BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2020

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Standards

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, 2020, 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, 2020, 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 June 22, 2021, 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.

Powers & Sullivan LLC

June 22, 2021

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, 2020. 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 \$1.4 billion (net position).
- The Association's net position increased by \$147.2 million for the year ended December 31, 2020.
- Total investment income was \$157.3 million; investment expenses were \$6.0 million; and net investment income was \$151.2 million.
- Total contributions were \$106.4 million including \$69.9 million from employers, \$30.7 million from members, and \$5.8 million from other transfers in and settlements.
- Retirement benefits, refunds and transfers to other systems amounted to \$109.1 million.
- Administrative expenses totaled \$1.4 million.
- The Total Pension Liability is \$2.1 billion as of December 31, 2020, while the Net Pension Liability is \$690.8 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 66.82%.

Overview of the Financial Statements

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

Fiduciary Financial Statements

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

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

Notes to the Financial Statements

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

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Required Supplementary Information

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

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the Association's financial position. The Association's assets exceeded liabilities by \$1.4 billion at the close of 2020.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year-end the Association's net position mainly includes investments of \$1.4 billion, cash and cash equivalents of \$2.6 million and accounts receivable of \$2.7 million.

In 2020, the Association's contributions totaled \$106.4 million and net investment income totaled \$151.2 million while retirement benefit payments, refunds, transfers and administration expenses totaled \$110.4 million, which resulted in a current year increase of \$147.2 million. In 2019, the Association's contributions totaled \$100.6 million and net investment income totaled \$172.2 million while retirement benefit payments, refunds, transfers and administration expenses totaled \$100.6 million and net investment income totaled \$172.2 million, which resulted in a prior year increase of \$168.7 million.

In 2020, the Association's current contributions of \$106.4 million did not fully support deductions totaling \$110.4 million, which resulted in a current deficiency of \$4.0 million. In 2019, the current contributions also did not fully support the current expenses, which resulted in a prior year current deficiency of \$3.5 million.

The main difference between the change in net position for the two years was the change in net investment income. Net investment income was \$151.2 million in 2020, compared to a net investment income of \$172.2 million in 2019. The annual money weighted rate of return was 12.20% and 16.09% in 2020 and 2019, respectively. Fluctuations in the Association's annual investment returns are expected.

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

	2020	 2019
Assets:		
Cash and cash equivalents \$	2,597,983	\$ 3,011,673
Investments	1,385,605,002	1,238,966,784
Receivables	2,709,342	1,812,926
Other assets	1,712	-
Total assets	1,390,914,039	 1,243,791,383
Liabilities: Accounts payable	3,828	 126,736
Net Position Restricted for Pension Benefits \$	1,390,910,211	\$ 1,243,664,647

	2020	 2019
Additional		
Additions: Contributions:		
Member contributions\$	30,684,917	\$ 29,386,045
Employer contributions	69,873,352	65,893,243
Other contributions	5,861,416	 5,280,351
Total contributions	106,419,685	 100,559,639
Net investment income:		
Total investment income	157,278,651	178,147,131
Less, investment expenses	(6,028,678)	 (5,978,095)
Net investment income	151,249,973	 172,169,036
Total additions	257,669,658	 272,728,675
Deductions:		
Administration	1,364,653	1,481,835
Retirement benefits, refunds and transfers	109,059,441	 102,592,962
Total deductions	110,424,094	 104,074,797
Net increase (decrease) in fiduciary net position	147,245,564	168,653,878
Fiduciary net position at beginning of year	1,243,664,647	 1,075,010,769
Fiduciary net position at end of year\$	1,390,910,211	\$ 1,243,664,647

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.

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STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2020

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Assets	
Cash and cash equivalents\$	2,597,983
Investments:	
Investments in Pension Reserve Investment Trust	1,385,605,002
Receivables, net of allowance for uncollectibles:	
Member deductions	1,809,294
Employer pension appropriation	715,051
Other accounts receivable	184,997
Other assets	1,712
Total Assets	1,390,914,039
Liabilities	
Accounts payable	3,828
Net Position Restricted for Pensions\$	1,390,910,211

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2020

Employer pension appropriation\$	69,873,352
Member contributions	30,684,917
Transfers from other systems	2,476,618
3(8)c reimbursements from other systems	2,677,271
Workers compensation settlements	18,500
Federal grant reimbursements	69,395
State COLA reimbursements	412,103
Member makeup payments and redeposits	150,862
Interest not refunded	10,237
Reimbursement of 91A overearnings	45,462
Other revenue	968
Total contributions	106,419,685
Net investment income:	
Investment income	157,278,651
Less: investment expense	(6,028,678)
Net investment income	151,249,973
Total additions	257,669,658
eductions:	
Administration	1,364,653
Benefits and refunds	105,603,669
Transfers to other systems	1,009,343
3(8)c reimbursements to other systems	2,446,429
Total deductions	110,424,094
Net increase (decrease) in fiduciary net position	147,245,564
duciary net position at beginning of year	1,243,664,647

See notes to financial statements.

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NOTE 1 – PLAN DESCRIPTION

The Barnstable County Retirement Association is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Barnstable County Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers' Retirement System. Membership in the Association is mandatory immediately upon the commencement of employment for all permanent employees working a minimum of 25 hours per week. The Association has 50 participating employers.

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

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

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

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

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

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

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

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

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

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

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

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

Administrative expenses are paid from investment income.

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

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

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

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

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

BCRA is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition. Investments are carried at fair value. The fair values were determined by the closing price for those securities traded on national stock exchanges and at

Notes to Financial Statements

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

Fair Value Measurements

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

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

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

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

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

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

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

Accounts Receivable

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

Deferred Outflows/Inflows of Resources

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

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

NOTE 3 – PLAN ADMINISTRATION

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

Chairman	Robert Lawton, Jr.	Term Expires:	indefinite
Appointed Member	Ronald Bergstrom	Term Expires:	1/5/2022
Elected Member	Harold S. Brunelle	Term Expires:	1/6/2021*
Elected Member	Robert F. Rolanti	Term Expires:	1/6/2023
Council Member	TK Menesale	Term Expires:	indefinite

* Election has been delayed due to the Coronavirus Pandemic.

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, 2020, the carrying amount of the Association's deposits totaled \$2,597,983; this is comprised of \$1,797,497 of cash deposited with banks along with \$800,486 in the PRIT cash fund. Of the \$1,797,497, the bank balance totaled \$2,738,488, which was covered by Federal Depository Insurance. The \$800,486 in the PRIT cash fund is uninsured and uncollateralized.

Investments

The Association's investments at December 31, 2020, consist of \$1,385,605,002 in PRIT pooled funds.

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

The Association's annual money-weighted rate of return on pension plan investments was 12.20%. The moneyweighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

NOTE 5 – MEMBERSHIP

The following table represents the Association's membership at December 31, 2020:

Retirees and beneficiaries currently receiving benefits	3,466 969
Active members	4,763
Total	9,198

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2020 were as follows:

Total pension liability\$	2,081,724,372
The pension plan's fiduciary net position	(1,390,910,211)
The net pension liability\$_	690,814,161
The pension plan's fiduciary net position as a percentage of the total pension liability	66.82%

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 forward to December 31, 2020:

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%
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

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

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

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

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity International developed markets equity International emerging markets equity	22.00% 12.00% 5.00%	6.28% 7.00% 8.82%
Core fixed income	15.00%	3.80%
Value added fixed income	8.00%	2.97%
Real estate	10.00% 4.00%	3.50% 3.45%
Hedge fund, PCS	10.00% 14.00%	2.35% 10.11%
– 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 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 6.15%	Discount Rate 7.15%	1% Increase 8.15%
Barnstable County Retirement Association's net			
pension liability as of December 31, 2020\$	934,348,802	\$ 690,814,161 \$	486,175,527

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, 2020, cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2020.

NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

There were no GASB pronouncements required to be implemented in 2020, 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 June 22, 2021, which is the date the financial statements were available to be issued.

Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

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

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

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

See notes to required supplementary information.

	December 31,		December 31,		December 31,		December 31,
	2017		2018		2019		2020
		•					
\$	41,043,966	\$	42,023,138	\$	44,614,451	\$	50,038,189
	125,242,091		131,278,572		137,186,701		142,341,970
	-		-		-		-
	(3,055,533)		-		(1,444,828)		-
	61,743,785		-		47,758,691		-
-	(85,780,394)	-	(91,853,586)		(98,552,543)		(105,603,669)
-		-					
	139,193,915		81,448,124		129,562,472		86,776,490
	1,644,743,371		1,783,937,286		1,865,385,410		1,994,947,882
\$	1,783,937,286	\$	1,865,385,410	\$	1,994,947,882	\$	2,081,724,372
\$	59,204,601	\$	62,518,733	\$	65,893,243	\$	69,873,352
	27,339,086		28,253,747		29,386,045		30,684,917
	4,753,312		4,862,203		5,280,351		5,861,416
	160,812,163		(26,151,281)		172,169,036		151,249,973
	(1,282,473)		(1,385,431)		(1,481,835)		(1,364,653)
	(85,780,394)		(91,853,586)		(98,552,543)		(105,603,669)
	(3,715,199)		(4,727,431)		(4,040,419)		(3,455,772)
	161,331,096		(28,483,046)		168,653,878		147,245,564
	0.40,400,740						4 9 49 99 4 9 4 7
•	942,162,719		1,103,493,815	,	1,075,010,769		1,243,664,647
¢	1 102 402 915	¢	1 075 010 760	¢	1 242 664 647	¢	1 200 010 211
\$	1,103,493,615	φ	1,075,010,709	φ	1,243,664,647	\$	1,390,910,211
\$	680,443,471	\$	790,374,641	\$	751,283,235	\$	690,814,161
Ψ	000,440,471	Ψ.	130,314,041	Ψ	701,200,200	Ψ	000,014,101
	61.86%		57.63%		62.34%		66.82%
	01.0070		57.0570		02.0470		00.0270
\$	271,510,348	\$	283,145,854	\$	293,746,441	\$	306,402,979
Ψ	2,010,010	Ψ	200,110,004	Ψ	200,110,111	Ψ	000, 102,070
	250.61%		279.14%		255.76%		225.46%
	_00.0170				200070		

SCHEDULE OF CONTRIBUTIONS

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

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

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

See notes to required supplementary information.

	December 31,	December 31,		December 31,		December 31,
-	2017	2018	-	2019		2020
\$	59,204,601	\$ 62,518,733	\$	65,893,243	\$	69,873,352
_	(59,204,601)	(62,518,733)	-	(65,893,243)		(69,873,352)
\$	-	\$ -	\$	-	\$	-
=					1	
\$	271,510,348	\$ 283,145,854	\$	293,746,441	\$	306,402,979
	21.81%	22.08%		22.43%		22.80%

SCHEDULE OF INVESTMENT RETURNS

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

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

See notes to required supplementary information.

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

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

NOTE B – CONTRIBUTIONS

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

NOTE C – MONEY WEIGHTED RATE OF RETURN

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

NOTE D - CHANGES IN ACTUARIAL ASSUMPTIONS AND PLAN PROVISIONS

Changes in Assumptions

None.

Changes in Plan Provisions

None.

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Audit of Specific Elements, Accounts and Items of Financial Statements

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Powers & Sullivan, LLC

Certified Publie 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, 2020, 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, 2020, 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, 2020, 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, 2020, and our report thereon, date June 22, 2021, expressed an unmodified opinion on those financial statements.

Restriction on Use

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

Powers & Sullivan LLC

June 22, 2021

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2020

Employer	FY2021 Pension Fund Appropriation	Direct Appropriation E.R.I., Sheriff and Hospital	FY2021 Total Appropriation	Share of Net Pension Liability	Percent of Total Net Pension Liability
Barnstable County	\$ 2,497,451	\$ 139,801	\$ 2,637,252	2 \$ 25,729,135	3.724%
Barnstable County Hospital		9,146	9,146	91,471	0.013%
Barnstable County Retired Sheriffs		1,702,310	1,702,310		2.987%
Town of Barnstable		228,443	10,807,078		15.262%
Barnstable Fire District		5,141	478,912		0.676%
Barnstable Housing Authority		4,618	234,735		0.332%
Town of Bourne		95,482	4,230,828		5.975%
Bourne Housing Authority			67,682		0.096%
Bourne Recreation Authority		20,322	135,381		0.191%
Bourne Water District		5,890	148,021		0.191%
Town of Brewster		20,174	2,652,989	, ,	3.747%
Brewster Housing Authority		-	13,536		0.019%
Buzzards Bay Water District		-	87,986		0.124%
Cape Light Compact JPE		-	331,640	-,,	0.468%
Cape Cod Mosquito Control District		3,223	321,326		0.454%
Cape Cod Regional Technical High School		-	541,453		0.765%
Centerville/Osterville/Marstons Mills Fire District		5,886	1,582,867	15,442,513	2.235%
Town of Chatham	2,131,971	100,633	2,232,604	21,781,373	3.153%
Chatham Housing Authority	40,609	-	40,609	396,183	0.057%
Cotuit Fire District	338,408	-	338,408	3,301,522	0.478%
Town of Dennis	3,641,271	-	3,641,271	35,524,384	5.142%
Dennis Housing Authority	67,682	3,078	70,760	690,337	0.100%
Dennis Water District	. 284,263	-	284,263	3 2,773,281	0.401%
Dennis/Yarmouth Regional School District	1,380,705	-	1,380,705	5 13,470,213	1.950%
Town of Eastham	. 1,820,635	28,309	1,848,944	18,038,371	2.611%
Town of Harwich	. 3,201,340	-	3,201,340	31,232,400	4.521%
Hyannis Fire District	1,285,951	2,033	1,287,984	12,565,623	1.819%
Town of Mashpee	3,512,675	45,186	3,557,861	34,710,633	5.025%
Mashpee Housing Authority	. 74,450	-	74,450	726,337	0.105%
Mashpee Water District	. 175,972	5,123	181,095	5 1,766,770	0.256%
Town of Nantucket	. 7,451,745	142,285	7,594,030	74,087,657	10.725%
Nantucket Housing Authority	. 20,304	-	20,304	198,087	0.029%
County of Nantucket		-	257,190		0.363%
Nantucket Regional Transit Authority	,	-	40,609	,	0.057%
Nauset Regional School District		-	994,920		1.405%
North Sagamore Water District		-	74,450		0.105%
Town of Orleans		-	2,253,798		3.183%
Orleans Housing Authority		-	54,145		0.076%
Town of Provincetown	, ,	-	2,010,144	, ,	2.839%
Town of Sandwich	3,837,547	-	3,837,547		5.420%
Sandwich Housing Authority		-	33,841		0.048%
Sandwich Water District		-	196,277	, ,	0.277%
Town of Truro Veterans District	, ,	16,495 4,941	1,288,909		1.820% 0.112%
Town of Wellfleet	,	4,941 17,277	79,391		
Town of Yarmouth		103,844	1,431,823 4,672,353		2.022% 6.599%
Yarmouth Housing Authority	, ,	4,956	4,672,353		0.064%
West Barnstable Fire District		4,550	135,363		0.004 %
Cape Cod Regional Transit Authority		-	216,581	, ,	0.306%
Monomoy Regional School District		-	1,035,529	, ,	1.462%
Total		\$ 2,714,596			100.000%

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

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2020	

		Barnstable County		Barnstable County Hospital	-	Barnstable County Retired Sheriffs	_	Town of Barnstable
<u>Vet Pension Liability</u> Beginning net pension liability	\$	29,844,669	\$	100,762	\$	22,730,968	\$	117,667,623
Ending net pension liability	\$	25,729,135	\$	91,471	\$	20,631,559	\$	105,434,281
Deferred Outflows of Resources								
Changes of assumptions	\$	2,262,832	\$	8,045	\$	1,814,509	\$	9,272,762
Changes in proportion and differences between employer contributions and proportionate share of contributions		34 637		_		-		4,576,108
Total Deferred Outflows of Resources				8,045	۔ د	1,814,509	_ د	13,848,870
	۰ ۹	2,297,409	· Þ =	0,045	φ =	1,014,509	φ =	13,848,870
Deferred Inflows of Resources Differences between expected and actual experience	\$	140,865	\$	501	\$	112,957	\$	577,245
Net difference between projected and actual investment earnings on pension plan investments		3,002,244		10,673		2,407,426		12,302,764
Changes in proportion and differences between employer contributions and proportionate share of contributions		5,406,674		12,920		1,827,639		3,269,201
Total Deferred Inflows of Resources	\$	8,549,783	\$	24,094	\$	4,348,022	\$	16,149,210
Pension Expense Proportionate share of plan pension expense	\$	2,555,739	\$	9,086	\$	2,049,385	\$	10,473,042
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		(1,289,784)		(6,214)	_	(642,511)	_	289,431
Total Employer Pension Expense	\$	1,265,955	\$	2,872	\$_	1,406,874	\$_	10,762,473
Contributions Statutory required contribution	\$	2,590,751	\$	8,985	\$	1,672,295	\$	10,616,528
Contribution in relation to statutory required contribution	_	(2,590,751)		(8,985)	_	(1,672,295)	_	(10,616,528
Contribution deficiency/(excess)	\$	-	\$	-	\$	-	\$_	-
Contributions as a percentage of covered payroll		22.91%		N/A		N/A		22.17%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense								
June 30, 2022. June 30, 2023. June 30, 2024. June 30, 2025. June 30, 2026.		(1,640,024) (1,255,441) (2,172,391) (890,171) (294,287)	\$	(6,172) (2,830) (4,755) (2,055) (237)	\$	(675,295) (219,659) (1,056,247) (469,306) (113,006)	\$	(25,214 1,751,152 (3,339,782 (215,368 (471,128
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$	(6,252,314)	\$	(16,049)	\$	(2,533,513)	\$	(2,300,340
<u>Discount Rate Sensitivity</u> 1% decrease (6.15%)	\$	34,799,499	\$	123,718	\$	27,904,860	\$	142,603,326
Current discount rate (7.15%)	\$	25,729,135	\$	91,471	\$	20,631,559	\$	105,434,281
1% increase (8.15%)	\$	18,107,440	\$	64,375	\$	14,519,909	\$	74,201,677

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER FOR THE YEAR ENDED DECEMBER 31, 2020

	-	Barnstable Fire District	_	Barnstable Housing Authority	•	Town of Bourne	_	Bourne Housing Authority
<u>Net Pension Liability</u> Beginning net pension liability	\$	5,221,693	\$	2,130,528	\$	43,146,337	\$	645,817
Ending net pension liability	\$	4,672,284	\$	2,290,084	\$	41,276,125	\$	660,308
Deferred Outflows of Resources Changes of assumptions	\$	410,919	\$	201,409	\$	3,630,163	\$	58,073
Changes in proportion and differences between employer contributions and proportionate share of contributions		265,136		345,790		1,433,002		57,517
Total Deferred Outflows of Resources	-		- \$	547,199	\$	5,063,165	\$	115,590
	=		-				-	
Deferred Inflows of Resources Differences between expected and actual experience	\$	25,580	\$	12,538	\$	225,984	\$	3,615
Net difference between projected and actual investment earnings on pension plan investments		545,193		267,222		4,816,369		77,049
Changes in proportion and differences between employer contributions and proportionate share of contributions		264,667		134,354		1,055,898		122,271
Total Deferred Inflows of Resources	\$	835,440	\$	414,114	\$	6,098,251	\$	202,935
Pension Expense Proportionate share of plan pension expense	\$	464,111		227,481	\$	4,100,061	\$	65,589
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	. <u> </u>	49,028		41,327	-	(49,612)		(37,893
Total Employer Pension Expense	\$_	513,139	\$_	268,808	\$	4,050,449	\$ _	27,696
Contributions								
Statutory required contribution	\$	470,468	\$	239,693	\$	4,203,804	\$	66,489
Contribution in relation to statutory required contribution	_	(470,468)	-	(239,693)		(4,203,804)	_	(66,489
Contribution deficiency/(excess)	\$_	-	\$_	-	\$		\$	-
Contributions as a percentage of covered payroll		21.94%		23.01%		22.45%		21.70%
Deferred Outflows/(Inflows) Recognized in <u>Future Pension Expense</u>		(10.050)				(007.400)		(11.070
June 30, 2022 June 30, 2023		(10,056) 46,683	\$	38,235 28,481	\$	(367,102) 491,765	\$	(41,378 (21,829
June 30, 2024		(175,650)		(36,538)		(1,315,816)		(31,859
June 30, 2025 June 30, 2026		1,673 (22,035)		44,154 58,753		(130,532) 286,599		(3,783 11,504
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$	(159,385)	\$	133,085	\$	(1,035,086)	\$	(87,345
Discount Rate Sensitivity	-		_				_	
1% decrease (6.15%)	\$	6,319,417	\$	3,097,414	\$	55,827,312	\$	893,088
Current discount rate (7.15%)	\$	4,672,284	\$	2,290,084	\$	41,276,125	\$	660,308
1% increase (8.15%)	\$	3,288,222	\$	1,611,697	\$	29,048,973	\$	464,706
Covered Payroll	\$	2,144,821	\$	1,041,770	\$	18,721,222	\$	306,403
See notes to schedule of employer allocations and schedule of pension amounts by employer.	\$	2, 144,821	Þ	1,041,770	\$	18,721,222	\$	306, (contin

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2020	

	_	Bourne Recreation Authority		Bourne Water District		Town of Brewster	_	Brewster Housing Authority
Net Pension Liability Beginning net pension liability	\$	1,509,761	\$	1,426,618	\$	27,627,783	\$	143,512
Ending net pension liability	\$	1,320,782	\$	1,444,099	\$	25,882,666	\$	132,058
Deferred Outflows of Resources Changes of assumptions	\$	116,160	\$	127,006	\$	2,276,335	\$	11,614
Changes in proportion and differences between employer contributions and proportionate share of contributions		34,355		154,801		998,509		747
Total Deferred Outflows of Resources	\$	150,515	\$	281,807	\$	3,274,844	\$	12,361
Deferred Inflows of Resources Differences between expected and actual experience	\$	7,231	\$	7,906	\$	141,706	\$	723
Net difference between projected and actual investment earnings on pension plan investments		154,118		168,507		3,020,159		15,409
Changes in proportion and differences between employer contributions and proportionate share of contributions		76,084		208,976		309,616		-
Total Deferred Inflows of Resources			\$		\$	3,471,481	\$	16,132
Pension Expense Proportionate share of plan pension expense	\$	131,196	\$	143,445	\$	2,570,990	\$	13,118
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	_	(7,840)		(18,283)		166,342	_	(17,586)
Total Employer Pension Expense	\$_	123,356	\$	125,162	\$	2,737,332	\$_	(4,468)
Contributions Statutory required contribution	\$	132,994	\$	145,411	\$	2,606,211	\$	13,297
Contribution in relation to statutory required contribution	-	(132,994)		(145,411)		(2,606,211)	_	(13,297)
Contribution deficiency/(excess)	\$ _	-	\$	-	\$		\$ =	
Contributions as a percentage of covered payroll		25.53%		22.60%		21.87%		21.70%
Deferred Outflows/(Inflows) Recognized in <u>Future Pension Expense</u> June 30, 2022.	¢	(24,957)	¢	(43,665)	¢	55,503	¢	(373)
June 30, 2023. June 30, 2024. June 30, 2025. June 30, 2026.		(1,001) 14,615 (45,085) (19,920) (11,571)	Ŷ	(16,425 (69,078) (30,169) 22,905	Ŷ	600,950 (795,492) (141,531) 83,933	Ŷ	(810) 1,712 (4,322) (812) 24
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	-		\$	(103,582)	\$		\$_	(3,771)
Discount Rate Sensitivity 1% decrease (6.15%)	\$	1,786,401	\$	1,953,191	\$	35,007,154	\$	178,613
Current discount rate (7.15%)	\$	1,320,782	\$	1,444,099	\$	25,882,666	\$	132,058
1% increase (8.15%)	\$	929,529	\$	1,016,316	\$	18,215,490	\$	92,939
Covered Payroll	\$	520,885	\$	643,446	\$	11,919,076	\$	61,281
See notes to schedule of employer allocations and schedule of pension amounts by employer.								(continued)

		Buzzards Bay		Cape Light		Cape Cod Mosquito		Cape Cod Regional Technical
	_	Water District		Compact JPE	•	Control District	-	High School
Net Pension Liability								
Beginning net pension liability	\$	932,842	\$	3,587,855	\$	3,407,181	\$	5,453,550
Ending net pension liability	\$	858,395	\$	3,235,493	\$	3,134,869	\$	5,282,437
Deferred Outflows of Resources Changes of assumptions	\$	75,494	\$	284,556	\$	275,706	\$	464.581
.		-, -		,		-,		- ,
Changes in proportion and differences between employer contributions and proportionate		50 745		1 010 000		407.005		010 000
share of contributions		56,715		1,613,323	-	107,295	-	613,238
Total Deferred Outflows of Resources	\$ _	132,209	\$	1,897,879	\$	383,001	\$ =	1,077,819
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience	\$	4,700	\$	17,714	\$	17,163	\$	28,921
Net difference between resident and extual								
Net difference between projected and actual investment earnings on pension plan investments		100,163		377,539		365,797		616,389
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		8 851		54,005		59,009		471,250
Total Deferred Inflows of Resources					•	441,969	e –	1,116,560
Total Deletted filliows of Resources	^ф =	113,714	φ	449,200	φ	441,909	^ф =	1,110,500
Pension Expense Proportionate share of plan pension expense	¢	85,268	¢	321,390	¢	311,393	¢	524,717
	Ψ	05,200	Ψ	521,550	Ψ	511,555	Ψ	524,717
Net amortization of deferred amounts from changes in proportion and differences between employer								
contributions and proportionate share of contributions		13,292		510,288		30,829	_	11,553
Total Employer Pension Expense	\$	98,560	\$	831,678	\$	342,222	\$	536,270
Contributions	¢	07.000	¢	205 702	¢	245 000	¢	E44 450
Statutory required contribution	\$	87,986	\$	325,793	\$	315,660	\$	541,453
Contribution in relation to statutory required contribution	_	(87,986)		(325,793)		(315,660)	_	(541,453)
Contribution deficiency/(excess)	\$	-	\$	-	\$		\$	-
Contributions as a percentage of covered payroll		22.09%		21.70%		21.92%		22.09%
Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense June 30, 2022	¢	0 001	¢	404 522	¢	15 016	¢	(41.074)
June 30, 2023	¢	8,891 31,728	\$	494,523 547,240	Þ	15,216 28,824	ф	(41,274) 98,863
June 30, 2024		(17,518)		400,776		(83,575)		(81,194)
June 30, 2025		(5,020)		16,883		(19,929)		(63,216)
June 30, 2026		414		(10,801)		496		48,080
Total Deferred Outflows/(Inflows) Recognized in	_			(,)			-	
Future Pension Expense.	\$_	18,495	\$	1,448,621	\$	(58,968)	\$ =	(38,741)
Discount Rate Sensitivity								
1% decrease (6.15%)	\$	1,161,007	\$	4,376,110	\$	4,240,013	\$	7,144,669
Current discount rate (7.15%)	\$	858,395	\$	3,235,493	\$	3,134,869	\$	5,282,437
1% increase (8.15%)	\$	604,114	\$	2,277,049	\$	2,206,232	\$	3,717,630
Covered Payroll	¢	398,324	\$	1,501,375	¢	1,440,094	¢	2,451,224

of pension amounts by employer.

FOR THE YEAR ENDED DECEMBER 31, 2020

	-	Centerville/ Osterville/ Martsons Mills Fire District	_	Town of Chatham	-	Chatham Housing Authority	Cotuit Fire District
Net Pension Liability Beginning net pension liability	\$	16,208,543	\$	24,731,480	\$	502,305 \$	3,659,612
Ending net pension liability	\$	15,442,513	\$	21,781,373	\$	396,183 \$	3,301,522
Deferred Outflows of Resources							
Changes of assumptions	\$	1,358,142	\$	1,915,634	\$	34,844 \$	290,363
Changes in proportion and differences between employer contributions and proportionate							
share of contributions	_	563,943	_	321,076	_	45,645	179,678
Total Deferred Outflows of Resources	\$	1,922,085	\$	2,236,710	\$	80,489 \$	470,041
Deferred Inflows of Resources Differences between expected and actual experience	\$	84,547	\$	119,252	\$	2,169 \$	18,076
Net difference between projected and actual investment earnings on pension plan investments		1,801,934		2,541,594		46,229	385,243
Changes in proportion and differences between employer contributions and proportionate							
share of contributions	-	369,683	-	830,400	-	56,570	53,950
Total Deferred Inflows of Resources	\$	2,256,164	\$ _	3,491,246	\$	104,968 \$	457,269
Pension Expense Proportionate share of plan pension expense	\$	1,533,945	\$	2,163,600	\$	39,353 \$	327,949
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		2,398	_	(155,793)		481	26,794
Total Employer Pension Expense	\$	1,536,343	\$_	2,007,807	\$	39,834 \$	354,743
Contributions Statutory required contribution	\$	1,554,958	\$	2,193,239	\$	39,893 \$	332,441
Contribution in relation to statutory required contribution	-	(1,554,958)	_	(2,193,239)	-	(39,893)	(332,441)
Contribution deficiency/(excess)	\$	-	\$_	-	\$	\$	
Contributions as a percentage of covered payroll		21.78%		22.72%		21.70%	21.70%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense							
June 30, 2022 June 30, 2023		(68,749) 216,328	\$	(166,306) 155,362	\$	(1,561) \$ 4,705	55,325 90,058
June 30, 2024		(479,754)		(826,461)		(13,423)	(100,108)
June 30, 2025		(95,639)		(252,713)		(2,886)	(21,713)
June 30, 2026	-	93,735	_	(164,418)	-	(11,314)	(10,790)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$	(334,079)	\$	(1,254,536)	\$	(24,479) \$	12,772
Discount Rate Sensitivity							
1% decrease (6.15%)	\$	20,886,505	\$	29,460,021	\$	535,850 \$	4,465,417
Current discount rate (7.15%)	\$	15,442,513	\$	21,781,373	\$	396,183 \$	3,301,522
1% increase (8.15%)	\$	10,868,005	\$	15,329,116	\$	278,822 \$	2,323,518
Covered Payroll	\$	7,139,189	\$	9,651,694	\$	183,842 \$	1,532,015

of pension amounts by employer.

		Town of Dennis	-	Dennis Housing Authority	_	Dennis Water District		Dennis/Yarmouth Regional School District
<u>Net Pension Liability</u> Beginning net pension liability	\$	38,605,357	\$	822,372	\$	3,085,562	\$	14,566,701
Ending net pension liability	\$	35,524,384	\$	690,337	\$	2,773,281	\$	13,470,213
Deferred Outflows of Resources Changes of assumptions	¢	3,124,307	¢	60,714	¢	243,905	¢	1,184,682
0	Ψ	5,124,507	Ψ	00,714	Ψ	240,900	Ψ	1,104,002
Changes in proportion and differences between employer contributions and proportionate share of contributions		227,240	_	21,559	_	24,682		346,917
Total Deferred Outflows of Resources	\$	3,351,547	\$	82,273	\$_	268,587	\$	1,531,599
Deferred Inflows of Resources Differences between expected and actual experience	\$	194,494	\$	3,780	\$	15,184	\$	73,749
Net difference between projected and actual investment earnings on pension plan investments		4,145,218		80,553		323,605		1,571,793
Changes in proportion and differences between employer contributions and proportionate share of contributions		298,258	_	95,549		152,083		862,560
Total Deferred Inflows of Resources	\$	4,637,970	\$	179,882	\$	490,872	\$	2,508,102
Pension Expense Proportionate share of plan pension expense	\$	3,528,727	\$	68,573	\$	275,477	\$	1,338,031
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		41,452	_	(913)	_	(64,861)		(227,406
Total Employer Pension Expense	\$	3,570,179	\$	67,660	\$ _	210,616	\$	1,110,625
Contributions								
Statutory required contribution	\$	3,577,068	\$	70,760	\$	279,251	\$	1,356,360
Contribution in relation to statutory required contribution		(3,577,068)	-	(70,760)	_	(279,251)		(1,356,360
Contribution deficiency/(excess)	\$	-	\$		\$ _	-	\$	
Contributions as a percentage of covered payroll		21.70%		23.09%		21.70%		21.70%
<u>Deferred Outflows/(Inflows) Recognized in</u> Future Pension Expense								
June 30, 2022	\$	(267,435)	\$	(13,638)	\$	(69,563)	\$	(159,421
June 30, 2023		459,897		(2,718)		11,772		1,622
June 30, 2024		(1,245,800)		(44,254)		(124,399)		(561,065
June 30, 2025		(239,483)		(25,882)		(29,210)		(271,450
June 30, 2026 Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$	6,398 (1,286,423)	-	(11,117) (97,609)	- \$	(10,885)	\$	13,811 (976,503
Discount Rate Sensitivity	~	. ,,	- *		· =	,,,	*	
1% decrease (6.15%)	\$	48,047,894	\$	933,703	\$	3,750,953	\$	18,218,905
Current discount rate (7.15%)	\$	35,524,384	\$	690,337	\$	2,773,281	\$	13,470,213
1% increase (8.15%)	\$	25,001,060	\$	485,840	\$	1,951,757	\$	9,479,956
Covered Payroll	\$	16,484,480	\$	306,403	\$	1,286,893	\$	6,250,621

of pension amounts by employer.

		Town of Eastham		Town of Harwich		Hyannis Fire District	Town of Mashpee
Net Pension Liability Beginning net pension liability	\$	19,750,050	\$	34,371,684	\$	13,512,171 \$	36,435,356
Ending net pension liability	\$	18,038,371	\$	31,232,400	\$	12,565,623 \$	34,710,633
Deferred Outflows of Resources Changes of assumptions	¢	1,586,443	¢	2,746,835	¢	1,105,124 \$	3,052,739
Changes in proportion and differences between	Ψ	1,000,440	Ψ	2,740,000	Ψ	1,100,124 φ	5,002,705
employer contributions and proportionate share of contributions		764,030		1,123,465		503,170	1,910,113
Total Deferred Outflows of Resources	\$	2,350,473	\$_	3,870,300	\$	1,608,294 \$	4,962,852
Deferred Inflows of Resources Differences between expected and actual experience	\$	98,759	\$	170,995	\$	68,796 \$	190,039
Net difference between projected and actual investment earnings on pension plan investments		2,104,836		3,644,401		1,466,239	4,050,265
Changes in proportion and differences between employer contributions and proportionate share of contributions		225,087		618,148		322,839	369,851
Total Deferred Inflows of Resources					\$	1,857,874 \$	4,610,155
Pension Expense							
Proportionate share of plan pension expense	\$	1,791,796	\$	3,102,393	\$	1,248,175 \$	3,447,894
in proportion and differences between employer contributions and proportionate share of contributions	. <u> </u>	109,302	. <u>-</u>	280,086		35,732	324,578
Total Employer Pension Expense	\$_	1,901,098	\$_	3,382,479	\$	1,283,907 \$	3,772,472
Contributions							
Statutory required contribution				3,144,894		1,265,274 \$	3,495,129
Contribution in relation to statutory required contribution						(1,265,274)	(3,495,129)
Contribution deficiency/(excess)					\$		
Contributions as a percentage of covered payroll		22.04%		21.70%		21.73%	21.98%
Future Pension Expense June 30, 2022	•	90.433	•	452 404	•	(0.004)	400.050
June 30, 2022		90,433 298,019	Þ	153,491 434,661	Ф	(8,261) \$ 138,465	160,059 617,539
June 30, 2024		(471,118)		(1,015,696)		(422,919)	(768,772)
June 30, 2025		24,569		(73,016)		18,145	133,640
June 30, 2026		(20,112)		(62,684)		24,990	210,231
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$	(78,209)	\$	(563,244)	\$	(249,580) \$	352,697
	=	÷	. =	÷	. :		
Discount Rate Sensitivity 1% decrease (6.15%)	\$	24,397,488	\$	42,242,845	\$	16,995,417 \$	46,947,269
Current discount rate (7.15%)	\$	18,038,371	\$	31,232,400	\$	12,565,623 \$	34,710,633
1% increase (8.15%)	\$	12,694,897	\$	21,980,482	\$	8,843,331 \$	24,428,365
Covered Payroll	\$	8,242,240	\$	14,492,861	\$	5,821,657 \$	15,902,315
See notes to schedule of employer allocations and schedule							

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

FOR THE YEAR ENDED DECEMBER 31, 2020

		Mashpee Housing Authority	-	Mashpee Water District	-	Town of Nantucket	_	Nantucket Housing Authority
<u>Net Pension Liability</u> Beginning net pension liability	\$	789,330	\$	1,920,673	\$	75,580,649	\$	287,025
Ending net pension liability		726,337		1,766,770	\$	74,087,657		198,087
	Ŷ	120,001	Ψ	1,100,110	Ψ	11,001,001	Ŷ	100,001
Deferred Outflows of Resources	¢	62 990	¢	155 294	¢	6 6 16 970	¢	17 401
Changes of assumptions	φ	63,880	φ	155,384	\$	6,515,879	φ	17,421
Changes in proportion and differences between								
employer contributions and proportionate								
share of contributions	_	88,749	-	3,920	-	5,744,975	_	44,580
Total Deferred Outflows of Resources	\$	152,629	\$	159,304	\$	12,260,854	\$ _	62,001
Deferred Inflows of Resources								
<u>Deferred Inflows of Resources</u> Differences between expected and actual experience	\$	3,977	\$	9,673	\$	405,625	\$	1,085
Net difference between projected and actual								
investment earnings on pension plan investments		84,754		206,158		8,645,034		23,114
Changes in proportion and differences between								
employer contributions and proportionate								
share of contributions	_	-	-	70,606	-	422,160	_	87,241
Total Deferred Inflows of Resources	\$	88,731	\$	286,437	\$	9,472,819	\$	111,440
Pension Expense Proportionate share of plan pension expense	\$	72,150	\$	175,498	\$	7,359,312	\$	19,678
Net amortization of deferred amounts from changes in proportion and differences between employer								
contributions and proportionate share of contributions	_	41,093	_	(19,577)	_	1,401,285	_	(10,173)
Total Employer Pension Expense	\$	113,243	\$	155,921	\$	8,760,597	\$	9,505
			-					
Contributions	¢	74 450	¢	177 000	¢	7 529 040	¢	20.204
Statutory required contribution	Ф	74,450	φ	177,902	Ф	7,528,049	Þ	20,304
Contribution in relation to statutory required contribution	_	(74,450)	-	(177,902)	-	(7,528,049)	_	(20,304)
Contribution deficiency/(excess)	\$_		\$		\$ _	-	\$ _	-
Contributions as a percentage of covered payroll		22.09%		22.33%		22.32%		22.09%
Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense								
June 30, 2022	\$	28,454	\$	(37,546)	\$	1,019,316	\$	(11,213)
June 30, 2023		30,803		(9,125)		1,854,203		(8,118)
June 30, 2024		(2,358)		(69,292)		(1,288,421)		(17,208)
June 30, 2025		6,649		(11,382)		395,703		(1,610)
June 30, 2026		350	_	212	_	807,234	-	(11,290)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$	63,898	\$	(127,133)	\$	2,788,035	\$	(49,439)
	. =		1				. =	
Discount Rate Sensitivity 1% decrease (6.15%)	¢	982,395	¢	2,389,614	\$	100,205,985	\$	267,919
Current discount rate (7.15%)	\$	726,337	\$	1,766,770	\$	74,087,657	\$	198,087
1% increase (8.15%)	\$	511,175	\$	1,243,403	\$	52,140,804	\$	139,408
Covered Payroll		337,043		796,648	\$	33,734,968	•	91,921

of pension amounts by employer.

	County of Nantucket		Nantucket Regional Transit Authority		Nauset Regional School District		North Sagamore Water District
<u>Vet Pension Liability</u> Beginning net pension liability\$	2,726,770	\$	430,548	\$	10,189,516	\$	645,817
Ending net pension liability \$	2,509,156	\$	396,183	\$	9,706,479	\$	726,337
Deferred Outflows of Resources							
Changes of assumptions\$	220,676	\$	34,844	\$	853,668	\$	63,880
Changes in proportion and differences between employer contributions and proportionate							
share of contributions	199,733		2,260		362,134		115,568
Total Deferred Outflows of Resources\$	420,409	\$	37,104	\$	1,215,802	\$	179,448
Deferred Inflows of Resources Differences between expected and actual experience \$	13,737		2,169	\$	53,142	\$	3,977
Differences between expected and actual experience \$	13,737	Þ	2,109	Þ	55,142	φ	3,977
Net difference between projected and actual investment earnings on pension plan investments	292,785		46,229		1,132,616		84,754
Changes in proportion and differences between employer contributions and proportionate							
share of contributions	27,162				405,465		9,069
Total Deferred Inflows of Resources \$	333,684	\$	48,398	\$	1,591,223	\$	97,800
Pension Expense Proportionate share of plan pension expense\$	249,241	\$	39,354	\$	964,168	\$	72,150
Net amortization of deferred amounts from changes in proportion and differences between employer							
contributions and proportionate share of contributions	20,002		928		66,935		23,145
Total Employer Pension Expense \$	269,243	\$	40,282	\$	1,031,103	\$	95,295
Contributions							
Statutory required contribution\$	252,655	\$	39,893	\$	999,199	\$	73,137
Contribution in relation to statutory required contribution	(252,655)		(39,893)		(999,199)		(73,137
Contribution deficiency/(excess) \$	-	\$		\$		\$	
Contributions as a percentage of covered payroll	21.70%		21.70%		22.18%		21.70%
Deferred Outflows/(Inflows) Recognized in							
<u>Future Pension Expense</u> June 30, 2022\$	43,481	\$	(1,111)	\$	(123,544)	\$	10,629
June 30, 2023	111,519	Ť	5,155	Ť	98,032	Ť	31,534
June 30, 2024	(52,584)		(12,973)		(366,635)		(1,471
June 30, 2025	(16,144)		(2,436)		(45,583)		18,056
June 30, 2026	453		71		62,309		22,900
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense\$	86,725	\$	(11,294)	\$	(375,421)	\$	81,648
Discount Rate Sensitivity					_		
1% decrease (6.15%)\$	3,393,716	\$	535,850	\$	13,128,331	\$	982,395
Current discount rate (7.15%)\$	2,509,156	\$	396,183	\$	9,706,479	\$	726,337
1% increase (8.15%)\$	1,765,873	\$	278,822	\$	6,831,146	\$	511,175
Covered Payroll\$	1,164,331	\$	183,842	\$	4,504,124	\$	337,043

of pension amounts by employer.

		Town of Orleans		Orleans Housing Authority		Town of Provincetown	_	Town of Sandwich
let Pension Liability Beginning net pension liability	\$	22,747,021	\$	574,061	\$	20,953,094	\$	45,422,286
Ending net pension liability	\$	21,988,143	\$	528,241	\$	19,611,044	\$	37,439,260
Deferred Outflows of Resources								
Changes of assumptions	\$	1,933,819	\$	46,458	\$	1,724,757	\$	3,292,717
Changes in proportion and differences between								
employer contributions and proportionate share of contributions		1,260,433		46,854		916,058		561,080
Total Deferred Outflows of Resources	_			93,312	\$	2,640,815	\$	3,853,797
	-						-	
leferred Inflows of Resources Differences between expected and actual experience	\$	120,384	\$	2,892	\$	107,369	\$	204,978
Net difference between projected and actual investment earnings on pension plan investments		2,565,721		61,639		2,288,345		4,368,659
Changes in proportion and differences between employer contributions and proportionate								
share of contributions	_	1,234,931		30,528		203,404	-	4,019,989
Total Deferred Inflows of Resources	\$ _	3,921,036	\$	95,059	\$	2,599,118	\$ =	8,593,626
ension Expense Proportionate share of plan pension expense	\$	2,184,137	\$	52,471	\$	1,948,013	\$	3,718,937
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		40,241		1,938		188,795		(422,960)
							_	
Total Employer Pension Expense	\$	2,224,378	\$	54,409	\$	2,136,808	\$ _	3,295,977
Contributions								
Statutory required contribution	\$	2,214,059	\$	54,145	\$	1,974,701	\$	3,769,883
Contribution in relation to statutory required contribution	_	(2,214,059)	· -	(54,145)		(1,974,701)	-	(3,769,883)
Contribution deficiency/(excess)	\$_	-	\$		\$		\$ =	-
Contributions as a percentage of covered payroll		21.70%		22.09%		21.70%		21.70%
Deferred Outflows/(Inflows) Recognized in								
<u>Future Pension Expense</u> June 30, 2022	\$	(112,589)	\$	(783)	\$	181,960	\$	(696,604)
June 30, 2023		296,005		7,570		386,915		(178,553)
June 30, 2024		(864,254)		(16,596)		(474,684)		(2,042,275)
June 30, 2025 June 30, 2026		(232,062) 186,116		7,808 254		(112,950) 60,456		(1,077,750) (744,647)
Total Deferred Outflows/(Inflows) Recognized in	_	100,110		204		00,430	-	(744,047)
Future Pension Expense.	\$ _	(726,784)	\$	(1,747)	\$	41,697	\$ =	(4,739,829)
iscount Rate Sensitivity	6	20 720 004	¢	744 400	¢	26 504 500	¢	E0 607 007
1% decrease (6.15%)			\$	714,463	\$	26,524,580	\$	50,637,827
Current discount rate (7.15%)		21,988,143		528,241	\$	19,611,044	\$	37,439,260
1% increase (8.15%)			\$	371,761	\$	13,801,700	\$	26,348,695
overed Payroll	\$	10,203,219	\$	245,122	\$	9,100,168	\$	17,373,049
ee notes to schedule of employer allocations and schedule								

of pension amounts by employer.

FOR THE YEAR ENDED DECEMBER 31, 2020

		Sandwich Housing Authority	Sandwich Water District	Town of Truro	-	Veterans District
<u>Net Pension Liability</u> Beginning net pension liability	\$	358,781	\$ 2,296,232	\$ 13,021,587	\$	770,609
Ending net pension liability	\$	330,154	\$ 1,914,886	\$ 12,574,647	\$	774,542
Deferred Outflows of Resources Changes of assumptions	\$	29,036	\$ 168,411	\$ 1,105,918	\$	68,120
Changes in proportion and differences between employer contributions and proportionate share of contributions		2,833	3,796	688,422		78.288
Total Deferred Outflows of Resources			\$ 172,207	\$ 1,794,340	\$	146,408
Deferred Inflows of Resources	_				-	
Differences between expected and actual experience	\$	1,808	10,484	68,845		4,241
Net difference between projected and actual investment earnings on pension plan investments		38,525	223,441	1,467,292		90,379
Changes in proportion and differences between employer contributions and proportionate share of contributions		-	223,784	296,232		9,292
Total Deferred Inflows of Resources	\$	40,333	\$ 457,709	\$ 1,832,369	\$	103,912
Pension Expense Proportionate share of plan pension expense	\$	32,798	190,211	1,249,070		76,937
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		1,105	(87,227)	30,407		21,820
Total Employer Pension Expense			\$ 102,984	\$ 1,279,477	\$	98,757
Contributions Statutory required contribution Contribution in relation to statutory required contribution		33,841 (33,841)	\$ 192,816 (192,816)	\$ 1,266,183	\$	77,991 (77,991)
Contribution deficiency/(excess)	\$	-	\$ 	\$ 	\$	-
Contributions as a percentage of covered payroll		22.09%	21.70%	21.98%		23.14%
Deferred Outflows/(Inflows) Recognized in Euture Pension Expense June 30, 2022	\$	(603)	\$ (96,672)	\$ 21,241	\$	8,755
June 30, 2023 June 30, 2024 June 30, 2025 June 30, 2026	_	4,622 (10,711) (1,932) 160	(10,738) (97,866) (46,416) (33,810)	232,859 (341,559) (54,952) 104,382	-	30,501 (14,549) 6,367 11,422
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	\$	(8,464)	\$ (285,502)	\$ (38,029)	\$	42,496
<u>Discount Rate Sensitivity</u> 1% decrease (6.15%)	\$	446,544	\$ 2,589,946	\$ 17,007,622	\$	1,047,593
Current discount rate (7.15%)	\$	330,154	\$ 1,914,886	\$ 12,574,647	\$	774,542
1% increase (8.15%)	\$	232,353	\$ 1,347,643	\$ 8,849,682	\$	545,101
Covered Payroll	\$	153,201	\$ 888,569	\$ 5,760,376	\$	337,043

of pension amounts by employer.

	_	Town of Wellfleet		Town of Yarmouth	-	Yarmouth Housing Authority	_	West Barnstable Fire District
<u>Net Pension Liability</u> Beginning net pension liability	\$	14,178,104	\$	50,794,413	\$	555,497	\$	1,435,147
Ending net pension liability	\$	13,968,922	\$	45,583,661	\$	444,534	\$	1,320,607
Deferred Outflows of Resources								
Changes of assumptions Changes in proportion and differences between	\$	1,228,542	\$	4,009,003	\$	39,096	\$	116,145
employer contributions and proportionate share of contributions		1,253,680				45,477	_	47,294
Total Deferred Outflows of Resources	\$	2,482,222	\$	4,009,003	\$	84,573	\$ _	163,439
Deferred Inflows of Resources Differences between expected and actual experience	\$	76,479	\$	249,568	\$	2,434	\$	7,230
Net difference between projected and actual investment earnings on pension plan investments		1,629,986		5,319,001		51,871		154,097
Changes in proportion and differences between employer contributions and proportionate share of contributions		506,088		1,901,531		76,312		92,759
Total Deferred Inflows of Resources			\$	7,470,100	\$	130,617	\$	254,086
Pension Expense Proportionate share of plan pension expense	\$	1,387,570	\$	4,527,940	\$	44,158	\$	131,180
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		200,078		(556,421)		(9,260)		8,144
Total Employer Pension Expense			\$	3,971,519	\$	34,898	\$	139,324
Contributions	¢	4 404 000	¢	4 500 070	¢		¢	400.070
Statutory required contribution		1,431,823	φ	4,589,970	φ	45,565	φ	132,976
Contribution in relation to statutory required contribution			•	(4,589,970)		(45,565)	-	(132,976
Contribution deficiency/(excess)	* —		Ъ.		φ.		⇒ =	
Contributions as a percentage of covered payroll		22.36%		22.19%		24.78%		21.70%
Future Pension Expense June 30, 2022. June 30, 2023. June 30, 2024.	\$	157,197 354,576 (350,472)	\$	(861,438) 78,031 (1,858,623)	\$	(11,897) (4,827) (14,982)	\$	(25,198 (4,000 (64,085
June 30, 2025 June 30, 2026 Total Deferred Outflows/(Inflows) Recognized in		(57,379) 165,747	-	(627,791) (191,276)		(3,063) (11,275)	-	2,399 237
Future Pension Expense	\$	269,669	\$	(3,461,097)	\$	(46,044)	\$	(90,647
Discount Rate Sensitivity 1% decrease (6.15%)	\$	18,893,425	\$	61,653,396	\$	601,247	\$	1,786,164
Current discount rate (7.15%)	\$	13,968,922	\$	45,583,661	\$	444,534	\$	1,320,607
	\$	9,830,933	\$	32,080,495	\$	312,850	\$	929,406
1% increase (8.15%)								

FOR THE YEAR ENDED DECEMBER 31, 2020

	Cape Cod Regional Transit Authority		Monomoy Regional School District		Provincetown Housing Authority	-	Totals
<u>Net Pension Liability</u> Beginning net pension liability	2,296,232	\$	11,481,151	\$	-	\$	751,283,235
Ending net pension liability	2,112,973	\$	10,102,662	\$	-	\$	690,814,161
Deferred Outflows of Resources Changes of assumptions	185,832	\$	888,511	\$	-	\$	60,755,893
Changes in proportion and differences between employer contributions and proportionate share of contributions	189,027		66,332		18,548		28,062,732
Total Deferred Outflows of Resources		\$	954,843	\$	18,548	\$	88,818,625
Deferred Inflows of Resources							
Differences between expected and actual experience	5 11,568	\$	55,311	\$	-	\$	3,782,165
Net difference between projected and actual investment earnings on pension plan investments	246,556		1,178,845		-		80,608,732
Changes in proportion and differences between employer contributions and proportionate share of contributions	76,276		482,320		61,983		27,773,525
Total Deferred Inflows of Resources		\$	1,716,476	\$	61,983	\$	112,164,422
Pension Expense						=	
Proportionate share of plan pension expense	\$ 209,888	\$	1,003,522	\$	-	\$	68,620,307
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(8,665)		(194,869)		(2,167)		148,814
Total Employer Pension Expense	201,223	\$	808,653	\$	(2,167)	\$	68,769,121
Contributions Statutory required contribution	\$ 212,762	\$	1,017,271	\$	-	\$	69,343,003
Contribution in relation to statutory required contribution	(212,762)		(1,017,271)			_	(69,343,003)
Contribution deficiency/(excess)		\$		\$		\$	
Contributions as a percentage of covered payroll	21.70%		21.70%		N/A		22.63%
Deferred Outflows/(Inflows) Recognized in							
Future Pension Expense June 30, 2022	16,267	\$	(164,031)	¢	(2 170)	¢	(3,216,867)
June 30, 2022	96,330	φ	62,653	φ	(2,170) (20,604)	φ	8,029,732
June 30, 2024	,		(426,925)		(, ,		
June 30, 2024	(69,818)				(20,661)		(23,381,297)
	(2,700)		(155,457)		-		(4,777,365)
June 30, 2026 Total Deferred Outflows/(Inflows) Recognized in	380		(77,873)			-	
Future Pension Expense	40,459	\$	(761,633)	\$	(43,435)	\$ _	(23,345,797)
Discount Rate Sensitivity	0.077.007	<u> </u>	40.004.405	¢		•	004 0 /0 005
1% decrease (6.15%)		\$	13,664,182	\$	-	\$	934,348,802
Current discount rate (7.15%)		\$		\$	-	\$	690,814,161
1% increase (8.15%)		\$	7,109,969	\$	-	\$	486,175,527
Covered Payroll	\$ 980,490	\$	4,687,966	\$	-	\$	306,402,979

of pension amounts by employer.

(concluded)

NOTE I – Schedule of Employer Allocations

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

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

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the Association who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2019, were applied to allocate the Association's December 31, 2020, pension fund appropriation by member unit.

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

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

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC completes an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP. The accrued liability for the members who accept the ERIP as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP, and is separately identified in the Association's funding schedule. The 2003 ERIP amortization is occurring over 25 years from fiscal year 2004 through fiscal year 2028, increasing 4.5% per year. The 2010 ERIP amortization is occurring over a 10-year, straight-line basis from fiscal year 2013 through fiscal year 2022.

The allocation percentage of the total net pension liability is a blended rate of the following three items. (1) The proportionate share of active employer's covered payroll is applied to the fiscal year 2020, pension fund appropriation calculated by the actuary. (2) ERI is a direct charge calculated by PERAC for only the employers that accepted the ERI. (3) The direct amortization of the actuarially determined net pension liability for Barnstable County Sheriff and Barnstable County Hospital since they no longer have active covered payroll.

NOTE II – Schedule of Pension Amounts by Employer

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

Changes in Assumptions

None.

Changes in Plan Provisions

None.

NOTE III – Change in Member Unit

Provincetown Housing Authority

Each member unit's share of the net pension liability is based on the pension fund appropriation, which is based on the covered payroll of the member unit. The Provincetown Housing Authority did not have covered payroll and, as a result, had no pension fund appropriation or net pension liability for the year ended December 31, 2020.

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, 2020, which collectively comprise the Barnstable County Retirement Association's basic financial statements and have issued our report thereon dated June 22, 2021. 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

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

Powers & Sullivan LLC

June 22, 2021