

ESSEX REGIONAL RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2019

ESSEX REGIONAL RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2019

TABLE OF CONTENTS

Financial Section	1
Independent Auditor's Report	2
Management's Discussion and Analysis.....	4
Financial Statements.....	8
Statement of Fiduciary Net Position	8
Statement of Changes in Fiduciary Net Position.....	9
Notes to Financial Statements.....	10
Required Supplementary Information	21
Schedule of Changes in the Net Pension Liability and Related Ratios.....	22
Schedule of Contributions	23
Schedule of Investment Returns	24
Notes to Required Supplementary Information	25
Audit of Specific Elements, Accounts and Items of Financial Statements	26
Independent Auditor's Report	28
Pension Plan Schedules	30
Schedule of Employer Allocations	30
Schedule of Pension Amounts by Employer	31
Notes to Schedule of Employer Allocations and Schedule of Pension Amounts by Employer.....	43
Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing</i> <i>Standards</i>	46

Financial Section



100 Quannapowitt Parkway
Suite 101

Wakefield, MA 01880

T. 781-914-1700

F. 781-914-1701

www.powersandsullivan.com

Independent Auditor's Report

To the Honorable Essex Retirement Board
Essex Regional Retirement System
Danvers, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of the Essex Regional Retirement System (ERRS) as of and for the year ended December 31, 2019, and the related notes to the financial statements, which collectively comprise the Essex Regional Retirement System'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 Essex Regional Retirement System as of December 31, 2019, and the results of its operations and changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis; the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Returns be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated July 30, 2020, on our consideration of the Essex Regional Retirement System'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 Essex Regional Retirement System's internal control over financial reporting and compliance.

Restriction on Use

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

Powers & Sullivan LLC

July 30, 2020

Management's Discussion and Analysis

As management of the Essex Regional Retirement System, we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2019. The System 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 System's assets exceeded its liabilities at the close of the most recent year by \$524.6 million (net position).
- The System's net position increased by \$68.8 million for the year ended December 31, 2019.
- Total investment income was \$73.6 million; investment expenses were \$2.5 million; and net investment income was \$71.1 million.
- Total contributions were \$54.0 million including \$36.1 million from employers, \$14.3 million from members, and \$3.6 million from other contributions.
- Retirement benefits, refunds and transfers amounted to \$55.2 million.
- Administrative expenses were \$990,000.
- The Total Pension Liability is \$945.9 million as of December 31, 2019 while the Net Pension Liability is \$421.3 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 55.46%.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the System'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 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 System's net position changed during the most recent year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, *regardless of the timing of related cash flows*. Thus, additions and deductions are reported in this statement for some items that will only result in cash flows in future periods.

Notes to the financial statements

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

Required Supplementary Information

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

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the System's financial position. The System's assets exceeded liabilities by \$524.6 million at the close of 2019.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year-end, the System's net position includes investments of \$517.2 million, cash of \$3.6 million, accounts receivable of \$3.9 million, and capital assets of \$156,000.

In 2019, the System's contributions totaled \$54.0 million while deductions totaled \$56.2 million, which resulted in a current deficiency of (\$2.3) million. A (\$1.0) million deficiency occurred in 2018. For 2019, investment income supported current operations. For 2018, a net investment loss was reported, resulting in a decrease in the System's net position.

The main difference of the increase (decrease) in net position between years was the change in net investment income between years. In 2018 the System experienced a net investment loss of \$10.7 million, however in 2019, the System had net investment income of \$71.1 million. The annual money weighted rate of return was 16.13% and -2.43% in 2019 and 2018 respectively. Fluctuations in the System's annual investment returns are expected.

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

	2019	2018
Statement of Fiduciary Net Position		
Assets:		
Cash and cash equivalents..... \$	3,609,452	\$ 2,156,881
Investments.....	517,180,811	449,147,353
Receivables.....	3,919,155	4,339,105
Capital assets, net of accumulated depreciation.....	155,719	166,977
Total assets.....	524,865,137	455,810,316
Liabilities:		
Accounts payable.....	300,933	73,214
Abandoned property.....	1,282	-
Total liabilities.....	302,215	73,214
Net Position Restricted for Pension Benefits..... \$	524,562,922	\$ 455,737,102

	2019	2018
Statement of Changes in Fiduciary Net Position		
Additions:		
Contributions:		
Member contributions.....	\$ 14,270,165	\$ 13,636,998
Employer contributions.....	36,090,030	33,969,088
Other contributions.....	3,590,760	4,291,824
Total contributions.....	53,950,955	51,897,910
Net investment income (loss):		
Total investment income (loss).....	73,618,293	(8,233,888)
Less, investment expenses.....	(2,499,157)	(2,489,505)
Net investment income (loss).....	71,119,136	(10,723,393)
Total additions.....	125,070,091	41,174,517
Deductions:		
Administration.....	990,011	955,252
Retirement benefits, refunds and transfers.....	55,254,260	51,956,452
Total deductions.....	56,244,271	52,911,704
Net increase (decrease) in fiduciary net position.....	68,825,820	(11,737,187)
Fiduciary net position at beginning of year.....	455,737,102	467,474,289
Fiduciary net position at end of year.....	\$ 524,562,922	\$ 455,737,102

In 2016, the System recognized a contribution from Essex North Shore Agricultural and Technical School District (Essex Tech) as the successor agency to both the Essex Agricultural and Technical High School and the North Shore Vocational Regional School. Legislation requires Essex Tech to reimburse ERRS for the actuarially determined liability associated with the retired members from Essex Agricultural and Technical High School who remain with ERRS. Accordingly, in 2015, PERAC approved a funding schedule for Essex Tech to pay ERRS in equal annual payments of \$421,947 through 2033. The \$3,335,625 million present value of these payments has been recorded as an intergovernmental receivable at year-end.

Requests for Information

This financial report is designed to provide a general overview of the System's finances for all those with an interest in the System's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the System's Board, 491 Maple Street #202, Danvers, MA 01923.

This page left intentionally blank.

STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2019

Assets

CURRENT:

Cash and cash equivalents.....	\$	3,609,452
Investments:		
Investments in Pension Reserve Investment Trust.....		510,315,603
Pooled alternative investments.....		6,828,263
Pooled real estate funds.....		36,945
		<u>517,180,811</u>
Total investments.....		
Receivables, net of allowance for uncollectibles:		
Member contributions.....		553,306
Employer pension appropriation.....		30,224
Essex Agricultural and Technical High School.....		155,149
		<u>738,679</u>
Total receivables.....		
Total current assets.....		<u>521,528,942</u>

NONCURRENT:

Receivables, net of allowance for uncollectibles:		
Essex Agricultural and Technical High School.....		3,180,476
Capital assets, net of accumulated depreciation.....		155,719
		<u>3,336,195</u>
Total noncurrent assets.....		

Total Assets.....		<u>524,865,137</u>
-------------------	--	--------------------

Liabilities

Accounts payable.....		300,933
Other liabilities.....		1,282
		<u>302,215</u>
Total Liabilities.....		

Net Position Restricted for Pensions.....	\$	<u>524,562,922</u>
---	----	--------------------

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2019

Additions:

Contributions:

Employer pension appropriation.....	\$ 36,090,030
Member contributions.....	14,270,165
Transfers from other systems.....	1,257,765
3(8)(c) contributions from other systems.....	1,839,824
Workers' compensation settlements.....	18,000
Federal grant reimbursements.....	84,724
State COLA reimbursements.....	239,253
Members' makeup payments and redeposits.....	90,179
Interest not refunded.....	37,326
Retirement benefits - reimbursement of 91A overearnings.....	23,689

Total contributions..... 53,950,955

Net investment income:

Investment income (loss)..... 73,618,293

Less: investment expense..... (2,499,157)

Net investment income (loss)..... 71,119,136

Total additions..... 125,070,091

Deductions:

Administration.....	990,011
Retirement benefits and refunds.....	49,373,946
Transfers to other systems.....	2,469,056
3(8)(c) transfer to other systems.....	3,400,000
Depreciation.....	11,258

Total deductions..... 56,244,271

Net increase (decrease) in fiduciary net position..... 68,825,820

Fiduciary net position at beginning of year..... 455,737,102

Fiduciary net position at end of year..... \$ 524,562,922

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

Essex Regional Retirement System is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of governmental member units deemed eligible by the Essex Regional Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the Plan is mandatory immediately upon the commencement of employment for all non-teaching permanent, full time employees. The Plan is administered by the Essex Regional Retirement System (the System). As of December 31, 2019, the System had 46 participating employers.

Originally instituted in 1937, as part of Essex County government, the Board served as the regional retirement system for Essex County upon the abolition of county government in 1996 and the current system structure was created by special legislation in July 2010 (Chapter 34B, Section 19A of the Massachusetts General Laws). The System is governed by a five-member Board who establish the policies under which the System operates. Board members also approve all of the System's financial transactions, including the approval of retirement benefits to members. Board members are appointed or elected as specified by MGL Ch. 34B, Section 19A for terms ranging from 3 to 5 years.

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

As of December 31, 2019, the System had 1,930 retirees and beneficiaries, 2,892 active participants and 1,210 inactive participants with a vested right to retirement benefits or to receive a refund of their contributions.

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

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

There are three classes of membership in the retirement system: group 1, group 2, and group 4. Group 1 consists of general employees, which includes clerical 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.

Members become vested after ten years of creditable service. A superannuation retirement allowance may be received upon the completion of 20 years of service or upon reaching the age of 55 with 10 years of service if hired after 1978 and if classified in groups 1 or 2. A person who became a member on or after April 2, 2012 is eligible for a superannuation retirement allowance upon reaching the age of 60 with 10 years of service if in group 1, 50 years of age with 10 years of service if in group 2, and 55 years of age if hired prior to 1978 or if classified in group 4. Normal retirement for most employees occurs at age 65 (except for certain hazardous duty and public safety positions, whose normal retirement is at age 55).

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

Active members contribute between 5% and 11% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. These deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the Public Employee Retirement Administration Commission's (PERAC) actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the System and all costs are borne by the System.

The pension portion of any retirement benefit is paid from the Pension Fund of the System. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment.

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

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

Employees who resign from service and who are not eligible to receive a retirement allowance or are under the age of 55 are entitled to request a refund of their accumulated total deductions.

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 Essex Regional Retirement System (ERRS) 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.

ERRS 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 use the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition. Investments are carried at fair value. The fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. The fair value of private equities are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Real estate assets are reported at fair value utilizing an income approach to valuation along with independent appraisals and estimates by management.

Fair Value Measurements

The System 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 is 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 System's financial instruments see Note 4.

Accounts Receivable

Accounts receivable consist of member deductions, future appropriations from Essex Technical High School for the unfunded actuarial liability for retirees from Essex Agricultural and Technical School, and pension fund appropriations.

These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.

Deferred Outflows/Inflows of Resources

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

NOTE 3 – PLAN ADMINISTRATION

The System is administered by a five-person Board of Retirement. The first member shall be a chief executive or chief administrative officer of a member town, unit or district belonging to the Essex Regional Retirement System for a term of 3 years. This member shall be chosen by weighted vote of the chief executive or chief administrative officers of member towns, units or districts belonging to the Essex Regional Retirement System. The second member shall be a member of the regional retirement board advisory council, and shall be elected by a majority of those present and voting at a public meeting of the council and shall serve for a term of 3 years. The third and fourth members shall be elected by the members in or retired from service of the Essex County Retirement System from among persons retired under the system and shall serve for a term of 3 years. The fifth member, who shall not be an employee, retiree or official of the retirement system, or of any of its constituent governmental units, shall be chosen by the other 4 members and shall serve for a term of 5 years.

First Member	Alan J. Benson	Term Expires:	12/1/2020
Second Member	Kevin A. Merz	Term Expires:	12/1/2021
Third Member	Susan J. Yaskell	Term Expires:	12/1/2022
Fourth Member	H. Joseph Maney	Term Expires:	12/1/2022
Fifth Member	Vincent R. Malgeri	Term Expires:	12/12/2020

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

The ERRS Advisory Council consists of the full-time treasurers, elected or appointed, for each town, unit or district within the System. The members of the Advisory Council elect the second member of the Board of Retirement as well as a Chair from among its members. The ERRS Advisory Council is required by statute to meet twice per year, typically in the spring and fall. All ERRS Advisory Council meetings are open, public meetings and are subject to the Commonwealth's Open Meeting Law.

The investment of the System's funds is the responsibility of the Board. Disability retirement allowances must be

approved by the Retirement Board and are then submitted to the PERAC Actuary for verification prior to payment. Superannuation retirement allowances are not required to obtain PERAC's verification. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by two persons designated by the Board.

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

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2019, the carrying amount of the System's deposits totaled \$3,609,452; this is comprised of \$2,605,446 of cash deposited with banks along with \$1,004,006 in the PRIT Cash Fund. Of the \$2,605,446, the bank balance totaled \$2,889,677, which was covered by Federal Deposit Insurance. The \$1,004,006 of the PRIT Cash Fund is uninsured and uncollateralized.

Investments

The System's investments are as follows:

<u>Investment Type</u>	<u>Fair Value</u>
<u>Other Investments:</u>	
PRIT Pooled Funds.....	\$ 510,315,603
Pooled Alternative Investments....	6,828,263
Pooled Real Estate Funds.....	<u>36,945</u>
Total Investments.....	<u>\$ 517,180,811 (1)</u>

- (1) Subsequent to fiscal year end the market value of the PRIT investment declined by approximately (\$18.6 million). Please refer to Note 12 for further information on this matter.

Approximately 99% of the Retirement System's investments are in Pension Reserve Investment Trust (PRIT) Pooled Funds. 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 Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT.

Approximately 1% of the System's funds are invested in pooled alternative investments and pooled real estate funds. The fair values of assets in those funds are based on the quoted values obtained from each pool.

The Administration's annual money-weighted rate of return on pension plan investments was 16.13%. The money-weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

Fair Value of Investments

The retiree pension defined benefit plan holds significant amounts of investments that are measured at fair value on a recurring basis. Because investing is a key part of the plan's activities, the plan shows greater disaggregation in its disclosures. The plan chooses a tabular format for disclosing the levels within the fair value hierarchy.

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles.

The System has the following recurring fair value measurements as of December 31, 2019:

Investment Type	12/31/19	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level				
Pooled Alternative Investments.....	\$ 6,828,263	\$ -	\$ -	\$ 6,828,263
Pooled Real Estate Funds.....	<u>36,945</u>	<u>-</u>	<u>-</u>	<u>36,945</u>
Total Investments by fair value level.....	<u>6,865,208</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 6,865,208</u>
Investments measured at the net asset value (NAV)				
PRIT Investments.....	<u>510,315,603</u>			
Total Investments.....	\$ 517,180,811			

Pooled Alternative Investments and Pooled Real Estate Funds classified in level 3 are valued using either a discounted cash flow or market comparable companies' technique.

PRIT Investments are valued using the net asset value (NAV) method. 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 (PRIM). The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The System does not have the ability to control any of the investment decisions relative to its funds in PRIT.

NOTE 5 – RECEIVABLES

At December 31, 2019, receivables for the System are as follows:

	Gross Amount	Allowance for Uncollectibles	Net Amount
Receivables:			
Member contributions.....	\$ 738,679	\$ -	\$ 738,679
Essex Agricultural and Technical High School.....	3,180,476	-	3,180,476
Total.....	\$ 3,919,155	\$ -	\$ 3,919,155

As more fully described in Note 9, the Essex Agricultural and Technical High School receivable consists of the present value of a stream of future payments to be received from Essex Technical High School (Essex Tech), as the successor agency of Essex Agricultural and Technical School from fiscal year 2017 through fiscal year 2033 for the unfunded actuarial liability for its retirees in the Essex Regional Retirement System.

NOTE 6 – CAPITAL ASSETS

Capital assets are depreciated on a straight-line basis. The estimated useful lives of capital assets are 33 years for buildings and 5 to 20 years for equipment.

The capital assets owned by the System consist of two condominiums in Danvers, Massachusetts that were purchased for the administrative offices of the System. Both units were purchased in fiscal year 2000 for a total of \$375,250. Total capital asset activity for the year ended December 31, 2019, was as follows:

	Beginning Balance	Increases	Decreases	Ending Balance
<u>Capital assets being depreciated:</u>				
Buildings.....	\$ 375,250	\$ -	\$ -	\$ 375,250
Equipment.....	15,580	-	(15,580)	-
Total capital assets being depreciated.....	390,830	-	(15,580)	375,250
<u>Less accumulated depreciation for:</u>				
Buildings.....	(208,273)	(11,258)	-	(219,531)
Equipment.....	(15,580)	-	15,580	-
Total accumulated depreciation.....	(223,853)	(11,258)	15,580	(219,531)
Total governmental activities capital assets, net.....	\$ 166,977	\$ (11,258)	\$ -	\$ 155,719

NOTE 7 – MEMBERSHIP

The following table represents the System's membership at December 31, 2019:

Active members.....	2,892
Inactive members entitled to a return of contributions.....	1,210
Retired, Beneficiary, and Survivor.....	1,930
Total.....	6,032

NOTE 8 – ACTUARIAL VALUATION

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

Valuation date.....	January 1, 2020
Salary increases.....	Based on years of service, ranging from 7.50% at 0 years of service decreasing to 3.75% after 5 years of service.
Net investment return/Discount rate.....	7.30% (previously 7.50%)
Wage Inflation rate.....	2.75%
Cost of living adjustments.....	2% of first \$14,000 for fiscal 2021 and 3% of first \$14,000 thereafter.
Mortality Rates:	
Pre-Retirement.....	RP-2014 Employee Mortality Table projected generationally with Scale MP-2019.
Healthy Retiree.....	RP-2014 Healthy Annuitant Mortality Table projected generationally with Scale MP-2019.
Disabled Retiree.....	RP-2014 Healthy Annuitant Mortality Table set forward two years projected generationally with Scale MP-2019.

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

Total pension liability.....	\$	945,878,852
The pension plan's fiduciary net position.....		<u>(524,562,922)</u>
The net pension liability.....	\$	<u>421,315,930</u>
The pension plan's fiduciary net position as a percentage of the total pension liability.....		55.46%

Investment policy. The pension plan's policy in regard to the allocation of invested assets is established by PRIT and the Board. 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 expected future real rates of return by the target asset allocation percentage, adding expected inflation. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expense, used in the derivation of the long-term investment rate of return assumption are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return	Long-Term Expected Asset Allocation
Domestic equity.....	6.15%	21.00%
International developed markets equity.....	6.78%	13.00%
International emerging markets equity.....	8.65%	5.00%
Core fixed income.....	1.11%	15.00%
High-yield fixed income.....	3.51%	8.00%
Real estate.....	4.33%	10.00%
Commodities.....	4.13%	4.00%
Hedge fund, GTAA, Risk parity.....	3.19%	11.00%
Private equity.....	9.99%	13.00%
Total Fund Expected Return/Total.....		100.00%

Discount Rate. The discount rates used to measure the Total Pension Liability was 7.30% as of December 31, 2019 and 7.50% as of December 31, 2018. 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 rates. For this purpose, only employer contributions that are intended to fund benefits for the current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service cost for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan Fiduciary Net Position was projected to be available to make all projected future benefit payments for 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 as of both December 31, 2019 and December 31, 2018.

Sensitivity of the net position liability to changes in the discount rate. The following presents the net pension liability, calculated using the discount rate of 7.30%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.30%) or 1-percentage-point higher (8.30%) than the current rate.

	1.0% Decrease (6.30%)	Current Discount Rate (7.30%)	1.0% Increase (8.30%)
Essex Regional Retirement System's net pension liability as of December 31, 2019.... \$	\$ 529,830,679	\$ 421,315,930	\$ 330,102,507

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 system'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 9 – ESSEX AGRICULTURAL AND TECHNICAL HIGH SCHOOL

Chapter 463 of the Acts of 2004 created the Essex North Shore Agricultural and Technical School District (Essex Tech). This legislation established Essex Tech as the successor agency to both the Essex Agricultural and Technical High School and the North Shore Vocational Regional School. Prior to July 1, 2014, the non-teacher employees of the Essex Agricultural and Technical High School were members of ERRS. The legislation required that all active and inactive members be transferred to the Salem Contributory Retirement System. Accordingly, as of June 30, 2015, all active and inactive members of ERRS have been transferred to the Salem Contributory Retirement System. Essex Tech, as the successor agency, is required to reimburse ERRS for the actuarially determined liability associated with the retired members from Essex Agricultural and Technical High School who remain with ERRS. Accordingly, PERAC approved a funding schedule that requires Essex Tech to pay ERRS equal annual assessments of \$421,947 through 2033. The \$3,335,625 present value of these payments has been recorded as a receivable by ERRS as of December 31, 2019.

NOTE 10 – COMMITMENTS AND CONTINGENCIES

Various legal actions and claims are pending against the System. Litigation is subject to many uncertainties, and the outcome of individual litigated matters is not always predictable. Although the amount of liability, if any, at December 31, 2019 cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2019.

NOTE 11 – IMPLEMENTATION OF NEW GASB PRONOUNCEMENTS

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

There were no GASB pronouncements required to be implemented in 2019 that impacted the System's financial statements.

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

NOTE 12 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through July 30, 2020, which is the date the financial statements were available to be issued.

The System carries its investments at fair (market) value in accordance with Generally Accepted Accounting Principles (GAAP). Market value adjustments are recorded monthly. Subsequent to year end, the System's

investments of \$517,180,811 in PRIT have declined in value by approximately (\$18.6 million). The market value decline is consistent with recent trends in the overall financial securities markets.

In accordance with GAAP, the System has not recorded the losses in its financial statements as the impairments were not known as of December 31, 2019. The System has recorded the losses associated with the investment during 2020.

Required Supplementary Information

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

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018	December 31, 2019
Total pension liability:						
Service cost.....	\$ 10,581,511	\$ 14,484,797	\$ 15,597,356	\$ 16,877,715	\$ 17,892,023	\$ 18,590,358
Interest.....	54,243,222	56,453,975	57,096,460	60,670,085	62,939,560	65,501,353
Changes in benefit terms.....	-	-	4,350,523	-	-	(2,382,236)
Differences between expected and actual experience.....	-	-	(8,590,424)	(49,644)	-	72,274
Changes in assumptions.....	-	-	20,216,699	23,073,540	-	35,268,329
Benefit payments.....	(38,353,266)	(39,994,008)	(42,130,566)	(44,959,784)	(46,458,490)	(49,373,946)
Net change in total pension liability.....	26,471,467	30,944,764	46,540,048	55,611,912	34,373,093	67,676,132
Total pension liability - beginning.....	684,261,436	710,732,903	741,677,667	788,217,715	843,829,627	878,202,720
Total pension liability - ending (a).....	<u>\$ 710,732,903</u>	<u>\$ 741,677,667</u>	<u>\$ 788,217,715</u>	<u>\$ 843,829,627</u>	<u>\$ 878,202,720</u>	<u>\$ 945,878,852</u>
Plan fiduciary net position:						
Employer pension appropriation.....	\$ 26,066,222	\$ 27,893,676	\$ 29,420,144	\$ 31,239,783	\$ 33,969,088	\$ 36,090,030
Member contributions.....	12,168,827	12,491,708	12,864,434	13,077,844	13,636,998	14,270,165
Other contributions.....	3,940,038	7,805,125	4,208,413	3,575,613	4,291,824	3,590,760
Net investment income (loss).....	29,322,861	4,103,832	26,406,996	66,258,516	(10,723,393)	71,119,136
Administrative expenses.....	(922,351)	(934,672)	(961,143)	(981,979)	(955,252)	(990,011)
Retirement benefits and refunds.....	(38,353,266)	(39,994,008)	(42,130,565)	(44,959,784)	(46,458,490)	(49,373,946)
Other retirement deductions.....	(5,728,996)	(4,483,236)	(5,202,784)	(3,650,033)	(5,489,442)	(5,869,056)
Depreciation.....	(14,374)	(14,374)	(14,374)	(15,554)	(8,520)	(11,258)
Net increase (decrease) in fiduciary net position.....	26,478,961	6,868,051	24,591,121	64,544,406	(11,737,187)	68,825,820
Fiduciary net position - beginning of year.....	344,991,750	371,470,711	378,338,762	402,929,883	467,474,289	455,737,102
Fiduciary net position - end of year (b).....	<u>\$ 371,470,711</u>	<u>\$ 378,338,762</u>	<u>\$ 402,929,883</u>	<u>\$ 467,474,289</u>	<u>\$ 455,737,102</u>	<u>\$ 524,562,922</u>
Net pension liability - ending (a)-(b).....	<u>\$ 339,262,192</u>	<u>\$ 363,338,905</u>	<u>\$ 385,287,832</u>	<u>\$ 376,355,338</u>	<u>\$ 422,465,618</u>	<u>\$ 421,315,930</u>
Plan fiduciary net position as a percentage of the total pension liability.....	52.27%	51.01%	51.12%	55.40%	51.89%	55.46%
Covered payroll.....	\$ 123,190,220	\$ 128,258,043	\$ 133,089,526	\$ 130,743,710	\$ 136,111,184	\$ 144,695,269
Net pension liability as a percentage of covered payroll.....	275.40%	283.29%	289.50%	287.86%	310.38%	291.17%

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

See notes to required supplementary information.

SCHEDULE OF CONTRIBUTIONS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018	December 31, 2019
Actuarially determined contribution..... \$	26,066,222	\$ 32,050,432	\$ 29,420,338	\$ 31,614,412	\$ 33,969,088	\$ 36,150,577
Contributions in relation to the actuarially determined contribution.....	(26,066,222)	(32,123,557)	(29,463,314)	(31,663,092)	(33,993,920)	(36,174,754)
Contribution deficiency (excess)..... \$	-	\$ (73,125)	\$ (42,976)	\$ (48,680)	\$ (24,832)	\$ (24,177)
Covered payroll..... \$	123,190,220	\$ 128,258,043	\$ 133,089,526	\$ 130,743,710	\$ 136,111,184	\$ 144,695,269
Contributions as a percentage of covered payroll.....	21.16%	25.05%	22.14%	24.22%	24.98%	25.00%

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

See notes to required supplementary information.

SCHEDULE OF INVESTMENT RETURNS

<u>Year</u>	<u>Annual money-weighted rate of return, net of investment expense</u>
December 31, 2019.....	16.13%
December 31, 2018.....	-2.43%
December 31, 2017.....	17.11%
December 31, 2016.....	7.80%
December 31, 2015.....	1.04%
December 31, 2014.....	8.48%

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 System's total pension liability, changes in the System'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 system'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*Actuarial Assumptions:*

The following are the changes in actuarial assumptions effective in the January 1, 2020 valuation:

- The net investment return assumption was lowered from 7.50% to 7.30%
- The mortality assumption for non-disabled participants was changed from the RP-2000 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale BB to the RP-2014 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale MP-2019.
- The morality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward two years projected generationally using Scale BB to the RP-2014 Healthy Annuitant Morality Table set forward two years projected generationally using Scale MP-2019.
- The allowance for net 3(8)(c) payments was changed from a term cost added to the service cost to an estimated liability.

Plan Provisions:

Effective January 1, 2020 the Board approved a 2.0% COLA increase on the first \$14,000 of a retirement allowance for fiscal 2021.

Audit of Specific Elements, Accounts and Items of Financial Statements

This page left intentionally blank.



100 Quannapowitt Parkway
Suite 101

Wakefield, MA 01880

T. 781-914-1700

F. 781-914-1701

www.powersandsullivan.com

Independent Auditor's Report

To the Honorable Essex Retirement Board
Essex Regional Retirement System
Danvers, Massachusetts

We have audited the accompanying schedule of employer allocations of the Essex Regional Retirement System (ERRS) as of and for the year ended December 31, 2019, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the ERRS Pension Plan as of and for the year ended December 31, 2019, and the related notes.

Management's Responsibility for the Schedules

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

Auditor's Responsibility

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

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

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

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Essex Regional Retirement System as of and for the year ended December 31, 2019, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Essex Regional Retirement System as of and for the year ended December 31, 2019, and our report thereon, dated July 30, 2020, expressed an unmodified opinion on those financial statements.

Restriction on Use

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

Powers & Sullivan LLC

July 30, 2020

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2019

Employer	2020 Pension Fund Appropriation	Current Direct E.R.I./CRAB Appropriation	FY2020 Total Appropriation	Remaining Direct E.R.I. Liability	Allocated Net Pension Liability	Share of Net Pension Liability including E.R.I.	Percent of Total Net Pension Liability including E.R.I.
Retirement Board.....	\$ 122,075	\$ -	\$ 122,075	\$ -	\$ 1,432,033	\$ 1,432,033	0.340%
Town of Boxford.....	1,339,233	-	1,339,233	-	15,710,208	15,710,208	3.729%
Town of Essex.....	624,736	-	624,736	-	7,328,622	7,328,622	1.739%
Town of Georgetown.....	1,752,133	19,880	1,772,013	-	20,553,835	20,553,835	4.878%
Town of Groveland.....	804,258	8,305	812,563	62,954	9,434,550	9,497,504	2.254%
Town of Hamilton.....	987,370	-	987,370	-	11,582,591	11,582,591	2.749%
Town of Ipswich.....	3,762,778	-	3,762,778	-	44,140,209	44,140,209	10.477%
Town of Lynnfield.....	2,807,722	142,635	2,950,357	-	32,936,686	32,936,686	7.818%
Town of Manchester-by-the-Sea.....	1,253,062	-	1,253,062	-	14,699,357	14,699,357	3.489%
Town of Merrimac.....	897,609	7,183	904,792	-	10,529,627	10,529,627	2.499%
Town of Middleton.....	1,820,352	-	1,820,352	-	21,354,095	21,354,095	5.068%
Town of Nahant.....	876,067	-	876,067	-	10,276,923	10,276,923	2.439%
Town of Newbury.....	757,582	-	757,582	-	8,887,005	8,887,005	2.109%
Town of North Andover.....	5,629,804	-	5,629,804	-	66,041,825	66,041,825	15.675%
Town of Rockport.....	1,802,399	-	1,802,399	-	21,143,493	21,143,493	5.018%
Town of Rowley.....	983,780	-	983,780	-	11,540,478	11,540,478	2.739%
Town of Salisbury.....	1,579,792	-	1,579,792	-	18,532,146	18,532,146	4.399%
Town of Topsfield.....	1,224,339	-	1,224,339	-	14,362,415	14,362,415	3.409%
Town of Wenham.....	761,173	-	761,173	-	8,929,130	8,929,130	2.119%
Town of West Newbury.....	707,316	-	707,316	-	8,297,347	8,297,347	1.969%
East Essex Veterans District.....	32,314	-	32,314	-	379,067	379,067	0.090%
Byfield Water District.....	25,133	-	25,133	-	294,829	294,829	0.070%
Lynnfield Center Water District.....	104,123	-	104,123	-	1,221,441	1,221,441	0.290%
Lynnfield Water District.....	82,580	-	82,580	-	968,725	968,725	0.230%
NE Massachusetts Mosquito Control District...	208,245	-	208,245	-	2,442,870	2,442,870	0.580%
Hamilton-Wenham Regional School.....	976,599	-	976,599	-	11,456,239	11,456,239	2.719%
Manchester-Essex Regional School.....	491,890	19,124	511,014	-	5,770,239	5,770,239	1.370%
Masconomet Regional School.....	696,545	-	696,545	-	8,170,995	8,170,995	1.939%
Pentucket Regional School.....	1,080,722	6,130	1,086,852	-	12,677,680	12,677,680	3.009%
Triton Regional School.....	1,087,902	-	1,087,902	-	12,761,907	12,761,907	3.029%
Essex Housing Authority.....	14,362	-	14,362	-	168,477	168,477	0.040%
Georgetown Housing Authority.....	61,037	-	61,037	-	716,010	716,010	0.170%
Groveland Housing Authority.....	25,133	-	25,133	-	294,829	294,829	0.070%
Hamilton Housing Authority.....	17,952	-	17,952	-	210,590	210,590	0.050%
Ipswich Housing Authority.....	122,075	-	122,075	-	1,432,031	1,432,031	0.340%
Lynnfield Housing Authority.....	28,724	-	28,724	-	336,954	336,954	0.080%
Manchester Housing Authority.....	28,724	-	28,724	-	336,954	336,954	0.080%
Merrimac Housing Authority.....	10,771	-	10,771	-	126,352	126,352	0.030%
Middleton Housing Authority.....	17,952	-	17,952	-	210,590	210,590	0.050%
Nahant Housing Authority.....	10,771	8,943	19,714	67,788	126,352	194,140	0.046%
North Andover Housing Authority.....	150,798	13,304	164,102	-	1,768,974	1,768,974	0.420%
Rockport Housing Authority.....	50,266	-	50,266	-	589,658	589,658	0.140%
Rowley Housing Authority.....	14,362	16,279	30,641	-	168,477	168,477	0.040%
Salisbury Housing Authority.....	25,133	-	25,133	-	294,829	294,829	0.070%
Topsfield Housing Authority.....	17,952	-	17,952	-	210,590	210,590	0.050%
Wenham Housing Authority.....	28,724	-	28,724	-	336,954	336,954	0.080%
Total.....	\$ 35,904,369	\$ 241,783	\$ 36,146,152	\$ 130,742	\$ 421,185,188	\$ 421,315,930	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, 2019

	Retirement Board	Town of Boxford	Town of Essex	Town of Georgetown
Net Pension Liability				
Beginning net pension liability.....	\$ 1,604,165	\$ 16,041,666	\$ 7,260,967	\$ 20,577,898
Ending net pension liability.....	\$ 1,432,033	\$ 15,710,208	\$ 7,328,622	\$ 20,553,835
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 197	\$ 2,156	\$ 1,006	\$ 2,822
Net difference between projected and actual investment earnings on pension plan investments.....	-	-	-	-
Changes of assumptions.....	143,128	1,570,196	732,477	2,054,304
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	40,388	280,985	148,677	230,313
Total Deferred Outflows of Resources.....	\$ 183,713	\$ 1,853,337	\$ 882,160	\$ 2,287,439
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 6,806	\$ 74,661	\$ 34,829	\$ 97,681
Net difference between projected and actual investment earnings on pension plan investments.....	53,393	585,751	273,246	766,342
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	140,208	243,643	117,862	646,140
Total Deferred Inflows of Resources.....	\$ 200,407	\$ 904,055	\$ 425,937	\$ 1,510,163
Pension Expense				
Proportionate share of plan pension expense.....	\$ 173,451	\$ 1,902,857	\$ 887,663	\$ 2,489,528
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(17,967)	24,186	31,319	(130,254)
Total Employer Pension Expense.....	\$ 155,484	\$ 1,927,043	\$ 918,982	\$ 2,359,274
Contributions				
Statutory required contribution.....	\$ 122,075	\$ 1,339,233	\$ 624,736	\$ 1,772,013
Contribution in relation to statutory required contribution.....	(122,075)	(1,340,673)	(624,736)	(1,772,013)
Contribution deficiency/(excess).....	\$ -	\$ (1,440)	\$ -	\$ -
Contributions as a percentage of covered payroll.....	25.91%	22.99%	27.62%	23.11%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 4,133	\$ 374,805	\$ 187,023	\$ 372,755
June 30, 2022.....	4,336	293,583	129,029	168,139
June 30, 2023.....	6,603	347,529	131,193	245,889
June 30, 2024.....	(31,766)	(66,635)	8,978	(9,507)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (16,694)	\$ 949,282	\$ 456,223	\$ 777,276
Discount Rate Sensitivity				
1% decrease (6.30%).....	\$ 1,800,870	\$ 19,756,552	\$ 9,216,193	\$ 25,847,712
Current discount rate (7.30%).....	\$ 1,432,033	\$ 15,710,208	\$ 7,328,622	\$ 20,553,835
1% increase (8.30%).....	\$ 1,122,003	\$ 12,309,003	\$ 5,742,001	\$ 16,104,003
Covered Payroll.....	\$ 471,161	\$ 5,832,314	\$ 2,261,786	\$ 7,668,229
See notes to schedule of employer allocations and schedule of pension amounts by employer.				

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Town of Groveland	Town of Hamilton	Town of Ipswich	Town of Lynnfield
Net Pension Liability				
Beginning net pension liability.....	\$ 9,394,005	\$ 11,651,319	\$ 43,270,288	\$ 34,542,647
Ending net pension liability.....	\$ 9,497,504	\$ 11,582,591	\$ 44,140,209	\$ 32,936,686
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 1,303	\$ 1,590	\$ 6,058	\$ 4,520
Net difference between projected and actual investment earnings on pension plan investments.....	-	-	-	-
Changes of assumptions.....	949,252	1,157,651	4,411,703	3,291,939
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	183,590	579,803	716,408	638,864
Total Deferred Outflows of Resources.....	\$ 1,134,145	\$ 1,739,044	\$ 5,134,169	\$ 3,935,323
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 45,136	\$ 55,045	\$ 209,772	\$ 156,528
Net difference between projected and actual investment earnings on pension plan investments.....	354,112	431,854	1,645,756	1,228,036
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	119,701	361,452	611,812	1,144,611
Total Deferred Inflows of Resources.....	\$ 518,949	\$ 848,351	\$ 2,467,340	\$ 2,529,175
Pension Expense				
Proportionate share of plan pension expense.....	\$ 1,150,363	\$ 1,402,909	\$ 5,346,374	\$ 3,989,383
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(73,524)	(14,444)	(281,571)	(139,826)
Total Employer Pension Expense.....	\$ 1,076,839	\$ 1,388,465	\$ 5,064,803	\$ 3,849,557
Contributions				
Statutory required contribution.....	\$ 812,563	\$ 987,370	\$ 3,762,778	\$ 2,950,357
Contribution in relation to statutory required contribution.....	(812,563)	(987,370)	(3,771,581)	(2,950,357)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ (8,803)	\$ -
Contributions as a percentage of covered payroll.....	24.64%	25.25%	25.77%	27.19%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 179,101	\$ 309,336	\$ 724,664	\$ 620,855
June 30, 2022.....	201,480	204,136	748,084	472,091
June 30, 2023.....	219,531	394,796	1,054,615	589,745
June 30, 2024.....	15,084	(17,575)	139,466	(276,543)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 615,196	\$ 890,693	\$ 2,666,829	\$ 1,406,148
Discount Rate Sensitivity				
1% decrease (6.30%).....	\$ 11,943,695	\$ 14,565,820	\$ 55,509,026	\$ 41,419,907
Current discount rate (7.30%).....	\$ 9,497,504	\$ 11,582,591	\$ 44,140,209	\$ 32,936,686
1% increase (8.30%).....	\$ 7,441,328	\$ 9,075,001	\$ 34,584,008	\$ 25,806,009
Covered Payroll.....	\$ 3,297,922	\$ 3,909,649	\$ 14,634,546	\$ 10,850,279
See notes to schedule of employer allocations and schedule of pension amounts by employer.				

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Town of Manchester- by-the-Sea	Town of Merrimac	Town of Middleton	Town of Nahant
Net Pension Liability				
Beginning net pension liability.....	\$ 14,775,220	\$ 9,969,699	\$ 22,036,187	\$ 10,553,728
Ending net pension liability.....	\$ 14,699,357	\$ 10,529,627	\$ 21,354,095	\$ 10,276,923
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 2,017	\$ 1,445	\$ 2,931	\$ 1,410
Net difference between projected and actual investment earnings on pension plan investments.....	-	-	-	-
Changes of assumptions.....	1,469,164	1,052,410	2,134,288	1,027,153
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	323,996	486,089	341,924	564,196
Total Deferred Outflows of Resources.....	\$ 1,795,177	\$ 1,539,944	\$ 2,479,143	\$ 1,592,759
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 69,857	\$ 50,041	\$ 101,483	\$ 48,840
Net difference between projected and actual investment earnings on pension plan investments.....	548,062	392,594	796,182	383,172
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	160,919	228,919	517,592	477,908
Total Deferred Inflows of Resources.....	\$ 778,838	\$ 671,554	\$ 1,415,257	\$ 909,920
Pension Expense				
Proportionate share of plan pension expense.....	\$ 1,780,417	\$ 1,275,372	\$ 2,586,469	\$ 1,244,769
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	162,282	56,338	60,882	34,465
Total Employer Pension Expense.....	\$ 1,942,699	\$ 1,331,710	\$ 2,647,351	\$ 1,279,234
Contributions				
Statutory required contribution.....	\$ 1,253,062	\$ 904,792	\$ 1,820,352	\$ 876,067
Contribution in relation to statutory required contribution.....	(1,253,062)	(904,792)	(1,821,792)	(876,067)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ (1,440)	\$ -
Contributions as a percentage of covered payroll.....	26.43%	24.97%	23.81%	27.18%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 376,077	\$ 293,341	\$ 533,675	\$ 251,648
June 30, 2022.....	266,808	216,361	346,795	339,662
June 30, 2023.....	393,705	260,670	315,971	146,155
June 30, 2024.....	(20,251)	98,018	(132,555)	(54,626)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 1,016,339	\$ 868,390	\$ 1,063,886	\$ 682,839
Discount Rate Sensitivity				
1% decrease (6.30%).....	\$ 18,485,345	\$ 13,241,653	\$ 26,854,087	\$ 12,923,862
Current discount rate (7.30%).....	\$ 14,699,357	\$ 10,529,627	\$ 21,354,095	\$ 10,276,923
1% increase (8.30%).....	\$ 11,516,998	\$ 8,250,000	\$ 16,731,008	\$ 8,052,005
Covered Payroll.....	\$ 4,741,557	\$ 3,623,368	\$ 7,651,762	\$ 3,223,708
See notes to schedule of employer allocations and schedule of pension amounts by employer.				(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Town of Newbury	Town of North Andover	Town of Rockport	Town of Rowley
Net Pension Liability				
Beginning net pension liability.....	\$ 8,780,703	\$ 65,601,981	\$ 22,162,829	\$ 11,777,961
Ending net pension liability.....	\$ 8,887,005	\$ 66,041,825	\$ 21,143,493	\$ 11,540,478
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 1,220	\$ 9,063	\$ 2,902	\$ 1,584
Net difference between projected and actual investment earnings on pension plan investments.....	-	-	-	-
Changes of assumptions.....	888,234	6,600,715	2,113,239	1,153,442
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	502,737	1,470,946	262,670	169,482
Total Deferred Outflows of Resources.....	\$ 1,392,191	\$ 8,080,724	\$ 2,378,811	\$ 1,324,508
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 42,235	\$ 313,857	\$ 100,482	\$ 54,845
Net difference between projected and actual investment earnings on pension plan investments.....	331,350	2,462,352	788,330	430,284
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	113,574	107,865	1,388,385	322,778
Total Deferred Inflows of Resources.....	\$ 487,159	\$ 2,884,074	\$ 2,277,197	\$ 807,907
Pension Expense				
Proportionate share of plan pension expense.....	\$ 1,076,415	\$ 7,999,143	\$ 2,560,949	\$ 1,397,813
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	127,898	596,272	(228,608)	9,923
Total Employer Pension Expense.....	\$ 1,204,313	\$ 8,595,415	\$ 2,332,341	\$ 1,407,736
Contributions				
Statutory required contribution.....	\$ 757,582	\$ 5,629,804	\$ 1,802,399	\$ 983,780
Contribution in relation to statutory required contribution.....	(757,582)	(5,636,824)	(1,805,835)	(983,780)
Contribution deficiency/(excess).....	\$ -	\$ (7,020)	\$ (3,436)	\$ -
Contributions as a percentage of covered payroll.....	25.95%	25.19%	25.12%	24.06%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 297,631	\$ 2,006,141	\$ 220,303	\$ 224,728
June 30, 2022.....	252,232	1,500,961	35,452	108,533
June 30, 2023.....	339,894	1,637,948	38,910	231,416
June 30, 2024.....	15,275	51,600	(193,051)	(48,076)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 905,032	\$ 5,196,650	\$ 101,614	\$ 516,601
Discount Rate Sensitivity				
1% decrease (6.30%).....	\$ 11,175,955	\$ 83,051,654	\$ 26,589,242	\$ 14,512,860
Current discount rate (7.30%).....	\$ 8,887,005	\$ 66,041,825	\$ 21,143,493	\$ 11,540,478
1% increase (8.30%).....	\$ 6,963,000	\$ 51,744,001	\$ 16,566,001	\$ 9,042,005
Covered Payroll.....	\$ 2,918,867	\$ 22,380,902	\$ 7,190,132	\$ 4,088,227
See notes to schedule of employer allocations and schedule of pension amounts by employer.				

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Town of Salisbury	Town of Topsfield	Town of Wenham	Town of West Newbury
Net Pension Liability				
Beginning net pension liability.....	\$ 17,519,189	\$ 14,141,999	\$ 9,033,992	\$ 8,316,337
Ending net pension liability.....	\$ 18,532,146	\$ 14,362,415	\$ 8,929,130	\$ 8,297,347
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 2,543	\$ 1,971	\$ 1,225	\$ 1,139
Net difference between projected and actual investment earnings on pension plan investments.....	-	-	-	-
Changes of assumptions.....	1,852,242	1,435,487	892,444	829,299
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	1,891,648	256,781	167,033	370,365
Total Deferred Outflows of Resources.....	\$ 3,746,433	\$ 1,694,239	\$ 1,060,702	\$ 1,200,803
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 88,072	\$ 68,256	\$ 42,435	\$ 39,432
Net difference between projected and actual investment earnings on pension plan investments.....	690,966	535,499	332,920	309,364
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	36,417	315,431	105,271	108,046
Total Deferred Inflows of Resources.....	\$ 815,455	\$ 919,186	\$ 480,626	\$ 456,842
Pension Expense				
Proportionate share of plan pension expense.....	\$ 2,244,657	\$ 1,739,610	\$ 1,081,523	\$ 1,004,992
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	522,518	(14,683)	71,792	35,068
Total Employer Pension Expense.....	\$ 2,767,175	\$ 1,724,927	\$ 1,153,315	\$ 1,040,060
Contributions				
Statutory required contribution.....	\$ 1,579,792	\$ 1,224,339	\$ 761,173	\$ 707,316
Contribution in relation to statutory required contribution.....	(1,579,792)	(1,226,814)	(761,173)	(707,316)
Contribution deficiency/(excess).....	\$ -	\$ (2,475)	\$ -	\$ -
Contributions as a percentage of covered payroll.....	25.39%	25.34%	23.92%	26.89%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 1,035,378	\$ 279,896	\$ 242,650	\$ 261,720
June 30, 2022.....	849,520	152,014	197,060	206,310
June 30, 2023.....	871,128	309,169	163,299	283,051
June 30, 2024.....	174,952	33,974	(22,933)	(7,120)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 2,930,978	\$ 775,053	\$ 580,076	\$ 743,961
Discount Rate Sensitivity				
1% decrease (6.30%).....	\$ 23,305,313	\$ 18,061,620	\$ 11,228,930	\$ 10,434,424
Current discount rate (7.30%).....	\$ 18,532,146	\$ 14,362,415	\$ 8,929,130	\$ 8,297,347
1% increase (8.30%).....	\$ 14,520,001	\$ 11,253,002	\$ 6,996,005	\$ 6,501,000
Covered Payroll.....	\$ 6,221,054	\$ 4,841,572	\$ 3,181,730	\$ 2,629,986
See notes to schedule of employer allocations and schedule of pension amounts by employer.				(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	East Essex Veterans District	Byfield Water District	Lynnfield Center Water District	Lynnfield Water District
Net Pension Liability				
Beginning net pension liability.....	\$ 379,936	\$ 295,502	\$ 1,182,017	\$ 886,515
Ending net pension liability.....	\$ 379,067	\$ 294,829	\$ 1,221,441	\$ 968,725
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 52	\$ 40	\$ 168	\$ 133
Net difference between projected and actual investment earnings on pension plan investments.....	-	-	-	-
Changes of assumptions.....	37,887	29,467	122,080	96,822
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	30,416	431	99,426	72,353
Total Deferred Outflows of Resources.....	\$ 68,355	\$ 29,938	\$ 221,674	\$ 169,308
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 1,801	\$ 1,401	\$ 5,805	\$ 4,604
Net difference between projected and actual investment earnings on pension plan investments.....	14,133	10,993	45,541	36,119
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	26,302	32,261	81,073	29,907
Total Deferred Inflows of Resources.....	\$ 42,236	\$ 44,655	\$ 132,419	\$ 70,630
Pension Expense				
Proportionate share of plan pension expense.....	\$ 45,914	\$ 35,711	\$ 147,948	\$ 117,333
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(6,454)	(27,104)	(18,314)	19,342
Total Employer Pension Expense.....	\$ 39,460	\$ 8,607	\$ 129,634	\$ 136,675
Contributions				
Statutory required contribution.....	\$ 32,314	\$ 25,133	\$ 104,123	\$ 82,580
Contribution in relation to statutory required contribution.....	(32,314)	(25,133)	(104,123)	(82,580)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	23.77%	25.29%	15.55%	25.54%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 17,332	\$ (20,082)	\$ (644)	\$ 30,946
June 30, 2022.....	8,550	(522)	42,916	17,852
June 30, 2023.....	561	6,139	40,396	35,442
June 30, 2024.....	(324)	(252)	6,587	14,438
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 26,119	\$ (14,717)	\$ 89,255	\$ 98,678
Discount Rate Sensitivity				
1% decrease (6.30%).....	\$ 476,700	\$ 370,766	\$ 1,536,037	\$ 1,218,231
Current discount rate (7.30%).....	\$ 379,067	\$ 294,829	\$ 1,221,441	\$ 968,725
1% increase (8.30%).....	\$ 297,000	\$ 231,000	\$ 957,003	\$ 758,999
Covered Payroll.....	\$ 135,935	\$ 99,377	\$ 669,540	\$ 323,389
See notes to schedule of employer allocations and schedule of pension amounts by employer.				

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	NE MA Mosquito Control District	Hamilton- Wenham Regional School	Manchester- Essex Regional School	Masconomet Regional School
Net Pension Liability				
Beginning net pension liability.....	\$ 1,730,812	\$ 11,482,455	\$ 6,332,236	\$ 8,020,835
Ending net pension liability.....	\$ 2,442,870	\$ 11,456,239	\$ 5,770,239	\$ 8,170,995
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 335	\$ 1,572	\$ 792	\$ 1,121
Net difference between projected and actual investment earnings on pension plan investments.....	-	-	-	-
Changes of assumptions.....	244,159	1,145,022	576,721	816,670
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	551,497	13,253	19,499	548,522
Total Deferred Outflows of Resources.....	\$ 795,991	\$ 1,159,847	\$ 597,012	\$ 1,366,313
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 11,610	\$ 54,445	\$ 27,422	\$ 38,832
Net difference between projected and actual investment earnings on pension plan investments.....	91,082	427,143	215,142	304,653
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	297,878	247,461	944,494	134,299
Total Deferred Inflows of Resources.....	\$ 400,570	\$ 729,049	\$ 1,187,058	\$ 477,784
Pension Expense				
Proportionate share of plan pension expense.....	\$ 295,883	\$ 1,387,612	\$ 698,907	\$ 989,693
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	39,887	(49,724)	(308,274)	73,067
Total Employer Pension Expense.....	\$ 335,770	\$ 1,337,888	\$ 390,633	\$ 1,062,760
Contributions				
Statutory required contribution.....	\$ 208,245	\$ 976,599	\$ 511,014	\$ 696,545
Contribution in relation to statutory required contribution.....	(208,245)	(976,599)	(511,014)	(696,545)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	27.86%	24.70%	23.28%	23.42%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 84,885	\$ 163,486	\$ (186,418)	\$ 262,942
June 30, 2022.....	90,161	89,952	(177,750)	262,106
June 30, 2023.....	92,688	187,194	(125,505)	339,956
June 30, 2024.....	127,687	(9,834)	(100,373)	23,525
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 395,421	\$ 430,798	\$ (590,046)	\$ 888,529
Discount Rate Sensitivity				
1% decrease (6.30%).....	\$ 3,072,059	\$ 14,406,925	\$ 7,256,430	\$ 10,275,528
Current discount rate (7.30%).....	\$ 2,442,870	\$ 11,456,239	\$ 5,770,239	\$ 8,170,995
1% increase (8.30%).....	\$ 1,913,997	\$ 8,976,003	\$ 4,521,002	\$ 6,402,003
Covered Payroll.....	\$ 747,451	\$ 3,953,177	\$ 2,194,958	\$ 2,974,269
See notes to schedule of employer allocations and schedule of pension amounts by employer.				

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Pentucket Regional School	Triton Regional School	Essex Housing Authority	Georgetown Housing Authority
Net Pension Liability				
Beginning net pension liability.....	\$ 12,881,509	\$ 12,917,765	\$ 168,860	\$ 717,655
Ending net pension liability.....	\$ 12,677,680	\$ 12,761,907	\$ 168,477	\$ 716,010
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 1,740	\$ 1,751	\$ 23	\$ 98
Net difference between projected and actual investment earnings on pension plan investments.....	-	-	-	-
Changes of assumptions.....	1,267,102	1,275,521	16,839	71,563
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	35,659	185,288	19,936	31,269
Total Deferred Outflows of Resources.....	\$ 1,304,501	\$ 1,462,560	\$ 36,798	\$ 102,930
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 60,249	\$ 60,650	\$ 801	\$ 3,403
Net difference between projected and actual investment earnings on pension plan investments.....	472,684	475,824	6,282	26,696
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	1,095,011	981,439	2,390	465
Total Deferred Inflows of Resources.....	\$ 1,627,944	\$ 1,517,913	\$ 9,473	\$ 30,564
Pension Expense				
Proportionate share of plan pension expense.....	\$ 1,535,556	\$ 1,545,749	\$ 20,407	\$ 86,721
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(365,644)	(105,766)	23,099	13,873
Total Employer Pension Expense.....	\$ 1,169,912	\$ 1,439,983	\$ 43,506	\$ 100,594
Contributions				
Statutory required contribution.....	\$ 1,086,852	\$ 1,087,902	\$ 14,362	\$ 61,037
Contribution in relation to statutory required contribution.....	(1,086,852)	(1,087,465)	(14,362)	(61,037)
Contribution deficiency/(excess).....	\$ -	\$ 437	\$ -	\$ -
Contributions as a percentage of covered payroll.....	23.90%	21.96%	13.53%	21.83%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ (160,202)	\$ 79,810	\$ 13,973	\$ 29,917
June 30, 2022.....	(216,515)	(51,110)	9,941	20,604
June 30, 2023.....	94,544	(50,109)	3,556	22,460
June 30, 2024.....	(41,270)	(33,944)	(145)	(615)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (323,443)	\$ (55,353)	\$ 27,325	\$ 72,366
Discount Rate Sensitivity				
1% decrease (6.30%).....	\$ 15,942,962	\$ 16,048,882	\$ 211,870	\$ 900,427
Current discount rate (7.30%).....	\$ 12,677,680	\$ 12,761,907	\$ 168,477	\$ 716,010
1% increase (8.30%).....	\$ 9,933,007	\$ 9,998,999	\$ 132,002	\$ 560,996
Covered Payroll.....	\$ 4,548,129	\$ 4,951,582	\$ 106,152	\$ 279,578
See notes to schedule of employer allocations and schedule of pension amounts by employer.				

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Groveland Housing Authority	Hamilton Housing Authority	Ipswich Housing Authority	Lynnfield Housing Authority
<u>Net Pension Liability</u>				
Beginning net pension liability.....	\$ 295,502	\$ 211,076	\$ 1,519,736	\$ 295,502
Ending net pension liability.....	\$ 294,829	\$ 210,590	\$ 1,432,031	\$ 336,954
<u>Deferred Outflows of Resources</u>				
Differences between expected and actual experience.....	\$ 40	\$ 29	\$ 197	\$ 46
Net difference between projected and actual investment earnings on pension plan investments.....	-	-	-	-
Changes of assumptions.....	29,467	21,048	143,128	33,678
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	312	29,130	40,834	53,117
Total Deferred Outflows of Resources.....	\$ 29,819	\$ 50,207	\$ 184,159	\$ 86,841
<u>Deferred Inflows of Resources</u>				
Differences between expected and actual experience.....	\$ 1,401	\$ 1,001	\$ 6,806	\$ 1,601
Net difference between projected and actual investment earnings on pension plan investments.....	10,993	7,852	53,393	12,563
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	36,948	7,944	79,101	14,638
Total Deferred Inflows of Resources.....	\$ 49,342	\$ 16,797	\$ 139,300	\$ 28,802
<u>Pension Expense</u>				
Proportionate share of plan pension expense.....	\$ 35,711	\$ 25,503	\$ 173,451	\$ 40,818
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(21,078)	7,482	(23,033)	7,590
Total Employer Pension Expense.....	\$ 14,633	\$ 32,985	\$ 150,418	\$ 48,408
<u>Contributions</u>				
Statutory required contribution.....	\$ 25,133	\$ 18,280	\$ 124,302	\$ 29,248
Contribution in relation to statutory required contribution.....	(25,133)	(18,280)	(124,302)	(29,248)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	42.51%	28.89%	21.75%	48.77%
<u>Deferred (Inflows)/Outflows Recognized in Future Pension Expense</u>				
June 30, 2021.....	\$ (14,524)	\$ 12,431	\$ 26,677	\$ 15,167
June 30, 2022.....	(10,886)	16,577	18,367	13,337
June 30, 2023.....	6,139	4,517	15,867	22,085
June 30, 2024.....	(252)	(115)	(16,052)	7,450
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (19,523)	\$ 33,410	\$ 44,859	\$ 58,039
<u>Discount Rate Sensitivity</u>				
1% decrease (6.30%).....	\$ 370,766	\$ 264,830	\$ 1,800,867	\$ 423,740
Current discount rate (7.30%).....	\$ 294,829	\$ 210,590	\$ 1,432,031	\$ 336,954
1% increase (8.30%).....	\$ 231,000	\$ 164,998	\$ 1,122,001	\$ 264,005
Covered Payroll.....	\$ 59,129	\$ 63,278	\$ 571,387	\$ 59,966
See notes to schedule of employer allocations and schedule of pension amounts by employer.				

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Manchester Housing Authority	Merrimac Housing Authority	Middleton Housing Authority	Nahant Housing Authority
Net Pension Liability				
Beginning net pension liability.....	\$ 337,719	\$ 84,430	\$ 211,076	\$ 196,109
Ending net pension liability.....	\$ 336,954	\$ 126,352	\$ 210,590	\$ 194,140
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 46	\$ 17	\$ 29	\$ 27
Net difference between projected and actual investment earnings on pension plan investments.....	-	-	-	-
Changes of assumptions.....	33,678	12,629	21,048	19,404
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	22,364	74,630	308	42,545
Total Deferred Outflows of Resources.....	\$ 56,088	\$ 87,276	\$ 21,385	\$ 61,976
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 1,601	\$ 600	\$ 1,001	\$ 923
Net difference between projected and actual investment earnings on pension plan investments.....	12,563	4,711	7,852	7,238
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	14,827	133	10,887	48,221
Total Deferred Inflows of Resources.....	\$ 28,991	\$ 5,444	\$ 19,740	\$ 56,382
Pension Expense				
Proportionate share of plan pension expense.....	\$ 40,818	\$ 15,299	\$ 25,503	\$ 23,513
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(110)	22,290	(19,690)	(18,485)
Total Employer Pension Expense.....	\$ 40,708	\$ 37,589	\$ 5,813	\$ 5,028
Contributions				
Statutory required contribution.....	\$ 28,724	\$ 10,771	\$ 17,952	\$ 19,714
Contribution in relation to statutory required contribution.....	(28,724)	(10,771)	(17,952)	(19,714)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	52.38%	21.20%	25.88%	51.29%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 7,440	\$ 25,041	\$ (4,628)	\$ (7,035)
June 30, 2022.....	5,600	24,334	2,070	(5,070)
June 30, 2023.....	14,345	24,930	4,384	17,508
June 30, 2024.....	(288)	7,527	(181)	191
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 27,097	\$ 81,832	\$ 1,645	\$ 5,594
Discount Rate Sensitivity				
1% decrease (6.30%).....	\$ 423,740	\$ 158,895	\$ 264,830	\$ 244,143
Current discount rate (7.30%).....	\$ 336,954	\$ 126,352	\$ 210,590	\$ 194,140
1% increase (8.30%).....	\$ 264,005	\$ 98,997	\$ 164,998	\$ 152,109
Covered Payroll.....	\$ 54,834	\$ 50,818	\$ 69,374	\$ 38,438
See notes to schedule of employer allocations and schedule of pension amounts by employer.				

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	North Andover Housing Authority	Rockport Housing Authority	Rowley Housing Authority	Salisbury Housing Authority
<u>Net Pension Liability</u>				
Beginning net pension liability.....	\$ 1,785,851	\$ 464,366	\$ 168,860	\$ 337,719
Ending net pension liability.....	\$ 1,768,974	\$ 589,658	\$ 168,477	\$ 294,829
<u>Deferred Outflows of Resources</u>				
Differences between expected and actual experience.....	\$ 243	\$ 81	\$ 23	\$ 40
Net difference between projected and actual investment earnings on pension plan investments.....	-	-	-	-
Changes of assumptions.....	176,805	58,935	16,839	29,467
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	19,275	118,044	23,139	1,687
Total Deferred Outflows of Resources.....	\$ 196,323	\$ 177,060	\$ 40,001	\$ 31,194
<u>Deferred Inflows of Resources</u>				
Differences between expected and actual experience.....	\$ 8,407	\$ 2,802	\$ 801	\$ 1,401
Net difference between projected and actual investment earnings on pension plan investments.....	65,956	21,985	6,282	10,993
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	65,931	150,801	170	67,855
Total Deferred Inflows of Resources.....	\$ 140,294	\$ 175,588	\$ 7,253	\$ 80,249
<u>Pension Expense</u>				
Proportionate share of plan pension expense.....	\$ 214,258	\$ 71,420	\$ 20,407	\$ 35,711
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(35,879)	(16,650)	6,143	(21,505)
Total Employer Pension Expense.....	\$ 178,379	\$ 54,770	\$ 26,550	\$ 14,206
<u>Contributions</u>				
Statutory required contribution.....	\$ 164,102	\$ 50,266	\$ 31,200	\$ 25,592
Contribution in relation to statutory required contribution.....	(164,102)	(50,266)	(31,200)	(25,592)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	28.21%	20.62%	54.62%	41.18%
<u>Deferred (Inflows)/Outflows Recognized in</u>				
<u>Future Pension Expense</u>				
June 30, 2021.....	\$ 14,538	\$ (13,666)	\$ 10,174	\$ (20,086)
June 30, 2022.....	12,978	(35,251)	9,280	(12,541)
June 30, 2023.....	29,689	27,993	10,071	(8,632)
June 30, 2024.....	(1,176)	22,396	3,223	(7,796)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 56,029	\$ 1,472	\$ 32,748	\$ (49,055)
<u>Discount Rate Sensitivity</u>				
1% decrease (6.30%).....	\$ 2,224,594	\$ 741,531	\$ 211,870	\$ 370,766
Current discount rate (7.30%).....	\$ 1,768,974	\$ 589,658	\$ 168,477	\$ 294,829
1% increase (8.30%).....	\$ 1,385,997	\$ 461,999	\$ 132,002	\$ 231,000
Covered Payroll.....	\$ 581,623	\$ 243,744	\$ 57,123	\$ 62,152
See notes to schedule of employer allocations and schedule of pension amounts by employer.				

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Topsfield Housing Authority	Wenham Housing Authority	West Newbury Housing Authority	Totals
Net Pension Liability				
Beginning net pension liability.....	\$ 211,076	\$ 337,719	\$ -	\$ 422,465,618
Ending net pension liability.....	\$ 210,590	\$ 336,954	\$ -	\$ 421,315,930
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 29	\$ 46	\$ -	\$ 57,820
Net difference between projected and actual investment earnings on pension plan investments.....	-	-	-	-
Changes of assumptions.....	21,048	33,678	-	42,109,472
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	24,117	25,667	-	11,709,613
Total Deferred Outflows of Resources.....	\$ 45,194	\$ 59,391	\$ -	\$ 53,876,905
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 1,001	\$ 1,601	\$ -	\$ 2,002,263
Net difference between projected and actual investment earnings on pension plan investments.....	7,852	12,563	-	15,708,653
Changes of assumptions.....	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	43,037	26,333	1,273	11,709,613
Total Deferred Inflows of Resources.....	\$ 51,890	\$ 40,497	\$ 1,273	\$ 29,420,529
Pension Expense				
Proportionate share of plan pension expense.....	\$ 25,503	\$ 40,818	\$ -	\$ 51,030,824
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(2,006)	1,247	(6,370)	-
Total Employer Pension Expense.....	\$ 23,497	\$ 42,065	\$ (6,370)	\$ 51,030,824
Contributions				
Statutory required contribution.....	\$ 18,280	\$ 28,724	\$ -	\$ 36,150,577
Contribution in relation to statutory required contribution.....	(18,280)	(28,724)	-	(36,174,754)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ (24,177)
Contributions as a percentage of covered payroll.....	27.97%	24.81%	N/A	25.00%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 2,901	\$ 12,736	\$ (1,273)	\$ 9,177,698
June 30, 2022.....	(13,999)	6,695	-	6,820,262
June 30, 2023.....	4,517	(249)	-	8,801,703
June 30, 2024.....	(115)	(288)	-	(343,287)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ (6,696)	\$ 18,894	\$ (1,273)	\$ 24,456,376
Discount Rate Sensitivity				
1% decrease (6.30%).....	\$ 264,830	\$ 423,740	\$ -	\$ 529,830,679
Current discount rate (7.30%).....	\$ 210,590	\$ 336,954	\$ -	\$ 421,315,930
1% increase (8.30%).....	\$ 164,998	\$ 264,005	\$ -	\$ 330,102,507
Covered Payroll.....	\$ 65,352	\$ 115,763	\$ -	\$ 144,695,269
See notes to schedule of employer allocations and schedule of pension amounts by employer.				(concluded)

NOTE I – Schedule of Employer Allocations

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a 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.

GASB Statement #68 requires the allocation of the collective pension amounts be consistent with the manner in which contributions to the plan are determined. As permissible under GASB Statement #68, The Schedule of Employer Allocations is used to demonstrate the allocation of Essex Regional Retirement System'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 System who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2018 were applied to allocate the System's fiscal year 2020 pension fund appropriation by member unit.

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 System's funding schedule. The 2002 ERIP amortization is straight line ending in fiscal 2019, except Nahant Housing which is increasing at 4.5% per year ending in 2028 and Essex Regional Retirement Board which was straight line and ended in fiscal 2012. The 2003 ERI amortization is straight line ending in fiscal 2020, except for Groveland which is increasing at 4.5% per year ending in 2028 and Essex Regional Retirement Board which was straight line and ended in fiscal 2012.

The allocation percentage of the total net pension liability is a blended rate of the following items. (1) The proportionate share of active employer's covered payroll is applied to the fiscal year 2019 pension fund appropriation calculated by the actuary. (2) Current Direct E.R.I. appropriation is a direct current charge calculated by PERAC for only the employers that accepted the ERIP. This direct charge backed out of the total pension fund appropriation to calculate the percentage to be allocated (3) Remaining Direct E.R.I. liability is the future E.R.I. liability associated directly to those employers that accepted the ERIP. This direct liability is added back to those employers once the non-ERIP liability has been allocated.

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.

NOTE III – CHANGES IN ACTUARIAL ASSUMPTIONS AND PLAN PROVISIONS

Actuarial Assumptions:

The following are the changes in actuarial assumptions effective in the January 1, 2020 valuation:

- The net investment return assumption was lowered from 7.50% to 7.30%
- The mortality assumption for non-disabled participants was changed from the RP-2000 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale BB to the RP-2014 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale MP-2019.
- The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward two years projected generationally using Scale BB to the RP-2014 Healthy Annuitant Mortality Table set forward two years projected generationally using Scale MP-2019.
- The allowance for net 3(8)(c) payments was changed from a term cost added to the service cost to an estimated liability.

Plan Provisions:

Effective January 1, 2020 the Board approved a 2.0% COLA increase on the first \$14,000 of a retirement allowance for fiscal 2021.

This page intentionally left blank.



100 Quannapowitt Parkway
Suite 101
Wakefield, MA 01880
T. 781-914-1700
F. 781-914-1701
www.powersandsullivan.com

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

To the Honorable Essex Retirement Board
Essex Regional Retirement System
Danvers, Massachusetts

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to the financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Essex Regional Retirement System, as of and for the year ended December 31, 2019 and the related notes to the financial statements, which collectively comprise the Essex Regional Retirement System's financial statements, and have issued our report thereon dated July 30, 2020.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Essex Regional Retirement System'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 Essex Regional Retirement System's internal control. Accordingly, we do not express an opinion on the effectiveness of Essex Regional Retirement System's internal control.

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

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

Compliance and Other Matters

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

Purpose of this Report

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

Powers & Sullivan LLC

July 30, 2020