BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2019

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TABLE OF CONTENTS

Financial Section	1
Independent Auditor's Report	2
Management's Discussion and Analysis	4
Financial Statements	7
Statement of Fiduciary Net Position	7
Statement of Changes in Fiduciary Net Position	8
Notes to Financial Statements	9
Required Supplementary Information	18
Schedule of Changes in the Net Pension Liability and Related Ratios	19
Schedule of Contributions	20
Schedule of Investment Returns	21
Notes to Required Supplementary Information	22
Audit of Specific Elements, Accounts and Items of Financial Statements	23
Independent Auditor's Report	24
Pension Plan Schedules	26
Schedule of Employer Allocations	26
Schedule of Pension Amounts by Employer	27
Notes to Schedule of Employer Allocations and Schedule of Pension Amounts by En	mployer40
Report on Internal Control Over Financial Reporting and on Compliance and Other Ma	
on an Audit of Financial Statements Performed in Accordance with Government Audit	ting
Standards	42

Financial Section

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Independent Auditor's Report

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

Report on the Financial Statements

We have audited the accompanying financial statements of Barnstable County Retirement Association (BCRA) as of and for the year ended December 31, 2019, 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.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Barnstable County Retirement Association as of December 31, 2019, and the results of its operations and changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis; the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment 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 25, 2020, 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 25, 2020

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, 2019. 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 \$1.2 billion (net position).
- The Association's net position increased by \$168.7 million for the year ended December 31, 2019.
- Total investment income was \$178.1 million; investment expenses were \$6 million; and net investment income was \$172.2 million.
- Total contributions were \$100.6 million including \$65.9 million from employers, \$29.4 million from members, and \$5.3 million from other transfers in and settlements.
- Retirement benefits, refunds and transfers to other systems amounted to \$102.6 million.
- Administrative expenses were \$1.5 million.
- The Total Pension Liability is \$2.0 billion as of December 31, 2019 while the Net Pension Liability is \$751.3 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 62.34%.

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 net position was \$1.2 billion at the close of 2019.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year-end the Association's net position includes investments of \$1.2 billion, cash and cash equivalents of \$3.0 million and accounts receivable of \$1.8 million.

In 2019, the Association's contributions were \$100.6 million and net investment income was \$172.2 million while retirement benefit payments, refunds, transfers and administration expenses were \$104.1 million, which resulted in a current increase of \$168.7 million. In 2018, the Association's contributions were \$95.6 million and net investment loss was \$26.2 million while retirement benefit payments, refunds, transfers and administration expenses were \$98.0 million, which resulted in a prior year decrease of \$28.5 million.

In 2019, the Association's current contributions of \$100.6 million did not fully support deductions totaling \$104.1 million, which resulted in a current deficiency of (\$3.5) million. In 2018, the current contributions also did not fully support the current expenses, which resulted in a prior year current deficiency of (\$2.4) million.

The main difference between the change in net position for the two years was the change in net investment income (loss). Net investment income was \$172.2 million in 2019, compared to a net investment loss of \$26.2 million in 2018. The annual money weighted rate of return was 16.09% and -2.34% in 2019 and 2018 respectively. Fluctuations in the Association's annual investment returns are expected.

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

_	2019		2018	
Assets: Cash and cash equivalents\$ Investments Receivables	3,011,673 1,238,966,784 1,812,926	\$	2,214,268 1,070,428,012 2,369,266	
Total assets	1,243,791,383		1,075,011,546	
Liabilities: Accounts payable	126,736		777	
Net Position Restricted for Pension Benefits \$	1,243,664,647	\$	1,075,010,769	

	2019		2018
Additions:			
Contributions:			
Member contributions\$	29,386,045	\$	28,253,747
Employer contributions	65,893,243		62,518,733
Other contributions	5,280,351		4,862,203
Total contributions	100,559,639		95,634,683
Net investment income (loss):			
Total investment income (loss)	178,147,131		(20,308,800)
Less, investment expenses	(5,978,095)		(5,842,481)
Net investment income (loss)	172,169,036		(26,151,281)
Total additions	272,728,675	•	69,483,402
Deductions:			
Administration	1,481,835		1,385,431
Retirement benefits, refunds and transfers	102,592,962		96,581,017
Total deductions	104,074,797		97,966,448
Net increase (decrease) in fiduciary net position	168,653,878		(28,483,046)
Fiduciary net position at beginning of year	1,075,010,769		1,103,493,815
Fiduciary net position at end of year\$	1,243,664,647	\$	1,075,010,769

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, 2019

Assets Cash and cash equivalents\$ Investments:	3,011,673
Investments in Pension Reserve Investment Trust	1,238,923,720 43,064
Total investments	1,238,966,784
Receivables, net of allowance for uncollectibles: Member deductions	1,812,926
Total Assets	1,243,791,383
Liabilities Accounts payable	126,736
Net Position Restricted for Pensions\$	1,243,664,647

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2019

Additions: Contributions:	
Employer pension appropriation\$	65,893,243
Member contributions	29,386,045
Transfers from other systems	1,785,238
3(8)c reimbursements from other systems	2,662,233
Workers compensation settlements	28,000
Federal grant reimbursements	118,885
State COLA reimbursements	461,201
Member makeup payments and redeposits	160,675
Interest not refunded	2,940
Reimbursement of 91A overearnings	61,179
gog	01,110
Total contributions	100,559,639
Net investment income (loss):	
Investment income (loss)	178,147,131
Less: investment expense	(5,978,095)
Net investment income (loss)	172,169,036
Total additions	272,728,675
Deductions:	
Administration	1,481,835
Benefits and refunds	98,552,543
Transfers to other systems	1,523,730
3(8)c reimbursements to other systems	2,516,689
	· · ·
Total deductions	104,074,797
Net increase (decrease) in fiduciary net position	168,653,878
Fiduciary net position at beginning of year	1,075,010,769
Fiduciary net position at end of year\$	1,243,664,647

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, which were previously appropriated from the governmental entities whose employees are members of the Association, are now 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, 3(8)(c) reimbursements from other systems, and pension fund appropriations. 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 BCRA 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 BCRA 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, who shall be a member ex-officio, 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 appointed by the Advisory Council consisting of representatives from the member units.

Chairman	Robert Lawton, Jr.	Term Expires:	indefinite
Appointed Member	Ronald Bergstrom	Term Expires:	1/6/2021
Elected Member	Harold S. Brunelle	Term Expires:	1/6/2021
Elected Member	Robert F. Rolanti	Term Expires:	1/6/2023
Council Member	Judith C. Sprague	Term Expires:	12/31/2020

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, 2019, the carrying amount of the Association's deposits totaled \$3,011,673; this is comprised of \$1,502,178 of cash deposited with banks along with \$1,509,495 in the PRIT cash fund. Of the \$1,502,178, the bank balance totaled \$2,369,154, which was covered by Federal Depository Insurance. The \$1,509,495 in the PRIT Cash Fund is uninsured and uncollateralized.

Investments

The Association's investments are as follows:

	December 31, 2019
Investment Type	
PRIT Pooled Funds\$	1,238,923,720
Pooled Real Estate Funds	43,064
Total Investments\$	1,238,966,784

Approximately 99% 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 remaining investments consist of real estate investments. The fair value of the investments in pooled real estate funds are categorized in Level 3 of the Fair Value Hierarchy as pricing inputs are unobservable 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.

The Association's annual money-weighted rate of return on pension plan investments was 16.09%. 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, 2019:

Retirees and beneficiaries currently receiving benefits	3,382
Inactive members	858
Active members	4,789
Total	9,029

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2019 were as follows:

Total pension liability\$	1,994,947,882
The pension plan's fiduciary net position	(1,243,664,647)
The net pension liability\$	751,283,235
The pension plan's fiduciary net position as a percentage of the total pension liability	62.34%

The total pension liability was determined by an actuarial valuation as of January 1, 2020, using the following actuarial assumptions, applied to all periods included in the measurement that was rolled back to December 31, 2019:

Valuation date	January 1, 2020
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	7.15% (previously, 7.375%)
Mortality Rates: Pre-Retirement	RP-2014 Blue Collar Employee Mortality Table projected generationally with Scale MP- 2017
Healthy Retiree	RP-2014 Blue Collar Healthy Annuitant Mortality Table projected generationally with Scale MP-2017
Disabled Retiree	RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year and projected generationally with Scale MP-2017

14

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
	7	
Domestic equity	21.00%	6.15%
International developed markets equity	13.00%	6.78%
International emerging markets equity	5.00%	8.65%
Core fixed income	15.00%	1.11%
High-yield fixed income	8.00%	3.51%
Real estate	10.00%	4.33%
Commodities	4.00%	4.13%
Hedge fund, GTAA, Risk parity	11.00%	3.19%
Private equity	13.00%	9.99%
Total	100.00%	_

Discount rate: The discount rate used to measure the total pension liability was 7.15%. 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 7.15%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.15%) or 1-percentage-point higher (8.15%) than the current rate:

	Current		
	1% Decrease Discount Rate 1% Ir		
	6.15%	7.15%	8.15%
Barnstable County Retirement Association's net	_		
pension liability as of December 31, 2019\$	987,975,703 \$	751,283,235 \$	552,434,284

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, 2019 cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2019.

NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

In May of 2020, the GASB issued Statement #95, *Postponement of the Effective Dates of Certain Authoritative Guidance*. The objective of this Statement is to provide temporary relief to governments and other stakeholders in light of the COVID-19 pandemic. This Statement postponed the required implementation of many of the upcoming Statements for one year or longer.

There were no GASB pronouncements required to be implemented in 2019 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 25, 2020, which is the date the financial statements were available to be issued.

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Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

	December 31, 2014		December 31, 2015		December 31, 2016	December 31, 2017		December 31, 2018		December 31, 2019
Total pension liability:				-					-	
Service cost\$	36,820,342	\$	38,962,546	\$	42,095,884 \$	41,043,966	\$	42,023,138	\$	44,614,451
Interest	105,040,822		110,695,407		116,551,753	125,242,091		131,278,572		137,186,701
Changes in benefit terms	-		-		23,494,437	-		-		· · ·
Differences between expected and actual experience	-		-		(10,802,611)	(3,055,533)		-		(1,444,828)
Changes in assumptions	-		-		50,013,040	61,743,785		-		47,758,691
Benefit payments	(69,038,553)		(73,639,192)		(79,260,605)	(85,780,394)		(91,853,586)		(98,552,543)
•	,		,	-					-	
Net change in total pension liability	72,822,611		76,018,761		142,091,898	139,193,915		81,448,124		129,562,472
Total pension liability - beginning	1,353,810,101		1,426,632,712	-	1,502,651,473	1,644,743,371		1,783,937,286	-	1,865,385,410
Total pension liability - ending (a)\$	1,426,632,712	\$	1,502,651,473	\$	1,644,743,371 \$	1,783,937,286	\$	1,865,385,410	\$	1,994,947,882
Dies fideniese aut anniëles.										
Plan fiduciary net position:	E4 ECO 474	•	E2 626 2E0	r.	EC 200 E27 - 0	E0 204 C04	Φ.	60 540 700	φ.	CE 002 242
Employer pension appropriation\$ Member contributions	51,562,171 24,847,689	Ф	53,626,350 25,867,837	Ф	56,269,527 \$ 26,411,361	59,204,601 27,339,086	Ф	62,518,733 28,253,747	Ф	65,893,243 29,386,045
Other contributions	3,779,205		3,575,730		4,900,585	4,753,312		4,862,203		5,280,351
Net investment income (loss)	60,614,682		5,470,561		64,678,206	160,812,163		(26,151,281)		172,169,036
Administrative expenses	(1,210,998)		(1,288,422)		(1,384,804)	(1,282,473)		(1,385,431)		(1,481,835)
Retirement benefits and refunds	(69,038,553)		(73,639,192)		(79,260,605)	(85,780,394)		(91,853,586)		(98,552,543)
Other retirement deductions						, , , ,				
Other retirement deductions	(2,469,197)		(2,680,065)	-	(2,453,642)	(3,715,199)		(4,727,431)	-	(4,040,419)
Net increase (decrease) in fiduciary net position	68,084,999		10,932,799		69,160,628	161,331,096		(28,483,046)		168,653,878
Fiduciary net position - beginning of year	793,984,293		862,069,292	-	873,002,091	942,162,719		1,103,493,815	-	1,075,010,769
Fiduciary net position - end of year (b)\$	862,069,292	\$	873,002,091	\$	942,162,719 \$	1,103,493,815	\$	1,075,010,769	\$	1,243,664,647
Net pension liability - ending (a)-(b)\$	564,563,420	\$	629,649,382	\$	702,580,652 \$	680,443,471	\$	790,374,641	\$	751,283,235
Die Educies and a siting as a second second the total										
Plan fiduciary net position as a percentage of the total pension liability	60.43%		58.10%		57.28%	64.000/		57.63%		62.34%
pension liability	60.43%		58.10%		57.28%	61.86%		57.63%		62.34%
Covered payroll\$	253,920,107	\$	264,076,910	\$	269,672,807 \$	271,510,348	\$	283,145,854	\$	293,746,441
Net pension liability as a percentage of										
covered payroll	222.34%		238.43%		260.53%	250.61%		279.14%		255.76%
	5.70							, 0		

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

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

See notes to required supplementary information.

SCHEDULE OF CONTRIBUTIONS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018	December 31, 2019
Actuarially determined contribution\$	51,562,171 \$	53,626,350 \$	56,269,527 \$	59,204,601 \$	62,518,733 \$	65,893,243
Contributions in relation to the actuarially determined contribution	(51,562,171)	(53,626,350)	(56,269,527)	(59,204,601)	(62,518,733)	(65,893,243)
Contribution deficiency (excess)\$	\$	\$	\$	\$	\$	
Covered payroll\$	253,920,107 \$	264,076,910 \$	269,672,807 \$	271,510,348 \$	283,145,854 \$	293,746,441
Contributions as a percentage of covered payroll	20.31%	20.31%	20.87%	21.81%	22.08%	22.43%

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

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

See notes to required supplementary information.

SCHEDULE OF INVESTMENT RETURNS

Annual money-weighted rate of return,

Year	net of investment expense
December 31, 2019	16.09%
December 31, 2018	-2.34%
December 31, 2017	17.17%
December 31, 2016	7.40%
December 31, 2015	0.57%
December 31, 2014	7.58%

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

See notes to required supplementary information.

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

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the Association's total pension liability, changes in the Association's net position, and the ending net pension liability. It also demonstrates the plan's net position as a percentage of the total pension liability and the net pension liability as a percentage of covered payroll.

NOTE B - CONTRIBUTIONS

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the Association's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The total appropriations are payable on July 1 and January 1. Employers may choose to pay the entire appropriation in July at a discounted rate. Accordingly, actual employer contributions may be less than the "total appropriation". The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE C - MONEY WEIGHTED RATE OF RETURN

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

NOTE D - CHANGES IN ACTUARIAL ASSUMPTIONS AND PLAN PROVISIONS

Changes in Assumptions

- The net investment return assumption was lowered from 7.375% to 7.15%.
- The administrative expense assumption was changed from \$1,500,000 to \$1,850,000.

Changes in Plan Provisions

None

Audit of Specific Elements, Accounts and Items of Financial Statements

Powers & Sullivan, LLC

Certified Public Accountants



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Independent Auditor's Report

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

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, 2019, 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, 2019, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified row totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and 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, 2019, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Barnstable County Retirement Association as of and for the year ended December 31, 2019, and our report thereon, dated August 25, 2020, 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 25, 2020

Powers & Sullivan LLC

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2019

Employer	FY2020 Pension Fund Appropriation	· -	Direct Appropriation E.R.I., Sheriff and Hospital	-	FY2020 Total Appropriation	_	Share of Net Pension Liability	Percent of Total Net Pension Liability
Barnstable County	\$ 2,539,094	\$	134,424	\$	2,673,518	\$	29,844,669	3.972%
Barnstable County Hospital			8,794		8,794		100,762	0.013%
Barnstable County Retired Sheriffs			1,601,421		1,601,421		22,730,968	3.026%
Town of Barnstable			223,716		10,540,794		117,667,623	15.662%
Barnstable Fire District			4,943		467,765		5,221,693	0.695%
Barnstable Housing Authority	•		4,440		190,855		2,130,528	0.284%
Town of Bourne	•		91,810		3,865,096		43,146,337	5.743%
Bourne Housing Authority			91,010		57,853		645,817	0.086%
	*		10.540					
Bourne Recreation Authority			19,540		135,246		1,509,761	0.201%
Bourne Water District			5,664		127,798		1,426,618	0.190%
Town of Brewster			19,398		2,474,927		27,627,783	3.677%
Brewster Housing Authority			-		12,856		143,512	0.019%
Buzzards Bay Water District			-		83,565		932,842	0.124%
Cape Light Compact JPE					321,404		3,587,855	0.478%
Cape Cod Mosquito Control District			3,099		305,219		3,407,181	0.454%
Cape Cod Regional Technical High School			-		488,535		5,453,550	0.726%
Centerville/Osterville/Marstons Mills Fire District	1,446,319		5,660		1,451,979		16,208,543	2.157%
Town of Chatham	2,114,840		100,633		2,215,473		24,731,480	3.292%
Chatham Housing Authority	44,997		-		44,997		502,305	0.067%
Cotuit Fire District	237,832		-		327,832		3,659,612	0.487%
Town of Dennis	3,548,310		-		3,458,310		38,605,357	5.139%
Dennis Housing Authority	70,709		2,960		73,669		822,372	0.109%
Dennis Water District	. 276,408		-		276,408		3,085,562	0.411%
Dennis/Yarmouth Regional School District	1,304,901		-		1,304,901		14,566,701	1.939%
Town of Eastham	. 1,742,011		27,220		1,769,231		19,750,050	2.629%
Town of Harwich	3,079,053		-		3,079,053		34,371,684	4.575%
Hyannis Fire District			1,955		1,210,435		13,512,171	1.799%
Town of Mashpee	3,220,471		43,448		3,263,919		36,435,356	4.850%
Mashpee Housing Authority	70,709		-		70,709		789,330	0.105%
Mashpee Water District	. 167,130		4,926		172,056		1,920,673	0.256%
Town of Nantucket	. 6,633,785		136,812		6,770,597		75,580,649	10.060%
Nantucket Housing Authority	. 25,712		-		25,712		287,025	0.038%
County of Nantucket	. 244,267		-		244,267		2,726,770	0.363%
Nantucket Regional Transit Authority	. 38,569		-		38,569		430,548	0.057%
Nauset Regional School District	. 912,788		-		912,788		10,189,516	1.356%
North Sagamore Water District	57,853		-		57,853		645,817	0.086%
Town of Orleans	. 2,037,703		-		2,037,703		22,747,021	3.028%
Orleans Housing Authority	. 51,425		-		51,425		574,061	0.076%
Town of Provincetown	, ,		-		1,877,001		20,953,094	2.789%
Town of Sandwich	, ,		-		4,068,978		45,422,286	6.046%
Sandwich Housing Authority			-		32,140		358,781	0.048%
Sandwich Water District	,		-		205,699		2,296,232	0.306%
Town of Truro			15,861		1,166,488		13,021,587	1.733%
Veterans District	- , -		4,751		69,032		770,609	0.103%
Town of Wellfleet	, ,		16,613		1,270,090		14,178,104	1.887%
Town of Yarmouth	, ,		101,983		4,550,219		50,794,413	6.761%
Yarmouth Housing Authority			4,765		49,762		555,497	0.074%
West Barnstable Fire District			-		128,562		1,435,147	0.191%
Cape Cod Regional Transit Authority			-		205,699		2,296,232	0.306%
Monomoy Regional School District	, ,	-	<u> </u>	-	1,028,494	_	11,481,151 -	1.528% 0.000%
Total	. \$ 64,280,860	\$	2,584,836	\$	66,865,696	\$	751,283,235	100.000%

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

	Barnstable County		Barnstable County Hospital		Barnstable County Retired Sheriffs	_	Town of Barnstable
Net Pension Liability							
Beginning net pension liability\$	34,388,815	\$	113,988	\$	24,908,609	\$	117,037,064
Ending net pension liability\$	29,844,669	\$	100,762	\$	22,730,968	\$	117,667,623
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience\$	-	\$	-	\$	-	\$	-
Net difference between projected and actual investment earnings on pension plan investments	-		-		-		-
Changes of assumptions	3,469,647		11,714		2,642,630		13,679,664
Changes in proportion and differences between employer contributions and proportionate share of contributions	449,542		-		205,185		5,947,794
Total Deferred Outflows of Resources\$	3,919,189	\$_	11,714	\$	2,847,815	\$	19,627,458
<u>leferred Inflows of Resources</u> Differences between expected and actual experience \$	251,564	\$	849	\$	191,602	\$	991,835
Net difference between projected and actual investment earnings on pension plan investments	1,783,561		6,022		1,358,436		7,031,990
Changes of assumptions	-		-		-		-
Changes in proportion and differences between employer contributions and proportionate							
share of contributions	5,345,640	_	17,714	-	1,997,302	_	1,524,686
Total Deferred Inflows of Resources\$	7,380,765	\$_	24,585	\$	3,547,340	\$_	9,548,511
<u>Proportionate share of plan pension expense\$</u>	3,794,737	\$	12,811	\$	2,890,236	\$	14,961,390
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(995,497)		(5,979)	_	(529,532)	_	760,562
Total Employer Pension Expense\$	2,799,240	\$_	6,832	\$	2,360,704	\$ _	15,721,952
Contributions							
Statutory required contribution\$	2,615,477	\$	8,830	\$	1,992,059	\$	10,311,961
Contribution in relation to statutory required contribution	(2,702,041)	-	(8,639)	-	(1,573,185)	_	(10,364,347)
Contribution deficiency/(excess)\$	(86,564)	\$_	191	\$	418,874	\$	(52,386)
Contributions as a percentage of covered payroll	22.54%		N/A		N/A		21.87%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense							
June 30, 2021\$	(607,740)	\$	(4,670)	\$	(234,178)	\$	2,289,341
June 30, 2022	(857,670)		(4,264)		(185,512)		2,389,661
June 30, 2023	(445,169)		(904)		274,521		4,211,039
June 30, 2024	(1,439,680) (111,317)		(2,882)		(574,282) 19,926		(1,004,950) 2,193,856
Total Deferred Outflows/(Inflows) Recognized in	(111,317)	-	(151)	-	13,320	-	۵,۱۶۵,0۵0
Future Pension Expense\$	(3,461,576)	\$_	(12,871)	\$	(699,525)	\$ _	10,078,947
viscount Rate Sensitivity 1% decrease (6.15%)\$	39,247,259	\$	132,507	\$	29,892,380	\$	154,738,918
Current discount rate (7.15%)\$	29,844,669	·	100,762		22,730,968		117,667,623
1% increase (8.15%)\$	21,945,410	\$	74,092	\$	16,714,556	\$	86,523,468
Covered Payroll\$	11,602,984	\$	-	\$	-	\$	47,146,301
See notes to schedule of employer allocations and schedule of pension amounts by employer.							(continued)

	Barnstable Fire District	_	Barnstable Housing Authority		Town of Bourne	_	Bourne Housing Authority
let Pension Liability							
Beginning net pension liability\$	5,108,049	\$	2,237,600	\$	46,370,383	\$	753,842
Ending net pension liability\$	5,221,693	\$	2,130,528	\$	43,146,337	\$	645,817
eferred Outflows of Resources Differences between expected and actual experience\$	-	\$	-	\$	-	\$	-
Net difference between projected and actual investment earnings on pension plan investments	-		-		-		-
Changes of assumptions	607,058		247,688		5,016,057		75,081
Changes in proportion and differences between employer contributions and proportionate							
share of contributions	389,050	-	111,982		217,936	_	1,516
Total Deferred Outflows of Resources \$	996,108	\$_	359,670	\$	5,233,993	\$_	76,597
<u>leferred Inflows of Resources</u> Differences between expected and actual experience \$	44,014	\$	17,958	\$	363,686	\$	5,444
Net difference between projected and actual investment earnings on pension plan investments	312,056		127,323		2,578,488		38,595
Changes of assumptions	-		-		-		-
Changes in proportion and differences between employer contributions and proportionate	007.040		044.745		4 040 040		470 407
share of contributions		_	211,745		1,610,048	_	173,187
Total Deferred Inflows of Resources\$	563,413	\$_	357,026	\$	4,552,222	\$_	217,226
ension Expense Proportionate share of plan pension expense\$	663,935		270,896	\$	5,486,040	\$	82,117
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	71,066		(17,427)		(336,206)		(49,393
Total Employer Pension Expense\$		_	253,469	\$	5,149,834	\$	32,724
		=				=	
ontributions Statutory required contribution\$	457,610	\$	186.712	\$	3,781,187	\$	56,597
Contribution in relation to statutory required contribution	(459,517)	•	(190,855)	Ť	(3.840.170)	•	(56,833
·		<u>-</u>	(4,143)	œ.	(58,983)	_	,
Contribution deficiency/(excess)\$		Φ =	(, ,	Ф		» —	(236
Contributions as a percentage of covered payroll	21.64%		21.92%		21.93%		21.41%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense							
June 30, 2021\$	138,906	\$	10,251	\$	224,363	\$	(41,009
June 30, 2022	98,204 157,047		16,531 1,384		71,772 904,529		(41,816 (23,350
June 30, 2024	(71,131)		(48,650)		(830,510)		(30,370
June 30, 2025	109,669		23,128		311,617		(4,084
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense\$	432,695	\$	2,644	\$	681,771	\$	(140,629
•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Ψ=		•		* =	1 - 7
iscount Rate Sensitivity 1% decrease (6.15%)\$	6,866,792	\$	2,801,753	\$	56,739,630	\$	849,282
Current discount rate (7.15%)\$	5,221,693	\$	2,130,528	\$	43,146,337	\$	645,817
1% increase (8.15%)\$	3,839,620	\$	1,566,622	\$	31,726,404	\$	474,883
covered Payroll\$	2,114,974	\$	851,865	\$	17,242,916	\$	264,372
ee notes to schedule of employer allocations and schedule of pension amounts by employer.							(continued

Reginning net pension liability Seginning net pension liability Segi	rewster Housing authority
Ending net pension liability	
Net difference between expected and actual experience	150,768
Net difference between expected and actual experience	143,512
Changes of assumptions	-
Changes in proportion and differences between employer contributions and proportionate share of contributions and proportionate share of contributions and proportionate share of contributions. Total Deferred Outflows of Resources. Differences between expected and actual experience \$ 12,726 \$ 12,025 \$ 232,878 \$ Net difference between projected and actual investments 90,226 85,257 1,651,076 Changes of assumptions	-
Employer contributions and proportionate share of contributions of Resources \$ 234,119 \$ 245,820 \$ 4,074,345 \$	16,684
Total Deferred Outflows of Resources Differences between expected and actual experience	026
Differences between expected and actual experience	926
Differences between expected and actual experience	17,610
Investment earnings on pension plan investments	1,210
Changes in proportion and differences between employer contributions and proportionate share of contributions	8,576
### ### ##############################	-
Total Deferred Inflows of Resources	
Proportionate share of plan pension expense 191,964 181,397 3,512,861 \$	17,906
Proportionate share of plan pension expense	27,692
in proportion and differences between employer contributions and proportionate share of contributions	18,251
Total Employer Pension Expense	(17,613
Statutory required contribution \$ 132,310 \$ 125,024 \$ 2,421,198 \$	638
Statutory required contribution \$ 132,310 \$ 125,024 \$ 2,421,198 \$	
Contribution in relation to statutory required contribution	12,577
Contribution deficiency/(excess)	
Contributions as a percentage of covered payroll 25.02% 22.40% 21.58% eferred Outflows/(Inflows) Recognized in Future Pension Expense	(12,856
Eleferred Outflows/(Inflows) Recognized in Eluture Pension Expense	(279
Future Pension Expense June 30, 2021	21.41%
June 30, 2021	
June 30, 2023	(15,742
June 30, 2024	1,990
June 30, 2025	4,074 (1,955
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	1,551
iscount Rate Sensitivity 1% decrease (6.15%)\$ 1,985,413 \$ 1,876,075 \$ 36,331,941 \$ Current discount rate (7.15%) \$ 1,509,761 \$ 1,426,618 \$ 27,627,783 \$	(10,082
1% decrease (6.15%)	(10,002
	188,726
1% increase (8.15%)	143,512
	105,527
Covered Payroll\$ 528,744 \$ 558,118 \$ 11,221,114 \$	58,749

		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	œ	979,988	æ	3,429,747	\$	3,578,985	¢	6,256,841
Ending net pension liability		932,842	·	3,587,855	•		\$	5,453,550
,	Ψ	932,042	Ψ	3,307,033	Ψ	3,407,101	Ψ	3,433,330
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience	\$	-	\$	-	\$	-	\$	-
Net difference between projected and actual investment earnings on pension plan investments		-		-		-		
Changes of assumptions		108,449		417,113		396,108		634,012
Changes in proportion and differences between employer contributions and proportionate share of contributions		76,935		2,134,412		165,484		528,173
Total Deferred Outflows of Resources	\$	185,384	\$	2,551,525	\$	561,592	\$	1,162,185
Deferred Inflows of Resources								
Differences between expected and actual experience	\$	7,863	\$	30,242	\$	28,720	\$	45,969
Net difference between projected and actual investment earnings on pension plan investments		55,748		214,415		203,618		325,912
Changes of assumptions		-		-		-		-
Changes in proportion and differences between employer contributions and proportionate								
share of contributions						89,348		663,115
Total Deferred Inflows of Resources	\$	81,868	\$	244,657	\$	321,686	\$	1,034,996
Pension Expense Proportionate share of plan pension expense	\$	118,609	\$	456,191	\$	433,221	\$	693,420
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		12,884		521,086		30,332		(36,534)
Total Employer Pension Expense			\$	977,277	\$	463,553	\$	656,886
Contributions Statutory required contribution	\$	81,751	\$	314,426	\$	298,593	\$	477,929
Contribution in relation to statutory required contribution		(83,565)		(315,737)		(301,361)		(479,921)
Contribution deficiency/(excess)	\$	(1,814)	\$	(1,311)	\$	(2,768)	\$	(1,992)
Contributions as a percentage of covered payroll		21.41%		21.41%		21.63%		21.41%
Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense June 30, 2021	\$	25,003	\$	567,706	\$	74,597	\$	34,325
June 30, 2022		23,996		564,692		71,403		2,661
June 30, 2023		46,823 (2,394)		618,445 469,103		84,978 (27,333)		138,435 (29,499)
June 30, 2025		10,088		86,922		36,261		(18,733)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$	103,516	\$	2,306,868	\$	239,906	\$	127,189
Discount Rate Sensitivity								
1% decrease (6.15%)	\$	1,226,735	\$	4,718,212	\$	4,480,616	\$	7,171,696
Current discount rate (7.15%)		932,842	\$	3,587,855	\$	3,407,181	\$	5,453,550
1% increase (8.15%)	\$	685,938	\$	2,638,225	\$	2,505,371	\$	4,010,109
Covered Payroll	\$	381,870	\$	1,468,732	\$	1,380,608	\$	2,232,473
See notes to schedule of employer allocations and schedule of pension amounts by employer.								(continued)

		Centerville/ Osterville/ Martsons Mills Fire District		Town of Chatham		Chatham Housing Authority		Cotuit Fire District
Net Pension Liability	•	17.620.040	•	25 507 502	•	452.205	Φ.	2.760.402
Beginning net pension liability		17,630,040		25,597,503		452,305		3,769,183
Ending net pension liability	\$	16,208,543	\$	24,731,480	\$	502,305	\$	3,659,612
<u>Deferred Outflows of Resources</u> <u>Differences between expected and actual experience</u>	\$	-	\$	-	\$	-	\$	-
Net difference between projected and actual investment earnings on pension plan investments		-		-		-		-
Changes of assumptions		1,884,354		2,875,204		58,396		425,455
Changes in proportion and differences between employer contributions and proportionate share of contributions		156,646		441,013		57,486		262,138
Total Deferred Outflows of Resources			œ.		œ.	115,882	œ.	687,593
	Ф	2,041,000	Φ.	3,310,217	Φ.	113,002	Φ.	007,393
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience	\$	136,624	\$	208,465	\$	4,234	\$	30,847
Net difference between projected and actual investment earnings on pension plan investments		968,646		1,477,989		30,018		218,704
Changes of assumptions		-		-		-		-
Changes in proportion and differences between employer contributions and proportionate								
share of contributions		522,394		119,624		46		44,878
Total Deferred Inflows of Resources	\$	1,627,664	\$	1,806,078	\$	34,298	\$	294,429
Pension Expense Proportionate share of plan pension expense	\$	2,060,911	\$	3,144,596	\$	63,871	\$	465,322
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		(91,330)		8,626		11,793		37,583
Total Employer Pension Expense	\$	1,969,581	\$	3,153,222	\$	75,664	\$	502,905
Contributions Statutory required contribution	\$	1,420,457	\$	2,167,376	\$	44,020	\$	320,715
Contribution in relation to statutory required contribution		(1,426,378)		(2,176,410)		(44,997)		(322,052)
Contribution deficiency/(excess)	\$	(5,921)	\$	(9,034)	\$	(977)	\$	(1,337)
Contributions as a percentage of covered payroll		21.49%		22.43%		21.41%	•	21.41%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense								
June 30, 2021		119,255	\$	329,946	\$		\$	85,130
June 30, 2022 June 30, 2023		109,742 386,045		404,804 742,105		17,788 25,124		126,677 162,445
June 30, 2024		(285,659)		(283,153)		4,022		(30,597)
June 30, 2025		83,953		316,437		16,329		49,509
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$	413,336	\$	1,510,139	\$	81,584	\$	393,164
Discount Rate Sensitivity								
1% decrease (6.15%)	\$	21,315,059	\$	32,523,155	\$	660,557	\$	4,812,576
Current discount rate (7.15%)	\$	16,208,543	\$	24,731,480	\$	502,305	\$	3,659,612
1% increase (8.15%)	\$	11,918,481	\$	18,185,575	\$	369,355	\$	2,690,989
Covered Payroll	\$	6,609,295	\$	9,664,258	\$	205,623	\$	1,498,107
See notes to schedule of employer allocations and schedule of pension amounts by employer.								(continued)

	-	Town of Dennis		Dennis Housing Authority	-	Dennis Water District	Dennis/Yarmouth Regional School District
Net Pension Liability							
Beginning net pension liability	\$	40,631,805	\$	938,941	\$	3,241,500	\$ 16,659,793
Ending net pension liability	\$	38,605,357	\$	822,372	\$	3,085,562	\$ 14,566,701
Deferred Outflows of Resources							
Differences between expected and actual experience	\$	-	\$	-	\$	-	\$ -
Net difference between projected and actual investment earnings on pension plan investments		-		-		-	-
Changes of assumptions		4,488,137		95,606		358,718	1,693,479
Changes in proportion and differences between							
employer contributions and proportionate share of contributions		458,207		45,418	_	37,891	419,079
Total Deferred Outflows of Resources	\$ _	4,946,344	\$	141,024	\$	396,609	\$ 2,112,558
Deferred Inflows of Resources							
Differences between expected and actual experience	\$	325,409	\$	6,932	\$	26,009	\$ 122,785
Net difference between projected and actual investment earnings on pension plan investments		2,307,112		49,146		184,398	870,527
Changes of assumptions		-		-		-	-
Changes in proportion and differences between							
employer contributions and proportionate		500 400		50.000		101.011	4 0 4 4 0 0 0
share of contributions	-	526,162		53,620	-	164,841	1,244,996
Total Deferred Inflows of Resources	\$	3,158,683	\$	109,698	\$	375,248	\$ 2,238,308
Pension Expense Proportionate share of plan pension expense	\$	4,908,659	\$	104,566	\$	392,328	\$ 1,852,149
Net amortization of deferred amounts from changes							
in proportion and differences between employer contributions and proportionate share of contributions	· _	35,051		10,208	_	(53,979)	(241,216)
Total Employer Pension Expense	\$_	4,943,710	\$	114,774	\$	338,349	\$ 1,610,933
	-		1		=		
Contributions							
Statutory required contribution		3,383,232	\$	72,070	\$	270,407	\$ 1,276,572
Contribution in relation to statutory required contribution	-	(3,397,333)		(76,115)	-	(271,534)	(1,281,893)
Contribution deficiency/(excess)	\$ _	(14,101)	\$	(4,045)	\$	(1,127)	\$ (5,321)
Contributions as a percentage of covered payroll		21.41%		22.30%		21.41%	21.41%
<u>Deferred Outflows/(Inflows) Recognized in</u> Future Pension Expense							
June 30, 2021		536,633	\$	20,888	\$	(13,885)	\$ (51,962)
June 30, 2022		368,430		10,837		(7,666)	69,431
June 30, 2023		1,095,334		22,830		74,710	229,236
June 30, 2024		(609,173) 396,437		(21,687) (1,542)		(64,355) 32,557	(330,012) (42,443)
Total Deferred Outflows/(Inflows) Recognized in	-	000,101		(1,012)	-	02,007	(12,110)
Future Pension Expense	\$	1,787,661	\$	31,326	\$	21,361	\$ (125,750)
Discount Rate Sensitivity 1% decrease (6.15%)	\$	50,768,010	\$	1,081,461	\$	4,057,671	\$ 19,155,953
Current discount rate (7.15%)		38,605,357		822,372		3,085,562	14,566,701
1% increase (8.15%)			\$	604,707		2,268,878	10,711,200
` ,							
Covered Payroll	\$	15,803,559	\$	323,121	\$	1,263,110	\$ 5,963,053
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	\$	19,613,903	\$	34,751,878	\$	13,667,129	\$	37,215,748
Ending net pension liability	\$	19,750,050	\$	34,371,684	\$	13,512,171	\$	36,435,356
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience	\$	-	\$	-	\$	-	\$	
Net difference between projected and actual investment earnings on pension plan investments		-		-		-		-
Changes of assumptions		2,296,078		3,995,943		1,570,882		4,235,859
Changes in proportion and differences between employer contributions and proportionate share of contributions	_	1,031,316		1,605,251	•	524,530	_	1,174,848
Total Deferred Outflows of Resources	\$_	3,327,394	\$	5,601,194	\$	2,095,412	\$	5,410,707
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience	\$	166,476	\$	289,723	\$	113,896	\$	307,118
Net difference between projected and actual investment earnings on pension plan investments		1,180,292		2,054,102		807,507		2,177,430
Changes of assumptions		-		-		-		-
Changes in proportion and differences between employer contributions and proportionate share of contributions		262,401		443,744		458,408		571,396
Total Deferred Inflows of Resources	_		\$	2,787,569	\$	1,379,811	\$	3,055,944
Pension Expense	Ψ=	.,,	Ψ	_,, ,	Ψ.	.,,	Ψ =	
Proportionate share of plan pension expense	\$	2,511,215	\$	4,370,349	\$	1,718,066	\$	4,632,742
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		129,414		342,761		10,738		114,347
Total Employer Pension Expense	_			4,713,110	\$	1,728,804	\$	4,747,089
Contributions Statutory required contribution	\$	1,730,822	\$	3,012,208	\$	1,184,157	\$	3,193,061
Contribution in relation to statutory required contribution	_	(1,738,036)		(3,024,763)		(1,189,093)	-	(3,206,370)
Contribution deficiency/(excess)	\$ _	(7,214)	\$	(12,555)	\$	(4,936)	\$ _	(13,309)
Contributions as a percentage of covered payroll		21.74%		21.41%		21.44%		21.70%
<u>Deferred Outflows/(Inflows) Recognized in</u> Future Pension Expense								
June 30, 2021 June 30, 2022. June 30, 2023 June 30, 2024 June 30, 2025	\$	386,012 438,459 648,034 (126,627) 372,347	\$	789,343 786,074 1,073,318 (393,914) 558,804	\$	186,297 192,189 336,617 (218,384) 218,882	\$	587,730 561,754 999,554 (332,080) 537,805
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$	1,718,225	\$	2,813,625	\$	715,601	\$	2,354,763
Discount Rate Sensitivity 1% decrease (6.15%)	\$	25,972,321	\$	45,200,514	\$	17,769,193	\$	47,914,348
Current discount rate (7.15%)	\$	19,750,050	\$	34,371,684	\$	13,512,171	\$	36,435,356
1% increase (8.15%)	\$	14,522,625	\$	25,274,219	\$	9,935,782	\$	26,791,680
Covered Payroll	\$	7,960,529	\$	14,070,455	\$	5,522,433	\$	14,716,697
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
let Pension Liability								
Beginning net pension liability	\$	753,842	\$	2,017,108	\$	78,854,971	\$	226,146
Ending net pension liability	\$	789,330	\$	1,920,673	\$	75,580,649	\$	287,025
eferred Outflows of Resources Differences between expected and actual experience	\$	-	\$	-	\$	-	\$	-
Net difference between projected and actual investment earnings on pension plan investments		-		-		-		-
Changes of assumptions		91,765		223,291		8,786,767		33,369
Changes in proportion and differences between employer contributions and proportionate		107.711		44.057		0.500.040		50.050
share of contributions	-	127,744		14,257		2,532,610	=	56,252
Total Deferred Outflows of Resources	\$	219,509	\$	237,548	\$	11,319,377	\$	89,621
<u>referred Inflows of Resources</u> Differences between expected and actual experience	\$	6,653	\$	16,190	\$	637,079	\$	2,419
Net difference between projected and actual investment earnings on pension plan investments		47,172		114,782		4,516,809		17,153
Changes of assumptions		-		-		-		-
Changes in proportion and differences between employer contributions and proportionate				104 707		054.044		44.040
share of contributions	-			101,787		651,914	=	41,349
Total Deferred Inflows of Resources	\$	53,825	\$	232,759	\$	5,805,802	\$	60,921
ension Expense Proportionate share of plan pension expense	\$	100,365	\$	244,213	\$	9,610,051	\$	36,500
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		40,747		(19,788)		594,054		1,118
Total Employer Pension Expense				224,425	\$	10,204,105	\$	37,618
ontributions Statutory required contribution	\$	69,174	\$	168,321	\$	6,623,611	\$	25,154
		,	Ψ	,	Ψ	, ,	Ψ	
Contribution in relation to statutory required contribution	-	(70,709)	-	(169,022)		(6,657,584)	=	(25,712
Contribution deficiency/(excess)	\$	(1,535)	\$	(701)	\$	(33,973)	\$ _	(558
Contributions as a percentage of covered payroll		21.41%		22.04%		21.85%		21.41%
eferred Outflows/(Inflows) Recognized in Future Pension Expense								
June 30, 2021	\$	51,000	\$	5,170	\$	1,576,029	\$	4,845
June 30, 2022		41,236		(5,807)		1,491,606		4,530
June 30, 2023		43,576 10,440		22,602 (37,534)		2,251,701		8,698 (3,373
June 30, 2024		10,440 19,432		(37,534) 20,358		(683,133) 877,372		(3,373 14,000
Total Deferred Outflows/(Inflows) Recognized in	-	. 5, .02				5,0.2	-	. 1,000
Future Pension Expense	\$	165,684	\$	4,789	\$	5,513,575	\$	28,700
iscount Rate Sensitivity 1% decrease (6.15%)	\$	1,038,009	\$	2,525,783	\$	99,392,401	\$	377,452
Current discount rate (7.15%)	\$	789,330	\$	1,920,673	\$	75,580,649	\$	287,025
1% increase (8.15%)	\$	580,411	\$	1,412,311	\$	55,576,033	\$	211,055
overed Payroll	\$	323,121	\$	763,741	\$	30,314,633	\$	117,499
ee notes to schedule of employer allocations and schedule of pension amounts by employer.								(continued

	County of Nantucket		Nantucket Regional Transit Authority		Nauset Regional School District		North Sagamore Water District
Net Pension Liability							
Beginning net pension liability\$	2,864,585	\$	452,305	\$	11,006,024	\$	678,451
Ending net pension liability\$	2,726,770	\$	430,548	\$	10,189,516	\$	645,817
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience \$	-	\$	-	\$	-	\$	-
Net difference between projected and actual investment earnings on pension plan investments	-		-		-		-
Changes of assumptions	317,006		50,054		1,184,601		75,081
Changes in proportion and differences between employer contributions and proportionate	200 477		2.044		222 402		10.546
share of contributions	280,477		2,811		232,193		10,546
Total Deferred Outflows of Resources\$	597,483	\$	52,865	\$	1,416,794	\$	85,627
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience\$	22,984	\$	3,629	\$	85,889	\$	5,444
Net difference between projected and actual investment earnings on pension plan investments	162,956		25,730		608,940		38,595
Changes of assumptions	-		-		-		-
Changes in proportion and differences between employer contributions and proportionate	00.040		40		500 445		40.000
share of contributions	90,616		46		582,445		18,302
Total Deferred Inflows of Resources\$	276,556	\$	29,405	\$	1,277,274	\$	62,341
Pension Expense Proportionate share of plan pension expense\$	346,707	\$	54,747	\$	1,295,592	\$	82,114
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	19,554		856		4,628		249
				_			
Total Employer Pension Expense\$	300,201	ф	55,603	Ъ	1,300,220	Ъ.	82,363
Contributions							
Statutory required contribution\$	238,964	\$	37,732	\$	892,972	\$	56,597
Contribution in relation to statutory required contribution	(239,960)		(38,569)		(896,694)		(56,833)
Contribution deficiency/(excess)\$	(996)	\$	(837)	\$	(3,722)	\$	(236)
Contributions as a percentage of covered payroll	21.41%		21.41%		21.41%		21.41%
<u>Deferred Outflows/(Inflows) Recognized in</u> Future Pension Expense							
June 30, 2021\$	54,982	\$	6,454	\$	137,011	\$	8,636
June 30, 2022	88,393 156,401		5,980 12,242		(14,725) 201,359		(883) 17,863
June 30, 2024	(7,619)		(5,873)		(248,049)		(9,144)
June 30, 2025	28,770		4,657		63,924		6,814
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense\$	320,927	\$	23,460	\$	139,520	\$	23,286
Discount Rate Sensitivity 1% decrease (6.15%)\$	3,585,841	\$	566,193	\$	13,399,732	\$	849,282
Current discount rate (7.15%)\$	2,726,770	\$	430,548	\$	10,189,516	\$	645,817
1% increase (8.15%)\$	2,005,051	\$	316,591	\$	7,492,564	\$	474,883
Covered Payroll\$	1,116,236	\$	176,248	\$	4,171,199	\$	264,372
See notes to schedule of employer allocations and schedule of pension amounts by employer.							(continued)

	Town of Orleans		Orleans Housing Authority		Town of Provincetown	-	Town of Sandwich
Net Pension Liability							
Beginning net pension liability\$	25,781,220	\$	527,683	\$	22,313,573	\$	48,320,951
Ending net pension liability\$	22,747,021	\$	574,061	\$	20,953,094	\$	45,422,286
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience \$	-	\$	-	\$	-	\$	-
Net difference between projected and actual investment earnings on pension plan investments	-		-		-		-
Changes of assumptions	2,644,497		66,739		2,435,940		5,280,651
Changes in proportion and differences between							
employer contributions and proportionate share of contributions	558,565		58,130		907,901		972,836
	-	•		•		•	
Total Deferred Outflows of Resources\$	3,203,062	\$	124,869	\$	3,343,841	\$	6,253,487
<u>Deferred Inflows of Resources</u> <u>Differences between expected and actual experience</u> \$	191,738	\$	4,839	\$	176,616	\$	382,870
Net difference between projected and actual investment earnings on pension plan investments	1,359,395		34,307		1,252,187		2,714,502
Changes of assumptions	-		-		-		-
Changes in proportion and differences between employer contributions and proportionate	4 000 540		44.000		000 404		000 004
share of contributions			41,386		369,184	-	386,824
Total Deferred Inflows of Resources\$	3,160,649	\$	80,532	\$	1,797,987	\$	3,484,196
Pension Expense Proportionate share of plan pension expense\$	2,892,278	\$	72,995	\$	2,664,178	\$	5,775,431
Net amortization of deferred amounts from changes in proportion and differences between employer							
contributions and proportionate share of contributions	(145,879)		1,691		128,342	-	321,688
Total Employer Pension Expense\$	2,746,399	\$	74,686	\$	2,792,520	\$	6,097,119
Contributions Statutory required contribution\$	1,993,466	\$	50,309	\$	1,836,252	\$	3,980,643
Contribution in relation to statutory required contribution	(2,001,774)		(51,425)		(1,843,906)		(3,999,704)
Contribution deficiency/(excess)\$		\$	(1,116)	\$	(7,654)	\$	(19,061)
		Ψ	21.41%	Ψ		Ψ.	, , ,
Contributions as a percentage of covered payroll	21.41%		21.41%		21.41%		21.41%
<u>Deferred Outflows/(Inflows) Recognized in</u> Future Pension Expense							
June 30, 2021\$		\$	9,145	\$	400,576	\$	911,833
June 30, 2022	84,876 476,005		8,514 16,861		471,702 671,045		782,483 1,371,036
June 30, 2024	(635,729)		(7,288)		(174,964)		(688,559)
June 30, 2025	(32,406)		17,105		177,495		392,498
Total Deferred Outflows/(Inflows) Recognized in			44.007	_	4.545.054	_	0.700.004
Future Pension Expense\$	42,413	Ф	44,337	\$	1,545,854	\$	2,769,291
Discount Rate Sensitivity 1% decrease (6.15%)\$	29,913,491	\$	754,919	\$	27,554,385	\$	59,732,619
Current discount rate (7.15%)\$	22,747,021	\$	574,061	\$	20,953,094	\$	45,422,286
1% increase (8.15%)\$	16,726,361	\$	422,119	\$	15,407,248	\$	33,399,957
Covered Payroll\$	9,311,762	\$	234,997	\$	8,577,396	\$	18,594,150
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	\$	376,915	\$	2,412,281	\$	14,205,317	\$	808,937
Ending net pension liability	\$	358,781	\$	2,296,232	\$	13,021,587	\$	770,609
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience	\$	-	\$	-	\$	-	\$	-
Net difference between projected and actual investment earnings on pension plan investments		-		-		-		-
Changes of assumptions		41,711		266,953		1,513,849		89,589
Changes in proportion and differences between employer contributions and proportionate								
share of contributions	_	3,023		5,804		231,226	-	41,104
Total Deferred Outflows of Resources	\$_	44,734	\$	272,757	\$	1,745,075	\$	130,693
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience	\$	3,024		19,355		109,761		6,496
Net difference between projected and actual investment earnings on pension plan investments		21,441		137,226		778,189		46,053
Changes of assumptions		-		-		-		-
Changes in proportion and differences between employer contributions and proportionate								
share of contributions				110,164	•	434,920	-	18,815
Total Deferred Inflows of Resources	\$ _	24,509	\$	266,745	\$	1,322,870	\$ _	71,364
Pension Expense Proportionate share of plan pension expense	\$	45,619		291,964		1,655,689		97,986
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		950		(53,423)		(73,974)		10,404
Total Employer Pension Expense			\$	238,541	\$	1,581,715	\$	108,390
	-			<u> </u>	•	· ·	•	
Contributions Statutory required contribution	¢	31.442	\$	201.233	\$	1,141,164	\$	67,533
			Ψ	,	Ψ		Ψ	
Contribution in relation to statutory required contribution	_	(32,140)		(202,072)		(1,145,920)	-	(67,815)
Contribution deficiency/(excess)	\$ _	(698)	\$	(839)	\$	(4,756)	\$ _	(282)
Contributions as a percentage of covered payroll		21.41%		21.41%		21.70%		22.99%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense								
June 30, 2021	\$	5,609	\$	(23,587)	\$	95,208	\$	20,415
June 30, 2022		5,206		(25,626)		136,381		10,472
June 30, 2023 June 30, 2024		10,426		63,511		338,204		31,143 (10,921)
June 30, 2025		(4,895)		(32,514) 24,228		(209,002) 61,414		8,220
Total Deferred Outflows/(Inflows) Recognized in	-	3,879		27,220		01,714	-	0,220
Future Pension Expense	\$_	20,225	\$	6,012	\$	422,205	\$ _	59,329
Discount Rate Sensitivity 1% decrease (6.15%)	\$	471,815		3,019,662		17,124,050		1,013,390
Current discount rate (7.15%)		358,781	\$	2,296,232	\$	13,021,587	\$	770,609
1% increase (8.15%)		263,819		1,688,467	•	9,575,045	•	566,645
Covered Payroll	\$	146,873	\$	939,989	\$	5,258,061	\$	293,746

	=	Town of Wellfleet		Town of Yarmouth		Yarmouth Housing Authority		West Barnstable Fire District
Net Pension Liability								
Beginning net pension liability	\$	15,797,094	\$	54,297,786	\$	507,573	\$	1,432,293
Ending net pension liability	\$	14,178,104	\$	50,794,413	\$	555,497	\$	1,435,147
Deferred Outflows of Resources								
Differences between expected and actual experience	\$	-	\$	-	\$	-	\$	-
Net difference between projected and actual investment earnings on pension plan investments		-		-		-		-
Changes of assumptions		1,648,302		5,905,198		64,580		166,846
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		616,444		137,694		58,373		85,316
Sidio of contributions	-	010,444		101,004		00,070		00,010
Total Deferred Outflows of Resources	\$ _	2,264,746	\$	6,042,892	\$	122,953	\$	252,162
<u>Deferred Inflows of Resources</u>								
Differences between expected and actual experience	\$	119,509	\$	428,153	\$	4,682	\$	12,097
Net difference between projected and actual		0.47.00.4		0.005.540		00.407		05.700
investment earnings on pension plan investments		847,304		3,035,548		33,197		85,766
Changes of assumptions		-		-		-		-
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		663.257		1,447,987		30,822		124 OE9
	_			1,447,907		30,622	•	124,058
Total Deferred Inflows of Resources	\$_	1,630,070	\$	4,911,688	\$	68,701	\$	221,921
Pension Expense Proportionate share of plan pension expense	\$	1,802,737	\$	6,458,494	\$	70,629	\$	182,478
Net amortization of deferred amounts from changes in proportion and differences between employer				(
contributions and proportionate share of contributions	=	34,330		(365,142)		2,011	•	7,913
Total Employer Pension Expense	\$ _	1,837,067	\$	6,093,352	\$	72,640	\$	190,391
0.47.5								
Contributions Statutory required contribution	\$	1,242,517	\$	4,451,436	\$	48,682	\$	125,771
Contribution in relation to statutory required contribution	_	(1,247,696)		(4,469,990)		(49,762)		(126,295)
Contribution deficiency/(excess)	\$	(5,179)	\$	(18,554)	\$	(1,080)	\$	(524)
Contributions as a percentage of covered payroll		21.69%		21.90%		23.68%		21.41%
Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense June 30, 2021	Ф	218,539	\$	294,801	\$	9,229	\$	26,555
June 30, 2022	Ф	231,820	Φ	169,250	Ф	8,295	Φ	(1,559)
June 30, 2023		414,014		1,127,006		16,444		19,624
June 30, 2024		(248,846)		(860,456)		3,291		(40,418)
June 30, 2025	_	19,149		400,603		16,993		26,039
Future Pension Expense	\$_	634,676	\$	1,131,204	\$	54,252	\$	30,241
Discount Rate Sensitivity								
1% decrease (6.15%)	\$	18,644,929	\$	66,797,239	\$	730,507	\$	1,887,291
Current discount rate (7.15%)	\$	14,178,104	\$	50,794,413	\$	555,497	\$	1,435,147
1% increase (8.15%)	\$	10,425,457	\$	37,350,195	\$	408,469	\$	1,055,294
Covered Payroll	\$	5,728,056	\$	20,327,254	\$	205,623	\$	587,493
See notes to schedule of employer allocations and schedule of pension amounts by employer.								(continued)

		Cape Cod Regional Fransit Authority		Monomoy Regional School District		Provincetown Housing Authority	-	Totals
Net Pension Liability								
Beginning net pension liability	\$	2,336,890	\$	12,136,781	\$	-	\$	790,374,641
Ending net pension liability	\$	2,296,232	\$	11,481,151	\$	-	\$	751,283,235
<u>Deferred Outflows of Resources</u> Differences between expected and actual experience	\$	-	\$	-	\$	-	\$	-
Net difference between projected and actual investment earnings on pension plan investments		-		-		-		-
Changes of assumptions		266,953		1,334,762		-		87,341,813
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		270,765		106,544		37,042		24,791,406
Total Deferred Outflows of Resources		537,718	•	1,441,306	\$	37,042	\$	112,133,219
	Ψ	001,110	Ψ	1,441,000	Ψ	07,042	Ψ.	112,100,210
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience	\$	19,355	\$	96,776	\$	-	\$	6,332,661
Net difference between projected and actual investment earnings on pension plan investments		137,226		686,130		-		44,897,778
Changes of assumptions		-		-		-		-
Changes in proportion and differences between employer contributions and proportionate		400.050		050 400		22.244		04.050.005
share of contributions	_	168,958		250,162		82,644	•	24,353,385
Total Deferred Inflows of Resources	\$ _	325,539	\$	1,033,068	\$	82,644	\$	75,583,824
Pension Expense Proportionate share of plan pension expense	\$	291,967	\$	1,459,825	\$	-	\$	95,525,409
Net amortization of deferred amounts from changes								
in proportion and differences between employer contributions and proportionate share of contributions	_	(9,044)		(116,994)		(2,168)		148,813
Total Employer Pension Expense	\$_	282,923	\$	1,342,831	\$	(2,168)	\$	95,674,222
Contributions Statutory required contribution	\$	201,233	\$	1,006,166	\$	_	\$	65,839,710
Contribution in relation to statutory required contribution		(202,072)		(1,010,360)				(65,839,710)
				, ,				(65,639,710)
Contribution deficiency/(excess)	\$_	(839)	\$	(4,194)	\$		\$	-
Contributions as a percentage of covered payroll		21.41%		21.41%		N/A		22.41%
<u>Deferred Outflows/(Inflows) Recognized in</u> <u>Future Pension Expense</u>								
June 30, 2021	\$	20,791 54,088	\$	32,173 102,598	\$	(2,167) (2,170)	\$	9,909,823 9,279,475
June 30, 2023		134,126		336,685		(20,604)		20,526,075
June 30, 2024		(31,951)		(173,461)		(20,661)		(10,884,955)
June 30, 2025	_	35,125		110,243		<u>-</u>	•	7,718,977
Future Pension Expense	\$_	212,179	\$	408,238	\$	(45,602)	\$	36,549,395
Discount Rate Sensitivity 1% decrease (6.15%)	\$	3,019,662	\$	15,098,298	\$	-	\$	987,975,703
Current discount rate (7.15%)	\$	2,296,232	\$	11,481,151	\$	-	\$	751,283,235
1% increase (8.15%)	\$	1,688,467	\$	8,442,331	\$	-	\$	552,434,284
Covered Payroll	\$	939,989	\$	4,699,943	\$	-	\$	293,746,441
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) Statement #68 requires employers participating in a costsharing pension plan to recognize pension liabilities as employees provide services to the government and earn their pension benefits. Employers participating in cost-sharing plans are required to recognize their proportionate share of the plan's collective pension amounts for all benefits provided through the plan including the net pension liability, deferred outflows of resources, deferred inflows of resources, contributions and pension expense.

GASB Statement #68 requires 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 Statement #68, 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, 2018 were applied to allocate the Association's December 31, 2019 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, increasing 4.5% per year. The 2010 ERIP amortization is occurring over a 10-year, straight-line basis.

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 2019 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 7.375% to 7.15%.
- The administrative expense assumption was changed from \$1,500,000 to \$1,850,000.

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, 2019.

Powers & Sullivan, LLC

Certified Public Accountants

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



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

We have audited the financial statements of the Barnstable County Retirement Association (BCRA), as of and for the year ended December 31, 2019 which collectively comprise the Barnstable County Retirement Association's basic financial statements and have issued our report thereon dated August 25, 2020. 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.

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 opinions 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.

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 & Sullivan 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 25, 2020