BARNSTABLE COUNTY RETIREMENT ASSOCIATION

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2016
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Financial Section
Independent Auditor's Report

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

Report on the Financial Statements

We have audited the accompanying financial statements of Barnstable County Retirement Association (BCRA) as of and for the year ended December 31, 2016, and the related notes to the financial statements, which collectively comprise the Barnstable County Retirement Associations' financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

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

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

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Barnstable County Retirement Association as of December 31, 2016 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 Return be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management’s responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated August 22, 2017, on our consideration of the Barnstable County Retirement Association’s internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the Barnstable County Retirement Association’s internal control over financial reporting and compliance.

Restriction on Use

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

Powers Sullivan LLC

August 22, 2017
Management’s Discussion and Analysis

As management of the Barnstable County Retirement Association, we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2016. The Association complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

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

Financial Highlights

- The Association’s assets exceeded its liabilities at the close of the most recent year by $942.2 million (net position).
- The Association’s net position increased by $69.2 million for the year ended December 31, 2016.
- Total investment income was $69.5 million; investment expenses were $4.8 million; and net investment income was $64.7 million.
- Total contributions were $87.6 million including $56.3 million from employers, $26.4 million from members, and $4.9 million from other transfers in and settlements.
- Retirement benefits, refunds and transfers to other systems amounted to $81.7 million.
- Administrative expenses were $1.4 million.
- The Total Pension Liability is $1.6 billion as of December 31, 2016 while the Net Pension Liability is $702.6 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 57.28%.

Overview of the Financial Statements

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

Notes to the financial statements

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

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

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the Association’s financial position. The Association’s net position exceeded liabilities by $942.2 million at the close of 2016.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year end the Association’s net position include investments of $938 million, cash of $1.8 million and accounts receivable of $2.4 million.

In 2016 the Association’s contributions were $87.6 million and net investment income was $64.7 million while retirement benefit payments, refunds, transfers and administration expenses were $83.1 million which resulted in a current increase of $69.2 million. In 2015 the Association’s contributions were $83.1 million and net investment income was $5.5 million while retirement benefit payments, refunds, transfers and administration expenses were $77.6 million which resulted in a prior year increase of $10.9 million.

For both years, the current contributions not only fully supported the current expenses but contributed to the increase in net position. The major difference in the change in net position when comparing the 2016 and 2015 results is net investment income. Net investment income was $64.7 million and $5.5 million in 2016 and 2015 respectively. The annual money weighted rate of return was 7.40% and 0.57% in 2016 and 2015 respectively. Fluctuations in the Association’s annual investment returns are expected.

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

<table>
<thead>
<tr>
<th>Statement of Fiduciary Net Position</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$1,824,611</td>
<td>$860,349</td>
</tr>
<tr>
<td>Investments</td>
<td>937,995,441</td>
<td>869,072,837</td>
</tr>
<tr>
<td>Receivables</td>
<td>2,368,212</td>
<td>3,068,905</td>
</tr>
<tr>
<td>Total assets</td>
<td>942,188,264</td>
<td>873,002,091</td>
</tr>
<tr>
<td>Liabilities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts payable</td>
<td>25,545</td>
<td>-</td>
</tr>
<tr>
<td>Net Position Restricted for Pension Benefits</td>
<td>$942,162,719</td>
<td>$873,002,091</td>
</tr>
</tbody>
</table>
Statement of Changes in Fiduciary Net Position

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Additions:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Member contributions                      $ 26,411,361</td>
<td>$ 25,887,837</td>
<td></td>
</tr>
<tr>
<td>Employer contributions                     56,269,527</td>
<td>53,625,350</td>
<td></td>
</tr>
<tr>
<td>Other contributions                         4,900,585</td>
<td>3,575,730</td>
<td></td>
</tr>
<tr>
<td><strong>Total contributions</strong>                    87,581,473</td>
<td>83,069,917</td>
<td></td>
</tr>
<tr>
<td>Net investment income (loss):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total investment income (loss)              69,523,173</td>
<td>9,956,947</td>
<td></td>
</tr>
<tr>
<td>Less, investment expenses                   (4,844,967)</td>
<td>(4,486,386)</td>
<td></td>
</tr>
<tr>
<td><strong>Net investment income (loss)</strong>            64,678,206</td>
<td>5,470,561</td>
<td></td>
</tr>
<tr>
<td><strong>Total additions</strong>                         152,259,679</td>
<td>88,540,478</td>
<td></td>
</tr>
<tr>
<td><strong>Deductions:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration                              1,384,804</td>
<td>1,288,422</td>
<td></td>
</tr>
<tr>
<td>Retirement benefits, refunds and transfers   81,714,247</td>
<td>76,319,257</td>
<td></td>
</tr>
<tr>
<td><strong>Total deductions</strong>                        83,099,051</td>
<td>77,607,679</td>
<td></td>
</tr>
<tr>
<td><strong>Net increase (decrease) in fiduciary net position</strong></td>
<td>69,160,628</td>
<td>10,932,799</td>
</tr>
<tr>
<td><strong>Fiduciary net position at beginning of year</strong></td>
<td>873,002,091</td>
<td>862,069,292</td>
</tr>
<tr>
<td><strong>Fiduciary net position at end of year</strong>    $ 942,162,719</td>
<td>$ 873,002,091</td>
<td></td>
</tr>
</tbody>
</table>

Requests for Information

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

DECEMBER 31, 2016

Assets

Cash................................................. $ 1,824,611

Investments:
PRIT funds........................................ 933,767,669
Pooled real estate funds....................... 4,227,772

Total investments.............................. 937,995,441

Receivables........................................ 2,368,212

Total assets..................................... 942,188,264

Liabilities

Accounts payable.............................. 25,545

Net Position Restricted for Pensions........ $ 942,162,719

See notes to financial statements.
# STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

## FOR THE YEAR ENDED DECEMBER 31, 2016

**Additions:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member contributions</td>
<td>$26,411,361</td>
</tr>
<tr>
<td>Retirement benefits - transfers from other systems</td>
<td>$1,769,226</td>
</tr>
<tr>
<td>Retirement benefits - 3(8)c contributions from other systems</td>
<td>$2,236,573</td>
</tr>
<tr>
<td>Retirement benefits - worker’s compensation settlements</td>
<td>$39,650</td>
</tr>
<tr>
<td>Retirement benefits - state COLA reimbursements</td>
<td>$855,136</td>
</tr>
<tr>
<td>Employer contributions</td>
<td>$56,269,527</td>
</tr>
</tbody>
</table>

**Total contributions**                                        $87,581,473

**Net investment income (loss):**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total investment income (loss)</td>
<td>$69,523,173</td>
</tr>
<tr>
<td>Loss, investment expenses</td>
<td>($4,844,967)</td>
</tr>
</tbody>
</table>

**Net investment income (loss)**                                   $64,678,206

**Total additions**                                                $152,259,679

**Deductions:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>$1,384,804</td>
</tr>
<tr>
<td>Retirement benefits - transfers to other systems</td>
<td>$1,074,219</td>
</tr>
<tr>
<td>Retirement benefits - 3(8)c payments to other systems</td>
<td>$1,379,423</td>
</tr>
<tr>
<td>Retirement benefits and refunds</td>
<td>$79,260,605</td>
</tr>
</tbody>
</table>

**Total deductions**                                               $83,099,051

**Net increase (decrease) in fiduciary net position**             $69,160,628

**Fiduciary net position at beginning of year**                   $873,002,091

**Fiduciary net position at end of year**                         $942,162,719

See notes to financial statements.
NOTE 1 – PLAN DESCRIPTION

The Barnstable County Retirement Association is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Barnstable County Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts’ Teachers Retirement System. Membership in the Association is mandatory immediately upon the commencement of employment for all permanent employees working a minimum of 25 hours per week. The Association has 51 participating employers.

Originally established in 1937, the Association is governed by a five member Board who establish the policies under which the Association operates. Board members also approve all of the Association’s financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the Association are managed by the Executive Director.

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

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

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

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

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

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

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

Members in Groups 1 and 2, hired on or after April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 10 years of service and upon reaching the age of 60 (Group 1) or age 55 (Group 2).
A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension.

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

The pension portion of any retirement benefit is paid from the Pension Fund of the Association. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The Association adopted Section 22d of Chapter 32 in April of 1989. The Association's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2036.

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

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

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

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

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

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

BCRA is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and 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.
fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. The fair value of private equities are based on management’s valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Real estate assets are reported at fair value utilizing an income approach to valuation along with independent appraisals and estimates by management.

Fair Value Measurements

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

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

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

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

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

In some instances the inputs used to measure fair value may fall into different levels of the fair value hierarchy and 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 Retirement Administration’s financial instruments, see Note 4 – Cash and Investments.

Accounts Receivable

Accounts receivable consist of member deductions, pension fund appropriations, and federal grant reimbursements. These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.
Deferred Outflows/Inflows of Resources

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

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

NOTE 3 – PLAN ADMINISTRATION

The Association is administered by a five-person Board of Retirement consisting of the County Finance Director/Treasurer, who shall be a member ex-officio, a second member appointed by the governing authority (the County Commission), a third and fourth member who shall be elected by the members in or retired from the service of such Association, and a fifth member appointed by the Advisory Council consisting of representatives from the member units.

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Term Expires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman</td>
<td>Mary T. McIsaac</td>
<td>Indefinite</td>
</tr>
<tr>
<td>Appointed Member</td>
<td>Mary Pat Flynn</td>
<td>1/3/2018</td>
</tr>
<tr>
<td>Elected Member</td>
<td>Mark Foley</td>
<td>1/6/2018</td>
</tr>
<tr>
<td>Elected Member</td>
<td>Robert Rolanti</td>
<td>12/31/2019</td>
</tr>
<tr>
<td>Appointed Member</td>
<td>Judith C. Sprague</td>
<td>12/31/2017</td>
</tr>
</tbody>
</table>

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

The investment of the Association's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the Association has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the Association must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.
The following retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

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

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2016, the carrying amount of the Association's deposits totaled $1,824,611 and the bank balance totaled $2,816,988. Of the bank balance, $1,714,042 was covered by Federal Depository Insurance and $1,102,946 was uninsured and uncollateralized.

Investments

The Association's investments are as follows:

<table>
<thead>
<tr>
<th>Investment Type</th>
<th>December 31, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIT Pooled Funds</td>
<td>$ 933,767,669</td>
</tr>
<tr>
<td>Pooled Real Estate Funds</td>
<td>4,227,772</td>
</tr>
<tr>
<td>Total Investments</td>
<td>$ 937,995,441</td>
</tr>
</tbody>
</table>

Approximately 99% of the Retirement Association's investments are in Pension Reserve Investment Trust (PRIT), which meets the criteria of an external investment pool. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT. PRIT investments are valued using the net asset value (NAV) method.

The remaining investments consist of two closed end real estate investments which are scheduled to mature during 2018. The fair value of the investments in pooled real estate funds are categorized in Level 3 of the Fair Value Hierarchy as pricing inputs are unobservable and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

The Administration's annual money-weighted rate of return on pension plan investments was 7.40%. The money-weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.
NOTE 5 – MEMBERSHIP

The following table represents the Association’s membership at January 1, 2016:

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retirees and beneficiaries currently receiving benefits</td>
<td>2,937</td>
</tr>
<tr>
<td>Inactive members</td>
<td>622</td>
</tr>
<tr>
<td>Active members</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8,258</td>
</tr>
</tbody>
</table>

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2016 were as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total pension liability</td>
<td>$1,644,743,370</td>
</tr>
<tr>
<td>The pension plan's fiduciary net position</td>
<td>(942,162,719)</td>
</tr>
<tr>
<td>The net pension liability</td>
<td>$702,580,651</td>
</tr>
</tbody>
</table>

The pension plan's fiduciary net position as a percentage of the total pension liability: 57.28%

The total pension liability was determined by an actuarial valuation as of January 1, 2016, using the following actuarial assumptions, applied to all periods included in the measurement that was updated to December 31, 2016:

- Valuation date: January 1, 2016
- Actuarial cost method: Entry Age Normal Cost Method
- Amortization method: Appropriations increase at 5.28% per year
- Remaining amortization period: 20 years from July 1, 2016 for 2002 and 2003 Early Retirement Incentives, retiree sheriffs liability and remaining unfunded liability, and 6 years from July 1, 2016 for 2010 Early Retirement Incentive

Asset valuation method: A preliminary actuarial value is first determined by taking the actuarial value of assets at the beginning of the year and adding assumed investment earnings (at the assumed actuarial rate of return) and the net new money during the year (contributions less benefit payments and administrative expenses). Twenty percent of the difference between the market value of assets as reported in the Association's Annual Statement and the preliminary actuarial value of assets is added to the preliminary actuarial value. In order for the actuarial value to not differ too significantly from the market value of assets, the final actuarial value of assets must be within 20% of the market value of assets.
Projected salary increases................ Varies by length of service with ultimate rates of 4.25% for Group 1, 4.50% for Group 2 and 4.75% for Group 4.

Cost of living adjustments.................. 3.0% of first $16,000 of retirement income as of July 1, 2015, $17,000 as of July 1, 2016, and $18,000 as of July 1, 2017.

Rates of retirement................................... Varies based upon age for general employees, police and fire employees.

Rates of disability................................. For general employees, it was assumed that 45% of all disabilities are ordinary (55% are service connected). For police and fire employees, 10% of all disabilities are assumed to be ordinary (90% are service connected).

Mortality Rates:
- Pre-Retirement................................. The RP-2000 Employee Mortality Table projected generationally with Scale BB2D from 2009.
- Healthy Retiree................................. The RP-2000 Healthy Annuitant Mortality Table projected generationally with Scale BB2D from 2009.
- Disabled Retiree............................... The RP-2000 Healthy Annuitant Mortality Table projected generationally with Scale BB2D from 2015.

Investment rate of return/Discount rate........ 7.625%, net of pension plan investment expense, including inflation.

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

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges 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 and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan’s target asset allocation as of January 1, 2016 are summarized in the following table:

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Target Allocation</th>
<th>Long-Term Expected Real Rate of Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic equity</td>
<td>18.00%</td>
<td>6.44%</td>
</tr>
<tr>
<td>International developed markets equity</td>
<td>16.00%</td>
<td>7.40%</td>
</tr>
<tr>
<td>International emerging markets equity</td>
<td>6.00%</td>
<td>9.42%</td>
</tr>
<tr>
<td>Core fixed income</td>
<td>13.00%</td>
<td>2.02%</td>
</tr>
<tr>
<td>High-yield fixed income</td>
<td>10.00%</td>
<td>4.43%</td>
</tr>
<tr>
<td>Real estate</td>
<td>10.00%</td>
<td>5.00%</td>
</tr>
<tr>
<td>Commodities</td>
<td>4.00%</td>
<td>4.43%</td>
</tr>
<tr>
<td>Hedge fund, GTAA, Risk parity</td>
<td>13.00%</td>
<td>3.75%</td>
</tr>
<tr>
<td>Private equity</td>
<td>10.00%</td>
<td>10.47%</td>
</tr>
</tbody>
</table>

100.00%
Discount rate: The discount rate used to measure the total pension liability was 7.625%. 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 contributions will be made at rates equal to the actuarially determined contribution rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net position liability to changes in the discount rate. The following presents the net position liability, calculated using the discount rate of 7.625%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.625%) or 1-percentage-point higher (8.625%) than the current rate:

<table>
<thead>
<tr>
<th></th>
<th>1% Decrease</th>
<th>Current Discount</th>
<th>1% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnstable County Retirement Association's net pension liability as of December 31, 2016</td>
<td>(6.625%)</td>
<td>(7.625%)</td>
<td>(8.625%)</td>
</tr>
<tr>
<td></td>
<td>$ 894,041,463</td>
<td>$ 702,580,650</td>
<td>$ 541,092,898</td>
</tr>
</tbody>
</table>

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

NOTE 7 – COMMITMENTS AND CONTINGENCIES

Various legal actions and claims are pending against the Association. Litigation is subject to many uncertainties, and the outcome of individual litigated matters is not always predictable. Although the amount of liability, if any, at December 31, 2016 cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2016.

NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

During 2016, the following GASB pronouncements were implemented:

- GASB Statement #72, Fair Value Measurement and Application. Notes to the basic financial statements were changed to provide additional disclosure on fair value measurement.

- GASB Statement #73, Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68. This pronouncement did not impact the basic financial statements.

- GASB Statement #76, The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments. This pronouncement did not impact the basic financial statements.

- GASB Statement #78, Pensions Provided through Certain Multiple-Employer Defined Benefit Pension Plans. This pronouncement did not impact the basic financial statements.
• GASB Statement #79, Certain External Investment Pools and Pool Participants. The basic financial statements and related notes were updated to be in compliance with this pronouncement.

The following GASB pronouncement will be implemented in the future:

• The GASB issued Statement #82, Pension Issues – an amendment of GASB Statements #67, #68, and #73, which is required to be implemented in 2018.

Management is currently assessing the impact the implementation of this pronouncement will have on the financial statements.

NOTE 9 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through August 22, 2017, which is the date the financial statements were available to be issued.
Required Supplementary Information
## SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY
AND RELATED RATIOS

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total pension liability:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service cost</td>
<td>$35,328,892</td>
<td>$38,066,881</td>
<td>$39,648,941</td>
</tr>
<tr>
<td>Interest</td>
<td>105,040,822</td>
<td>110,695,407</td>
<td>116,551,753</td>
</tr>
<tr>
<td>Changes in benefit terms</td>
<td>-</td>
<td>-</td>
<td>23,494,437</td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>-</td>
<td>-</td>
<td>(10,802,611)</td>
</tr>
<tr>
<td>Changes in assumptions</td>
<td>-</td>
<td>-</td>
<td>50,013,039</td>
</tr>
<tr>
<td>Benefit payments, including refunds of employee contributions</td>
<td>(67,547,103)</td>
<td>(72,743,527)</td>
<td>(75,813,662)</td>
</tr>
<tr>
<td><strong>Net change in total pension liability</strong></td>
<td>72,822,611</td>
<td>76,018,761</td>
<td>142,091,897</td>
</tr>
<tr>
<td><strong>Total pension liability, beginning</strong></td>
<td>1,353,810,101</td>
<td>1,426,632,712</td>
<td>1,502,651,473</td>
</tr>
<tr>
<td><strong>Total pension liability, ending (a)</strong></td>
<td>$1,426,632,712</td>
<td>$1,502,651,473</td>
<td>$1,644,743,370</td>
</tr>
<tr>
<td><strong>Plan fiduciary net position:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Member contributions</td>
<td>$24,666,247</td>
<td>$25,867,837</td>
<td>26,411,361</td>
</tr>
<tr>
<td>Employer contributions</td>
<td>51,562,171</td>
<td>53,626,350</td>
<td>56,269,527</td>
</tr>
<tr>
<td>Net investment Income (loss)</td>
<td>60,614,682</td>
<td>5,470,561</td>
<td>64,678,206</td>
</tr>
<tr>
<td>Retirement benefits and refunds</td>
<td>(67,547,103)</td>
<td>(72,743,527)</td>
<td>(76,813,662)</td>
</tr>
<tr>
<td>Administration</td>
<td>(1,210,998)</td>
<td>(1,288,422)</td>
<td>(1,384,604)</td>
</tr>
<tr>
<td><strong>Net increase (decrease) in fiduciary net position</strong></td>
<td>68,084,999</td>
<td>10,932,799</td>
<td>69,160,628</td>
</tr>
<tr>
<td><strong>Fiduciary net position at beginning of year</strong></td>
<td>793,984,293</td>
<td>862,069,292</td>
<td>873,002,091</td>
</tr>
<tr>
<td><strong>Fiduciary net position at end of year (b)</strong></td>
<td>$662,068,292</td>
<td>$873,002,091</td>
<td>$942,162,719</td>
</tr>
<tr>
<td><strong>Net pension liability - ending (a) - (b)</strong></td>
<td>$564,563,420</td>
<td>$629,649,382</td>
<td>$702,580,651</td>
</tr>
<tr>
<td>Plan fiduciary net position as a percentage of the total pension liability</td>
<td>60.43%</td>
<td>58.10%</td>
<td>57.28%</td>
</tr>
<tr>
<td>Covered-employee payroll</td>
<td>$253,920,107</td>
<td>$264,076,910</td>
<td>$269,672,807</td>
</tr>
<tr>
<td>Net pension liability as a percentage of covered-employee payroll</td>
<td>222.34%</td>
<td>238.43%</td>
<td>260.63%</td>
</tr>
</tbody>
</table>

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.
<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuarially determined contribution</td>
<td>$51,562,171</td>
<td>$53,626,350</td>
<td>$56,269,527</td>
</tr>
<tr>
<td>Contributions in relation to the actuarially determined contribution</td>
<td>(51,562,171)</td>
<td>(53,626,350)</td>
<td>(56,269,527)</td>
</tr>
<tr>
<td>Contribution deficiency (excess)</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>Covered-employee payroll</td>
<td>$253,920,107</td>
<td>$264,076,910</td>
<td>$269,672,807</td>
</tr>
<tr>
<td>Contributions as a percentage of covered-employee payroll</td>
<td>20.31%</td>
<td>20.31%</td>
<td>20.87%</td>
</tr>
</tbody>
</table>

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.
<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual money-weighted rate of return, net of investment expense</td>
<td>7.58%</td>
<td>0.57%</td>
<td>7.40%</td>
</tr>
</tbody>
</table>

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.

The annual money-weighted rate of return has been calculated by the Pension Reserves Investment Management Board (PRIM).

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 Associations total pension liability, changes in the Associations net position, and the ending net pension liability. It also demonstrates the plan's net position as a percentage of the total pension liability and the net pension liability as a percentage of covered payroll.

NOTE B – CONTRIBUTIONS

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

NOTE C – MONEY WEIGHTED RATE OF RETURN

The money weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. A money weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. Inputs to the money weighted rate of return calculation are determined monthly.
Audit of Specific Elements, Accounts and Items of Financial Statements
Independent Auditor's Report

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

We have audited the accompanying schedule of employer allocations of the Barnstable County Retirement Association (BCRA) as of and for the year ended December 31, 2016, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the BCRA Pension Plan as of and for the year ended December 31, 2016, and the related notes.

Management’s Responsibility for the Schedules

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

Auditor’s Responsibility

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

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

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

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Barnstable County Retirement Association as of and for the year ended December 31, 2016, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Barnstable County Retirement Association as of and for the year ended December 31, 2016, and our report thereon, dated August 22, 2017, expressed an unmodified opinion on those financial statements.

Restriction on Use

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

Powers & Sullivan LLC

August 22, 2017
## SCHEDULE OF EMPLOYER ALLOCATIONS
### FOR THE YEAR ENDED DECEMBER 31, 2016

<table>
<thead>
<tr>
<th>Employer</th>
<th>FY2017 Pension Fund Appropriation</th>
<th>FY2017 E.R.I. Pension and Hospital Appropriation</th>
<th>Share of Net Pension Liability</th>
<th>Percent of Total Pension Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnstable County</td>
<td>2,856,822</td>
<td>118,000</td>
<td>2,974,822</td>
<td>38,191,018</td>
</tr>
<tr>
<td>Barnstable County Hospital</td>
<td>-</td>
<td>7,722</td>
<td>7,722</td>
<td>115,799</td>
</tr>
<tr>
<td>Barnstable County Retired Sheriffs</td>
<td>-</td>
<td>1,359,250</td>
<td>1,359,250</td>
<td>21,976,311</td>
</tr>
<tr>
<td>Town of Barnstable</td>
<td>8,328,270</td>
<td>210,182</td>
<td>8,538,452</td>
<td>103,876,995</td>
</tr>
<tr>
<td>Barnstable Fire District</td>
<td>390,818</td>
<td>3,430</td>
<td>394,248</td>
<td>5,707,406</td>
</tr>
<tr>
<td>Barnstable Housing Authority</td>
<td>192,685</td>
<td>3,897</td>
<td>196,584</td>
<td>2,939,232</td>
</tr>
<tr>
<td>Town of Bourne</td>
<td>3,385,252</td>
<td>60,594</td>
<td>3,445,846</td>
<td>42,164,706</td>
</tr>
<tr>
<td>Bourne Housing Authority</td>
<td>71,558</td>
<td>-</td>
<td>71,558</td>
<td>870,559</td>
</tr>
<tr>
<td>Bourne Recreation Authority</td>
<td>93,576</td>
<td>17,153</td>
<td>110,729</td>
<td>1,347,104</td>
</tr>
<tr>
<td>Bourne Water District</td>
<td>115,594</td>
<td>4,972</td>
<td>120,566</td>
<td>1,465,770</td>
</tr>
<tr>
<td>Town of Brewster</td>
<td>1,017,105</td>
<td>17,027</td>
<td>1,034,132</td>
<td>24,981,943</td>
</tr>
<tr>
<td>Brewster Housing Authority</td>
<td>11,009</td>
<td>-</td>
<td>11,009</td>
<td>133,933</td>
</tr>
<tr>
<td>Buzzards Bay Water District</td>
<td>60,549</td>
<td>-</td>
<td>60,549</td>
<td>736,626</td>
</tr>
<tr>
<td>Cape Cod Mosquito Control District</td>
<td>264,215</td>
<td>2,721</td>
<td>266,936</td>
<td>3,247,484</td>
</tr>
<tr>
<td>Cape Cod Regional Technical High School</td>
<td>423,844</td>
<td>-</td>
<td>423,844</td>
<td>5,156,391</td>
</tr>
<tr>
<td>Centerville/Osterville/Marstons Mills Fire District</td>
<td>1,271,534</td>
<td>4,968</td>
<td>1,276,502</td>
<td>15,529,637</td>
</tr>
<tr>
<td>Town of Chatham</td>
<td>1,766,935</td>
<td>101,467</td>
<td>1,868,403</td>
<td>22,739,927</td>
</tr>
<tr>
<td>Chatham Housing Authority</td>
<td>33,027</td>
<td>-</td>
<td>33,027</td>
<td>401,709</td>
</tr>
<tr>
<td>Cotuit Fire District</td>
<td>247,701</td>
<td>-</td>
<td>247,701</td>
<td>3,013,475</td>
</tr>
<tr>
<td>Town of Duxbury</td>
<td>2,944,894</td>
<td>-</td>
<td>2,944,894</td>
<td>35,820,921</td>
</tr>
<tr>
<td>Dennis Housing Authority</td>
<td>60,549</td>
<td>2,568</td>
<td>63,117</td>
<td>768,232</td>
</tr>
<tr>
<td>Dennis Water District</td>
<td>242,197</td>
<td>-</td>
<td>242,197</td>
<td>2,949,514</td>
</tr>
<tr>
<td>Dennis/Yarmouth Regional School District</td>
<td>1,205,480</td>
<td>-</td>
<td>1,205,480</td>
<td>14,665,600</td>
</tr>
<tr>
<td>Town of Eastham</td>
<td>1,442,172</td>
<td>23,894</td>
<td>1,466,066</td>
<td>17,835,631</td>
</tr>
<tr>
<td>Town of Harwich</td>
<td>2,576,974</td>
<td>-</td>
<td>2,576,974</td>
<td>31,340,193</td>
</tr>
<tr>
<td>Yarmouth Fire District</td>
<td>1,056,859</td>
<td>1,716</td>
<td>1,058,575</td>
<td>12,878,386</td>
</tr>
<tr>
<td>Town of Mashpee</td>
<td>2,768,751</td>
<td>38,140</td>
<td>2,806,891</td>
<td>34,149,007</td>
</tr>
<tr>
<td>Mashpee Housing Authority</td>
<td>49,540</td>
<td>-</td>
<td>49,540</td>
<td>602,893</td>
</tr>
<tr>
<td>Mashpee Water District</td>
<td>169,830</td>
<td>4,323</td>
<td>174,153</td>
<td>1,994,615</td>
</tr>
<tr>
<td>Town of Nantucket</td>
<td>5,598,050</td>
<td>120,097</td>
<td>5,718,147</td>
<td>69,559,096</td>
</tr>
<tr>
<td>Nantucket Housing Authority</td>
<td>22,018</td>
<td>-</td>
<td>22,018</td>
<td>267,866</td>
</tr>
<tr>
<td>Nantucket Water District</td>
<td>165,194</td>
<td>-</td>
<td>165,194</td>
<td>2,008,983</td>
</tr>
<tr>
<td>Nantucket Regional Transit Authority</td>
<td>33,027</td>
<td>-</td>
<td>33,027</td>
<td>401,709</td>
</tr>
<tr>
<td>Neuseal Regional School District</td>
<td>825,671</td>
<td>-</td>
<td>825,671</td>
<td>10,044,928</td>
</tr>
<tr>
<td>North Easthamianal School District</td>
<td>49,540</td>
<td>-</td>
<td>49,540</td>
<td>602,893</td>
</tr>
<tr>
<td>Town of Orleans</td>
<td>1,816,477</td>
<td>-</td>
<td>1,816,477</td>
<td>22,998,852</td>
</tr>
<tr>
<td>Orleans Housing Authority</td>
<td>44,036</td>
<td>-</td>
<td>44,036</td>
<td>535,732</td>
</tr>
<tr>
<td>Orleans Water District</td>
<td>77,063</td>
<td>-</td>
<td>77,063</td>
<td>937,531</td>
</tr>
<tr>
<td>Town of Provincetown</td>
<td>1,557,706</td>
<td>-</td>
<td>1,557,706</td>
<td>18,951,432</td>
</tr>
<tr>
<td>Town of Sandwich</td>
<td>3,418,279</td>
<td>-</td>
<td>3,418,279</td>
<td>41,506,017</td>
</tr>
<tr>
<td>Sandwich Housing Authority</td>
<td>27,522</td>
<td>-</td>
<td>27,522</td>
<td>334,265</td>
</tr>
<tr>
<td>Sandwich Water District</td>
<td>176,143</td>
<td>-</td>
<td>176,143</td>
<td>2,142,916</td>
</tr>
<tr>
<td>Town of Truro</td>
<td>996,310</td>
<td>13,922</td>
<td>1,010,232</td>
<td>12,290,256</td>
</tr>
<tr>
<td>Veterans District</td>
<td>49,540</td>
<td>4,166</td>
<td>53,706</td>
<td>653,400</td>
</tr>
<tr>
<td>Town of Wellfleet</td>
<td>1,556,650</td>
<td>14,533</td>
<td>1,571,183</td>
<td>13,034,923</td>
</tr>
<tr>
<td>Yarmouth Housing Authority</td>
<td>38,531</td>
<td>4,183</td>
<td>42,714</td>
<td>510,649</td>
</tr>
<tr>
<td>West Barnstable Fire District</td>
<td>121,098</td>
<td>-</td>
<td>121,098</td>
<td>1,473,251</td>
</tr>
<tr>
<td>Cape Cod Regional Transit Authority</td>
<td>137,612</td>
<td>-</td>
<td>137,612</td>
<td>1,674,157</td>
</tr>
<tr>
<td>Monomoy Regional School District</td>
<td>863,707</td>
<td>-</td>
<td>863,707</td>
<td>10,580,681</td>
</tr>
<tr>
<td>Provincetown Housing Authority</td>
<td>11,009</td>
<td>-</td>
<td>11,009</td>
<td>133,933</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$55,044,743</td>
<td>$2,266,724</td>
<td>$57,311,467</td>
<td>$702,580,850</td>
</tr>
</tbody>
</table>

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

Barnstable County Retirement Association
## SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2016

<table>
<thead>
<tr>
<th>Barnstable County</th>
<th>Barnstable County Hospital</th>
<th>Barnstable County Retired Sheriffs</th>
<th>Town of Barnstable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Pension Liability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning net pension liability</td>
<td>$32,238,820</td>
<td>$114,036</td>
<td>$20,012,789</td>
</tr>
<tr>
<td>Ending net pension liability</td>
<td>$36,191,018</td>
<td>$115,799</td>
<td>$21,978,311</td>
</tr>
</tbody>
</table>

**Deferred Outflows of Resources**

<table>
<thead>
<tr>
<th>Differences between expected and actual experience</th>
<th>$</th>
<th>$</th>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net difference between projected and actual investment earnings on pension plan investments</td>
<td>2,057,208</td>
<td>6,582</td>
<td>1,249,314</td>
<td>5,904,684</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>2,146,874</td>
<td>6,899</td>
<td>1,303,767</td>
<td>6,162,045</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>1,072,687</td>
<td>10,152</td>
<td>110,528</td>
<td></td>
</tr>
<tr>
<td><strong>Total Deferred Outflows of Resources</strong></td>
<td>$5,276,789</td>
<td>$13,451</td>
<td>$2,593,233</td>
<td>$12,177,257</td>
</tr>
</tbody>
</table>

**Deferred Inflows of Resources**

| Differences between expected and actual experience | 463,716 | $1,484 | 281,608 | 1,330,977 |
| Changes of assumptions | - | - | - | - |
| Changes in proportion and differences between employer contributions and proportionate share of contributions | - | 11,231 | 878,581 | 1,199,302 |
| **Total Deferred Inflows of Resources** | $463,716 | $12,716 | $1,180,189 | $2,500,279 |

**Pension Expense**

<table>
<thead>
<tr>
<th>Proportionate share of plan pension expense</th>
<th>$5,486,811</th>
<th>$17,562</th>
<th>3,333,277</th>
<th>15,704,187</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>259,512</td>
<td>(2,345)</td>
<td>(197,245)</td>
<td>(257,572)</td>
</tr>
<tr>
<td><strong>Total Employer Pension Expense</strong></td>
<td>$5,746,323</td>
<td>$15,217</td>
<td>$3,136,034</td>
<td>$15,446,615</td>
</tr>
</tbody>
</table>

**Contributions**

| Statutory required contribution | $2,928,285 | 7,579 | 1,334,120 | 8,388,711 |
| Contribution in relation to statutory required contribution | (2,928,285) | (7,579) | (1,334,120) | (8,388,711) |
| Contribution deficiency/(excess) | - | - | - | - |
| Contributions as a percentage of covered payroll | 20.91% | N/A | N/A | 20.58% |

**Deferred Outflows/(Inflows) Recognized In Future Pension Expense**

<table>
<thead>
<tr>
<th>Future Pension Expense</th>
<th>$1,276,202</th>
<th>905</th>
<th>420,572</th>
<th>2,657,701</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 30, 2019</td>
<td>$1,276,202</td>
<td>905</td>
<td>420,572</td>
<td>2,657,701</td>
</tr>
<tr>
<td>June 30, 2020</td>
<td>1,282,761</td>
<td>865</td>
<td>422,010</td>
<td>2,621,993</td>
</tr>
<tr>
<td>June 30, 2021</td>
<td>823,630</td>
<td>(1,162)</td>
<td>36,936</td>
<td>801,895</td>
</tr>
<tr>
<td>June 30, 2022</td>
<td>371,266</td>
<td>(777)</td>
<td>84,954</td>
<td>907,728</td>
</tr>
<tr>
<td><strong>Total Deferred Outflows/(Inflows) Recognized In Future Pension Expense</strong></td>
<td>$4,813,053</td>
<td>736</td>
<td>1,405,044</td>
<td>9,646,978</td>
</tr>
</tbody>
</table>

**Discount Rate Sensitivity**

- 1% decrease (6.025%) | $46,053,462 | 147,356 | 27,867,038 | 132,184,478 |
- Current discount rate (7.625%) | $36,191,018 | 116,799 | 21,978,311 | 103,876,895 |
- 1% increase (8.625%) | $27,872,534 | 86,183 | 19,626,609 | 80,000,851 |
- Covered Payroll | $13,990,018 | - | - | 40,801,490 |

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, 2016

<table>
<thead>
<tr>
<th></th>
<th>Barnstable Fire District</th>
<th>Barnstable Housing Authority</th>
<th>Town of Bourne</th>
<th>Bourne Housing Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Pension Liability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning net pension liability</td>
<td>$4,185,105</td>
<td>$1,841,730</td>
<td>$39,022,433</td>
<td>$839,458</td>
</tr>
<tr>
<td>Ending net pension liability</td>
<td>$4,807,408</td>
<td>$2,391,232</td>
<td>$42,164,706</td>
<td>$870,559</td>
</tr>
<tr>
<td><strong>Deferred Outflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>-</td>
</tr>
<tr>
<td>Net difference between projected and actual investment earnings on pension plan investments</td>
<td>$273,267</td>
<td>$135,925</td>
<td>$2,398,771</td>
<td>$49,485</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>$285,178</td>
<td>$141,849</td>
<td>$2,501,237</td>
<td>$51,642</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$242,224</td>
<td>$230,062</td>
<td>$480,990</td>
<td>$2,767</td>
</tr>
<tr>
<td><strong>Total Deferred Outflows of Resources</strong></td>
<td>$800,669</td>
<td>$515,536</td>
<td>$5,378,968</td>
<td>$103,894</td>
</tr>
<tr>
<td><strong>Deferred Inflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$61,597</td>
<td>$30,659</td>
<td>$540,257</td>
<td>$11,155</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>-</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$-</td>
<td>$34,681</td>
<td>$947,188</td>
<td>$45,650</td>
</tr>
<tr>
<td><strong>Total Deferred Inflows of Resources</strong></td>
<td>$61,597</td>
<td>$65,620</td>
<td>$1,487,445</td>
<td>$66,805</td>
</tr>
<tr>
<td><strong>Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportionate share of plan pension expense</td>
<td>$729,104</td>
<td>$362,368</td>
<td>$6,394,794</td>
<td>$132,004</td>
</tr>
<tr>
<td>Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$55,104</td>
<td>$39,004</td>
<td>$(69,693)</td>
<td>$(8,522)</td>
</tr>
<tr>
<td><strong>Total Employer Pension Expense</strong></td>
<td>$784,208</td>
<td>$401,372</td>
<td>$5,725,101</td>
<td>$123,482</td>
</tr>
<tr>
<td><strong>Contributions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statutory required contribution</td>
<td>$387,852</td>
<td>$196,554</td>
<td>$3,365,528</td>
<td>$71,558</td>
</tr>
<tr>
<td>Contribution in relation to statutory required contribution</td>
<td>$(387,852)</td>
<td>$(196,554)</td>
<td>$(3,365,528)</td>
<td>$(71,558)</td>
</tr>
<tr>
<td>Contribution deficiency/(excess)</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>-</td>
</tr>
<tr>
<td>Contributions as a percentage of covered payroll</td>
<td>20.26%</td>
<td>20.82%</td>
<td>20.47%</td>
<td>20.41%</td>
</tr>
<tr>
<td><strong>Deferred Outflows/(inflows) Recognized in Future Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 30, 2019</td>
<td>$190,628</td>
<td>$106,113</td>
<td>$1,113,379</td>
<td>$15,910</td>
</tr>
<tr>
<td>June 30, 2020</td>
<td>$168,974</td>
<td>$105,291</td>
<td>$1,088,970</td>
<td>$15,611</td>
</tr>
<tr>
<td>June 30, 2021</td>
<td>$104,737</td>
<td>$63,388</td>
<td>$360,074</td>
<td>$353</td>
</tr>
<tr>
<td>June 30, 2022</td>
<td>$61,105</td>
<td>$69,311</td>
<td>$206,857</td>
<td>$(695)</td>
</tr>
<tr>
<td><strong>Total Deferred Outflows/(inflows) Recognized in Future Pension Expense</strong></td>
<td>$739,072</td>
<td>$450,216</td>
<td>$3,891,553</td>
<td>$47,089</td>
</tr>
<tr>
<td><strong>Discount Rate Sensitivity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% decrease (6.025%)</td>
<td>$6,117,470</td>
<td>$3,042,870</td>
<td>$53,655,040</td>
<td>$1,107,706</td>
</tr>
<tr>
<td>Current discount rate (7.025%)</td>
<td>$4,807,408</td>
<td>$2,391,232</td>
<td>$42,164,706</td>
<td>$870,559</td>
</tr>
<tr>
<td>1% increase (8.025%)</td>
<td>$3,702,423</td>
<td>$1,841,610</td>
<td>$32,473,171</td>
<td>$870,469</td>
</tr>
<tr>
<td>Covered Payroll</td>
<td>$1,914,677</td>
<td>$943,855</td>
<td>$16,584,876</td>
<td>$350,575</td>
</tr>
</tbody>
</table>

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, 2016

<table>
<thead>
<tr>
<th></th>
<th>Bourne Recreation Authority</th>
<th>Bourne Water District</th>
<th>Town of Brewster</th>
<th>Brewster Housing Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Pension Liability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning net pension liability</td>
<td>$1,328,012</td>
<td>$1,553,756</td>
<td>$22,672,955</td>
<td>$119,921</td>
</tr>
<tr>
<td>Ending net pension liability</td>
<td>$1,347,104</td>
<td>$1,466,779</td>
<td>$24,381,943</td>
<td>$133,933</td>
</tr>
<tr>
<td><strong>Deferred Outflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Net difference between projected and actual investment earnings on pension plan investments</td>
<td>$76,574</td>
<td>$83,376</td>
<td>$1,385,944</td>
<td>$7,613</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>$70,911</td>
<td>$87,010</td>
<td>$1,448,352</td>
<td>$7,845</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$45,096</td>
<td>74,118</td>
<td>$21,557</td>
<td>494</td>
</tr>
<tr>
<td><strong>Total Deferred Outflows of Resources</strong></td>
<td>$201,581</td>
<td>$244,504</td>
<td>$2,854,253</td>
<td>$16,052</td>
</tr>
<tr>
<td><strong>Deferred Inflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$17,201</td>
<td>$18,704</td>
<td>$312,406</td>
<td>$1,716</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$92,633</td>
<td>183,542</td>
<td>$701,740</td>
<td>71,810</td>
</tr>
<tr>
<td><strong>Total Deferred inflows of Resources</strong></td>
<td>$109,844</td>
<td>$202,336</td>
<td>$1,014,146</td>
<td>$73,326</td>
</tr>
<tr>
<td><strong>Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportionate share of plan pension expense</td>
<td>$204,303</td>
<td>$222,456</td>
<td>$3,927,820</td>
<td>$20,314</td>
</tr>
<tr>
<td>Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>($7,371)</td>
<td>($18,315)</td>
<td>($139,013)</td>
<td>($17,795)</td>
</tr>
<tr>
<td><strong>Total Employer Pension Expense</strong></td>
<td>$196,932</td>
<td>$204,241</td>
<td>$3,588,807</td>
<td>$2,519</td>
</tr>
<tr>
<td><strong>Contributions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statutory required contribution</td>
<td>$110,729</td>
<td>$118,337</td>
<td>$1,667,090</td>
<td>$11,009</td>
</tr>
<tr>
<td>Contribution in relation to statutory required contribution</td>
<td>($110,729)</td>
<td>($118,337)</td>
<td>($1,667,090)</td>
<td>($11,009)</td>
</tr>
<tr>
<td>Contribution deficiency/(excess)</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Contributions as a percentage of covered payroll</td>
<td>24.15%</td>
<td>20.90%</td>
<td>20.21%</td>
<td>20.41%</td>
</tr>
<tr>
<td><strong>Deferred Outflows/(inflows) Recognized in Future Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 30, 2019</td>
<td>$30,435</td>
<td>$22,660</td>
<td>$545,259</td>
<td>($14,038)</td>
</tr>
<tr>
<td>June 30, 2020</td>
<td>$30,435</td>
<td>$22,660</td>
<td>$545,259</td>
<td>($14,038)</td>
</tr>
<tr>
<td>June 30, 2021</td>
<td>$29,972</td>
<td>$22,445</td>
<td>$536,871</td>
<td>($14,062)</td>
</tr>
<tr>
<td>June 30, 2022</td>
<td>$28,360</td>
<td>$22,021</td>
<td>$520,462</td>
<td>($14,420)</td>
</tr>
<tr>
<td><strong>Total Deferred Outflows/(inflows) Recognized in Future Pension Expense</strong></td>
<td>$91,687</td>
<td>$42,188</td>
<td>$1,440,107</td>
<td>($57,274)</td>
</tr>
<tr>
<td><strong>Discount Rate Sensitivity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% decrease (6.625%)</td>
<td>$1,714,208</td>
<td>$1,866,480</td>
<td>$31,026,287</td>
<td>$170,431</td>
</tr>
<tr>
<td>Current discount rate (7.626%)</td>
<td>$1,347,104</td>
<td>$1,466,779</td>
<td>$24,581,943</td>
<td>$133,933</td>
</tr>
<tr>
<td>1% increase (8.625%)</td>
<td>$1,037,475</td>
<td>$1,129,540</td>
<td>$18,777,799</td>
<td>$103,146</td>
</tr>
<tr>
<td>Covered Payroll</td>
<td>$468,444</td>
<td>$566,313</td>
<td>$9,735,188</td>
<td>$53,835</td>
</tr>
</tbody>
</table>

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, 2018

<table>
<thead>
<tr>
<th></th>
<th>Buzzards Bay Water District</th>
<th>Cape Cod Mosquito Control District</th>
<th>Cape Cod Regional Technical High School</th>
<th>Centerville/Osterville/Martins Mills Fire District</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Pension Liability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning net pension liability</td>
<td>$719,527</td>
<td>$2,668,245</td>
<td>$4,976,608</td>
<td>$14,145,643</td>
</tr>
<tr>
<td>Ending net pension liability</td>
<td>$730,626</td>
<td>$3,247,484</td>
<td>$5,156,391</td>
<td>$15,620,837</td>
</tr>
<tr>
<td><strong>Deferred Outflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>- $</td>
<td>- $</td>
<td>- $</td>
<td>- $</td>
</tr>
<tr>
<td>Net difference between projected and actual investment earnings on pension plan investments</td>
<td>41,872</td>
<td>184,597</td>
<td>293,105</td>
<td>862,752</td>
</tr>
<tr>
<td>Changes in assumptions</td>
<td>45,697</td>
<td>192,043</td>
<td>305,881</td>
<td>921,228</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>2,355</td>
<td>188,691</td>
<td>110,850</td>
<td>28,491</td>
</tr>
<tr>
<td>Total Deferred Outflows of Resources</td>
<td>$67,924</td>
<td>$566,931</td>
<td>$706,838</td>
<td>$1,832,471</td>
</tr>
<tr>
<td><strong>Deferred Inflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>6,438</td>
<td>41,010</td>
<td>66,090</td>
<td>198,061</td>
</tr>
<tr>
<td>Changes in assumptions</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>45,707</td>
<td>-</td>
<td>272,872</td>
<td>212,198</td>
</tr>
<tr>
<td>Total Deferred Inflows of Resources</td>
<td>$52,145</td>
<td>$41,010</td>
<td>$338,941</td>
<td>$411,179</td>
</tr>
<tr>
<td><strong>Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportionate share of plan pension expense</td>
<td>$111,717</td>
<td>$492,522</td>
<td>$782,025</td>
<td>$2,355,260</td>
</tr>
<tr>
<td>Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>(8,825)</td>
<td>37,866</td>
<td>(26,889)</td>
<td>(37,559)</td>
</tr>
<tr>
<td>Total Employer Pension Expense</td>
<td>$102,892</td>
<td>$530,328</td>
<td>$755,137</td>
<td>$2,317,701</td>
</tr>
<tr>
<td><strong>Contributions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statutory required contribution</td>
<td>$60,640</td>
<td>$282,001</td>
<td>$416,006</td>
<td>$1,252,302</td>
</tr>
<tr>
<td>Contribution in relation to statutory required contribution</td>
<td>(60,649)</td>
<td>(282,001)</td>
<td>(416,006)</td>
<td>(1,252,302)</td>
</tr>
<tr>
<td>Contribution deficiency/(excess)</td>
<td>$-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Contributions as a percentage of covered payroll</td>
<td>20.41%</td>
<td>20.24%</td>
<td>20.03%</td>
<td>20.11%</td>
</tr>
<tr>
<td><strong>Deferred Outflows/(Inflows) Recognized in Future Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future Pension Expense</td>
<td>$12,048</td>
<td>$128,949</td>
<td>$117,725</td>
<td>$396,278</td>
</tr>
<tr>
<td>June 30, 2019</td>
<td>$12,048</td>
<td>$128,949</td>
<td>$117,725</td>
<td>$396,278</td>
</tr>
<tr>
<td>June 30, 2020</td>
<td>$17,704</td>
<td>$127,922</td>
<td>$115,851</td>
<td>$392,823</td>
</tr>
<tr>
<td>June 30, 2021</td>
<td>(1,113)</td>
<td>70,022</td>
<td>25,806</td>
<td>120,828</td>
</tr>
<tr>
<td>June 30, 2022</td>
<td>(1,999)</td>
<td>67,979</td>
<td>(6,111)</td>
<td>110,079</td>
</tr>
<tr>
<td>Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense</td>
<td>$32,779</td>
<td>$534,321</td>
<td>$370,895</td>
<td>$1,421,292</td>
</tr>
<tr>
<td><strong>Discount Rate Sensitivity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% decrease (6.025%)</td>
<td>$937,387</td>
<td>$4,132,456</td>
<td>$6,661,567</td>
<td>$10,761,623</td>
</tr>
<tr>
<td>Current discount rate (7.625%)</td>
<td>$730,626</td>
<td>$3,247,484</td>
<td>$5,156,391</td>
<td>$15,620,837</td>
</tr>
<tr>
<td>1% increase (8.625%)</td>
<td>$587,314</td>
<td>$2,501,050</td>
<td>$3,671,200</td>
<td>$11,680,161</td>
</tr>
<tr>
<td>Covered Payroll</td>
<td>$206,640</td>
<td>$1,264,429</td>
<td>$2,076,481</td>
<td>$6,229,442</td>
</tr>
</tbody>
</table>

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

(continued)
<table>
<thead>
<tr>
<th></th>
<th>Town of Chatham</th>
<th>Chatham Housing Authority</th>
<th>Cotuit Fire District</th>
<th>Town of Dennis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Pension Liability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning net pension liability</td>
<td>$20,169,342</td>
<td>$359,774</td>
<td>$2,578,363</td>
<td>$33,086,792</td>
</tr>
<tr>
<td>Ending net pension liability</td>
<td>$22,730,937</td>
<td>$401,789</td>
<td>$3,013,475</td>
<td>$35,820,921</td>
</tr>
<tr>
<td><strong>Deferred Outflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$ -</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Net difference between projected and actual investment earnings on pension plan investments</td>
<td>$1,292,090</td>
<td>$22,839</td>
<td>$171,295</td>
<td>$2,036,512</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>$1,348,441</td>
<td>$23,893</td>
<td>$178,761</td>
<td>$2,125,276</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$174,172</td>
<td>$1,478</td>
<td>$96,344</td>
<td>$560,736</td>
</tr>
<tr>
<td><strong>Total Deferred Outflows of Resources</strong></td>
<td>$2,814,862</td>
<td>$48,152</td>
<td>$446,400</td>
<td>$4,722,524</td>
</tr>
<tr>
<td><strong>Deferred Inflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$291,252</td>
<td>$5,148</td>
<td>$38,612</td>
<td>$469,051</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$380,520</td>
<td>$70</td>
<td>$179,506</td>
<td>$760,207</td>
</tr>
<tr>
<td><strong>Total Deferred Inflows of Resources</strong></td>
<td>$681,772</td>
<td>$5,218</td>
<td>$218,118</td>
<td>$1,219,258</td>
</tr>
<tr>
<td><strong>Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportionate share of plan pension expense</td>
<td>$3,447,428</td>
<td>$60,939</td>
<td>$457,029</td>
<td>$5,433,591</td>
</tr>
<tr>
<td>Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$(62,392)</td>
<td>$(304)</td>
<td>$(25,558)</td>
<td>$(12,736)</td>
</tr>
<tr>
<td><strong>Total Employer Pension Expense</strong></td>
<td>$3,385,036</td>
<td>$58,643</td>
<td>$431,473</td>
<td>$5,410,855</td>
</tr>
<tr>
<td><strong>Contributions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statutory required contribution</td>
<td>$1,833,890</td>
<td>$33,027</td>
<td>$243,122</td>
<td>$2,890,449</td>
</tr>
<tr>
<td>Contribution in relation to statutory required contribution</td>
<td>$(1,833,890)</td>
<td>$(33,027)</td>
<td>$(243,122)</td>
<td>$(2,890,449)</td>
</tr>
<tr>
<td>Contribution deficiency(excess)</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td><strong>Contributions as a percentage of covered payroll</strong></td>
<td>21.19%</td>
<td>20.41%</td>
<td>20.03%</td>
<td>20.03%</td>
</tr>
<tr>
<td><strong>Deferred Outflows(Inflows) Recognized in Future Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 30, 2018</td>
<td>$575,545</td>
<td>$11,560</td>
<td>$58,016</td>
<td>$992,736</td>
</tr>
<tr>
<td>June 30, 2019</td>
<td>$575,545</td>
<td>$11,560</td>
<td>$58,016</td>
<td>$992,736</td>
</tr>
<tr>
<td>June 30, 2020</td>
<td>$567,724</td>
<td>$11,442</td>
<td>$57,079</td>
<td>$980,410</td>
</tr>
<tr>
<td>June 30, 2021</td>
<td>$169,440</td>
<td>$4,402</td>
<td>$6,179</td>
<td>$362,869</td>
</tr>
<tr>
<td>June 30, 2022</td>
<td>$244,656</td>
<td>$3,000</td>
<td>$47,002</td>
<td>$484,715</td>
</tr>
<tr>
<td><strong>Total Deferred Outflows(Inflows) Recognized in Future Pension Expense</strong></td>
<td>$2,132,910</td>
<td>$42,934</td>
<td>$226,292</td>
<td>$3,503,268</td>
</tr>
<tr>
<td><strong>Discount Rate Sensitivity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% decrease (8.625%)</td>
<td>$28,925,362</td>
<td>$511,293</td>
<td>$3,834,878</td>
<td>$45,560,142</td>
</tr>
<tr>
<td>Current discount rate (7.825%)</td>
<td>$22,730,937</td>
<td>$401,799</td>
<td>$3,013,475</td>
<td>$35,820,921</td>
</tr>
<tr>
<td>1% Increase (8.625%)</td>
<td>$17,506,244</td>
<td>$309,446</td>
<td>$2,320,832</td>
<td>$27,592,123</td>
</tr>
<tr>
<td>Covered Payroll</td>
<td>$8,866,467</td>
<td>$161,804</td>
<td>$1,213,528</td>
<td>$14,427,495</td>
</tr>
</tbody>
</table>

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, 2016**

<table>
<thead>
<tr>
<th></th>
<th>Dennis Housing Authority</th>
<th>Dennis Water District</th>
<th>Dennis/Yarmouth Regional School District</th>
<th>Town of Eastham</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Pension Liability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning net pension liability</td>
<td>$688,158</td>
<td>$2,676,191</td>
<td>$12,771,810</td>
<td>$15,435,200</td>
</tr>
<tr>
<td>Ending net pension liability</td>
<td>$768,232</td>
<td>$2,046,514</td>
<td>$14,665,000</td>
<td>$17,835,831</td>
</tr>
<tr>
<td><strong>Deferred Outflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>Net difference between projected and actual investment earnings on pension plan investments</td>
<td>$43,069</td>
<td>$167,489</td>
<td>$833,637</td>
<td>$1,013,843</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>$45,572</td>
<td>$174,799</td>
<td>$869,973</td>
<td>$1,056,033</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$39,059</td>
<td>$2,692</td>
<td>$287,247</td>
<td>$437,775</td>
</tr>
<tr>
<td><strong>Total Deferred Outflows of Resources</strong></td>
<td>$128,200</td>
<td>$344,870</td>
<td>$2,000,857</td>
<td>$2,509,651</td>
</tr>
<tr>
<td><strong>Deferred Inflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$9,843</td>
<td>$37,704</td>
<td>$187,911</td>
<td>$228,531</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$-</td>
<td>$218,602</td>
<td>$539,684</td>
<td>$282,267</td>
</tr>
<tr>
<td><strong>Total Deferred Inflows of Resources</strong></td>
<td>$9,843</td>
<td>$258,306</td>
<td>$727,495</td>
<td>$610,798</td>
</tr>
<tr>
<td><strong>Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportionate share of plan pension expense</td>
<td>$116,510</td>
<td>$446,870</td>
<td>$2,224,218</td>
<td>$2,705,020</td>
</tr>
<tr>
<td>Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$9,685</td>
<td>$(44,965)</td>
<td>$(75,191)</td>
<td>17,296</td>
</tr>
<tr>
<td><strong>Total Employer Pension Expense</strong></td>
<td>$126,195</td>
<td>$401,905</td>
<td>$2,149,027</td>
<td>$2,722,316</td>
</tr>
<tr>
<td><strong>Contributions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statutory required contribution</td>
<td>$63,147</td>
<td>$237,719</td>
<td>$1,183,193</td>
<td>$1,438,992</td>
</tr>
<tr>
<td>Contribution in relation to statutory required contribution</td>
<td>$(63,147)</td>
<td>$(237,719)</td>
<td>$(1,183,193)</td>
<td>$(1,438,062)</td>
</tr>
<tr>
<td>Contribution deficiency(excess)</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>Contributions as a percentage of covered payroll</td>
<td>21.29%</td>
<td>20.03%</td>
<td>20.03%</td>
<td>20.37%</td>
</tr>
<tr>
<td><strong>Deferred Outflows/(Inflows) Recognized in Future Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 30, 2018</td>
<td>$31,245 $37,723 $336,395 $517,853</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 30, 2019</td>
<td>$31,245 $37,728 $336,395 $517,853</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 30, 2020</td>
<td>$30,081 $36,714 $331,349 $511,717</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 30, 2021</td>
<td>$17,517 $14,910 $34,848 $199,208</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 30, 2022</td>
<td>$7,469 $(8,746) $184,839 $252,222</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense</strong></td>
<td>$118,457 $88,514 $1,273,362 $1,998,853</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Discount Rate Sensitivity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% decrease (6.625%)</td>
<td>$917,061 $3,749,476 $16,692,132 $22,696,289</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current discount rate (7.625%)</td>
<td>$768,232 $2,946,514 $14,665,600 $17,835,831</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% increase (8.625%)</td>
<td>$591,053 $2,269,262 $11,294,719 $13,738,276</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Covered Payroll</td>
<td>$296,640 $1,186,560 $5,905,834 $7,065,428</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

(continued)
<table>
<thead>
<tr>
<th>SCHEDULE OF PENSION AMOUNTS BY EMPLOYER</th>
<th>Town of Harwich</th>
<th>Hyannis Fire District</th>
<th>Town of Mashpee</th>
<th>Mashpee Housing Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Pension Liability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning net pension liability</td>
<td>$ 25,622,944</td>
<td>$ 11,171,730</td>
<td>$ 29,920,777</td>
<td>$ 479,695</td>
</tr>
<tr>
<td>Ending net pension liability</td>
<td>$ 31,340,183</td>
<td>$ 12,878,386</td>
<td>$ 34,148,007</td>
<td>$ 602,693</td>
</tr>
<tr>
<td><strong>Deferred Outflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Net difference between projected and actual investment earnings on pension plan investments</td>
<td>1,781,472</td>
<td>732,047</td>
<td>1,941,077</td>
<td>34,269</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>1,859,120</td>
<td>763,904</td>
<td>2,025,681</td>
<td>35,762</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>1,149,159</td>
<td>224,407</td>
<td>552,299</td>
<td>83,829</td>
</tr>
<tr>
<td>Total Deferred Outflows of Resources</td>
<td>$ 4,769,751</td>
<td>$ 1,700,408</td>
<td>$ 4,519,057</td>
<td>$ 153,840</td>
</tr>
<tr>
<td><strong>Deferred Inflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$ 401,562</td>
<td>$ 105,011</td>
<td>$ 437,539</td>
<td>$ 7,722</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>112,959</td>
<td>73,402</td>
<td>30,300</td>
<td>-</td>
</tr>
<tr>
<td>Total Deferred Inflows of Resources</td>
<td>$ 514,521</td>
<td>$ 238,413</td>
<td>$ 467,929</td>
<td>$ 7,722</td>
</tr>
<tr>
<td><strong>Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportionate share of plan pension expense</td>
<td>$ 4,753,118</td>
<td>$ 1,953,183</td>
<td>$ 5,178,962</td>
<td>$ 91,408</td>
</tr>
<tr>
<td>Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>202,222</td>
<td>40,771</td>
<td>103,460</td>
<td>18,587</td>
</tr>
<tr>
<td>Total Employer Pension Expense</td>
<td>$ 4,955,340</td>
<td>$ 1,993,954</td>
<td>$ 5,282,422</td>
<td>$ 109,995</td>
</tr>
<tr>
<td><strong>Contributions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statutory required contribution</td>
<td>$ 2,528,468</td>
<td>$ 1,030,004</td>
<td>$ 2,754,998</td>
<td>$ 49,540</td>
</tr>
<tr>
<td>Contribution in relation to statutory required contribution</td>
<td>(2,528,468)</td>
<td>(1,030,004)</td>
<td>(2,754,998)</td>
<td>(49,540)</td>
</tr>
<tr>
<td>Contribution deficiency/(excess)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Contributions as a percentage of covered payroll</td>
<td>20.03%</td>
<td>20.07%</td>
<td>20.31%</td>
<td>20.41%</td>
</tr>
<tr>
<td><strong>Deferred Outflows/(Inflows) Recognized in Future Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future Pension Expense</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 30, 2019</td>
<td>$ 1,081,075</td>
<td>$ 402,199</td>
<td>$ 1,061,813</td>
<td>$ 35,501</td>
</tr>
<tr>
<td>June 30, 2010</td>
<td>$ 1,081,075</td>
<td>$ 402,199</td>
<td>$ 1,061,813</td>
<td>$ 35,501</td>
</tr>
<tr>
<td>June 30, 2020</td>
<td>$ 1,070,892</td>
<td>$ 397,768</td>
<td>$ 1,050,095</td>
<td>$ 35,204</td>
</tr>
<tr>
<td>June 30, 2021</td>
<td>$ 521,767</td>
<td>$ 172,122</td>
<td>$ 451,739</td>
<td>$ 24,752</td>
</tr>
<tr>
<td>June 30, 2022</td>
<td>$ 519,221</td>
<td>$ 177,797</td>
<td>$ 455,988</td>
<td>$ 15,060</td>
</tr>
<tr>
<td>Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense</td>
<td>$ 2,757,230</td>
<td>$ 1,552,085</td>
<td>$ 4,051,128</td>
<td>$ 146,118</td>
</tr>
<tr>
<td><strong>Discount Rate Sensitivity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% decrease (6.625%)</td>
<td>$ 39,860,722</td>
<td>$ 18,387,887</td>
<td>$ 43,453,705</td>
<td>$ 769,906</td>
</tr>
<tr>
<td>Current discount rate (7.625%)</td>
<td>$ 31,340,183</td>
<td>$ 12,878,386</td>
<td>$ 34,146,007</td>
<td>$ 602,693</td>
</tr>
<tr>
<td>1% increase (8.625%)</td>
<td>$ 24,136,051</td>
<td>$ 9,918,208</td>
<td>$ 28,299,108</td>
<td>$ 464,166</td>
</tr>
<tr>
<td>Covered Payroll</td>
<td>$ 12,620,687</td>
<td>$ 5,177,718</td>
<td>$ 13,594,542</td>
<td>$ 242,706</td>
</tr>
</tbody>
</table>

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, 2016**

<table>
<thead>
<tr>
<th></th>
<th>Mashpee Water District</th>
<th>Town of Nantucket</th>
<th>Nantucket Housing Authority</th>
<th>County of Nantucket</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Pension Liability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning net pension liability</td>
<td>$1,768,456</td>
<td>$59,963,947</td>
<td>$239,842</td>
<td>$1,976,737</td>
</tr>
<tr>
<td>Ending net pension liability</td>
<td>$1,964,615</td>
<td>$69,565,690</td>
<td>$267,866</td>
<td>$2,008,083</td>
</tr>
<tr>
<td><strong>Deferred Outflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>Net difference between projected and actual investment earnings on pension plan investments</td>
<td>$113,380</td>
<td>$3,664,327</td>
<td>$15,225</td>
<td>$114,197</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>$118,322</td>
<td>$4,128,081</td>
<td>$15,890</td>
<td>$119,174</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$39,280</td>
<td>$1,945,093</td>
<td>$993</td>
<td>$1,775</td>
</tr>
<tr>
<td><strong>Total Deferred Outflows of Resources</strong></td>
<td>$270,982</td>
<td>$10,026,101</td>
<td>$32,109</td>
<td>$235,146</td>
</tr>
<tr>
<td><strong>Deferred Inflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$25,557</td>
<td>$891,340</td>
<td>$3,432</td>
<td>$25,741</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$-</td>
<td>$-</td>
<td>$53</td>
<td>$280,381</td>
</tr>
<tr>
<td><strong>Total Deferred Inflows of Resources</strong></td>
<td>$25,557</td>
<td>$891,346</td>
<td>$3,485</td>
<td>$306,122</td>
</tr>
<tr>
<td><strong>Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportionate share of plan pension expense</td>
<td>$302,506</td>
<td>$10,560,489</td>
<td>$40,623</td>
<td>$304,688</td>
</tr>
<tr>
<td>Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$9,729</td>
<td>$393,215</td>
<td>$204</td>
<td>($8,861)</td>
</tr>
<tr>
<td><strong>Total Employer Pension Expense</strong></td>
<td>$312,237</td>
<td>$10,953,704</td>
<td>$40,827</td>
<td>$241,827</td>
</tr>
<tr>
<td><strong>Contributions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statutory required contribution</td>
<td>$160,922</td>
<td>$5,613,325</td>
<td>$22,018</td>
<td>$162,081</td>
</tr>
<tr>
<td>Contribution in relation to statutory required contribution</td>
<td>$(160,922)</td>
<td>$(5,613,325)</td>
<td>$(22,018)</td>
<td>$(162,081)</td>
</tr>
<tr>
<td>Contribution deficiency/(excess)</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>Contributions as a percentage of covered payroll</td>
<td>20.88%</td>
<td>20.47%</td>
<td>20.41%</td>
<td>20.03%</td>
</tr>
<tr>
<td><strong>Deferred Outflows/(Inflows) Recognized In Future Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future Pension Expense June 30, 2019</td>
<td>$65,707</td>
<td>$2,345,555</td>
<td>$7,722</td>
<td>$(6,480)</td>
</tr>
<tr>
<td>Future Pension Expense June 30, 2019</td>
<td>$65,707</td>
<td>$2,345,555</td>
<td>$7,722</td>
<td>$(6,480)</td>
</tr>
<tr>
<td>Future Pension Expense June 30, 2019</td>
<td>$65,621</td>
<td>$2,321,822</td>
<td>$7,899</td>
<td>$(6,721)</td>
</tr>
<tr>
<td>Future Pension Expense June 30, 2021</td>
<td>$10,272</td>
<td>$1,102,723</td>
<td>$2,932</td>
<td>$(42,371)</td>
</tr>
<tr>
<td>Future Pension Expense June 30, 2022</td>
<td>$18,918</td>
<td>$1,019,300</td>
<td>$2,619</td>
<td>$(8,474)</td>
</tr>
<tr>
<td><strong>Total Deferred Outflows/(Inflows) Recognized In Future Pension Expense</strong></td>
<td>$246,425</td>
<td>$9,134,755</td>
<td>$28,624</td>
<td>$(70,879)</td>
</tr>
<tr>
<td><strong>Discount Rate Sensitivity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% decrease (6.625%)</td>
<td>$2,538,106</td>
<td>$88,523,095</td>
<td>$340,852</td>
<td>$2,566,449</td>
</tr>
<tr>
<td>Current discount rate (7.625%)</td>
<td>$1,994,615</td>
<td>$69,566,808</td>
<td>$267,866</td>
<td>$2,008,083</td>
</tr>
<tr>
<td>1% increase (8.625%)</td>
<td>$1,636,152</td>
<td>$53,576,059</td>
<td>$206,297</td>
<td>$1,547,217</td>
</tr>
<tr>
<td>Covered Payroll</td>
<td>$782,051</td>
<td>$27,425,724</td>
<td>$197,699</td>
<td>$809,018</td>
</tr>
</tbody>
</table>

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, 2016

<table>
<thead>
<tr>
<th></th>
<th>Nantucket Regional Transit Authority</th>
<th>Nauset Regional School District</th>
<th>North Sagamore Water District</th>
<th>Town of Orleans</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Pension Liability</strong></td>
<td>$359,774 $9,413,905</td>
<td>$599,616</td>
<td>$20,147,095</td>
<td></td>
</tr>
<tr>
<td>Beginning net pension liability</td>
<td>$401,799 $10,044,928</td>
<td>$802,693</td>
<td>$22,098,852</td>
<td></td>
</tr>
<tr>
<td><strong>Deferred Outflows of Resources</strong></td>
<td>- $570,984</td>
<td>$34,259</td>
<td>$1,256,166</td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$22,839</td>
<td>$595,872</td>
<td>$35,752</td>
<td>$1,310,918</td>
</tr>
<tr>
<td>Not difference between projected and actual investment earnings on pension plan investments</td>
<td>$23,835</td>
<td>$572,752</td>
<td>$36,190</td>
<td>$193,621</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>$1,478</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total Deferred Outflows of Resources</td>
<td>$48,152 $1,739,569</td>
<td>$106,210</td>
<td>$2,760,705</td>
<td></td>
</tr>
<tr>
<td><strong>Deferred Inflows of Resources</strong></td>
<td>$5,148 $128,708</td>
<td>$7,722</td>
<td>$283,153</td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$5,148</td>
<td>$128,708</td>
<td>$7,722</td>
<td>$283,153</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$70</td>
<td>$317,140</td>
<td>$45,636</td>
<td>$262,543</td>
</tr>
<tr>
<td>Total Deferred Inflows of Resources</td>
<td>$5,216 $445,646</td>
<td>$53,358</td>
<td>$646,696</td>
<td></td>
</tr>
<tr>
<td><strong>Pension Expense</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Proportionate share of plan pension expense</td>
<td>$60,809 $1,523,424</td>
<td>$91,404</td>
<td>$3,951,659</td>
<td></td>
</tr>
<tr>
<td>Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$304</td>
<td>$79,755</td>
<td>$48,624</td>
<td>$262,543</td>
</tr>
<tr>
<td>Total Employer Pension Expense</td>
<td>$61,243 $1,593,189</td>
<td>$91,312</td>
<td>$3,346,913</td>
<td></td>
</tr>
<tr>
<td><strong>Contributions</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Statutory required contribution</td>
<td>$33,027 $803,000</td>
<td>$48,024</td>
<td>$1,782,894</td>
<td></td>
</tr>
<tr>
<td>Contribution in relation to statutory required contribution</td>
<td>(33,027)</td>
<td>(803,000)</td>
<td>(48,024)</td>
<td>(1,782,894)</td>
</tr>
<tr>
<td>Contribution deficiency/(excess)</td>
<td>$ - $ -</td>
<td>$ - $ -</td>
<td>$ - $ -</td>
<td>$ - $ -</td>
</tr>
<tr>
<td>Contributions as a percentage of covered payroll</td>
<td>20.41%</td>
<td>19.85%</td>
<td>20.03%</td>
<td>20.03%</td>
</tr>
<tr>
<td><strong>Deferred Outflows/(inflows) Recognized in Future Pension Expense</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>June 30, 2018</td>
<td>$11,580 $301,663</td>
<td>$16,822</td>
<td>$615,652</td>
<td></td>
</tr>
<tr>
<td>June 30, 2019</td>
<td>$11,580 $301,663</td>
<td>$16,822</td>
<td>$615,652</td>
<td></td>
</tr>
<tr>
<td>June 30, 2020</td>
<td>$11,442 $308,207</td>
<td>$16,615</td>
<td>$607,049</td>
<td></td>
</tr>
<tr>
<td>June 30, 2021</td>
<td>$4,402 $182,204</td>
<td>$6,055</td>
<td>$220,745</td>
<td></td>
</tr>
<tr>
<td>June 30, 2022</td>
<td>$3,830 $30,005</td>
<td>$3,460</td>
<td>$155,211</td>
<td></td>
</tr>
<tr>
<td>Total Deferred Outflows/(inflows) Recognized in Future Pension Expense</td>
<td>$42,034 $1,283,742</td>
<td>$52,852</td>
<td>$2,215,009</td>
<td></td>
</tr>
<tr>
<td><strong>Discount Rate Sensitivity</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1% decrease (6.025%)</td>
<td>$511,203 $12,782,281</td>
<td>$766,938</td>
<td>$26,121,028</td>
<td></td>
</tr>
<tr>
<td>Current discount rate (7.625%)</td>
<td>$401,799 $10,044,928</td>
<td>$602,093</td>
<td>$22,098,852</td>
<td></td>
</tr>
<tr>
<td>1% increase (9.626%)</td>
<td>$309,446 $7,736,105</td>
<td>$464,160</td>
<td>$17,019,444</td>
<td></td>
</tr>
<tr>
<td>Covered Payroll</td>
<td>$161,904 $4,045,092</td>
<td>$242,708</td>
<td>$8,899,203</td>
<td></td>
</tr>
</tbody>
</table>

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

(continued)
<table>
<thead>
<tr>
<th></th>
<th>Orleans Housing Authority</th>
<th>Tri-Town Wastewater Treatment Facility</th>
<th>Town of Provincetown</th>
<th>Town of Sandwich</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Pension Liability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning net pension liability</td>
<td>$479,695</td>
<td>$899,425</td>
<td>$16,249,588</td>
<td>$35,699,480</td>
</tr>
<tr>
<td>Ending net pension liability</td>
<td>$535,732</td>
<td>$937,531</td>
<td>$18,951,432</td>
<td>$41,586,017</td>
</tr>
<tr>
<td><strong>Deferred Outflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Net difference between projected and actual investment earnings on pension plan investment</td>
<td>$30,453</td>
<td>$53,202</td>
<td>$1,077,257</td>
<td>$2,363,876</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>$31,780</td>
<td>$55,615</td>
<td>$1,134,211</td>
<td>$2,466,009</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$1,673</td>
<td>$1,766</td>
<td>$579,366</td>
<td>$824,653</td>
</tr>
<tr>
<td><strong>Total Deferred Outflows of Resources</strong></td>
<td>$84,206</td>
<td>$110,693</td>
<td>$2,780,824</td>
<td>$5,655,426</td>
</tr>
<tr>
<td><strong>Deferred Inflows of Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$6,664</td>
<td>$12,013</td>
<td>$242,825</td>
<td>$532,842</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$98</td>
<td>$45,612</td>
<td>$351,337</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Deferred Inflows of Resources</strong></td>
<td>$9,662</td>
<td>$57,625</td>
<td>$604,162</td>
<td>$552,842</td>
</tr>
<tr>
<td><strong>Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportionate share of plan pension expense</td>
<td>$81,253</td>
<td>$142,189</td>
<td>$2,674,217</td>
<td>$6,307,091</td>
</tr>
<tr>
<td>Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$406</td>
<td>$(8,706)</td>
<td>$25,892</td>
<td>$185,175</td>
</tr>
<tr>
<td><strong>Total Employer Pension Expense</strong></td>
<td>$81,659</td>
<td>$133,481</td>
<td>$2,699,079</td>
<td>$6,492,206</td>
</tr>
<tr>
<td><strong>Contributions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statutory required contribution</td>
<td>$44,036</td>
<td>$75,658</td>
<td>$1,528,966</td>
<td>$3,355,092</td>
</tr>
<tr>
<td>Contribution in relation to statutory required contribution</td>
<td>$(44,036)</td>
<td>$(75,638)</td>
<td>$(1,528,966)</td>
<td>$(3,355,092)</td>
</tr>
<tr>
<td>Contribution deficiency(excess)</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Contributions as a percentage of covered payroll</td>
<td>20.41%</td>
<td>20.03%</td>
<td>20.03%</td>
<td>20.03%</td>
</tr>
<tr>
<td><strong>Deferred Outflows(Inflows) Recognized In</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future Pension Expense</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 30, 2018</td>
<td>$15,441</td>
<td>$17,004</td>
<td>$557,728</td>
<td>$1,350,274</td>
</tr>
<tr>
<td>June 30, 2019</td>
<td>$15,441</td>
<td>$17,004</td>
<td>$557,728</td>
<td>$1,350,274</td>
</tr>
<tr>
<td>June 30, 2020</td>
<td>$15,257</td>
<td>$17,281</td>
<td>$551,238</td>
<td>$1,335,967</td>
</tr>
<tr>
<td>June 30, 2021</td>
<td>$5,868</td>
<td>$854</td>
<td>$218,147</td>
<td>$607,316</td>
</tr>
<tr>
<td>June 30, 2022</td>
<td>$5,237</td>
<td>$(275)</td>
<td>$290,851</td>
<td>$478,795</td>
</tr>
<tr>
<td><strong>Total Deferred Outflows(Inflows) Recognized In</strong></td>
<td>$57,244</td>
<td>$53,068</td>
<td>$2,176,892</td>
<td>$5,122,596</td>
</tr>
<tr>
<td><strong>Discount Rate Sensitivity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% decrease (0.625%)</td>
<td>$681,724</td>
<td>$1,183,018</td>
<td>$24,115,901</td>
<td>$52,918,854</td>
</tr>
<tr>
<td>Current discount rate (7.625%)</td>
<td>$635,732</td>
<td>$937,031</td>
<td>$18,951,432</td>
<td>$41,646,017</td>
</tr>
<tr>
<td>1% increase (8.625%)</td>
<td>$412,594</td>
<td>$722,040</td>
<td>$14,595,456</td>
<td>$32,027,494</td>
</tr>
<tr>
<td>Covered Payroll</td>
<td>$215,738</td>
<td>$377,542</td>
<td>$7,631,740</td>
<td>$16,746,681</td>
</tr>
</tbody>
</table>

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

(continued)
<table>
<thead>
<tr>
<th>Sandwich Housing Authority</th>
<th>Sandwich Water District</th>
<th>Town of Truro</th>
<th>Veterans District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Pension Liability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning net pension liability</td>
<td>269,808</td>
<td>2,270,545</td>
<td>11,090,205</td>
</tr>
<tr>
<td>Ending net pension liability</td>
<td>334,826</td>
<td>2,142,016</td>
<td>12,290,256</td>
</tr>
<tr>
<td>Deferred Outflows of Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Net difference between projected and actual investment earnings on pension plan investments</td>
<td>16,033</td>
<td>121,810</td>
<td>893,616</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>19,862</td>
<td>127,119</td>
<td>729,006</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>1,232</td>
<td>1,961</td>
<td>10,440</td>
</tr>
<tr>
<td>Total Deferred Outflows of Resources</td>
<td>40,127</td>
<td>250,890</td>
<td>1,438,122</td>
</tr>
<tr>
<td>Deferred Inflows of Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>4,291</td>
<td>27,475</td>
<td>157,475</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>50</td>
<td>275,191</td>
<td>252,515</td>
</tr>
<tr>
<td>Total Deferred Inflows of Resources</td>
<td>4,349</td>
<td>302,040</td>
<td>409,960</td>
</tr>
<tr>
<td>Pension Expense</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportionate share of plan pension expense</td>
<td>50,775</td>
<td>325,000</td>
<td>1,863,068</td>
</tr>
<tr>
<td>Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>255</td>
<td>(54,624)</td>
<td>(58,836)</td>
</tr>
<tr>
<td>Total Employer Pension Expense</td>
<td>51,033</td>
<td>270,376</td>
<td>1,805,132</td>
</tr>
<tr>
<td>Contributions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statutory required contribution</td>
<td>27,522</td>
<td>172,886</td>
<td>991,555</td>
</tr>
<tr>
<td>Contribution in relation to statutory required contribution</td>
<td>(27,522)</td>
<td>(172,886)</td>
<td>(991,555)</td>
</tr>
<tr>
<td>Contribution deficiency/(excess)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Contributions as a percentage of covered payroll</td>
<td>20.41%</td>
<td>20.03%</td>
<td>20.31%</td>
</tr>
<tr>
<td>Deferred Outflows/(Inflows) Recognized in Future Pension Expense</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 30, 2018</td>
<td>9,652</td>
<td>5,516</td>
<td>286,088</td>
</tr>
<tr>
<td>June 30, 2019</td>
<td>9,652</td>
<td>5,516</td>
<td>286,088</td>
</tr>
<tr>
<td>June 30, 2020</td>
<td>9,537</td>
<td>4,779</td>
<td>281,853</td>
</tr>
<tr>
<td>June 30, 2021</td>
<td>3,669</td>
<td>(32,768)</td>
<td>60,515</td>
</tr>
<tr>
<td>June 30, 2022</td>
<td>3,268</td>
<td>(34,801)</td>
<td>107,687</td>
</tr>
<tr>
<td>Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense</td>
<td>35,776</td>
<td>(61,756)</td>
<td>1,028,132</td>
</tr>
<tr>
<td>Discount Rate Sensitivity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% decrease (6.025%)</td>
<td>420,073</td>
<td>2,720,880</td>
<td>15,639,495</td>
</tr>
<tr>
<td>Current discount rate (7.625%)</td>
<td>334,826</td>
<td>2,142,916</td>
<td>12,290,256</td>
</tr>
<tr>
<td>1% increase (3.025%)</td>
<td>257,869</td>
<td>1,650,386</td>
<td>9,465,349</td>
</tr>
<tr>
<td>Covered Payroll</td>
<td>134,858</td>
<td>862,935</td>
<td>4,681,079</td>
</tr>
</tbody>
</table>

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, 2018

<table>
<thead>
<tr>
<th>Town of Wellfleet</th>
<th>Town of Yarmouth</th>
<th>Yarmouth Housing Authority</th>
<th>West Barnstable Fire District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Pension Liability</td>
<td>$11,493,202</td>
<td>$45,401,138</td>
<td>$465,757</td>
</tr>
<tr>
<td>Beginning net pension liability</td>
<td>$13,034,923</td>
<td>$49,192,133</td>
<td>$519,449</td>
</tr>
<tr>
<td>Ending net pension liability</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Deferred Outflows of Resources

<table>
<thead>
<tr>
<th>Differences between expected and actual experience</th>
<th>$</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net difference between projected and actual investment earnings on pension plan investments</td>
<td>$740,845</td>
<td>$2,766,231</td>
<td>$20,538</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>$773,340</td>
<td>$2,918,109</td>
<td>$30,823</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Deferred Outflows of Resources</td>
<td>$1,669,980</td>
<td>$6,071,329</td>
<td>$65,146</td>
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</table>

Deferred Inflows of Resources

<table>
<thead>
<tr>
<th>Differences between expected and actual experience</th>
<th>$167,017</th>
<th>$630,300</th>
<th>$6,658</th>
<th>$18,877</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes of assumptions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$105,025</td>
<td>$1,009,170</td>
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<td></td>
</tr>
<tr>
<td>Total Deferred Inflows of Resources</td>
<td>$272,462</td>
<td>$1,639,470</td>
<td>$6,666</td>
<td>$18,877</td>
</tr>
</tbody>
</table>

Pension Expense

<table>
<thead>
<tr>
<th>Proportionate share of plan pension expense</th>
<th>$1,976,927</th>
<th>$7,400,589</th>
<th>$78,812</th>
<th>$223,439</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$5,057</td>
<td>$(113,854)</td>
<td>$643</td>
<td>$27,232</td>
</tr>
<tr>
<td>Total Employer Pension Expense</td>
<td>$1,981,984</td>
<td>$7,346,735</td>
<td>$79,455</td>
<td>$250,671</td>
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</tbody>
</table>

Contributions

<table>
<thead>
<tr>
<th>Statutory required contribution</th>
<th>$1,051,633</th>
<th>$3,970,199</th>
<th>$42,714</th>
<th>$118,859</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution in relation to statutory required contribution</td>
<td>$(1,051,633)</td>
<td>$(3,970,199)</td>
<td>$42,714</td>
<td>$(118,859)</td>
</tr>
<tr>
<td>Contribution deficiency/(excess)</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Contributions as a percentage of covered payroll</td>
<td>20.31%</td>
<td>20.53%</td>
<td>22.03%</td>
<td>20.03%</td>
</tr>
</tbody>
</table>

Deferred Outflows/(inflows) Reconciled in Future Pension Expense

<table>
<thead>
<tr>
<th>Future Pension Expense</th>
<th>$570,858</th>
<th>$1,296,708</th>
<th>$15,227</th>
<th>$66,578</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 30, 2019</td>
<td>$370,858</td>
<td>$1,296,708</td>
<td>$15,227</td>
<td>$66,578</td>
</tr>
<tr>
<td>June 30, 2020</td>
<td>$360,374</td>
<td>$1,249,764</td>
<td>$14,048</td>
<td>$68,071</td>
</tr>
<tr>
<td>June 30, 2021</td>
<td>$151,465</td>
<td>$280,795</td>
<td>$5,007</td>
<td>$14,023</td>
</tr>
<tr>
<td>Total Deferred Outflows/(inflows) Reconciled in Future Pension Expense</td>
<td>$1,367,558</td>
<td>$4,431,659</td>
<td>$66,450</td>
<td>$281,503</td>
</tr>
</tbody>
</table>

Discount Rate Sensitivity

| 1% decrease (6.625%) | $16,587,065 | $82,597,520 | $661,250 | $1,874,724 |
| Current discount rate (7.625%) | $13,034,923 | $49,192,133 | $519,049 | $1,473,251 |
| 1% increase (8.625%) | | | | |
| Covered Payroll | $10,036,853 | $37,885,350 | $400,209 | $1,154,023 |

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

(continued)
<table>
<thead>
<tr>
<th></th>
<th>Cape Cod Regional Transit Authority</th>
<th>Monomoy Regional School District</th>
<th>Provincetown Housing Authority</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Pension Liability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beginning net pension liability</td>
<td>$1,768,849</td>
<td>$9,803,660</td>
<td>$</td>
<td>$629,949,382</td>
</tr>
<tr>
<td>Ending net pension liability</td>
<td>$1,674,157</td>
<td>$10,580,861</td>
<td>$133,933</td>
<td>$702,580,650</td>
</tr>
<tr>
<td><strong>Deferred Outflows of Resources</strong></td>
<td>$21,451</td>
<td>$135,570</td>
<td>$1,710</td>
<td>$9,002,176</td>
</tr>
<tr>
<td>Differences between expected and actual experience</td>
<td>$21,451</td>
<td>$135,570</td>
<td>$1,710</td>
<td>$9,002,176</td>
</tr>
<tr>
<td>Changes of assumptions</td>
<td>$95,164</td>
<td>$601,437</td>
<td>$7,613</td>
<td>$39,996,832</td>
</tr>
<tr>
<td>Changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$372,541</td>
<td>$838,783</td>
<td>$11,296,189</td>
<td></td>
</tr>
<tr>
<td>Total Deferred Outflows of Resources</td>
<td>$300,092</td>
<td>$775,363</td>
<td>$1,716</td>
<td>$20,300,374</td>
</tr>
<tr>
<td><strong>Pension Expense</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportionate share of plan pension expense</td>
<td>$253,908</td>
<td>$1,604,688</td>
<td>$20,313</td>
<td>$106,564,935</td>
</tr>
<tr>
<td>Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions</td>
<td>$20,03%</td>
<td>$20,03%</td>
<td>$20.03%</td>
<td>20.03%</td>
</tr>
<tr>
<td>Total Employer Pension Expense</td>
<td>$173,503</td>
<td>$1,462,454</td>
<td>$38,744</td>
<td>$106,564,935</td>
</tr>
<tr>
<td><strong>Contributions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statutory required contribution</td>
<td>$135,068</td>
<td>$853,028</td>
<td>$10,805</td>
<td>$66,269,528</td>
</tr>
<tr>
<td>Contribution in relation to statutory required contribution</td>
<td>$135,068</td>
<td>$853,028</td>
<td>$10,805</td>
<td>$66,269,528</td>
</tr>
<tr>
<td>Contribution deficiency/(excess)</td>
<td>$20,03%</td>
<td>$20,03%</td>
<td>$20.03%</td>
<td>20.03%</td>
</tr>
<tr>
<td>Contributions as a percentage of covered payroll</td>
<td>$20,03%</td>
<td>$20,03%</td>
<td>$20.03%</td>
<td>20.03%</td>
</tr>
<tr>
<td><strong>Deferred Outflows/(Inflows) Recognized In Future Pension Expense</strong></td>
<td>$186,041</td>
<td>$462,670</td>
<td>$105,994</td>
<td>$72,012,188</td>
</tr>
<tr>
<td>Future Pension Expense</td>
<td>$186,041</td>
<td>$462,670</td>
<td>$105,994</td>
<td>$72,012,188</td>
</tr>
<tr>
<td><strong>Discount Rate Sensitivity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% decrease (6.425%)</td>
<td>$2,130,385</td>
<td>$13,464,005</td>
<td>$170,431</td>
<td>$894,041,463</td>
</tr>
<tr>
<td>Current discount rate (7.625%)</td>
<td>$1,674,157</td>
<td>$10,580,661</td>
<td>$133,933</td>
<td>$702,580,650</td>
</tr>
<tr>
<td>1% increase (8.625%)</td>
<td>$1,269,354</td>
<td>$8,148,702</td>
<td>$103,149</td>
<td>$541,082,099</td>
</tr>
<tr>
<td>Covered Payroll</td>
<td>$674,162</td>
<td>$4,280,830</td>
<td>$53,935</td>
<td>$269,672,807</td>
</tr>
</tbody>
</table>

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 Barnstable County Retirement Association’s collective pension amounts.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the Association who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2015 were applied to allocate the Association’s December 31, 2016 pension fund appropriation by member unit.

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

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

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

The allocation percentage of the total net pension liability is a blended rate of the following three items. (1) The proportionate share of active employer’s covered payroll is applied to the fiscal year 2016 pension fund appropriation calculated by the actuary. (2) ERI is a direct charge calculated by PERAC for only the employers that accepted the ERI. (3) The direct amortization of the actuarial determined net pension liability for Barnstable County Sheriff and Barnstable County Hospital since they no longer have active covered payroll.
NOTE II – Schedule of Pension Amounts by Employer

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

Changes in Assumptions

The following assumption changes were reflected in the January 1, 2016 actuarial valuation:

- The investment return assumption was decreased from 7.75% to 7.625%.
- The pre-retirement mortality assumption was changed from the RP-2000 Employee Mortality Table projected generationally using Scale AA from 2010 to the RP-2000 Employee Mortality Table projected generationally using Scale BB2D from 2009.
- The post-retirement mortality assumption for non-disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale AA from 2010 to the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale BB2D from 2009.
- The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward three years for males only projected generationally using Scale AA from 2010 to the RP-2000 Healthy Annuitant Mortality Table projected generationally with Scale BB2D from 2015.
- The administrative expense assumption was increased from $1,150,000 to $1,500,000 based on the fiscal 2017 expense budget.

Changes in Plan Provisions

The following plan provision change was reflected in the January 1, 2016 actuarial valuation:

- The Cost of Living Adjustment base was increased from $15,000 to $16,000 as of July 1, 2015, to $17,000 as of July 1, 2016 and to $18,000 as of July 1, 2017.