,715	\$	2,131,976	\$	83,726,258	\$	231,180
Current discount rate (6.90%)	\$	628,810	\$	1,449,752	\$	56,934,193	\$	157,203
1% increase (7.90%)	\$	379,906	\$	875,892	\$	34,397,732	\$	94,977
Covered Payroll	\$	369,336	\$	831,006	\$	32,870,888	\$	92,334
See notes to schedule of employer allocations and schedule of pension amounts by employer.								(continued)

\$ \$ \$	396,183 314,405 39,429 1,441 40,870	\$ \$	9,706,479 6,183,300 775,429	\$ \$ \$	726,337 576,409
\$	314,405 39,429 1,441	\$	6,183,300	\$	
\$ - *	39,429	\$	, ,		0.0,.00
- - *	1,441		775,429	\$	
-					72,286
-					
-					
-	40,870		274,530		92,331
\$		\$	1,049,959	\$	164,617
\$					
	2,206	\$	43,391	\$	4,045
	110,088		2,165,063		201,828
	250		1,890,926		1,580
_					,
\$	112,544	\$	4,099,380	\$	207,453
\$	20,676	\$	406,630	\$	37,907
-	772		(406,110)		13,855
\$	21,448	\$	520	\$	51,762
\$	42,846	\$	849,699	\$	77,206
,	(42,846)	Ť	(849,699)	•	(77,206
-	(42,040)		(849,099)		(11,200
\$		\$		\$	
	23.20%		23.40%		22.80%
_	(44.447)	_	(550.040)	_	4 400
\$	(11,147) (29,222)	\$	(573,316) (950,261)	\$	1,423 (31,484
,	(18,716)		(681,399)		(12,015
	(16,217)		(586,908)		(7,186
_	3,628		(257,537)		6,426
\$	(71,674)	æ	(3,049,421)	\$	(42,836
- Ψ	(11,014)	Ψ	(3,310,121)	Ψ	(12,000
	462,358	\$	9,093,034	\$	847,655
\$	314,405	\$	6,183,300	\$	576,409
\$	189,953	\$	3,735,743	\$	348,247
	184,668	\$	3,631,802	\$	338,558
	5 \$	314,405 2 \$ 189,953	314,405 \$ 2 \$ 189,953 \$	5     \$ 314,405     \$ 6,183,300       2     \$ 189,953     \$ 3,735,743	5 \$ 314,405 \$ 6,183,300 \$ 2 \$ 189,953 \$ 3,735,743 \$

	_	Town of Orleans		Orleans Housing Authority		Town of Provincetown		Town of Sandwich
Net Pension Liability								
Beginning net pension liability	\$	21,988,143	\$	528,241	\$	19,611,044	\$	37,439,260
Ending net pension liability	\$	17,397,089	\$	419,207	\$	15,458,250	\$	34,427,365
<u>Deferred Outflows of Resources</u> Changes of assumptions	\$	2,181,717	\$	52,571	\$	1,938,573	\$	4,317,432
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		909,389		34,888		574,626		5,284,163
Total Deferred Outflows of Resources	\$_	3,091,106	\$	87,459	\$	2,513,199	\$	9,601,595
Deferred Inflows of Resources								
Differences between expected and actual experience	\$	122,083	\$	2,942	\$	108,477	\$	241,592
Net difference between projected and actual investment earnings on pension plan investments		6,091,535		146,784		5,412,657		12,054,632
Changes in proportion and differences between employer contributions and proportionate								
share of contributions		982,834		20,683		295,511		3,201,154
Total Deferred Inflows of Resources	\$ _	7,196,452	\$	170,409	\$	5,816,645	\$	15,497,378
Pension Expense								
Proportionate share of plan pension expense	. \$	1,144,076	\$	27,568	\$	1,016,574	\$	2,264,032
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		(26,335)		1,729		246,312		491,360
	_		•		_			
Total Employer Pension Expense	\$ _	1,117,741	\$	29,297	\$	1,262,886	\$	2,755,392
Cantributions								
Contributions Statutory required contribution	\$	2,330,233	\$	57,128	\$	2,070,537	\$	4,611,333
Contribution in relation to statutory required contribution	_	(2,330,233)		(57,128)		(2,070,537)		(4,611,333)
Contribution deficiency/(excess)	\$ _	-	\$		\$		\$	
Contributions as a percentage of covered payroll		22.80%		23.20%		22.80%		22.80%
Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense June 30, 2023	_	(004.000)	_	(4.4.400)	_	(444.040)	_	(00.1.000)
June 30, 2024		(624,889)	\$	(14,166) (38,260)	\$	(444,840)	\$	(884,696)
June 30, 2025		(1,779,227)		, , ,		(1,297,855)		(3,011,624)
		(1,150,558)		(13,898)		(941,228)		(1,890,509)
June 30, 2026		(733,285)		(21,463)		(769,133) 149,610		(1,517,197)
	_	182,613		4,837		149,010		1,408,243
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$ _	(4,105,346)	\$	(82,950)	\$	(3,303,446)	\$	(5,895,783)
Discount Data Considiuit								
Discount Rate Sensitivity 1% decrease (5.90%)	\$	25,583,803	\$	616,477	\$	22,732,586	\$	50,628,178
Current discount rate (6.90%)	\$	17,397,089	\$	419,207	\$	15,458,250	\$	34,427,365
1% increase (7.90%)	\$	10,510,738	\$	253,271	\$	9,339,357	\$	20,799,860
Covered Payroll	\$	10,218,291	\$	246,224	\$	9,079,506	\$	20,221,136
See notes to schedule of employer allocations and schedule of pension amounts by employer.								(continued)

	_	Sandwich Housing Authority	Sandwich Water District	Town of Truro	Veterans District
Net Pension Liability Beginning net pension liability	\$	330,154	\$ 1,914,886	\$ 12,574,647	\$ 774,542
Ending net pension liability	\$	314,405	\$ 1,572,025	\$ 9,859,020	\$ 662,499
<u>Deferred Outflows of Resources</u> Changes of assumptions	\$	39,429	\$ 197,143	\$ 1,236,390	\$ 83,082
Changes in proportion and differences between employer contributions and proportionate share of contributions		58,487	55,209	526,804	106,723
Total Deferred Outflows of Resources	\$	97,916	\$ 252,352	\$ 1,763,194	\$ 189,805
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience	\$	2,206	11,032	69,185	4,649
Net difference between projected and actual investment earnings on pension plan investments		110,088	550,440	3,452,104	231,972
Changes in proportion and differences between employer contributions and proportionate share of contributions		-	135,240	372,990	111
Total Deferred Inflows of Resources	\$	112,294	\$ 696,712	\$ 3,894,279	\$ 236,732
Pension Expense Proportionate share of plan pension expense	\$	20,674	103,381	648,355	43,566
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		12,337	(76,821)	51,343	22,552
Total Employer Pension Expense	\$	33,011	\$ 26,560	\$ 699,698	\$ 66,118
Contributions Statutory required contribution	\$	42,846	\$ 210,563	\$ 1,322,269	\$ 88,738
Contribution in relation to statutory required contribution	_	(42,846)	(210,563)	(1,322,269)	(88,738)
Contribution deficiency/(excess)	\$ _	<u>-</u>	\$ 	\$ 	\$ 
Contributions as a percentage of covered payroll		23.20%	22.80%	23.10%	24.03%
Deferred Outflows/(Inflows) Recognized in           Future Pension Expense           June 30, 2023.           June 30, 2024.           June 30, 2025.           June 30, 2026.           June 30, 2027.		456 (17,813) (7,285) (4,746) 15,010	\$ (80,720) (170,571) (117,501) (104,479) 28,911	\$ (309,658) (875,565) (594,023) (435,987) 84,148	\$ 6,974 (40,693) (18,220) (12,766) 17,778
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$	(14,378)	\$ (444,360)	\$ (2,131,085)	\$ (46,927)
Discount Rate Sensitivity 1% decrease (5.90%)	\$	462,358	\$ 2,311,788	\$ 14,498,473	\$ 974,257
Current discount rate (6.90%)	\$	314,405	\$ 1,572,025	\$ 9,859,020	\$ 662,499
1% increase (7.90%)	\$	189,953	\$ 949,765	\$ 5,956,490	\$ 400,260
Covered Payroll	\$	184,668	\$ 923,340	\$ 5,724,705	\$ 369,336
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	\$	13,968,922	\$	45,583,661	\$	444,534	\$	1,320,607
Ending net pension liability	\$	11,174,369	\$	36,473,184	\$	348,197	\$	1,152,819
Deferred Outflows of Decourage								
Deferred Outflows of Resources Changes of assumptions	\$	1,401,344	\$	4,573,992	\$	43,666	\$	144,572
Changes in proportion and differences between								
employer contributions and proportionate								
share of contributions	_	989,578		227,940		33,964		145,812
Total Deferred Outflows of Resources	\$_	2,390,922	\$	4,801,932	\$	77,630	\$	290,384
Defensed Inflance of December								
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience	\$	78,416	\$	255,949	\$	2,443	\$	8,090
·								
Net difference between projected and actual investment earnings on pension plan investments		3,912,670		12,770,969		121,920		403,656
Observation and difference between								
Changes in proportion and differences between employer contributions and proportionate								
share of contributions		379,566		1,262,198		60,993		61,839
Total Deferred Inflows of Resources	œ.	4 270 652	•	14 200 116	•	185,356	•	472 E0E
Total Deletted Illilows of Resources	Φ =	4,370,032	Ф	14,289,116	Þ	100,300	Ф.	473,585
Pension Expense								
Proportionate share of plan pension expense	\$	734,857	\$	2,398,572	\$	22,899	\$	75,812
Net amortization of deferred amounts from changes								
in proportion and differences between employer								
contributions and proportionate share of contributions	_	242,792		(593,746)		(10,915)		3,367
Total Employer Pension Expense	\$	977,649	\$	1,804,826	\$	11,984	\$	79,179
Contributions								
Statutory required contribution	\$	1,522,803	\$	4,889,216	\$	46,639	\$	154,413
Contribution in relation to statutory required contribution		(1,522,803)		(4,889,216)		(46,639)		(154,413
, ,			_			•		(101,110
Contribution deficiency/(excess)	\$ _		\$		\$		\$	-
Contributions as a percentage of covered payroll		23.45%		23.29%		25.26%		22.80%
Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense								
June 30, 2023		(204,218)	\$	(1,757,394)	\$	(24,076)	\$	(39,945
June 30, 2024		(912,447)		(3,704,932)		(33,911)		(105,815
June 30, 2025		(617,459)		(2,467,625)		(22,183)		(35,891
June 30, 2026		(393,848)		(2,029,447)		(30,444)		(37,169
June 30, 2027	_	148,242		472,214		2,888		35,619
Total Deferred Outflows/(Inflows) Recognized in	_	(4.070.700)	_	(0.407.404)	_	(407.700)		(400.004)
Future Pension Expense	» —	(1,979,730)	\$	(9,487,184)	\$	(107,726)	\$	(183,201
Discount Rate Sensitivity								
1% decrease (5.90%)	\$	16,432,798	\$	53,636,717	\$	512,051	\$	1,695,312
Current discount rate (6.90%)	\$	11,174,369	\$	36,473,184	\$	348,197	\$	1,152,819
1% increase (7.90%)	\$	6,751,179	\$	22,035,876	\$	210,369	\$	696,495
Covered Payroll	\$	6,494,155	\$	20,990,586	\$	184,668	\$	677,116
,		, ,	•	,	,	- ,		, ,
See notes to schedule of employer allocations and schedule of pension amounts by employer.								(continued

	Cape Cod Regional Transit Authority		Monomoy Regional School District		Provincetown Housing Authority		Totals
Net Pension Liability Beginning net pension liability\$	2,112,973	\$	10,102,662	\$	-	\$	690,814,161
Ending net pension liability\$		\$		\$	-	\$	549,845,442
Deferred Outflows of Resources							
Changes of assumptions \$	210,286	\$	972,572	\$	-	\$	68,954,466
Changes in proportion and differences between employer contributions and proportionate							
share of contributions	106,618		33,467		57	-	32,071,704
Total Deferred Outflows of Resources	316,904	\$	1,006,039	\$	57	\$	101,026,170
Deferred Inflows of Resources							
Differences between expected and actual experience	11,767	\$	54,423	\$	-	\$	3,858,513
Net difference between projected and actual investment earnings on pension plan investments	587,136		2,715,503		-		192,526,621
Changes in proportion and differences between							
employer contributions and proportionate share of contributions	25,004		640,369		41,322		31,931,597
Total Deferred Inflows of Resources \$	623,907	\$	3,410,295	\$	41,322	\$	228,316,731
Pension Expense							
Proportionate share of plan pension expense	110,273	\$	510,012	\$	-	\$	36,159,247
Net amortization of deferred amounts from changes							
in proportion and differences between employer							
contributions and proportionate share of contributions	25,644		(175,947)		(2,170)	-	149,100
Total Employer Pension Expense	135,917	\$	334,065	\$	(2,170)	\$ .	36,308,347
Contributions Statutory required contribution\$	224,601	\$	1,038,778	\$	_	\$	73,332,302
, ,		φ		φ	-	φ	
Contribution in relation to statutory required contribution			(1,038,778)			-	(73,332,302)
Contribution deficiency/(excess)	<u> </u>	\$		\$		\$	
Contributions as a percentage of covered payroll	22.80%		22.80%		N/A		23.83%
Deferred Outflows/(Inflows) Recognized in							
Future Pension Expense	0.700	•	(402.420)	•	(20,004)	•	(20, 200, 550)
June 30, 2023	8,739 (157,126)	\$	(403,138) (876,462)	\$	(20,604) (20,661)	\$	(20,368,558) (51,779,587)
June 30, 2025	(90,176)		(614,664)		(20,001)		(33,175,655)
June 30, 2026	(87,139)		(539,562)		_		(28,398,290)
June 30, 2027	18,699		29,570		-		6,431,529
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense\$	(307,003)	\$	(2,404,256)	\$	(41,265)	\$	(127,290,561)
·						•	
Discount Rate Sensitivity  1% decrease (5.90%)\$	2,465,907	\$	11,404,824	\$	_	\$	808,591,442
Current discount rate (6.90%)		\$		\$	-	\$	549,845,442
1% increase (7.90%)\$	, ,	\$	4,685,508	\$	-	\$	332,198,191
Covered Payroll		\$	4,555,142	\$	-	\$	307,779,844
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, 2020, were applied to allocate the Association's December 31, 2021, 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 2010 ERIP amortization is occurring over a 10-year, straight-line basis from fiscal year 2013 through fiscal year 2022.

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 2021, 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

The net investment return assumption was lowered from 7.15% to 6.90%. Also, the morality improvement scale was updated from Scale MP-2017 to Scale MP-2021.

# 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, 2021.



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INDEPENDENT AUDITORS 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, 2021, and the related notes to the financial statements, which collectively comprise the Barnstable County Retirement Associtation's financial statements, and have issued our report thereon dated August 23, 2022.

### 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**

Powers & Sellivan LLC

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.

August 23, 2022