

**HULL**  
**RETIREMENT SYSTEM**  
**AUDIT REPORT**  
JAN. 1, 2016 - DEC. 31, 2020



**PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION**  
COMMONWEALTH OF MASSACHUSETTS

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December 19, 2023

The Public Employee Retirement Administration Commission (PERAC) has completed a review of the audits of the Hull Retirement System conducted by the firm of Roselli, Clark & Associates, Certified Public Accountants (RCA). RCA conducted these audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits in *Government Auditing Standards*, issued by the Comptroller General of the United States. The audits covered the period from January 1, 2016, to December 31, 2020.

We conducted an inspection of the work papers prepared by RCA. We determined that the audits were conducted in a competent professional manner and the work papers demonstrated that audit tests and procedures were performed in sufficient detail to allow us to accept the final audit reports as issued.

We identified specific differences between these financial audits designed to provide an opinion on financial statements and our compliance audits performed in accordance with the accounting and management standards established by PERAC in regulation 840 CMR 25.00 and in compliance with the provisions specified in PERAC Memo #18/2019.

Accordingly, we supplemented the field work conducted in the audits by RCA with certain limited procedures designed to provide additional assurance that the accounting and management standards established by PERAC were adhered to and complied with. The specific objectives of our review were to determine: 1) that the Board is exercising appropriate fiduciary oversight, 2) that cash balances are accurately stated, 3) that travel expenses were properly documented and accounted for, 4) that retirement contributions are accurately deducted, 5) that retirement allowances were correctly calculated, and 6) that required member documentation is maintained.

To achieve these objectives, we inspected certain records of the Hull Retirement Board in the above areas. Specifically, we reviewed the minutes of the Board meetings for compliance with fiduciary oversight, verified cash balances, and tested a sample of travel expenses for Board approvals, supporting documentation and proper accounting. We tested the payroll records of a sample of active members to confirm that the correct percentage of regular compensation is being deducted, including the additional two percent over \$30,000. We tested a sample of members who

retired during our audit period to verify that their retirement allowance was calculated in accordance with the statute. We also reviewed a sample of member files for accuracy and completeness.

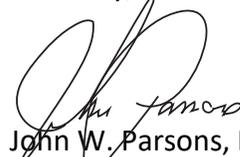
In our opinion, the financial records are being maintained and the management functions are being performed in conformity with the standards established by PERAC with the exception of those related to our supplemental work which are detailed in the findings presented in this report.

It should be noted that the financial statements included in this audit report were based on the work performed by RCA and the tests conducted for the periods referenced in their opinion. These audits were not performed by employees or representatives of PERAC. It should also be noted that the opinions expressed in these audit reports were based on the laws and regulations in effect at the time.

The financial statements and footnotes presented in this report were limited to the express results as of and for the years ended December 31, 2020, December 31, 2019, December 31, 2018, December 31, 2017, and December 31, 2016.

In closing, I wish to acknowledge the work of Roselli, Clark & Associates who conducted these examinations, and the PERAC examiners who conducted limited procedures to supplement the field work and express my appreciation to the Hull Retirement Board and staff for their courtesy and cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "John W. Parsons". The signature is stylized with large, flowing loops.

John W. Parsons, Esq.  
Executive Director

# EXPLANATION OF FINDINGS AND RECOMMENDATIONS

## **1. Monthly Financial Reporting:**

A complete set of financial reports were not presented to the Board members for review at Board meetings from January 2016 through to November 2022. Only the monthly trial balance was provided. In addition, there is no comparison of actual expenditures to the budgeted amounts.

**Recommendation:** The Board should be provided with a complete packet of financial reports at each monthly meeting. Besides the trial balance, this includes the cash receipts, cash disbursements, adjusting journal entries, and the cash reconciliations with bank statements. Also, the Board should review Budgeted to Actual expenses at least quarterly. The names and dates of reports provided should be documented in the minutes.

## **Board Response:**

The full cash books were presented beginning in February 2023.

## **2. Retiree Calculations:**

A review of members who retired during the audit period found the following:

- Retirement contributions were not deducted from the holiday premium pay received by firefighters for working on a holiday. Since no deductions were withheld, it was not included in the firefighters' retirement calculations. Article VIII of the firefighter contract has three paragraphs that deal with holiday compensation. Section 4 is payment of 1/5 of a work week for employees who do not work on the holiday- this pay correctly has retirement contributions withheld. Section 3 is payment for employees who are scheduled to work on a holiday and it is paid at a time-and-a-half rate. Section 5 is payment for employees who are not scheduled to work on a holiday but end up having to do so; it is also paid at a time-and-a-half rate. Neither one of these payments have retirement contributions withheld. Both of these payments should be considered what G.L. c. 32, §1 describes, under "Wages", as "premiums for working holidays" and "shall be regarded as regular compensation." Even though it appears that the Section 5 payments could be considered overtime, because the statute does not put any conditions on the holiday premiums paid to firefighters, all money received by them related to holidays is regular compensation.
- One retiree had the wrong three-year period used for the average salary in the calculation.
- When members received a pro-rated stipend at retirement, they ended up with more than three years of that type of pay included in the three-year average.

Also, there were payments included in average salaries that we did not receive explanations of what service they were for.

**Recommendation:** The member with the incorrect high three-year period and the firefighters with the holiday premium not in the average salary should be recalculated. Also, the payroll department should be instructed to begin withholding contributions on the firefighter holiday premiums.

## EXPLANATION OF FINDINGS AND RECOMMENDATIONS (Continued)

When a member receives a partial year payment at the end of their career, the first one of that pay type received in the three-year period should be pro-rated so that only three years' worth are included in the average salary.

When calculating the three-year average for a retiree, increases and decreases in pay should be investigated. Once the reason is learned, it should be noted. Trying to get this information years later is often difficult.

### **Board Response:**

The Board will coordinate with payroll to have the necessary deduction withheld. An analysis is being conducted to determine the scope of the issue and will be presented to the Board for review. This issue was not identified in any prior audits.

In the future the Board will ensure the member only receives stipends for the 3 year period.

### **FINAL DETERMINATION:**

***PERAC Audit staff will follow up in six (6) months to ensure appropriate actions have been taken regarding all findings.***

## SUPPLEMENTARY INFORMATION

### SCHEDULE OF ALLOCATION OF INVESTMENTS OWNED

(percentages by category)

AS OF DECEMBER 31, 2020		
	MARKET VALUE	PERCENTAGE OF TOTAL ASSETS
Cash	\$94,385	0.2%
PRIT Cash Fund	100,021	0.2%
PRIT Core Fund	<u>62,055,495</u>	<u>99.7%</u>
<b>Grand Total</b>	<u><u>\$62,249,902</u></u>	<u><u>100.0%</u></u>

For the year ending December 31, 2020, the rate of return for the investments of the Hull Retirement System was 12.43%. For the ten-year period ending December 31, 2020, the rate of return for the investments of the Hull Retirement System averaged 8.97%. For the 36-year period ending December 31, 2020, since PERAC began evaluating the returns of the retirement systems, the rate of return on the investments of the Hull Retirement System was 8.18%.

The composite rate of return for all retirement systems for the year ending December 31, 2020 was 12.80%. For the ten-year period ending December 31, 2020, the composite rate of return for the investments of all retirement systems averaged 8.93%. For the 36-year period ending December 31, 2020, since PERAC began evaluating the returns of the retirement systems, the composite rate of return on the investments of all retirement systems averaged 9.31%.

## SUPPLEMENTARY INFORMATION (Continued)

### ADMINISTRATION OF THE SYSTEM

The System is administered by a five-person Board of Retirement consisting of the Town Accountant who shall be a member ex-officio, a second member appointed by the governing authority, a third and fourth member who shall be elected by the members in or retired from the service of such system, and a fifth member appointed by the other four board members.

Ex-officio Member:	Michael Buckley, Chairperson		
Appointed Member:	Eileen White	Term Expires:	11/09/2025
Elected Member:	Bartley Kelly	Term Expires:	12/30/2023
Elected Member:	Vacant	Term Expires:	12/30/2023
Appointed Member:	Gregory Galvin	Term Expires:	01/24/2026

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

The investment of the system'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 system has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by two persons designated by the Board.

Retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts. Fidelity insurance is the only required policy coverage under Ch. 32 §21 and §23 as well as 840 CMR 17.01. The policy is designed to cover specific intentional acts such as theft, fraud or embezzlement and also specify who commits such acts, most commonly employees of the system. This coverage reimburses the system for the losses it suffers as a result of its employees' actions. It does not insure the employees for their illegal acts. Statutorily required coverage is provided by the current fidelity insurance policy to a limit of \$1,000,000 with a \$10,000 deductible issued through Travelers Casualty and Surety Company. The system also has Fiduciary coverage to a limit of \$50,000,000 under a blanket policy issued through the Massachusetts Association of Contributory Retirement Systems.

### BOARD REGULATIONS

The Hull Retirement Board has adopted Supplemental Regulations which are available on the PERAC website at <https://mass.gov/Hull-retirement-board-regulations>.

## SUPPLEMENTARY INFORMATION (Continued)

### ACTUARIAL VALUATION AND ASSUMPTIONS

The most recent actuarial valuation of the System was prepared by the Public Employee Retirement Administration Commission as of January 1, 2022.

The actuarial liability for active members was	\$33,417,612
The actuarial liability for vested terminated members was	441,361
The actuarial liability for non-vested terminated members was	302,683
The actuarial liability for retired members was	<u>50,276,693</u>
The total actuarial liability was	\$84,438,349
System assets as of that date were (actuarial value)	<u>66,736,520</u>
The unfunded actuarial liability was	<u>\$17,701,829</u>
The ratio of system's assets to total actuarial liability was	79.0%
As of that date the total covered employee payroll was	\$10,967,813

The normal cost for employees on that date was	8.9% of payroll
The normal cost for the employer including administrative expenses was	10.7% of payroll

The principal actuarial assumptions used in the valuation are as follows:

Investment Return:	7.40% per annum
Rate of Salary Increase:	Based on group and service

### SCHEDULE OF FUNDING PROGRESS AS OF JANUARY 1, 2022

Actuarial Valuation Date	Actuarial Value of Assets ( a )	Actuarial Accrued Liability ( b )	Unfunded AAL (UAAL) ( b-a )	Funded Ratio ( a/b )	Covered Payroll ( c )	UAAL as a % of Cov. Payroll ( (b-a)/c )
1/1/2022	\$66,736,520	\$84,438,349	\$17,701,829	79.0%	\$10,967,813	161.4%
1/1/2020	\$55,323,815	\$79,509,644	\$24,185,829	69.6%	\$10,469,577	231.0%
1/1/2018	\$48,465,175	\$75,817,761	\$27,352,586	63.9%	\$10,062,298	271.8%
1/1/2016	\$38,527,396	\$65,494,475	\$26,967,079	58.8%	\$9,701,015	278.0%
1/1/2014	\$34,820,803	\$64,528,515	\$29,707,712	54.0%	\$9,293,846	319.6%

SUPPLEMENTARY INFORMATION (Continued)

**MEMBERSHIP EXHIBIT**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Retirement in Past Years</b>										
Superannuation	0	5	3	8	6	10	3	4	8	3
Ordinary Disability	0	0	0	0	0	0	0	0	0	0
Accidental Disability	0	0	0	0	0	0	0	0	0	1
<b>Total Retirements</b>	0	5	3	8	6	10	3	4	8	4
<b>Total Retirees, Beneficiaries and Survivors</b>	134	134	131	134	138	146	143	145	147	147
<b>Total Active Members</b>	187	185	180	179	172	173	178	169	165	166
<b>Pension Payments</b>										
Superannuation	\$1,884,656	\$1,889,856	\$1,927,898	\$2,040,248	\$2,180,325	\$2,414,426	\$2,724,923	\$2,656,238	\$2,780,236	\$2,904,137
Survivor/Beneficiary Payments	69,922	71,842	73,798	61,993	72,486	118,494	142,588	153,509	175,875	178,191
Ordinary Disability	48,450	35,248	35,858	36,476	74,648	53,238	54,269	55,339	24,490	17,063
Accidental Disability	676,871	675,666	670,221	651,682	630,852	580,985	588,280	572,309	535,917	519,481
Other	373,164	384,008	400,305	439,880	628,178	525,504	533,805	531,480	569,375	540,181
<b>Total Payments for Year</b>	<u>\$3,053,063</u>	<u>\$3,056,620</u>	<u>\$3,108,080</u>	<u>\$3,230,279</u>	<u>\$3,586,489</u>	<u>\$3,692,646</u>	<u>\$4,043,865</u>	<u>\$3,968,875</u>	<u>\$4,085,893</u>	<u>\$4,159,052</u>

**ROSELLI, CLARK & ASSOCIATES**  
Certified Public Accountants



**HULL CONTRIBUTORY  
RETIREMENT SYSTEM**

Basic Financial Statements and  
Additional Information

Year Ended December 31, 2020

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
**(A Component Unit of the Town of Hull, Massachusetts)**

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**DECEMBER 31, 2020**

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**ROSELLI, CLARK & ASSOCIATES**  
CERTIFIED PUBLIC ACCOUNTANTS

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## INDEPENDENT AUDITORS' REPORT

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited the accompanying financial statements of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2020, and the related notes to the financial statements, which collectively comprise the System's basic 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.

### Auditors' Responsibility

Our responsibility is to express opinions 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 auditors' 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 opinions.

## **Opinions**

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the System as of December 31, 2020, and the respective changes in 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 the management's discussion and analysis and the schedules listed under the required supplementary information section in the accompanying table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic 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 basic financial statements, and other knowledge we obtained during our audit of the basic 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.



Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
June 29, 2021

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Our discussion and analysis of the Hull Contributory Retirement System's (the "System") financial performance provides an overview of the System's financial activities for the calendar year ended December 31, 2020. You should read it in conjunction with the basic financial statements, footnotes and required supplementary information that follows this discussion.

### Financial Highlights

The System's funding objective is to meet long-term benefit obligations through contributions and investment income. The System's actuary estimates that the System is nearly 76% funded at December 31, 2020.

The System's fiduciary net position increased nearly \$7.0 million in 2020 to approximately \$62.3 million. Current year additions of over \$12.1 million exceeded deductions of approximately \$5.1 million. The current year increase in fiduciary net position was approximately \$0.8 million lower than the prior year. The System's investment performance for 2020, net of investment management fees, was approximately 12.1% versus 16.1% in 2019. The 2020 net investment return for the System exceeded its long-term expected discount rate, which is currently 7.4%.

### Overview of the Financial Statements

The basic financial statements are comprised of the Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position, Notes to Financial Statements and Required Supplementary Information. The basic financial statements are prepared in accordance with accounting principles generally accepted in the United States of America, or GAAP; specifically, GASB Statement No. 67, *Financial Reporting for Pension Plans*.

The Statement of Fiduciary Net Position reports the System's assets, deferred outflows of resources, liabilities, deferred inflows of resources and fiduciary net position restricted for pensions. This statement reflects the System's investments at fair value, as well as cash, receivables and other assets and liabilities. Over time, the increase or decrease in fiduciary net position serves as a useful indicator of the System's financial health and condition.

The Statement of Changes in Fiduciary Net Position reports additions to and deductions from the System during the year. This statement reflects contributions by members and participating employers along with deductions for retirement benefits, refunds, withdrawals and administrative expenses. Investment income, including realized and unrealized gains/losses, during the year is also presented.

The Notes to the Financial Statements provide additional information that is essential for the reader to gain a full understanding of the data provided in the financial statements.

This report also includes Required Supplementary Information following the Notes to the Financial Statements that consist of the schedules of changes in net pension liability and related ratios, investment returns and contributions and the notes to the schedule of contributions.

## Financial Analysis

The condensed comparative Statements of Net Position for the two most recent years are as follows:

	December 31,		Dollar	Percent
	2020	2019	Change	Change
Assets:				
Cash and cash equivalents	\$ 194,406	\$ 176,335	\$ 18,071	10.2%
Investments in PRIT	62,055,495	55,083,558	6,971,937	12.7%
Receivables and other assets	66,501	64,141	2,360	3.7%
Total Assets	<u>62,316,402</u>	<u>55,324,034</u>	<u>6,992,368</u>	12.6%
Liabilities	<u>210</u>	<u>219</u>	<u>(9)</u>	-4.1%
Fiduciary Net Position	<u>\$ 62,316,192</u>	<u>\$ 55,323,815</u>	<u>\$ 6,992,377</u>	12.6%

Total assets at December 31, 2020 approximated \$62.3 million and principally consisted of investments recorded at fair value. Total asset increased by approximately \$7.0 million in 2020, which was due primarily to positive investment performance of over 12.1%.

Receivables and liabilities are not material to the System at either December 31, 2020 or 2019.

The condensed comparative Statements of Changes in Fiduciary Net Position for the two most recent years are as follows:

	Year Ended December 31,		Dollar	Percent
	2020	2019	Change	Change
Additions:				
Contributions	\$ 5,465,200	\$ 5,362,851	\$ 102,349	1.9%
Investment income, net	6,664,835	7,611,974	(947,139)	-12.4%
Total Additions	<u>12,130,035</u>	<u>12,974,825</u>	<u>(844,790)</u>	-6.5%
Deductions:				
Benefits and refunds to Plan members	5,005,004	5,026,556	(21,552)	-0.4%
Administrative and other expenses	132,654	159,044	(26,390)	-16.6%
Total Deductions	<u>5,137,658</u>	<u>5,185,600</u>	<u>(47,942)</u>	-0.9%
Change in Fiduciary Net Position	<u>\$ 6,992,377</u>	<u>\$ 7,789,225</u>	<u>\$ (796,848)</u>	-10.2%

Fiduciary net position increased nearly \$7.0 million in 2020, which was primarily the result of net investment earnings of approximately \$6.7 million for the year.

Contributions to the System's Fiduciary Net Position primarily include employer and employee contributions in addition to transfers from other retirement systems. Contributions for 2020 totaled approximately \$5.5 million versus \$5.4 million in 2019.

Employer contributions represent the largest source of System contributions. In 2020, employer contributions totaled approximately \$4.1 million, or 74% of total contributions. Employer contributions are actuarially determined; however, the System authorized level funding for 2020 in response to the COVID-19 pandemic and its effect on its participating employers, which resulted in an approximate \$162,000 funding shortfall.

Employee contributions totaled approximately \$1.1 million in both 2020 and 2019. Other contributions in 2020 totaled approximately \$298,000, which was consistent with the prior year.

Investment income is presented net of associated investment management expenses. In 2020, the System reported nearly \$6.7 million in net investment income versus \$7.6 million in 2019. The System's money-weighted rates of return for 2020 and 2019 were approximately 12.1% and 16.1%, respectively.

Deductions to the System's Fiduciary Net Position primarily include pension benefits to members and beneficiaries, refunds to inactive members, transfers and reimbursements to other Massachusetts public retirement systems and administrative expenses. Total deductions in 2020 decreased nearly \$48,000 from the prior year.

Pension benefits to members and beneficiaries represents the largest deduction from Fiduciary Net Position for the System. Pension benefits to members and beneficiaries represented approximately 91% and 88% of total 2020 and 2019 deductions, respectively. Pension benefits to members and beneficiaries increased approximately \$135,000, or 3%, in 2020. This increase was due to primarily to the normal annual cost-of-living adjustments paid by the System.

The increase in pension benefits was offset by a nearly \$163,000 decrease in transfers and reimbursements to other Massachusetts public retirement systems, which is a function of timing and employment trends/movements.

Administrative expenses decreased approximately \$48,000 year-over-year.

#### **Overall Financial Position**

The System's positive investment performance in 2020 enabled it to maintain an approximate 76% funded ratio at December 31, 2020. The System's long-term investment returns as published by PERAC exceed the discount rate used by the System in its actuarial studies (currently 7.4%). Provided the System continues to garner strong investment performances, it is possible the System will achieve fully funded status on or before the expected date forecasted in the latest actuarial valuation of 2032.

All of the System's investments are managed by PRIT. As a result, the System has little to no control over investment decisions or management. Management believes that the volatility in the worldwide markets may continue for the foreseeable future, particularly as U.S. and global governments and markets address the COVID-19 pandemic. Accordingly, Management will continue to evaluate the discount rate it uses in future actuarial valuation reports.

#### **Contacting the System's Financial Management Personnel**

Our discussion and analysis is designed to provide the Hull Retirement Board, our membership, taxpayers, investors and creditors with a general overview of the System's financial results and to demonstrate the System's accountability for the funding it receives. If you have any questions about this report or need additional financial information, contact the Retirement Board at 253 Atlantic Avenue, Hull, Massachusetts 02045.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**STATEMENT OF FIDUCIARY NET POSITION**  
**DECEMBER 31, 2020**

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Assets:	
Cash and cash equivalents	\$ 194,406
Investments in PRIT	62,055,495
Receivables:	
Contributions	46,879
Due from the Commonwealth	<u>19,622</u>
Total Assets	<u>62,316,402</u>
Liabilities:	
Accounts payable and accrued expenses	<u>210</u>
Total Liabilities	<u>210</u>
Net Position Restricted for Pensions	<u>\$ 62,316,192</u>

See accompanying notes to basic financial statements.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**STATEMENT OF CHANGES IN FIDUCIARY NET POSITION**  
**YEAR ENDED DECEMBER 31, 2020**

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Additions:	
Employer contributions	\$ 4,063,696
Employee contributions	1,103,595
Other contributions	<u>297,835</u>
Total contributions	<u>5,465,126</u>
Investment income:	
Interest and dividends	1,251,923
Net appreciation in fair value of investments	5,680,235
Less investment management fees	<u>(267,323)</u>
Total net investment income	<u>6,664,835</u>
Other income	<u>74</u>
Total Additions	<u>12,130,035</u>
Deductions:	
Benefits and refunds to Plan members:	
Benefits to retirees and survivors	4,693,525
Member refunds	39,531
Transfers and reimbursements to other systems	271,948
Administrative expenses:	
Operations payroll and related personnel costs	95,547
Other	<u>37,107</u>
Total Deductions	<u>5,137,658</u>
Net Change in Net Position	6,992,377
Net Position Restricted for Pensions:	
Beginning of the year	<u>55,323,815</u>
End of the year	<u>\$ 62,316,192</u>

See accompanying notes to basic financial statements.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
**(A Component Unit of the Town of Hull, Massachusetts)**

**NOTES TO THE FINANCIAL STATEMENTS**  
**AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2020**

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**1. DESCRIPTION OF THE PLAN**

**General** – The Hull Contributory Retirement System (the “System”) is a cost-sharing, multiple employer defined benefit pension plan established and administered by the Hull Retirement Board under the provisions of Chapter 32 of the Massachusetts General Laws (“MGL”) to provide pension benefits for participants. The System is a component unit of the Town of Hull, Massachusetts (the “Town”). The Town and the Hull Housing Authority (the “Authority”) contribute to the System.

Employees of the Town (with the exception of teachers and certain administrative personnel employed by the School Department who participate in a separate plan) and the Authority are covered by the System. Participation in the System is mandatory immediately upon the commencement of employment for all permanent, full-time employees.

At December 31, 2020, membership in the System consisted of:

Retirees and beneficiaries currently receiving benefits	147
Active plan members	166
Inactive plan members	<u>46</u>
Total	<u>359</u>

**Plan Benefits** – Massachusetts contributory retirement system benefits are uniform from one public pension system to another. For employees with service dates beginning before April 2, 2012, the System provides for retirement allowance benefits up to a maximum of 80% of a participant’s highest consecutive three-year average annual rate of regular compensation. For those employees who began their service on or after April 2, 2012, the System provides for retirement allowance benefits up to a maximum of 80% of a participant’s highest consecutive five-year average annual rate of regular compensation. Benefit payments are based upon a participant’s age, length of creditable service, level of compensation and group classification.

The retirement allowance consists of two parts – an annuity and a pension. Participants’ accumulated total deductions and a portion of the interest they generate constitute the annuity. The difference between the total retirement benefit and the annuity is the pension.

Participants who resign from service and who are not eligible to receive a retirement allowance are entitled to request a refund of their accumulated total contributions. In addition, depending upon the number of years of creditable service, such employees may be entitled to receive interest, which has accrued on those contributions. A vested employee who has not reached their eligible retirement age and elects to leave their accumulated total deductions on deposit may apply for benefits upon reaching their eligible retirement age.

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

**Retirement Requirements** – In order to receive retirement benefits, participants must meet one of the following two categories:

- 1) Normal Retirement – Generally, normal retirement occurs between ages 65 and 67. However, most participants with a hire date before April 2, 2012, may retire after twenty years of creditable service or at any time after attaining age 55. For most participants hired on or after April 2, 2012, they must attain the age of 60 before they can retire. Participants with hire dates subsequent to January 1, 1978 must have a minimum of ten years' creditable service in order to retire at age 55 or 60, as applicable. Participants become vested after ten years of creditable service. Benefits commencing before age 65 are generally provided at a reduced rate. However, members working in certain occupations may retire with full benefits earlier than age 65.
- 2) Disability Retirements – The System provides for both an ordinary and accidental disability retirement. An ordinary disability retirement is where a participant is permanently incapacitated from a cause unrelated to employment. An accidental disability retirement is where the disability is the result of an injury or illness received or aggravated in the performance of their duty.

The amount of benefits to be received in such cases is dependent upon several factors, including the age at which the disability retirement occurs, the years of creditable service, average compensation and veteran status. In addition, certain provisions are in place relative to death benefits for beneficiaries of employees who die in active service.

**Public Availability of Financial Statements** – The Hull Retirement Board issues a publicly available financial report that includes financial statements and required supplementary information for the System. That report may be obtained by writing to the Hull Retirement Board, 253 Atlantic Avenue, Hull, MA 02045.

## 2. SIGNIFICANT ACCOUNTING POLICIES

**Basis of Accounting** – The financial statements of the System have been prepared on the accrual basis of accounting in accordance with generally accepted accounting principles in the United States of America, or GAAP. Employer contributions are recognized when due and the employer is legally required to provide the contributions. Member contributions are recognized in the period in which the contributions are due. Investment income is recognized in the period earned. Benefits and refunds are recognized when due and payable in accordance with the terms of the pension plan.

**Use of Estimates** – The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Cash and Cash Equivalents** – Cash and cash equivalents include cash on hand, demand deposits and short-term holdings with original maturities of three months or less from the date of acquisition.

**Investments** – The carrying amounts of the System's investments approximates fair value. When actively quoted observable prices are not available, the System generally uses either implied pricing from similar investments or valuation models based on net present values of estimated future cash flows (adjusted as appropriate for liquidity, credit, market and/or other risk factors).



**Custodial Credit Risk: Deposits** – Deposits are subject to the risk of bank failure. The System may be unable to recover the full amount of its deposits in any one bank institution in the event of a bank failure. The System’s policy for custodial credit risk of deposits is to rely on federal depository insurance coverage for the first \$250,000 of deposits held at each financial institution. At December 31, 2020, all System bank deposits were fully insured.

**Custodial Credit Risk: Investments** – Custodial credit risk for investments is the risk that, in the event of a failure of the counterparty, the System will not be able to recover the value of its investments or collateral securities that are in the possession of the outside party. The System’s policy for custodial credit risk of investments intends that all investments are either insured and/or registered in the name of the System. At December 31, 2020, the System was not exposed to custodial credit risk on its investments.

**Investment Policy** – The Board is responsible for the establishing and amending investment policy decisions. The Board adopted the investment policy used by PRIM as all its investments are invested with PRIM.

According to its investment policy, PRIM’s overall objective is to achieve the highest level of investment performance that is compatible with its risk tolerance and prudent investment practices. PRIM maintains a long-term perspective in formulating and implementing its investment policies and evaluating its investment performance. PRIM seeks to generate long-term investment performance that meets or exceeds actuarially-targeted rates of return (currently at 7.4%). PRIM establishes investment benchmarks by asset class to compare its actual performance against. Finally, PRIM compares its investment performance against the investment performance of other large public and private pension plans with the goal to be in the top 50% of this universe.

At December 31, 2020, all of the System’s investments are held in the custody of PRIM within their PRIT General Allocation Fund. The PRIT General Allocation Fund is comprised of a diverse set of investments accounts. The PRIT General Allocation Fund’s target weights and the long-term expected rates of return for each of these asset classes were as follows:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Equities	34% to 44%	5.7% to 8.4%
Core fixed income	12% to 18%	1.7% to 2.7%
Value-added fixed income	5% to 11%	6.2%
Private equity	11% to 17%	10.2%
Real estate	7% to 13%	6.0%
Timberland	1% to 7%	6.6%
Portfolio completion	7% to 13%	5.2%

Actual asset allocations at December 31, 2020 were within the acceptable deviations from the target allocations illustrated above, as set forth under PRIM’s investment policy.

**Rate of Return** – The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. The 2020 money-weighted rate of return was approximately 12.1%.

**Fair Value Measurements: Investments** – All of the System’s investments are invested with the State Treasurer investment pool administered by the Commonwealth of Massachusetts’ Pension Reserve Investment Management Board, or PRIM. The specific investment held by the System is the PRIT General Allocation Fund, which consists of a diverse set of investments that includes domestic and international equities and fixed income securities, private debt, private equity, venture, timber and real estate investments. The determination of the fair value of these investments is very subjective and the period-end values are reported to the System as NAV. Investments in the PRIT General Allocation Fund are more liquid than investments in private equity and real estate holdings, but generally cannot be resold to third parties. The System may liquidate its investment in the PRIT General Allocation Fund at any time with less than thirty days’ notice. Distributions from the PRIT Absolute Fund are received regularly and deposited into an accompanying short-term cash investment account.

Because of the inherent uncertainty of valuations used in many of the System’s investments measured at NAV, estimated values may differ significantly from the values that would have been used had a readily available market for positions in privately held companies or the real estate existed at December 31, 2020. These differences could have a material adverse effect on the System’s financial statements.

**Credit Risk: Investments** – This is the risk that an issuer of an investment will not fulfill its obligation to the holder of an investment. As previously noted, MGL and PERAC have enacted regulations to reduce this risk. All of the System’s investments are managed by PRIM in the PRIT General Allocation Fund, which is not subject to credit quality ratings from leading credit rating agencies.

At December 31, 2020, uninsured short-term investment funds with fair values of \$100,021 were reported as cash equivalents. These funds represent temporary holdings of excess cash resources. The System intends to reinvest these amounts in less than one year. Accordingly, the fair values of these amounts have been classified as cash equivalents in these financial statements.

**Concentration of Credit Risk: Investments** – All of the System’s investments are managed by PRIM in the PRIT General Allocation Account at December 31, 2020.

## 5. FUNDING

**Employer Contributions** – Under MGL, participating employers are assessed their share of the total retirement cost based on an independent actuarial study. Employer contributions totaled \$4,063,696 in 2020.

**Employee Contributions** – Employee contribution rates vary based on when an employee commenced their creditable service. Active members contribute 5%, 7%, 8% or 9% of their gross regular compensation depending on when their creditable service commenced. Employees hired on or after January 1, 1979 contribute an additional 2% of their regular gross compensation over \$30,000.

**Cost of Living Adjustments** – Cost-of-living adjustments granted between 1981 and 1997 and any increase in other pension benefits imposed by the Commonwealth of Massachusetts during those years are the financial responsibility of the Commonwealth. The Commonwealth is expected to continue funding the cost-of-living amounts granted over this period for the duration of their selected retirement option. Cost-of-living adjustments granted after 1997 must be approved and funded by the System. Cost-of-living adjustments cannot exceed the greater of CPI or 3%. The System approved a

3% cost-of-living adjustment on the first \$13,000 of pension benefits for the first half of 2020. Effective July 1, 2020, the base was increased to \$14,000.

**6. NET PENSION LIABILITY**

The System is statutorily required to adopt the funding schedule that will fully amortize the unfunded actuarial accrued liability by June 30, 2040. As of the latest actuarial valuation, the System has selected a funding schedule that amortizes the unfunded actuarial accrued liability to \$0 by June 30, 2031.

The components of the System’s net pension liability at December 31, 2020 (dollar amounts are in thousands) were as follows:

Total pension liability	\$ 82,368
Plan fiduciary net position	<u>62,316</u>
Net pension liability	<u>\$ 20,052</u>
Plan fiduciary net position as a percentage of the total pension liability	75.7%

The total pension liability was determined by an actuarial valuation as of January 1, 2020 that was rolled forward to December 31, 2020. The significant actuarial assumptions used in the actuarial valuation report were as follows:

Actuarial cost method:	Entry age normal
Amortization method:	Top appropriation increases by 4.0% per year until 2030 with a final amortization in 2031
Asset valuation method:	Market value of assets
Investment rate of return:	7.40% per year, net of expenses
Projected salary increases:	Select and ultimate by job group; ultimate rates of 4.25% for group 1 and 4.75% for group 4
Pre-retirement mortality:	The RP-2014 Blue Collar Employees table projected generationally with Scale MP-2018 (gender distinct)
Post-retirement mortality:	The RP-2014 Blue Collar Healthy Annuitant table projected generationally with Scale MP-2018 (gender distinct)
Disabled life mortality:	The RP-2014 Blue Collar Healthy Annuitant table set forward one year and projected generationally with Scale MP-2018 (gender distinct)

**Discount Rate** – The discount rate used to measure the total pension liability at December 31, 2020 was 7.4%. The projection of cash flows used to determine the discount rate assumed plan member contributions were made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially-determined contribution rates and the member rate. Based on those assumptions, the System’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.

**Expected Real Rate of Return** – The long-term expected rate of return on System investments was determined using a building-block method in which best-estimate ranges of expected future 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 System’s target allocation as of December 31, 2020 are summarized in the investment policy table in Note 4.

**Sensitivity Analysis** – The following illustrates the net position liability at December 31, 2020 calculated using the current discount rate of 7.4%, as well as the projection of what the net position liability would be if it were calculated using a discount rate that is 1.0% lower or higher than the current rate (dollar amounts are in thousands):

Current Discount Rate	Net Pension Liability At:		
	1% Decrease	Current Rate	1% Increase
7.4%	\$ 29,164	\$ 20,052	\$ 12,314

**7. LEGALLY REQUIRED RESERVE ACCOUNTS**

Net position restricted for pensions at December 31, 2020 were comprised of the following legally required reserves:

Description	Amount	Purpose
Annuity Savings Fund	\$ 11,679,069	Active members' contribution balance
Annuity Reserve Fund	3,864,405	Retirement members' contribution balance
Pension Fund	2,948,889	Amounts appropriated to fund future retirement
Pension Reserve Fund	<u>43,823,829</u>	Remaining fiduciary net position
	<u>\$ 62,316,192</u>	

**8. COMMITMENTS AND CONTINGENCIES**

**General** – The System is subject to a variety of claims that arise from time to time in the ordinary course of business. Although management of the System currently believes that resolving claims against the System, individually or in aggregate, will not have a material adverse impact on the System’s financial position or its results of operations, these matters are subject to inherent uncertainties and management’s views of these matters may change in the future.

**COVID-19** – The COVID-19 pandemic has resulted in global economic slowdowns and disruptions that have and could continue to affect U.S. and global markets and economies. The System’s ability to meet its long-term investment return objectives and targets is highly dependent on these markets and economies. The global response to the COVID-19 pandemic is beyond the System’s control and the likelihood and extent of further market volatility cannot be predicted.

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**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**REQUIRED SUPPLEMENTARY INFORMATION - UNAUDITED**

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
*(dollar amounts are in thousands)*

	2020	2019	2018	2017	2016	2015	2014
Total pension liability:							
Service cost	\$ 1,790	\$ 1,764	\$ 1,688	\$ 1,885	\$ 735	\$ 735	\$ 735
Interest	5,990	5,778	5,571	5,209	5,032	5,290	5,160
Changes in benefit terms	706	-	-	-	-	-	-
Differences between expected and actual experience	(3,332)	-	-	1,066	-	(347)	(2,513)
Changes in assumptions	450	-	-	4,675	-	-	-
Benefit payments, including refunds	(4,772)	(4,645)	(4,438)	(4,698)	(4,573)	(4,478)	(2,624)
Net change in total pension liability	<u>832</u>	<u>2,897</u>	<u>2,821</u>	<u>8,137</u>	<u>1,194</u>	<u>1,200</u>	<u>758</u>
Total pension liability - beginning of year	<u>81,536</u>	<u>78,639</u>	<u>75,818</u>	<u>67,681</u>	<u>66,487</u>	<u>65,287</u>	<u>64,529</u>
Total pension liability - end of year (a)	<u>\$ 82,368</u>	<u>\$ 81,536</u>	<u>\$ 78,639</u>	<u>\$ 75,818</u>	<u>\$ 67,681</u>	<u>\$ 66,487</u>	<u>\$ 65,287</u>
Plan fiduciary net position:							
Contributions - employer	\$ 4,064	\$ 4,064	\$ 3,907	\$ 3,763	\$ 3,602	\$ 3,469	\$ 3,403
Contributions - employee	1,103	1,087	1,032	1,061	986	957	975
Contributions - nonemployer contributing entities	298	207	234	311	195	342	157
Net investment income	6,665	7,612	(1,182)	6,995	2,794	326	2,591
Benefit payments, including refunds	(5,005)	(5,027)	(4,767)	(4,881)	(4,573)	(4,547)	(3,734)
Administrative expenses	(133)	(159)	(154)	(157)	(159)	(124)	(157)
Other	-	5	-	-	1	23	25
Net change in plan fiduciary net position	<u>6,992</u>	<u>7,789</u>	<u>(930)</u>	<u>7,092</u>	<u>2,846</u>	<u>446</u>	<u>3,260</u>
Plan fiduciary net position - beginning of year	<u>55,324</u>	<u>47,535</u>	<u>48,465</u>	<u>41,373</u>	<u>38,527</u>	<u>38,081</u>	<u>34,821</u>
Plan fiduciary net position - end of year (b)	<u>\$ 62,316</u>	<u>\$ 55,324</u>	<u>\$ 47,535</u>	<u>\$ 48,465</u>	<u>\$ 41,373</u>	<u>\$ 38,527</u>	<u>\$ 38,081</u>
Net pension liability - end of year (a) - (b)	<u>\$ 20,052</u>	<u>\$ 26,212</u>	<u>\$ 31,104</u>	<u>\$ 27,353</u>	<u>\$ 26,308</u>	<u>\$ 27,960</u>	<u>\$ 27,206</u>
Plan fiduciary net position as a percentage of the total pension liability	75.7%	67.9%	60.4%	63.9%	61.1%	57.9%	58.3%
Covered payroll	\$ 10,470	\$ 10,062	\$ 10,062	\$ 10,062	\$ 10,105	\$ 9,670	\$ 9,338
Net pension liability as a percentage of covered payroll	191.5%	260.5%	309.1%	271.8%	260.3%	289.1%	291.3%

These schedules are presented to illustrate the requirement to show information for ten years. However, until a full ten-year trend is completed, information is presented for those years in which information is available.

See accompanying independent auditors' report.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**REQUIRED SUPPLEMENTARY INFORMATION - UNAUDITED**

**SCHEDULE OF CONTRIBUTIONS**

*(dollar amounts are in thousands)*

For Fiscal Year Ended June 30,	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2020	\$ 4,226	\$ 4,064	\$ 162	\$ 10,470	38.8%
2019	4,064	4,064	-	10,062	40.4%
2018	3,907	3,907	-	10,062	38.8%
2017	3,763	3,763	-	10,062	37.4%
2016	3,602	3,602	-	10,105	35.6%
2015	3,469	3,469	-	9,670	35.9%
2014	3,403	3,403	-	9,338	36.4%

**SCHEDULE OF INVESTMENT RETURNS**

For Fiscal Year Ended June 30,	Annual Money- Weighted Rate of Return *
2020	12.13%
2019	16.13%
2018	-2.46%
2017	17.12%
2016	7.34%
2015	0.86%
2014	7.46%

\* Net of investment expenses.

These schedules are presented to illustrate the requirement to show information for ten years. However, until a full ten-year trend is completed, information is presented for those years in which information is available.

See accompanying independent auditors' report.

**HULL CONTRIBUTORY RETIREMENT SYSTEM  
(A Component Unit of the Town of Hull, Massachusetts)**

**NOTES TO REQUIRED SUPPLEMENTARY INFORMATION  
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2020**

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**A. CHANGES OF BENEFIT TERMS**

The System may be amended or terminated in whole or in part at any time by the Massachusetts Legislature, provided that no such modification, amendment or termination shall be made that would deprive a current member of superannuation pension rights or benefits provided under applicable laws of Massachusetts, if such member has paid the stipulated contributions specified in sections or provisions of such laws. There were no significant changes to the System's benefit terms in 2020.

**B. SIGNIFICANT ACTUARIAL ASSUMPTIONS AND METHODS**

The significant actuarial assumptions used in the latest actuarial valuation were as follows:

Actuarial cost method:	Entry age normal
Amortization method:	Top appropriation increases by 4.0% per year until 2030 with a final amortization in 2031
Asset valuation method:	Market value of assets
Investment rate of return:	7.40% per year, net of expenses
Projected salary increases:	Select and ultimate by job group; ultimate rates of 4.25% for group 1 and 4.75% for group 4
Pre-retirement mortality:	The RP-2014 Blue Collar Employees table projected generationally with Scale MP-2018 (gender distinct)
Post-retirement mortality:	The RP-2014 Blue Collar Healthy Annuitant table projected generationally with Scale MP-2018 (gender distinct)
Disabled life mortality:	The RP-2014 Blue Collar Healthy Annuitant table set forward one year and projected generationally with Scale MP-2018 (gender distinct)



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**INDEPENDENT AUDITORS' REPORT ON AUDIT OF SPECIFIC ELEMENTS,  
ACCOUNTS AND ITEMS OF FINANCIAL STATEMENTS**

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited the accompanying schedule of employer allocations of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2020. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources and total pension expense (specified column totals) included in the accompanying schedule of pension amounts by employer of the System as of and for the year ended December 31, 2020, and the related notes thereto.

**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 financial statements that are free from material misstatement, whether due to fraud or error.

**Auditors' Responsibility**

Our responsibility is to express opinions on the schedule of employer allocations and the specified column 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 and the standards applicable to financial audits contained in *Government Audit 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 schedule of employer allocations and specified column 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 column totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and the specified column 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 column 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, and total pension expense for the total of all participating entities of the System as of and for the year ended December 31, 2020, in accordance with accounting principles generally accepted in the United States of America.

**Other Matters**

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the System as of and for the year ended December 31, 2020, and our report thereon, dated June 29, 2021, expressed an unmodified opinion on those financial statements.



Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
June 29, 2021

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**SCHEDULE OF EMPLOYER ALLOCATIONS**  
**YEAR ENDED DECEMBER 31, 2020**

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Employer	Actual Employer Contributions	Employer Allocation Percentage
Town of Hull	\$ 3,780,305	93.0%
Hull Light and Power	261,853	6.5%
Hull Housing Authority	21,538	0.5%
Total	\$ 4,063,696	100.0%

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

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

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

	Town of Hull	Hull Light and Power	Hull Housing Authority	Total
Net pension liability	\$ 18,648,360	\$ 1,303,380	\$ 100,260	\$ 20,052,000
Deferred outflows of resources:				
Differences between actual and expected experience	\$ 90,210	\$ 6,305	\$ 485	\$ 97,000
Changes of assumptions	714,240	49,920	3,840	768,000
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	234,000	-	234,000
Total deferred outflows of resources	\$ 804,450	\$ 290,225	\$ 4,325	\$ 1,099,000
Deferred inflows of resources:				
Differences between actual and expected experience	\$ 3,095,040	\$ 216,320	\$ 16,640	\$ 3,328,000
Net difference between projected and actual investment earnings on pension plan investments	3,110,850	217,425	16,725	3,345,000
Changes in proportion and differences between employer contributions and proportionate share of contributions	217,000	-	17,000	234,000
Total deferred inflows of resources	\$ 6,422,890	\$ 433,745	\$ 50,365	\$ 6,907,000
Pension expense (income):				
Proportionate share of plan pension expense	\$ 2,327,508	\$ 162,675	\$ 12,513	\$ 2,502,696
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(54,091)	63,292	(9,201)	-
Total employer pension expense (income)	\$ 2,273,417	\$ 225,967	\$ 3,312	\$ 2,502,696

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

**HULL CONTRIBUTORY RETIREMENT SYSTEM  
(A Component Unit of the Town of Hull, Massachusetts)**

**NOTES TO PENSION PLAN SCHEDULES  
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2020**

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**A. INTRODUCTION**

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, establishes financial reporting requirements for governments that provide employees with pension benefits. GASB 68 requires employers to recognize a net pension liability or net pension asset as employees earn pension benefits. Employers participating in the Hull Contributory Retirement System (the "Retirement System") will recognize their proportionate share of the collective pension amounts for all benefits provided by the Retirement System.

**B. METHOD OF PROPORTIONATE SHARE ALLOCATION**

The basis for the proportionate share allocation by employer as found in the Schedule of Employer Allocations and Schedule of Pension Amounts by Employer is consistent with the manner in which employer contributions to the Retirement System are determined. The net pension liability, deferred outflows of resources, deferred inflows of resources and pension expense is based upon actual historical employer contributions to the Retirement System from the census data submitted to the Retirement System for pay periods ending December 31, 2020.

**C. EXPECTED FUTURE AMORTIZATION OF DEFERRED BALANCES**

The following table summarizes the expected amortization of the deferred outflows of resources and inflows of resources into pension expense (benefit):

Measurement Period Ended <u>December 31:</u>	<u>Town of Hull</u>	<u>Hull Light and Power</u>	<u>Hull Housing Authority</u>	<u>Total</u>
2021	\$ (1,561,280)	\$ (17,740)	\$ (16,980)	\$ (1,596,000)
2022	(1,361,730)	3,535	(2,805)	(1,361,000)
2023	(2,086,120)	(80,960)	(16,920)	(2,184,000)
2024	<u>(609,310)</u>	<u>(48,355)</u>	<u>(9,335)</u>	<u>(667,000)</u>
	<u>\$ (5,618,440)</u>	<u>\$ (143,520)</u>	<u>\$ (46,040)</u>	<u>\$ (5,808,000)</u>

**ROSELLI, CLARK & ASSOCIATES**  
Certified Public Accountants



**HULL CONTRIBUTORY  
RETIREMENT SYSTEM**

Report on Examination of Basic Financial  
Statements and Additional Information

Year Ended December 31, 2019

Report on Internal Control and Compliance  
Year Ended December 31, 2019

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
**(A Component Unit of the Town of Hull, Massachusetts)**

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**DECEMBER 31, 2019**

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## INDEPENDENT AUDITORS' REPORT

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited the accompanying financial statements of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2019, and the related notes to the financial statements, which collectively comprise the System's basic 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.

### Auditors' Responsibility

Our responsibility is to express opinions 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 auditors' 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 opinions.

## Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the System as of December 31, 2019, and the respective changes in 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 the management's discussion and analysis and the schedules listed under the required supplementary information section in the accompanying table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic 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 basic financial statements, and other knowledge we obtained during our audit of the basic 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 a report dated July 6, 2020 on our consideration of the System's internal control over financial reporting and 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 System's internal control over financial reporting and compliance.



Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
July 6, 2020

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Our discussion and analysis of the Hull Contributory Retirement System's (the "System") financial performance provides an overview of the System's financial activities for the calendar year ended December 31, 2019. You should read it in conjunction with the basic financial statements, footnotes and required supplementary information that follows this discussion.

### Financial Highlights

The System's funding objective is to meet long-term benefit obligations through contributions and investment income. The System's actuary estimates that the System is approximately 68% funded at December 31, 2019.

The System's fiduciary net position increased nearly \$7.8 million in 2019 to approximately \$55.3 million. Current year additions of approximately \$13.0 million exceeded deductions of approximately \$5.2 million. The current year increase in fiduciary net position was far more favorable than the prior year's reported decrease of approximately \$931,000. The System's investment performance for 2019, net of investment management fees, was approximately 16.1% versus -2.5% in 2018. The 2019 net investment return for the System exceeded its long-term expected discount rate, which is currently 7.4%.

The benchmark U.S. equity indices were down significantly in the first quarter of 2020. The volatility in U.S. markets is historic and primarily due to the COVID-19 pandemic, which sparked liquidations of equities and debt securities causing market prices of nearly all investment securities to plummet. Additionally, declining worldwide oil prices further exacerbated the situation. All of the System's investments are invested with the Pension Reserve Investment Trust, or PRIT. As a result, outside of a significant redemption of the System's investments to cash, the System cannot execute investment adjustments and/or modifications to attempt to mitigate investment losses.

### Overview of the Financial Statements

The basic financial statements are comprised of the Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position, Notes to Financial Statements and Required Supplementary Information. The basic financial statements are prepared in accordance with accounting principles generally accepted in the United States of America, or GAAP; specifically, GASB Statement No. 67, *Financial Reporting for Pension Plans*.

The Statement of Fiduciary Net Position reports the System's assets, deferred outflows of resources, liabilities, deferred inflows of resources and fiduciary net position restricted for pensions. This statement reflects the System's investments at fair value, as well as cash, receivables and other assets and liabilities. Over time, the increase or decrease in fiduciary net position serves as a useful indicator of the System's financial health and condition.

The Statement of Changes in Fiduciary Net Position reports additions to and deductions from the System during the year. This statement reflects contributions by members and participating employers along with deductions for retirement benefits, refunds, withdrawals and administrative expenses. Investment income, including realized and unrealized gains/losses, during the year is also presented.

The Notes to the Financial Statements provide additional information that is essential for the reader to gain a full understanding of the data provided in the financial statements.

This report also includes Required Supplementary Information following the Notes to the Financial Statements that consist of the schedules of changes in net pension liability and related ratios, investment returns and contributions and the notes to the schedule of contributions.

### Financial Analysis

The condensed comparative Statements of Net Position for the two most recent years are as follows:

	December 31,		Dollar	Percent
	2019	2018	Change	Change
<b>Assets:</b>				
Cash and cash equivalents	\$ 176,335	\$ 207,389	\$ (31,054)	-15.0%
Investments in PRIT	55,083,558	47,256,479	7,827,079	16.6%
Receivables and other assets	64,141	80,572	(16,431)	-20.4%
<b>Total Assets</b>	<b>55,324,034</b>	<b>47,544,440</b>	<b>7,779,594</b>	<b>16.4%</b>
<b>Liabilities</b>	<b>219</b>	<b>9,850</b>	<b>(9,631)</b>	<b>-97.8%</b>
<b>Fiduciary Net Position</b>	<b>\$ 55,323,815</b>	<b>\$ 47,534,590</b>	<b>\$ 7,789,225</b>	<b>16.4%</b>

Total assets at December 31, 2019 approximated \$55.3 million and principally consisted of investments recorded at fair value. Total asset increased by approximately \$7.8 million in 2019, which was due primarily to positive investment portfolio performance of over 16.1%. Receivables and liabilities are not material to the System at either December 31, 2019 or 2018.

The condensed comparative Statements of Changes in Fiduciary Net Position for the two most recent years are as follows:

	Year Ended December 31,		Dollar	Percent
	2019	2018	Change	Change
<b>Additions:</b>				
Contributions	\$ 5,362,851	\$ 5,172,735	\$ 190,116	3.7%
Investment income, net	7,611,974	(1,181,746)	8,793,720	744.1%
<b>Total Additions</b>	<b>12,974,825</b>	<b>3,990,989</b>	<b>8,983,836</b>	<b>225.1%</b>
<b>Deductions:</b>				
Benefits and refunds to Plan members	5,026,556	4,767,476	259,080	5.4%
Administrative and other expenses	159,044	154,098	4,946	3.2%
<b>Total Deductions</b>	<b>5,185,600</b>	<b>4,921,574</b>	<b>264,026</b>	<b>5.4%</b>
<b>Change in Fiduciary Net Position</b>	<b>\$ 7,789,225</b>	<b>\$ (930,585)</b>	<b>\$ 8,719,810</b>	<b>937.0%</b>

Fiduciary net position increased nearly \$7.8 million in 2019, which was primarily the result of net investment earnings of approximately \$7.6 million for the year.

Contributions to the System's Fiduciary Net Position primarily include employer and employee contributions in addition to transfers from other retirement systems. Contributions for 2019 totaled approximately \$5.4 million versus \$5.2 million in 2018.

Employer contributions represent the largest source of System contributions. In 2019, employer contributions totaled approximately \$4.1 million, or 76% of total contributions. Employer contributions are actuarially determined. Employee contributions totaled approximately \$1.1 million in 2019, which was approximately \$55,000, or 5%, greater than the prior year. This increase was due primarily to the effects of normal pay raises on employee pension contributions.

Other contributions in 2019 totaled approximately \$207,000, which was consistent with the prior year.

Investment income is presented net of associated investment management expenses. In 2019, the System reported over \$7.6 million in net investment income versus a loss of approximately \$1.2 million in 2018. The System's money-weighted rates of return for 2019 and 2018 were approximately 16.1% and -2.5%, respectively.

Deductions to the System's Fiduciary Net Position primarily include pension benefits to members and beneficiaries, refunds to inactive members, transfers and reimbursements to other Massachusetts public retirement systems and administrative expenses. Total deductions in 2019 increased over \$264,000, or 5%, from the prior year.

Pension benefits to members and beneficiaries represents the largest deduction from Fiduciary Net Position for the System. Pension benefits to members and beneficiaries represented approximately 88% and 90% of total 2019 and 2018 deductions, respectively. Pension benefits to members and beneficiaries increased approximately \$153,000, or 3.5%, in 2019. This increase was due to a greater average number of beneficiaries paid year-over-year coupled with the normal annual cost-of-living adjustments paid by the System.

In addition to the increase in pension benefits to members and beneficiaries, there was an approximate \$106,000 increase in transfers and reimbursements to other Massachusetts public retirement systems, which is a function of timing and employment trends/movements.

#### **Overall Financial Position**

The System's positive investment performance in 2019 permitted it to maintain an approximate 68% funded ratio at December 31, 2019. The System's 30-year investment return as published by PERAC significantly exceeds the discount rate used by the System in its actuarial studies. Provided the System continues to garner strong investment performances, it is possible that the System will achieve fully funded status on or before the expected date included in latest actuarial valuation of December 31, 2031.

All of the System's investments are managed by PRIT. As a result, the System has little to no control over investment decisions or management. Management believes that the volatility in the worldwide markets may continue for the foreseeable future. The historic losses in the U.S. equities markets in the first quarter of 2020 may result in a shortfall between the 2020 actual investment return and the current discount rate. The System reduced the discount rate used in its actuarial valuations to 7.4% in its January 1, 2018 valuation report. Management will continue to evaluate the discount rate it uses in future actuarial valuation reports.

The System's adopted funding schedule is based on an expected fully funded date of December 31, 2031. To meet this schedule, the System's investment will need to keep pace with the long-term expected rate of return, currently assumed to be 7.4%. The System believes that its investments can, over the long-term, achieve this target. However, should the System be unable to meet this long-term investment return target, the System may need to lower the discount rate it uses in future actuarial studies. By lowering the discount rate, it will be unlikely the System can achieve a fully funded status by 2031 without significant increases in employer contributions.

#### **Contacting the System's Financial Management Personnel**

Our discussion and analysis is designed to provide the Hull Retirement Board, our membership, taxpayers, investors and creditors with a general overview of the System's financial results and to demonstrate the System's accountability for the funding it receives. If you have any questions about this report or need additional financial information, contact the Retirement Board at 253 Atlantic Avenue, Hull, Massachusetts 02045.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**STATEMENT OF FIDUCIARY NET POSITION**  
**DECEMBER 31, 2019**

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Assets:	
Cash and cash equivalents	\$ 176,335
Investments in PRIT	55,083,558
Receivables:	
Contributions	43,010
Due from the Commonwealth	<u>21,131</u>
Total Assets	<u>55,324,034</u>
Liabilities:	
Accounts payable and accrued expenses	<u>219</u>
Total Liabilities	<u>219</u>
Net Position Restricted for Pensions	<u>\$ 55,323,815</u>

See accompanying notes to basic financial statements.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**STATEMENT OF CHANGES IN FIDUCIARY NET POSITION**  
**YEAR ENDED DECEMBER 31, 2019**

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Additions:	
Employer contributions	\$ 4,063,696
Employee contributions	1,087,014
Other contributions	<u>207,387</u>
Total contributions	<u>5,358,097</u>
Investment income:	
Interest and dividends	1,374,753
Net appreciation in fair value of investments	6,500,880
Less investment management fees	<u>(263,659)</u>
Total net investment income	<u>7,611,974</u>
Other income	<u>4,754</u>
Total Additions	<u>12,974,825</u>
Deductions:	
Benefits and refunds to Plan members:	
Benefits to retirees and survivors	4,558,208
Member refunds	33,717
Transfers and reimbursements to other systems	434,631
Administrative expenses:	
Operations payroll and related personnel costs	105,972
Other	<u>53,072</u>
Total Deductions	<u>5,185,600</u>
Net Change in Net Position	7,789,225
Net Position Restricted for Pensions:	
Beginning of the year	<u>47,534,590</u>
End of the year	<u>\$ 55,323,815</u>

See accompanying notes to basic financial statements.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**NOTES TO THE FINANCIAL STATEMENTS**  
**AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2019**

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**1. DESCRIPTION OF THE PLAN**

*General* – The Hull Contributory Retirement System (the “System”) is a cost-sharing, multiple employer defined benefit pension plan established and administered by the Hull Retirement Board under the provisions of Chapter 32 of the Massachusetts General Laws (“MGL”) to provide pension benefits for participants. The System is a component unit of the Town of Hull, Massachusetts (the “Town”). The Town and the Hull Housing Authority (the “Authority”) contribute to the System.

Employees of the Town (with the exception of teachers and certain administrative personnel employed by the School Department who participate in a separate plan) and the Authority are covered by the System. Participation in the System is mandatory immediately upon the commencement of employment for all permanent, full-time employees.

At December 31, 2019, membership in the System consisted of:

Retirees and beneficiaries currently receiving benefits	147
Active plan members	165
Inactive plan members	<u>41</u>
Total	<u>353</u>

*Plan Benefits* – Massachusetts contributory retirement system benefits are uniform from one public pension system to another. For employees with service dates beginning before April 2, 2012, the System provides for retirement allowance benefits up to a maximum of 80% of a participant’s highest consecutive three-year average annual rate of regular compensation. For those employees who began their service on or after April 2, 2012, the System provides for retirement allowance benefits up to a maximum of 80% of a participant’s highest consecutive five-year average annual rate of regular compensation. Benefit payments are based upon a participant’s age, length of creditable service, level of compensation and group classification.

The retirement allowance consists of two parts – an annuity and a pension. Participants’ accumulated total deductions and a portion of the interest they generate constitute the annuity. The difference between the total retirement benefit and the annuity is the pension.

Participants who resign from service and who are not eligible to receive a retirement allowance are entitled to request a refund of their accumulated total contributions. In addition, depending upon the number of years of creditable service, such employees may be entitled to receive interest, which has accrued on those contributions. A vested employee who has not reached their eligible retirement age and elects to leave their accumulated total deductions on deposit may apply for benefits upon reaching their eligible retirement age.

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

**Retirement Requirements** – In order to receive retirement benefits, participants must meet one of the following two categories:

- 1) Normal Retirement – Generally, normal retirement occurs between ages 65 and 67. However, most participants with a hire date before April 2, 2012, may retire after twenty years of creditable service or at any time after attaining age 55. For most participants hired on or after April 2, 2012, they must attain the age of 60 before they can retire. Participants with hire dates subsequent to January 1, 1978 must have a minimum of ten years' creditable service in order to retire at age 55 or 60, as applicable. Participants become vested after ten years of creditable service. Benefits commencing before age 65 are generally provided at a reduced rate. However, members working in certain occupations may retire with full benefits earlier than age 65.
- 2) Disability Retirements – The System provides for both an ordinary and accidental disability retirement. An ordinary disability retirement is where a participant is permanently incapacitated from a cause unrelated to employment. An accidental disability retirement is where the disability is the result of an injury or illness received or aggravated in the performance of their duty.

The amount of benefits to be received in such cases is dependent upon several factors, including the age at which the disability retirement occurs, the years of creditable service, average compensation and veteran status. In addition, certain provisions are in place relative to death benefits for beneficiaries of employees who die in active service.

**Public Availability of Financial Statements** – The Hull Retirement Board issues a publicly available financial report that includes financial statements and required supplementary information for the System. That report may be obtained by writing to the Hull Retirement Board, 253 Atlantic Avenue, Hull, MA 02045.

## 2. SIGNIFICANT ACCOUNTING POLICIES

**Basis of Accounting** – The financial statements of the System have been prepared on the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due and the employer is legally required to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the pension plan.

**Use of Estimates** – The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America, or GAAP, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Cash and Cash Equivalents** – Cash and cash equivalents include cash on hand, demand deposits and short-term holdings with original maturities of three months or less from the date of acquisition.

**Investments** – The carrying amounts of the System’s investments approximates fair value. When actively quoted observable prices are not available, the System generally uses either implied pricing from similar investments or valuation models based on net present values of estimated future cash flows (adjusted as appropriate for liquidity, credit, market and/or other risk factors).

The System categorizes its fair value measurements within the fair value hierarchy established by GAAP. This hierarchy is based on valuation inputs used to measure the fair value of the asset or liability. The three levels of the hierarchy are as follows:

- *Level 1* – Inputs are quoted prices in active markets for identical investments at the measurement date.
- *Level 2* – Inputs (other than quoted prices included in Level 1) are either directly or indirectly observable for the investment through correlation with market data at the measurement date and for the duration of the instrument’s anticipated life.
- *Level 3* – Inputs reflect the System’s best estimate of what market participants would use in pricing the investment at the measurement date.

The remaining investments not categorized under the fair value hierarchy are shown at net asset value (“NAV”). These are investments in non-governmental entities for which a readily determinable fair value is not available, such as member units or an ownership interest in partners’ capital to which a proportionate share of net assets is attributed. Investments at NAV are commonly calculated by subtracting the fair value of liabilities from the fair value of assets.

All of the System’s investments are invested with the State Treasurer investment pool administered by the Commonwealth of Massachusetts’ Pension Reserve Investment Management Board, or PRIM. The specific investment held by the System is the PRIT General Allocation Fund, which consists of a diverse set of investments that includes domestic and international equities and fixed income securities, private debt, private equity, venture, timber and real estate investments. The determination of the fair value of these investments is very subjective and the period-end values are reported to the System as NAV. Investments in the PRIT General Allocation Fund are more liquid than investments in private equity and real estate holdings, but generally cannot be resold to third parties. The System may liquidate its investment in the PRIT General Allocation Fund at any time with less than thirty days’ notice. Distributions from the PRIT Absolute Fund are received regularly and deposited into an accompanying short-term cash investment account.

Because of the inherent uncertainty of valuations used in many of the System’s investments measured at NAV, estimated values may differ significantly from the values that would have been used had a readily available market for positions in privately held companies or the real estate existed at December 31, 2019. These differences could have a material adverse effect on the System’s financial statements.

3. SYSTEM ADMINISTRATION

The System is administered by a five-person Board consisting of the Town Accountant, two members who are elected by the participants in or retired from the service of the System, one member appointed by the Town Manager and one member appointed by the other members of the Board.

At the time of this report, the Board was comprised as follows:

		<u>Term Expires</u>
Ex-Officio Member:	Mr. J. Michael Buckley (Town Accountant)	No specified date
Appointed Member:	Ms. Eileen White	No specified date
Elected Member:	Mr. John King	December 30, 2020
Elected Member:	Mr. Brian Thompson	December 30, 2020
Board Appointed Member:	Mr. Gregory Galvin	January 24, 2023

The Board is required to meet at least once a month and keep a record of its proceedings. The Board annually submits a financial statement of condition for the System with the Commissioner of the Massachusetts Public Employee Retirement Administration Commission, or PERAC. All retirement allowances are approved by the Board and submitted to PERAC for verification and approval. Expenses incurred by the System must be approved by a majority of the Board.

4. DEPOSITS AND INVESTMENTS

MGL and PERAC regulations require the System to invest funds only in preapproved investment instruments, which include, but are not necessarily limited to, bank deposits, money markets, certificates of deposit, U.S. obligations, repurchase agreements, certain corporate bonds and equities and investment.

**Custodial Credit Risk: Deposits** – Deposits are subject to the risk of bank failure. The System may be unable to recover the full amount of its deposits in any one bank institution in the event of a bank failure. The System’s policy for custodial credit risk of deposits is to rely on federal depository insurance coverage for the first \$250,000 of deposits held at each financial institution. At December 31, 2019, all System bank deposits were fully insured.

**Investment Policy** – The Board is responsible for the establishing and amending investment policy decisions. The Board adopted the investment policy used by PRIM as all its investments are invested with PRIM.

According to its investment policy, PRIM’s overall objective is to achieve the highest level of investment performance that is compatible with its risk tolerance and prudent investment practices. PRIM maintains a long-term perspective in formulating and implementing its investment policies and evaluating its investment performance. PRIM seeks to generate long-term investment performance that meets or exceeds actuarially-targeted rates of return (currently at 7.4%). PRIM establishes investment benchmarks by asset class to compare its actual performance against. Finally, PRIM compares its investment performance against the investment performance of other large public and private pension plans with the goal to be in the top 50% of this universe.

At December 31, 2019, all of the System’s investments are held in the custody of PRIM within their PRIT General Allocation Fund. The PRIT General Allocation Fund is comprised of a diverse set of investments accounts. The PRIT General Allocation Fund’s target weights and the long-term expected rates of return for each of these asset classes were as follows:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Equities	34% to 44%	6.9% to 9.2%
Core fixed income	12% to 18%	2.5% to 3.4%
Value-added fixed income	5% to 11%	6.8%
Private equity	10% to 16%	10.9%
Real estate	7% to 13%	6.1%
Timberland	1% to 7%	6.7%
Portfolio completion	8% to 14%	5.8%

Actual asset allocations at December 31, 2019 were within the acceptable deviations from the target allocations illustrated above, as set forth under PRIM’s investment policy.

**Rate of Return** – The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. The 2019 money-weighted rate of return was approximately 16.1%.

**Custodial Credit Risk: Investments** – Custodial credit risk for investments is the risk that, in the event of a failure of the counterparty, the System will not be able to recover the value of its investments or collateral securities that are in the possession of the outside party. The System’s policy for custodial credit risk of investments intends that all investments are either insured and/or registered in the name of the System. At December 31, 2019, the System was not exposed to custodial credit risk on its investments.

**Securities Credit Risk: Investments** – In the case of investments, there is the risk that in the event of an invested party will be unable to fulfill its obligations, such as to provide required payments to investors, to meet current or future performance expectations, to abide by industry regulations and proper operational practices, ceasing to exist, or filing for bankruptcy. In those instances, the System may not be able to recover the full amount of its principal investment and/or investment earnings. As previously noted, PERAC and Massachusetts statutory regulations have been enacted to reduce this risk. In evaluating its credit risk, the System relies on credit ratings assigned by Moody’s Investor Services, Inc. and Standard and Poor’s Financial Services, LLC. The System does voluntarily self-impose certain investment restrictions; however, those can be changed at the Board’s discretion. The System maintains a significant portion (approximately 99%) of its monetary assets as investment holdings.

The System’s pooled investment with PRIT was not subject to credit quality ratings from leading credit rating agencies. At December 31, 2019, uninsured short-term investment funds with fair values of \$125,435 were reported as cash equivalents. These funds represent temporary holdings of excess cash resources. The System intends to reinvest these amounts in less than one year. Accordingly, the fair values of these amounts have been classified as cash equivalents in these financial statements.

**Concentration of Credit Risk: Investments** – All of the System’s investments are with the PRIM General Allocation Account at December 31, 2019.

5. FUNDING

**Employer Contributions** – Under MGL, participating employers are assessed their share of the total retirement cost based on an independent actuarial study. Employer contributions totaled \$4,063,696 in 2019.

**Employee Contributions** – Employee contribution rates vary based on when an employee commenced their creditable service. Active members contribute 5%, 7%, 8% or 9% of their gross regular compensation depending on when their creditable service commenced. Employees hired on or before January 1, 1979 contribute an additional 2% of their regular gross compensation over \$30,000.

**Cost of Living Adjustments** – Cost-of-living adjustments granted between 1981 and 1997 and any increase in other pension benefits imposed by the Commonwealth of Massachusetts during those years are the financial responsibility of the Commonwealth. The Commonwealth is expected to continue funding the cost-of-living amounts granted over this period for the duration of their selected retirement option. Cost-of-living adjustments granted after 1997 must be approved and funded by the System. Cost-of-living adjustments cannot exceed the greater of CPI or 3%. The System approved a 3% cost-of-living adjustment on the first \$13,000 of pension benefits.

6. NET PENSION LIABILITY

The System is statutorily required to adopt the funding schedule that will fully amortize the unfunded actuarial accrued liability by June 30, 2040. As of the latest actuarial valuation, the System has selected a funding schedule that amortizes the unfunded actuarial accrued liability to \$0 by June 30, 2031.

The components of the System’s net pension liability at December 31, 2019 (dollar amounts in thousands) were as follows:

Total pension liability	\$	81,536
Plan fiduciary net position		<u>55,324</u>
Net pension liability	\$	<u>26,212</u>
Plan fiduciary net position as a percentage of total pension liability		67.9%

The total pension liability was determined by an actuarial valuation as of January 1, 2018 that was rolled forward to December 31, 2019. The significant actuarial assumptions used in the actuarial valuation report were as follows:

Actuarial cost method:	Entry age normal
Amortization method:	Top appropriation increases by 4.0% per year until 2030 with a final amortization in 2031
Remaining amortization period:	13 years from July 1, 2018
Asset valuation method:	Market value of assets
Investment rate of return:	7.40% per year, net of expenses
Projected salary increases:	Select and ultimate by job group; ultimate rates of 4.25% for group 1 and 4.75% for group 4

Cost of living adjustments:	3% on the first \$13,000 of benefits
Pre-retirement mortality:	The RP-2000 Employees table projected generationally with Scale BB and a base year of 2009 (gender distinct)
Post-retirement mortality:	The RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2009 (gender distinct)
Disabled life mortality:	The RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2012 (gender distinct)

**Discount Rate** – The discount rate used to measure the total pension liability at December 31, 2019 was 7.4%. The projection of cash flows used to determine the discount rate assumed plan member contributions were made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially-determined contribution rates and the member rate. Based on those assumptions, the System’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.

**Expected Real Rate of Return** – The long-term expected rate of return on System investments was determined using a building-block method in which best-estimate ranges of expected future 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 System’s target allocation as of December 31, 2019 are summarized in the investment policy table in Note 4.

**Sensitivity Analysis** – The following illustrates the net position liability at December 31, 2019 calculated using the current discount rate of 7.25%, as well as the projection of what the net position liability would be if it were calculated using a discount rate that is 1.0% lower or higher than the current rate (dollar amounts in thousands):

Current Discount Rate	Net Pension Liability At:		
	1% Decrease	Current Rate	1% Increase
7.4%	\$ 35,223	\$ 26,212	\$ 18,579

## 7. LEGALLY REQUIRED RESERVE ACCOUNTS

Net position restricted for pensions at December 31, 2019 were comprised of the following legally required reserves:

Description	Amount	Purpose
Annuity Savings Fund	\$ 10,956,642	Active members’ contribution balance
Annuity Reserve Fund	4,092,721	Retired members’ contribution balance
Pension Fund	2,857,189	Amounts appropriated to fund future retirement
Pension Reserve Fund	<u>37,417,263</u>	Remaining net assets
	<u>\$ 55,323,815</u>	

## 8. COMMITMENTS AND CONTINGENCIES

The System is subject to a variety of claims that arise from time to time in the ordinary course of business. Although management of the System currently believes that resolving claims against the System, individually or in aggregate, will not have a material adverse impact on the System's financial position or its results of operations, these matters are subject to inherent uncertainties and management's views of these matters may change in the future.

## 9. SUBSEQUENT EVENT

In March 2020, the World Health Organization declared the breakout of the novel coronavirus COVID-19 as a pandemic. Subsequent to this declaration, worldwide bond and equity markets experienced significant volatility. Substantial liquidation of investments caused market prices for virtually all investment classes to decline significantly. While the System expects this matter may negatively impact its Fiduciary Net Position, the ultimate financial impact cannot be reasonably estimated at this time.

\* \* \* \* \*

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

REQUIRED SUPPLEMENTARY INFORMATION - UNAUDITED

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS  
(*dollar amounts are in thousands*)

	2019	2018	2017	2016	2015	2014
Total pension liability:						
Service cost	\$ 1,764	\$ 1,688	\$ 1,885	\$ 735	\$ 735	\$ 735
Interest	5,778	5,571	5,209	5,032	5,290	5,160
Differences between expected and actual experience	-	-	1,066	-	(347)	(2,513)
Changes in assumptions	-	-	4,675	-	-	-
Benefit payments, including refunds	(4,645)	(4,438)	(4,698)	(4,573)	(4,478)	(2,624)
Net change in total pension liability	2,897	2,821	8,137	1,194	1,200	758
Total pension liability - beginning of year	78,639	75,818	67,681	66,487	65,287	64,529
Total pension liability - end of year (a)	<u>\$ 81,536</u>	<u>\$ 78,639</u>	<u>\$ 75,818</u>	<u>\$ 67,681</u>	<u>\$ 66,487</u>	<u>\$ 65,287</u>
Plan fiduciary net position:						
Contributions - employer	\$ 4,064	\$ 3,907	\$ 3,763	\$ 3,602	\$ 3,469	\$ 3,403
Contributions - employee	1,087	1,032	1,061	986	957	975
Contributions - nonemployer contributing entities	207	234	311	195	342	157
Net investment income	7,612	(1,182)	6,995	2,794	326	2,591
Benefit payments, including refunds	(5,027)	(4,767)	(4,881)	(4,573)	(4,547)	(3,734)
Administrative expenses	(159)	(154)	(157)	(159)	(124)	(157)
Other	5	-	-	1	23	25
Net change in plan fiduciary net position	7,789	(930)	7,092	2,846	446	3,260
Plan fiduciary net position - beginning of year	47,535	48,465	41,373	38,527	38,081	34,821
Plan fiduciary net position - end of year (b)	<u>\$ 55,324</u>	<u>\$ 47,535</u>	<u>\$ 48,465</u>	<u>\$ 41,373</u>	<u>\$ 38,527</u>	<u>\$ 38,081</u>
Net pension liability - end of year (a) - (b)	<u>\$ 26,212</u>	<u>\$ 31,104</u>	<u>\$ 27,353</u>	<u>\$ 26,308</u>	<u>\$ 27,960</u>	<u>\$ 27,206</u>
Plan fiduciary net position as a percentage of the total pension liability	67.85%	60.45%	63.92%	61.13%	57.95%	58.33%
Covered payroll	\$ 10,062	\$ 10,062	\$ 10,062	\$ 10,105	\$ 9,670	\$ 9,338
Net pension liability as a percentage of covered payroll	260.50%	309.12%	271.84%	260.35%	289.14%	291.35%

These schedules are presented to illustrate the requirement to show information for ten years. However, until a full ten-year trend is completed, information is presented for those years in which information is available.

See accompanying independent auditors' report.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

REQUIRED SUPPLEMENTARY INFORMATION - UNAUDITED

---

**SCHEDULE OF CONTRIBUTIONS**  
*(dollar amounts are in thousands)*

	2019	2018	2017	2016	2015	2014
Actuarially-determined contribution	\$ 4,064	\$ 3,907	\$ 3,763	\$ 3,602	\$ 3,469	\$ 3,403
Contributions in relation to the actuarially-determined contribution	<u>4,064</u>	<u>3,907</u>	<u>3,763</u>	<u>3,602</u>	<u>3,469</u>	<u>3,403</u>
Contribution deficiency (excess)	<u>\$ -</u>					
Covered payroll	\$ 10,062	\$ 10,062	\$ 10,062	\$ 10,105	\$ 9,670	\$ 9,338
Contribution as a percentage of covered payroll	40.39%	38.83%	37.40%	35.65%	35.87%	36.44%

**SCHEDULE OF INVESTMENT RETURNS**

	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	16.13%	-2.46%	17.12%	7.34%	0.86%	7.46%

These schedules are presented to illustrate the requirement to show information for ten years. However, until a full ten-year trend is completed, information is presented for those years in which information is available.

See accompanying independent auditors' report.

**HULL CONTRIBUTORY RETIREMENT SYSTEM  
(A Component Unit of the Town of Hull, Massachusetts)**

**NOTES TO REQUIRED SUPPLEMENTARY INFORMATION  
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2019**

---

**A. CHANGES OF BENEFIT TERMS**

The System may be amended or terminated in whole or in part at any time by the Massachusetts Legislature, provided that no such modification, amendment or termination shall be made that would deprive a current member of superannuation pension rights or benefits provided under applicable laws of Massachusetts, if such member has paid the stipulated contributions specified in sections or provisions of such laws. There were no significant changes to the System's benefit terms in 2019.

**B. SIGNIFICANT ACTUARIAL ASSUMPTIONS AND METHODS**

The significant actuarial assumptions used in the January 1, 2018 report were as follows:

Actuarial cost method:	Entry age normal
Amortization method:	Top appropriation increases by 4.0% per year until 2030 with a final amortization in 2031
Remaining amortization period:	13 years from July 1, 2018
Asset valuation method:	Market value of assets
Investment rate of return:	7.40% per year, net of expenses
Projected salary increases:	Select and ultimate by job group; ultimate rates of 4.25% for group 1 and 4.75% for group 4
Cost of living adjustments:	3% on the first \$13,000 of benefits
Pre-retirement mortality:	The RP-2000 Employees table projected generationally with Scale BB and a base year of 2009 (gender distinct)
Post-retirement mortality:	The RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2009 (gender distinct)
Disabled life mortality:	The RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2012 (gender distinct)
Actuarial cost method:	Entry age normal



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

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited, 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, the financial statements of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2019, and the related notes to the financial statements which collectively comprise the System's basic financial statements and have issued our report thereon dated July 6, 2020.

**Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

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

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

### **Compliance and Other Matters**

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

### **Purpose of this Report**

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



Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
July 6, 2020



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**INDEPENDENT AUDITORS' REPORT ON AUDIT OF SPECIFIC ELEMENTS, ACCOUNTS  
AND ITEMS OF FINANCIAL STATEMENTS**

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited the accompanying schedule of employer allocations of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2019. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources and total pension expense (specified column totals) included in the accompanying schedule of pension amounts by employer of the System as of and for the year ended December 31, 2019, and the related notes thereto.

**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 financial statements that are free from material misstatement, whether due to fraud or error.

**Auditors' Responsibility**

Our responsibility is to express opinions on the schedule of employer allocations and the specified column 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 and the standards applicable to financial audits contained in *Government Audit 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 schedule of employer allocations and specified column 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 column totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and the specified column 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 column 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, and total pension expense for the total of all participating entities of the System as of and for the year ended December 31, 2019, in accordance with accounting principles generally accepted in the United States of America.

**Other Matters**

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the System as of and for the year ended December 31, 2019, and our report thereon, dated July 6, 2020, expressed an unmodified opinion on those financial statements.



Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
July 6, 2020

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**SCHEDULE OF EMPLOYER ALLOCATIONS**  
**YEAR ENDED DECEMBER 31, 2019**

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Employer	Actual Employer Contributions	Employer Allocation Percentage
Town of Hull	\$ 3,771,942	92.8%
Hull Light and Power	268,997	6.6%
Hull Housing Authority	22,757	0.6%
Total	\$ 4,063,696	100.0%

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

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**SCHEDULE OF PENSION AMOUNTS BY EMPLOYER**  
**YEAR ENDED DECEMBER 31, 2019**

	Town of Hull	Hull Light and Power	Hull Housing Authority	Total
Net pension liability	\$ 24,324,736	\$ 1,729,992	\$ 157,272	\$ 26,212,000
Deferred outflows of resources:				
Changes of assumptions	\$ 1,380,864	\$ 98,208	\$ 8,928	\$ 1,488,000
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	327,000	-	327,000
Total deferred outflows of resources	\$ 1,380,864	\$ 425,208	\$ 8,928	\$ 1,815,000
Deferred inflows of resources:				
Differences between actual and expected experience	\$ 696,928	\$ 49,566	\$ 4,506	\$ 751,000
Net difference between projected and actual investment earnings on pension plan investments	1,805,888	128,436	11,676	1,946,000
Changes in proportion and differences between employer contributions and proportionate share of contributions	327,000	-	-	327,000
Total deferred inflows of resources	\$ 2,829,816	\$ 178,002	\$ 16,182	\$ 3,024,000
Pension expense (income):				
Proportionate share of plan pension expense	\$ 3,777,606	\$ 268,666	\$ 24,424	\$ 4,070,696
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(170,550)	144,175	26,375	-
Total employer pension expense (income)	\$ 3,607,056	\$ 412,841	\$ 50,799	\$ 4,070,696

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

**HULL CONTRIBUTORY RETIREMENT SYSTEM  
(A Component Unit of the Town of Hull, Massachusetts)**

**NOTES TO PENSION PLAN SCHEDULES  
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2019**

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**A. INTRODUCTION**

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, establishes financial reporting requirements for governments that provide employees with pension benefits. GASB 68 requires employers to recognize a net pension liability or net pension asset as employees earn pension benefits. Employers participating in the Hull Contributory Retirement System (the "Retirement System") will recognize their proportionate share of the collective pension amounts for all benefits provided by the Retirement System.

**B. METHOD OF PROPORTIONATE SHARE ALLOCATION**

The basis for the proportionate share allocation by employer as found in the Schedule of Employer Allocations and Schedule of Pension Amounts by Employer is consistent with the manner in which employer contributions to the Retirement System are determined. The net pension liability, deferred outflows of resources, deferred inflows of resources and pension expense is based upon actual historical employer contributions to the Retirement System from the census data submitted to the Retirement System for pay periods ending December 31, 2019.

**C. EXPECTED FUTURE AMORTIZATION OF DEFERRED BALANCES**

The following table summarizes the expected amortization of the deferred outflows of resources and inflows of resources into pension expense (benefit):

Measurement Period Ended December 31:	Town of Hull	Hull Light and Power	Hull Housing Authority	Total
2020	\$ 263,368	\$ 94,496	\$ (1,864)	\$ 356,000
2021	(457,344)	66,732	(7,388)	(398,000)
2022	(258,264)	87,242	8,022	(163,000)
2023	(980,008)	(76)	(5,916)	(986,000)
2024	(16,704)	(1,188)	(108)	(18,000)
	<u>\$ (1,448,952)</u>	<u>\$ 247,206</u>	<u>\$ (7,254)</u>	<u>\$ (1,209,000)</u>

**ROSELLI, CLARK & ASSOCIATES**  
Certified Public Accountants



**HULL CONTRIBUTORY  
RETIREMENT SYSTEM**

Report on Examination of Basic Financial  
Statements and Additional Information

Year Ended December 31, 2018

Report on Internal Control and Compliance  
Year Ended December 31, 2018

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
**(A Component Unit of the Town of Hull, Massachusetts)**

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## INDEPENDENT AUDITORS' REPORT

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited the accompanying financial statements of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2018, and the related notes to the financial statements, which collectively comprise the System's basic 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.

### Auditors' Responsibility

Our responsibility is to express opinions 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 auditors' 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 opinions.

## Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the System as of December 31, 2018, and the respective changes in 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 the management's discussion and analysis and the schedules listed under the required supplementary information section in the accompanying table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic 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 basic financial statements, and other knowledge we obtained during our audit of the basic 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 a report dated September 4, 2019 on our consideration of the System's internal control over financial reporting and 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 System's internal control over financial reporting and compliance.



Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
September 4, 2019

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Our discussion and analysis of the Hull Contributory Retirement System's (the "System") financial performance provides an overview of the System's financial activities for the calendar year ended December 31, 2018. You should read it in conjunction with the basic financial statements, footnotes and required supplementary information that follows this discussion.

### Financial Highlights

The System's funding objective is to meet long-term benefit obligations through contributions and investment income. The System's actuary estimates that the System is approximately 60% funded at December 31, 2018.

The System's money-weighted return on investments, net of investment management fees, was approximately -2.5% in 2018. The negative return on investments in 2018 was due primarily to a significant decline in the U.S. equity markets in the fourth calendar quarter of 2018. Prior to the fourth calendar quarter, the U.S. equity markets were on track to meet or exceed the System's targeted annual investment return (currently 7.4% per annum). It's important to note that the U.S. equity markets rebounded significantly in the first calendar quarter of 2019, which was erased nearly all of the fourth calendar quarter of 2018's losses.

This negative return on investments was the primary contributor to the nearly \$931,000 decrease in the System's fiduciary net position in 2018.

### Overview of the Financial Statements

This discussion and analysis is intended as an introduction to the System's basic financial statements. The basic financial statements are comprised of a Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position, Notes to Financial Statements and Required Supplementary Information.

**Statement of Fiduciary Net Position** – presents information on the System's assets, deferred outflows of resources, liabilities, deferred inflows of resources and fiduciary net position restricted for pensions. This statement reflects the System's investments at fair value, as well as cash, receivables and other assets and liabilities. Over time, the increase or decrease in fiduciary net position serves as a useful indicator of the System's financial health and condition.

**Statement of Changes in Fiduciary Net Position** – presents information showing how the System's fiduciary net position changed during the year. It reflects contributions by members and participating employers along with deductions for retirement benefits, refunds, withdrawals and administrative expenses. Investment income, including realized and unrealized gains on pooled investments, during the year is also presented.

**Notes to the Financial Statements** – provide additional information that is essential for the reader to gain a full understanding of the data provided in the financial statements.

**Required Supplementary Information** – includes this management's discussion and analysis and various unaudited schedules.

## Financial Analysis

### Fiduciary Net Position

The System's total assets as of December 31, 2018, approximated \$47.5 million and principally consisted of investments recorded at fair value. Total assets decreased nearly \$921,000 year-over-year. This decrease was due almost entirely to the negative return reported in 2018 by the System's investments.

	December 31,	
	2018	2017
Assets:		
Cash and cash equivalents	\$ 207,389	\$ 260,709
Investments in PRIT	47,256,479	48,143,810
Receivables and other assets	80,572	60,833
Total Assets	<u>47,544,440</u>	<u>48,465,352</u>
Liabilities	<u>9,850</u>	<u>177</u>
Fiduciary Net Position	<u>\$ 47,534,590</u>	<u>\$ 48,465,175</u>

### Change in Fiduciary Net Position

The negative annual investment return in 2018 resulted in negative net investment income of nearly \$1.2 million. The 2018 net investment return was -2.5% versus a 17.1% net return in 2017. The negative investment return was the primary cause of the nearly \$931,000 decrease in fiduciary net position in 2018.

Deductions for benefits decreased in 2018 primarily as the result of a one-time retroactive benefit payment of nearly \$175,000 included in the 2017 expenditures.

	Year Ended December 31,	
	2018	2017
Additions:		
Contributions	\$ 5,172,735	\$ 5,134,797
Investment income, net	<u>(1,181,746)</u>	<u>6,994,589</u>
Total Additions	<u>3,990,989</u>	<u>12,129,386</u>
Deductions:		
Benefits and refunds to Plan members	4,767,476	4,880,715
Administrative and other expenses	<u>154,098</u>	<u>156,535</u>
Total Deductions	<u>4,921,574</u>	<u>5,037,250</u>
Change in Fiduciary Net Position	<u>\$ (930,585)</u>	<u>\$ 7,092,136</u>

**Additions** – The amount needed to finance pension benefits is accumulated through the collection of employers and employees’ contributions, reimbursements from the Commonwealth of Massachusetts for pre-1998 Cost of Living Adjustments and through earnings on investments. Employer and employee contributions increased modestly year-over-year. Employer contributions in 2018 of approximately \$3.9 million represented nearly 76% of total contributions. Employer contributions are determined by actuarial valuation.

As previously noted, the money-weighted rate of return, net of investment expense, was approximately -2.5% in 2018 versus 17.1% in 2017. This caused to the significant decrease in net investment income year-over-year.

**Deductions** – The primary deductions for the System include the payment of pension benefits to participants and beneficiaries, refunds of contributions and the costs of administering the system. Benefit and refund payments to Plan members in 2018 were approximately \$4.8 million, which was a nearly \$113,000 decrease from the prior year. This decrease was due primarily to the absence of a one-time expenditure of approximately \$175,000 in 2017.

Administrative and other expenses, which primarily consist of System operations payroll, board stipends, legal, and service provider costs were consistent year-over-year.

#### **Overall Financial Position**

The System’s actuarially estimated funding ratio decreased from nearly 64% at December 31, 2017 to 60% at December 31, 2018 as a result of the System’s negative net investment return in 2018.

U.S. equity markets rebounded significantly in the first calendar quarter of 2019, erasing virtually all the 2018 investment losses incurred by the System, which if that trend continues for the duration of 2019, will have positive impacts to the System’s funding ratio at December 31, 2019.

The discount rate used by the System in its latest actuarial valuation study is 7.4%, which over the long-term the System hopes to achieve. The actual returns posted by the System (net of investment management fees) have failed to achieve this return in three of the past five years. The System believes that its investments can, over the long-term, achieve this target. However, should the System be unable to meet this long-term investment return target, the System may need to lower the discount rate it uses in future actuarial studies. By lowering the discount rate, it will be unlikely the System can achieve a fully funded status by 2031 without significant increases in employer contributions.

#### **Contacting the System’s Financial Management Personnel**

Our discussion and analysis is designed to provide the Hull Retirement Board, our membership, taxpayers, investors and creditors with a general overview of the System’s financial results and to demonstrate the System’s accountability for the funding it receives. If you have any questions about this report or need additional financial information, contact the Retirement Board at 253 Atlantic Avenue, Hull, Massachusetts 02045.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**STATEMENT OF FIDUCIARY NET POSITION**  
**DECEMBER 31, 2018**

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Assets:	
Cash and cash equivalents	\$ 207,389
Investments in PRIT	47,256,479
Receivables:	
Contributions	38,287
Due from the Commonwealth	23,808
Other	<u>18,477</u>
Total Assets	<u>47,544,440</u>
Liabilities:	
Accounts payable and accrued expenses	<u>9,850</u>
Total Liabilities	<u>9,850</u>
Net Position Restricted for Pensions	<u>\$ 47,534,590</u>

See accompanying notes to basic financial statements.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**STATEMENT OF CHANGES IN FIDUCIARY NET POSITION**  
**YEAR ENDED DECEMBER 31, 2018**

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Additions:	
Employer contributions	\$ 3,907,401
Employee contributions	1,031,918
Other contributions	<u>233,416</u>
Total contributions	<u>5,172,735</u>
Investment income:	
Interest and dividends	1,327,685
Net depreciation in fair value of investments	(2,254,580)
Less investment management fees	<u>(254,851)</u>
Total net investment income	<u>(1,181,746)</u>
Total Additions	<u>3,990,989</u>
Deductions:	
Benefits and refunds to Plan members:	
Benefits to retirees and survivors	4,631,770
Member refunds	1,510
Transfers and reimbursements to other systems	134,196
Administrative expenses:	
Operations payroll and related personnel costs	99,680
Other	<u>54,418</u>
Total Deductions	<u>4,921,574</u>
Net Change in Net Position	(930,585)
Net Position Restricted for Pensions:	
Beginning of the year	<u>48,465,175</u>
End of the year	<u>\$ 47,534,590</u>

See accompanying notes to basic financial statements.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**NOTES TO THE FINANCIAL STATEMENTS**  
**AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2018**

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**1. DESCRIPTION OF THE PLAN**

**General** – The Hull Contributory Retirement System (the “System”) is a multiple employer defined benefit pension plan established and administered by the Hull Retirement Board under the provisions of Chapter 32 of the Massachusetts General Laws to provide pension benefits for participants. The System is a component unit of the Town of Hull, Massachusetts (the “Town”). The Town and the Hull Housing Authority (the “Authority”) contribute to the System.

Employees of the Town (with the exception of teachers and certain administrative personnel employed by the School Department who participate in a separate plan) and the Authority are covered by the System. Participation in the System is mandatory immediately upon the commencement of employment for all permanent, full-time employees.

At December 31, 2018, membership in the System consisted of:

Retirees and beneficiaries currently receiving benefits	145
Active plan members	169
Inactive plan members	<u>42</u>
Total	<u>356</u>

**Plan Benefits** – Massachusetts contributory retirement system benefits are uniform from one retirement system to another. For employees with service dates beginning before April 2, 2012, the System provides for retirement allowance benefits up to a maximum of 80% of a participant’s highest consecutive three-year average annual rate of regular compensation. For those employees who began their service after April 2, 2012, the System provides for retirement allowance benefits up to a maximum of 80% of a participant’s highest consecutive five-year average annual rate of regular compensation. Benefit payments are based upon a participant’s age, length of creditable service, level of compensation and group classification.

The retirement allowance consists of two parts – an annuity and a pension. Participants’ accumulated total deductions and a portion of the interest they generate constitute the annuity. The difference between the total retirement benefit and annuity is the pension.

Participants who resign from service and who are not eligible to receive a retirement allowance are entitled to request a refund of their accumulated total contributions. In addition, depending upon the number of years of creditable service, such employees may be entitled to receive interest, which has accrued on those contributions. A vested employee who has not reached their eligible retirement age and elects to leave their accumulation on deposit may apply for benefits upon reaching their eligible retirement age.

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

**Retirement Requirements** – In order to receive retirement benefits, participants must meet one of the following two categories:

**Normal Retirement** – Generally, normal retirement occurs between ages 65 and 67. However, most participants with a hire date before April 2, 2012, may retire after twenty years of service or at any time after attaining age 55. For most participants hired on or after April 2, 2012, they must attain the age of 60 before they can retire. Participants with hire dates subsequent to January 1, 1978 must have a minimum of ten years' creditable service in order to retire at age 55 or 60, as applicable. Participants become vested after ten years of service. Benefits commencing before age 65 are generally provided at a reduced rate. However, members working in certain occupations may retire with full benefits earlier than age 65.

Participants who resign from service and who are not eligible to receive a retirement allowance or are under the age of 55 may request a refund of their accumulated total contributions. In addition, depending on the number of years of creditable service, these employees may be entitled to interest that has accrued on their contributions. A vested employee under the age of 55 who elects to leave their accumulated contributions on deposit may apply for pension benefits upon reaching his eligible retirement age.

**Disability Retirements** – The System provides for both an ordinary disability retirement, where a participant is permanently incapacitated from a cause unrelated to employment, and an accidental disability retirement, where the disability is the result of an injury or illness received or aggravated in the performance of one's duty. The amount of benefits to be received in such cases is dependent upon several factors, including the age at which the disability retirement occurs, the years of service, average compensation and veteran status. In addition, certain provisions are in place relative to death benefits for beneficiaries of employees who die in active service.

**Public Availability of Financial Statements** – The Hull Retirement Board issues a publicly available financial report that includes financial statements and required supplementary information for the System. That report may be obtained by writing to the Hull Retirement Board, 253 Atlantic Avenue, Hull, MA 02045.

## 2. SIGNIFICANT ACCOUNTING POLICIES

**Basis of Accounting** – The financial statements of the System have been prepared on the accrual basis of accounting. The accounting records of the System are maintained on a calendar-year basis in accordance with the standards and procedures established by Public Employee Retirement Administration Commission ("PERAC") and Massachusetts law.

**Estimates** – The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America, or GAAP, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Cash and Cash Equivalents** – Cash and cash equivalents include cash on hand, demand deposits and short-term holdings with original maturities of three months or less from the date of acquisition.

**Investments** – The carrying amounts of the System’s investments approximates fair value. When actively quoted observable prices are not available, the System generally uses either implied pricing from similar investments or valuation models based on net present values of estimated future cash flows (adjusted as appropriate for liquidity, credit, market and/or other risk factors).

The System categorizes its fair value measurements within the fair value hierarchy established by GAAP. This hierarchy is based on valuation inputs used to measure the fair value of the asset or liability. The three levels of the hierarchy are as follows:

- *Level 1* – Inputs are quoted prices in active markets for identical investments at the measurement date.
- *Level 2* – Inputs (other than quoted prices included in Level 1) are either directly or indirectly observable for the investment through correlation with market data at the measurement date and for the duration of the instrument’s anticipated life.
- *Level 3* – Inputs reflect the System’s best estimate of what market participants would use in pricing the investment at the measurement date.

The remaining investments not categorized under the fair value hierarchy are shown at net asset value (“NAV”). These are investments in non-governmental entities for which a readily determinable fair value is not available, such as member units or an ownership interest in partners’ capital to which a proportionate share of net assets is attributed. Investments at NAV are commonly calculated by subtracting the fair value of liabilities from the fair value of assets.

All of the System’s investments are invested with the State Treasurer investment pool administered by the Commonwealth of Massachusetts’ Pension Reserve Investment Management Board, or PRIM. The specific investment held by the System is the PRIT General Allocation Fund, which consists of a diverse set of investments that includes domestic and international equities and fixed income securities, private debt, private equity, venture, timber and real estate investments. The determination of the fair value of these investments is very subjective and the period-end values are reported to the System as NAV. Investments in the PRIT General Allocation Fund are more liquid than investments in private equity and real estate holdings, but generally cannot be resold to third parties. The System may liquidate its investment in the PRIT General Allocation Fund at any time with less than thirty days’ notice. Distributions from the PRIT Absolute Fund are received regularly and deposited into an accompanying short-term cash investment account.

Because of the inherent uncertainty of valuations used in many of the System’s investments measured at NAV, estimated values may differ significantly from the values that would have been used had a readily available market for positions in privately held companies or the real estate existed at December 31, 2018. These differences could have a material adverse effect on the System’s financial statements.

**Fair Value of Financial Instruments** – The carrying amounts of cash and cash equivalents, accounts receivable and other current assets and accounts payable approximate their fair value due to the relatively short-term maturities.

**Revenue Recognition** – Contributions are recognized as additions in the period in which they become due pursuant to formal commitments, and statutory or contractual requirements. Contributions appropriated by the Town and the Authority are on a fiscal-year basis. Investment purchases and sales are recorded on their trade dates. Interest and dividends are recorded when earned. Investment income is allocated to the various funds on the basis of a rate determined annually by PERAC.

**3. SYSTEM ADMINISTRATION**

The System is administered by a five-person Board consisting of the Town Accountant, two members who are elected by the participants in or retired from the service of the System, one member appointed by the Town Manager and one member appointed by the other members of the Board.

At the time of this report, the Board was comprised as follows:

		<u>Term Expires</u>
Ex-Officio Member:	Mr. J. Michael Buckley (Town Accountant)	No specified date
Appointed Member:	Mr. John Reilly, Jr.	No specified date
Elected Member:	Mr. John King	December 30, 2020
Elected Member:	Mr. Brian Thompson	December 30, 2020
Board Appointed Member:	Mr. Gregory Galvin	January 24, 2020

The Board is required to meet at least once a month and keep a record of its proceedings. The Board annually submits a financial statement of condition for the System with the Commissioner of PERAC. All retirement allowances are approved by the Board and submitted to a PERAC actuary for verification prior to payments being made. Expenses incurred by the System must be approved by a majority of the Board.

**4. DEPOSITS AND INVESTMENTS**

Massachusetts General Laws Chapter 32 and PERAC regulations require the System to invest funds only in preapproved investment instruments, which include but are not necessarily limited to bank deposits, money markets, certificates of deposit, U.S. obligations, repurchase agreements, certain corporate bonds and equities and investment pools.

**Investment Policy** – The Board is responsible for the establishing and amending investment policy decisions. The Board adopted the investment policy used by PRIM as all of its investments are invested with PRIM.

According to its investment policy, PRIM’s overall objective is to achieve the highest level of investment performance that is compatible with its risk tolerance and prudent investment practices. PRIM maintains a long-term perspective in formulating and implementing its investment policies and evaluating its investment performance. PRIM seeks to generate long-term investment performance that meets or exceeds actuarially-targeted rates of return (currently at 7.4%). PRIM establishes investment benchmarks by asset class to compare its actual performance against. Finally, PRIM compares its investment performance against the investment performance of other large public and private pension plans with the goal to be in the top 50% of this universe.

At December 31, 2018, all of the System’s investments are held in the custody of PRIM within their PRIT General Allocation Fund. The PRIT General Allocation Fund is comprised of a diverse set of investments accounts. The PRIT General Allocation Fund’s target weights and the long-term expected rates of return for each of these asset classes were as follows:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Domestic equities	17.5%	7.62%
International equities	15.5%	7.80%
Emerging markets equities	6.0%	9.31%
Core fixed income	12.0%	3.50% to 4.37%
Value-added fixed income	10.0%	7.58%
Private equity	12.0%	11.15%
Real estate	10.0%	11.15%
Timberland	4.0%	7.00%
PCS/hedge funds	13.0%	6.83%

Actual asset allocations at December 31, 2018 were within the acceptable deviations from the target allocations illustrated above, as set forth under PRIM’s investment policy.

**Rate of Return** – The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. The 2018 money-weighted rate of return was approximately -2.46%.

**Custodial Credit Risk: Deposits** – Deposits are subject to the risk of bank failure. The System may be unable to recover the full amount of its deposits in any one bank institution in the event of a bank failure. The System’s policy for custodial credit risk of deposits is to rely on Federal Deposit Insurance Corporation insurance coverage for the first \$250,000 of deposits held at each financial institution and the Depositors Insurance Fund for amounts in excess of \$250,000. At December 31, 2018, all of the System’s bank deposits were fully insured by either insurance.

**Custodial Credit Risk: Investments** – Custodial credit risk for investments is the risk that, in the event of a failure of the counterparty, the System will not be able to recover the value of its investments or collateral securities that are in the possession of the outside party. The System’s policy for custodial credit risk of investments intends that all investments are either insured and/or registered in the name of the System. At December 31, 2018, the System was not exposed to custodial credit risk on its investments.

**Interest Rate Risk: Deposits** – This is the risk that fair value losses may arise due to increasing interest rates, such risk is reduced by the fact that the System maintains such funds in highly liquid bank accounts; thereby, allowing for timely re-allocation of such holdings should the need arise.

**Interest Rate Risk: Investments** – Debt securities are subject to interest rate risk. Debt securities may be adversely affected by changes in interest rates, which may negatively affect the fair value of individual debt instruments. The System does not have a formal investment policy that limits investments maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

**Foreign Currency Risk: Deposits and Investments** –The System did not hold any specific security denominated in a foreign currency at December 31, 2018.

**Securities Credit Risk: Investments** – In the case of investments, there is the risk that in the event of an invested party will be unable to fulfill its obligations, such as to provide required payments to investors, to meet current or future performance expectations, to abide by industry regulations and proper operational practices, ceasing to exist, or filing for bankruptcy. In those instances, the System may not be able to recover the full amount of its principal investment and/or investment earnings. As previously noted, PERAC and Massachusetts statutory regulations have been enacted to reduce this risk. In evaluating its credit risk, the System relies on credit ratings assigned by Moody's Investor Services, Inc. and Standard and Poor's Financial Services, LLC. The System does voluntarily self-impose certain investment restrictions; however, those can be changed at the Board's discretion. The System maintains a significant portion (approximately 99%) of its monetary assets as investment holdings.

The System's pooled investment with PRIT was not subject to credit quality ratings from leading credit rating agencies. At December 31, 2018, uninsured short-term investment funds with fair values of \$175,607 were reported as cash equivalents. These funds represent temporary holdings of excess cash resources. The System intends to reinvest these amounts in less than one year. Accordingly, the fair values of these amounts have been classified as cash equivalents in these financial statements.

**Concentration of Credit Risk: Investments** – All of the System's investments are with the PRIM General Allocation Account at December 31, 2018.

## 5. FUNDING POLICY

**Employee Contributions** – Employees whose creditable service began prior to January 1, 1975, contribute 5% of their base salary or wage; those whose service date is subsequent to January 1, 1975, and prior to January 1, 1984, contribute 7%; those whose service date is subsequent to January 1, 1984, and prior to July 1, 1996, contribute 8%, and those whose service date is subsequent to July 1, 1996, contribute 9%. In addition, employees hired on or after January 1, 1979 contribute an additional 2% on earnings in excess of \$30,000.

**Employer Contributions (Funding)** – Under the provisions of Chapter 32 of Massachusetts General Law, participating employers are assessed their share of the total retirement cost based on independent actuarial study.

Employer contributions of \$3,907,401 were made in 2018, which was the annual required contribution. Employer contributions as a percentage of covered payroll was approximately 39% in 2018.

**Cost of Living Adjustment (COLA)** – Through 1998, the Massachusetts Legislature was able to grant cost-of-living increases to benefits being paid to retirees. These increases were expressed as a percentage of the retiree's allowance subject to a maximum dollar increase. All COLA's granted from 1982 through June 30, 1998, are reimbursed to the System by the Commonwealth of Massachusetts since the Commonwealth was financially responsible for COLA adjustments during this time frame; any COLA's granted thereafter by the Board are required to be funded by the System directly. A COLA may be approved in excess of the Consumer Price Index, or CPI, but for 2018 is not to exceed 3% annually on the first \$13,000 of a retirement allowance. The System has historically approved a COLA annually, usually at the maximum 3% rate.

The Commonwealth is expected to continue funding the cost-of-living amounts granted to retirees prior to 1998 for the duration of their selected retirement option.

**6. ACTUARIAL VALUATION**

The System is statutorily required to adopt the funding schedule that will fully amortize the unfunded actuarial accrued liability by June 30, 2040. As of the latest actuarial valuation, the System has selected a funding schedule that amortizes the unfunded actuarial accrued liability to \$0 by June 30, 2033.

The components of the System’s net pension liability at December 31, 2018 (dollar amounts in thousands) were as follows:

Total pension liability	\$ 78,639
Plan fiduciary net position	<u>47,535</u>
Net pension liability	<u>\$ 31,104</u>
Plan fiduciary net position as a percentage of total pension liability	60.4%

The total pension liability was determined by an actuarial valuation as of January 1, 2018. The significant actuarial assumptions used in the January 1, 2018 report were as follows:

Actuarial cost method:	Entry age normal
Amortization method:	Top appropriation increases by 4.0% per year until 2030 with a final amortization in 2031
Remaining amortization period:	13 years from July 1, 2018
Asset valuation method:	Market value of assets
Investment rate of return:	7.40% per year, net of expenses
Projected salary increases:	Select and ultimate by job group; ultimate rates of 4.25% for group 1 and 4.75% for group 4
Cost of living adjustments:	3% on the first \$13,000 of benefits
Pre-retirement mortality:	The RP-2000 Employees table projected generationally with Scale BB and a base year of 2009 (gender distinct)
Post-retirement mortality:	The RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2009 (gender distinct)
Disabled life mortality:	The RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2012 (gender distinct)

**Discount Rate** – The discount rate used to measure the total pension liability in the January 1, 2018 actuarial valuation report was 7.35%. The projection of cash flows used to determine the discount rate assumed plan member contributions were made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially-determined contribution rates and the member rate. Based on those assumptions, the System’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.

**Expected Real Rate of Return** – The long-term expected rate of return on System investments was determined using a building-block method in which best-estimate ranges of expected future 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 System’s target allocation as of December 31, 2018 are summarized in the investment policy table in Note 4.

**Sensitivity Analysis** – The following illustrates the net position liability at December 31, 2018 calculated using the current discount rate of 7.4%, as well as the projection of what the net position liability would be if it were calculated using a discount rate that is 1.0% lower (6.4%) and 1.0% higher (8.4%) than the current rate (dollar amounts in thousands):

	1% Decrease (6.4%)	Current Discount (7.4%)	1% Increase (8.4%)
Net pension liability	\$ 39,795	\$ 31,104	\$ 23,725

**7. NET POSITION RESTRICTED FOR PENSIONS**

Net position restricted for pensions, as of December 31, 2018, were comprised of four funds:

Description	Amount	Purpose
Annuity Savings Fund	\$ 10,908,453	Active members’ contribution balance
Annuity Reserve Fund	3,852,426	Retired members’ contribution balance
Pension Fund	2,687,410	Amounts appropriated to fund future retirement
Pension Reserve Fund	<u>30,086,301</u>	Remaining net assets
	<u>\$ 47,534,590</u>	

**8. COMMITMENTS AND CONTINGENCIES**

The System is subject to a variety of claims that arise from time to time in the ordinary course of business. Although management of the System currently believes that resolving claims against the System, individually or in aggregate, will not have a material adverse impact on the System’s financial position or its results of operations, these matters are subject to inherent uncertainties and management’s views of these matters may change in the future.

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**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

REQUIRED SUPPLEMENTARY INFORMATION - UNAUDITED

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
(dollar amounts are in thousands)

	2018	2017	2016	2015	2014
Total pension liability:					
Service cost	\$ 1,688	\$ 1,885	\$ 735	\$ 735	\$ 735
Interest	5,571	5,209	5,032	5,290	5,160
Differences between expected and actual experience	-	1,066	-	(347)	(2,513)
Changes in assumptions	-	4,675	-	-	-
Benefit payments, including refunds	(4,438)	(4,698)	(4,573)	(4,478)	(2,624)
Net change in total pension liability	2,821	8,137	1,194	1,200	758
Total pension liability - beginning of year	75,818	67,681	66,487	65,287	64,529
Total pension liability - end of year (a)	<u>\$ 78,639</u>	<u>\$ 75,818</u>	<u>\$ 67,681</u>	<u>\$ 66,487</u>	<u>\$ 65,287</u>
Plan fiduciary net position:					
Contributions - employer	\$ 3,907	\$ 3,763	\$ 3,602	\$ 3,469	\$ 3,403
Contributions - employee	1,032	1,061	986	957	975
Contributions - nonemployer contributing entities	234	311	195	342	157
Net investment income	(1,182)	6,995	2,794	326	2,591
Benefit payments, including refunds	(4,767)	(4,881)	(4,573)	(4,547)	(3,734)
Administrative expenses	(154)	(157)	(159)	(124)	(157)
Other	-	-	1	23	25
Net change in plan fiduciary net position	(930)	7,092	2,846	446	3,260
Plan fiduciary net position - beginning of year	48,465	41,373	38,527	38,081	34,821
Plan fiduciary net position - end of year (b)	<u>\$ 47,535</u>	<u>\$ 48,465</u>	<u>\$ 41,373</u>	<u>\$ 38,527</u>	<u>\$ 38,081</u>
Net pension liability - end of year (a) - (b)	<u>\$ 31,104</u>	<u>\$ 27,353</u>	<u>\$ 26,308</u>	<u>\$ 27,960</u>	<u>\$ 27,206</u>
Plan fiduciary net position as a percentage of the total pension liability	60.45%	63.92%	61.13%	57.95%	58.33%
Covered payroll	\$ 10,062	\$ 10,062	\$ 10,105	\$ 9,670	\$ 9,338
Net pension liability as a percentage of covered payroll	309.12%	271.84%	260.35%	289.14%	291.35%

These schedules are presented to illustrate the requirement to show information for ten years. However, until a full ten-year trend is completed, information is presented for those years in which information is available.

See accompanying independent auditors' report.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

REQUIRED SUPPLEMENTARY INFORMATION - UNAUDITED

**SCHEDULE OF CONTRIBUTIONS**  
*(dollar amounts are in thousands)*

	2018	2017	2016	2015	2014
Actuarially-determined contribution	\$ 3,907	\$ 3,763	\$ 3,602	\$ 3,469	\$ 3,403
Contributions in relation to the actuarially-determined contribution	<u>3,907</u>	<u>3,763</u>	<u>3,602</u>	<u>3,469</u>	<u>3,403</u>
Contribution deficiency (excess)	<u>\$ -</u>				
Covered payroll	\$ 10,062	\$ 10,062	\$ 10,105	\$ 9,670	\$ 9,338
Contribution as a percentage of covered payroll	38.83%	37.40%	35.65%	35.87%	36.44%

**SCHEDULE OF INVESTMENT RETURNS**

	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	-2.46%	17.12%	7.34%	0.86%	7.46%

These schedules are presented to illustrate the requirement to show information for ten years. However, until a full ten-year trend is completed, information is presented for those years in which information is available.

See accompanying independent auditors' report.

**HULL CONTRIBUTORY RETIREMENT SYSTEM  
(A Component Unit of the Town of Hull, Massachusetts)**

**NOTES TO REQUIRED SUPPLEMENTARY INFORMATION  
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2018**

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**A. CHANGES OF BENEFIT TERMS**

The System may be amended or terminated in whole or in part at any time by the Massachusetts Legislature, provided that no such modification, amendment or termination shall be made that would deprive a current member of superannuation pension rights or benefits provided under applicable laws of Massachusetts, if such member has paid the stipulated contributions specified in sections or provisions of such laws. There were no significant changes to the System's benefit terms in 2018.

**B. SIGNIFICANT ACTUARIAL ASSUMPTIONS AND METHODS**

The significant actuarial assumptions used in the January 1, 2018 report were as follows:

Actuarial cost method:	Entry age normal
Amortization method:	Top appropriation increases by 4.0% per year until 2030 with a final amortization in 2031
Remaining amortization period:	13 years from July 1, 2018
Asset valuation method:	Market value of assets
Investment rate of return:	7.40% per year, net of expenses
Projected salary increases:	Select and ultimate by job group; ultimate rates of 4.25% for group 1 and 4.75% for group 4
Cost of living adjustments:	3% on the first \$13,000 of benefits
Pre-retirement mortality:	The RP-2000 Employees table projected generationally with Scale BB and a base year of 2009 (gender distinct)
Post-retirement mortality:	The RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2009 (gender distinct)
Disabled life mortality:	The RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2012 (gender distinct)
Actuarial cost method:	Entry age normal



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

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited, 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, the financial statements of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2018, and the related notes to the financial statements which collectively comprise the System's basic financial statements and have issued our report thereon dated September 4, 2019.

**Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

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

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

### **Compliance and Other Matters**

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

### **Purpose of this Report**

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



Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
September 4, 2019



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**INDEPENDENT AUDITORS' REPORT ON AUDIT OF SPECIFIC ELEMENTS, ACCOUNTS  
AND ITEMS OF FINANCIAL STATEMENTS**

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited the accompanying schedule of employer allocations of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2018. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources and total pension expense (specified column totals) included in the accompanying schedule of pension amounts by employer of the System as of and for the year ended December 31, 2018, and the related notes thereto.

**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 financial statements that are free from material misstatement, whether due to fraud or error.

**Auditors' Responsibility**

Our responsibility is to express opinions on the schedule of employer allocations and the specified column 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 and the standards applicable to financial audits contained in *Government Audit 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 schedule of employer allocations and specified column 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 column totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and the specified column 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 column 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, and total pension expense for the total of all participating entities of the System as of and for the year ended December 31, 2018, in accordance with accounting principles generally accepted in the United States of America.

**Other Matters**

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the System as of and for the year ended December 31, 2018, and our report thereon, dated September 4, 2019, expressed an unmodified opinion on those financial statements.



Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
September 4, 2019

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**SCHEDULE OF EMPLOYER ALLOCATIONS**  
**YEAR ENDED DECEMBER 31, 2018**

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<u>Employer</u>	<u>Actual Employer Contributions</u>	<u>Employer Allocation Percentage</u>
Town of Hull	\$ 3,678,698	94.1%
Hull Light and Power	206,430	5.3%
Hull Housing Authority	<u>22,272</u>	<u>0.6%</u>
Total	<u>\$ 3,907,400</u>	<u>100.0%</u>

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

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**SCHEDULE OF PENSION AMOUNTS BY EMPLOYER**  
**YEAR ENDED DECEMBER 31, 2018**

	Town of Hull	Hull Light and Power	Hull Housing Authority	Total
Net pension liability	<u>\$ 29,268,864</u>	<u>\$ 1,648,512</u>	<u>\$ 186,624</u>	<u>\$ 31,104,000</u>
Deferred outflows of resources:				
Differences between actual and expected experience	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments	1,834,950	103,350	11,700	1,950,000
Changes of assumptions	2,399,550	135,150	15,300	2,550,000
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	114,000	28,000	142,000
Total deferred outflows of resources	<u>\$ 4,234,500</u>	<u>\$ 352,500</u>	<u>\$ 55,000</u>	<u>\$ 4,642,000</u>
Deferred inflows of resources:				
Differences between actual and expected experience	\$ 762,210	\$ 42,930	\$ 4,860	\$ 810,000
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	142,000	-	-	142,000
Total deferred inflows of resources	<u>\$ 904,210</u>	<u>\$ 42,930</u>	<u>\$ 4,860</u>	<u>\$ 952,000</u>
Pension expense (income):				
Proportionate share of plan pension expense	\$ 4,766,540	\$ 268,466	\$ 30,392	\$ 5,065,398
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	<u>(104,350)</u>	<u>75,883</u>	<u>28,467</u>	<u>-</u>
Total employer pension expense (income)	<u>\$ 4,662,190</u>	<u>\$ 344,349</u>	<u>\$ 58,859</u>	<u>\$ 5,065,398</u>

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

**HULL CONTRIBUTORY RETIREMENT SYSTEM  
(A Component Unit of the Town of Hull, Massachusetts)**

**NOTES TO PENSION PLAN SCHEDULES  
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2018**

---

**A. INTRODUCTION**

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, establishes financial reporting requirements for governments that provide employees with pension benefits. GASB 68 requires employers to recognize a net pension liability or net pension asset as employees earn pension benefits. Employers participating in the Hull Contributory Retirement System (the "Retirement System") will recognize their proportionate share of the collective pension amounts for all benefits provided by the Retirement System.

**B. METHOD OF PROPORTIONATE SHARE ALLOCATION**

The basis for the proportionate share allocation by employer as found in the Schedule of Employer Allocations and Schedule of Pension Amounts by Employer is consistent with the manner in which employer contributions to the Retirement System are determined. The net pension liability, deferred outflows of resources, deferred inflows of resources and pension expense is based upon actual historical employer contributions to the Retirement System from the census data submitted to the Retirement System for pay periods ending December 31, 2018.

**C. EXPECTED FUTURE AMORTIZATION OF DEFERRED BALANCES**

The following table summarizes the expected amortization of the deferred outflows of resources and inflows of resources into pension expense (benefit):

<u>Measurement Period Ended December 31:</u>	<u>Town of Hull</u>	<u>Hull Light and Power</u>	<u>Hull Housing Authority</u>	<u>Total</u>
2019	\$ 1,452,830	\$ 139,390	\$ 37,780	\$ 1,592,220
2020	1,104,793	66,169	2,038	1,170,962
2021	373,279	48,207	(2,486)	421,486
2022	574,414	65,662	13,924	640,076
2023	(159,029)	(8,957)	(1,014)	(167,986)
2024	(15,997)	(901)	(102)	(16,898)
	<u>\$ 3,330,290</u>	<u>\$ 309,570</u>	<u>\$ 50,140</u>	<u>\$ 3,639,860</u>

**ROSELLI, CLARK & ASSOCIATES**  
Certified Public Accountants

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
**(A Component Unit of the Town of Hull, Massachusetts)**

Report on Examination of  
Basic Financial Statements and  
Additional Information  
Year Ended December 31, 2017

Report on Internal Control  
and Compliance  
Year Ended December 31, 2017



**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
**(A Component Unit of the Town of Hull, Massachusetts)**

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**DECEMBER 31, 2017**

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## INDEPENDENT AUDITORS' REPORT

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited the accompanying financial statements of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2017, and the related notes to the financial statements, which collectively comprise the System's basic 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.

### Auditors' Responsibility

Our responsibility is to express opinions 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 auditors' 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 opinions.

## Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the System as of December 31, 2017, and the respective changes in 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 the management's discussion and analysis, and the schedules of changes in net pension liability and related ratios, contributions and investment returns as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic 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 basic financial statements, and other knowledge we obtained during our audit of the basic 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 a report dated December 4, 2018 on our consideration of the System's internal control over financial reporting and 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 System's internal control over financial reporting and compliance.

*Roselli, Clark & Associates*

Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
December 4, 2018

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Our discussion and analysis of the Hull Contributory Retirement System's (the "System") financial performance provides an overview of the System's financial activities for the calendar year ended December 31, 2017. You should read it in conjunction with the basic financial statements, footnotes and required supplementary information that follows this discussion.

### Financial Highlights

The System's funding objective is to meet long-term benefit obligations through contributions and investment income. The System's actuary estimates that the System is approximately 64% funded at December 31, 2017.

The System's fiduciary net position increased nearly \$7.1 million in 2017 versus an increase of approximately \$2.8 million in 2016. This improvement was primarily attributable to a significant improvement in the investment return experienced by the System in 2017. Net of investment management fees, the System's portfolio return exceeded 17% in 2017.

### Overview of the Financial Statements

This discussion and analysis is intended as an introduction to the System's basic financial statements. The basic financial statements are comprised of a Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position, Notes to Financial Statements and Required Supplementary Information.

**Statement of Fiduciary Net Position** – presents information on the System's assets, deferred outflows of resources, liabilities, deferred inflows of resources and fiduciary net position restricted for pensions. This statement reflects the System's investments at fair value, as well as cash, receivables and other assets and liabilities. Over time, the increase or decrease in fiduciary net position serves as a useful indicator of the System's financial health and condition.

**Statement of Changes in Fiduciary Net Position** – presents information showing how the System's fiduciary net position changed during the year. It reflects contributions by members and participating employers along with deductions for retirement benefits, refunds, withdrawals and administrative expenses. Investment income, including realized and unrealized gains on pooled investments, during the year is also presented.

**Notes to the Financial Statements** – provide additional information that is essential for the reader to gain a full understanding of the data provided in the financial statements.

**Required Supplementary Information** – includes this management's discussion and analysis and various unaudited schedules.

## Financial Analysis

### Fiduciary Net Position

The System's total assets as of December 31, 2017, approximated \$48.5 million and principally consisted of investments recorded at fair value. Total assets increased nearly \$7.1 million year-over-year. This increase was due almost entirely to the appreciation in investments in 2017.

	December 31,	
	2017	2016
<b>Assets</b>		
Cash and cash equivalents	\$ 260,709	\$ 238,670
Investments	48,143,810	41,119,659
Receivables and other current assets	60,833	35,830
Total Assets	<u>48,465,352</u>	<u>41,394,159</u>
<b>Liabilities</b>		
Accounts payable and accrued expenses	177	21,120
Total Liabilities	<u>177</u>	<u>21,120</u>
Fiduciary Net Position	<u>\$ 48,465,175</u>	<u>\$ 41,373,039</u>

### Change in Fiduciary Net Position

Fiduciary net position increased by approximately \$7.1 million in 2017 versus an increase of approximately \$2.9 million in 2016. The improvement in the System's results from operations was due to a significant improvement in investment returns in 2017.

	Year Ended December 31,	
	2017	2016
<b>Additions</b>		
Contributions	\$ 5,134,797	\$ 4,783,957
Investment income, net of management fees	6,994,589	2,793,902
Total Additions	<u>12,129,386</u>	<u>7,577,859</u>
<b>Deductions</b>		
Benefits and refunds to Plan members	4,880,715	4,573,054
Administrative and other expenses	156,535	159,162
Total Deductions	<u>5,037,250</u>	<u>4,732,216</u>
Change in Fiduciary Net Position	<u>\$ 7,092,136</u>	<u>\$ 2,845,643</u>

**Additions** – The amount needed to finance pension benefits is accumulated through the collection of employers and employees’ contributions, reimbursements from the Commonwealth of Massachusetts for pre-1998 Cost of Living Adjustments and through earnings on investments. Employer and employee contributions increased approximately \$351,000 year-over-year. Employer contributions in 2017 of approximately \$3.8 million represented over 73% of total contributions. Employer contributions are determined by actuarial valuation.

The System’s investment return, net of investment management fees, exceeded 17% in 2017, which was a significant improvement from the prior year and was reflective of a worldwide resurgence in equity markets.

**Deductions** – The primary deductions for the System include the payment of pension benefits to participants and beneficiaries, refunds of contributions and the costs of administering the system. Benefit and refund payments to Plan members in 2017 were approximately \$4.9 million, which was nearly 7% higher than the prior year. The increase in 2017 was due primarily to the timing and composition of recent retirees.

Administrative and other expenses, which primarily consist of System operations payroll, board stipends, legal, and service provider costs were consistent year-over-year.

#### **Overall Financial Position**

As of January 1, 2018 (the date of the latest available full actuarial study), the System’s funded ratio was approximately 64% based on the actuarial value of the System’s assets at that date. This actuarial study projects the System to be fully funded by 2032.

The discount rate used by the System in its latest actuarial valuation study is 7.40%, which over the long-term the System hopes to achieve. The System believes that its investments can, over the long-term, achieve this target. However, should the System be unable to meet this long-term investment return target, the System may need to lower the discount rate it uses in future actuarial studies. By lowering the discount rate, it will be unlikely the System can achieve a fully-funded status by 2032 without significant increases in employer contributions.

#### **Contacting the System’s Financial Management Personnel**

Our discussion and analysis is designed to provide the Hull Retirement Board, our membership, taxpayers, investors and creditors with a general overview of the System’s financial results and to demonstrate the System’s accountability for the funding it receives. If you have any questions about this report or need additional financial information, contact the Retirement Board at 253 Atlantic Avenue, Hull, Massachusetts 02045.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
**(A Component Unit of the Town of Hull, Massachusetts)**

**STATEMENT OF FIDUCIARY NET POSITION**  
**DECEMBER 31, 2017**

---

<b>ASSETS</b>	
Cash and cash equivalents	\$ 260,709
Investments	48,143,810
Receivables	<u>60,833</u>
Total assets	<u>48,465,352</u>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>	
	<u>-</u>
<b>LIABILITIES</b>	
Accounts payable and accrued expenses	<u>177</u>
Total liabilities	<u>177</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>	
	<u>-</u>
<b>NET POSITION RESTRICTED FOR PENSIONS</b>	<u><u>\$ 48,465,175</u></u>

See notes to the financial statements.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
**(A Component Unit of the Town of Hull, Massachusetts)**

**STATEMENT OF CHANGES IN FIDUCIARY NET POSITION**  
**YEAR ENDED DECEMBER 31, 2017**

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**ADDITIONS**

Contributions:

Employer contributions – appropriations	\$ 3,762,961
Employee contributions – member deductions and payments	1,061,041
Transfers from other systems	128,255
Reimbursements from other systems	133,254
Receipts from the Commonwealth of Massachusetts	<u>49,279</u>
Total contributions	<u>5,134,790</u>

Investment earnings, net:

Interest and dividends	1,230,325
Net appreciation in fair value of investments	5,997,233
Less management fees	<u>(232,969)</u>
Net investment income	<u>6,994,589</u>

Other income

7

Total additions

12,129,386

**DEDUCTIONS**

Benefits and refunds to Plan members:

Benefit payments to pensioners and beneficiaries	4,500,170
Member refunds	154,972
Reimbursements to other systems	225,573

Administrative expenses:

System operations payroll and board stipends	95,501
Other administrative expenses	<u>61,034</u>

Total deductions

5,037,250

**CHANGE IN NET POSITION**

7,092,136

**NET POSITION RESTRICTED FOR PENSIONS**

Beginning of year	<u>41,373,039</u>
End of year	<u>\$ 48,465,175</u>

See notes to the financial statements.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**NOTES TO THE FINANCIAL STATEMENTS**  
**AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017**

---

**1. DESCRIPTION OF THE PLAN**

**General** – The Hull Contributory Retirement System (the “System”) is a multiple employer defined benefit pension plan established and administered by the Hull Retirement Board under the provisions of Chapter 32 of the Massachusetts General Laws to provide pension benefits for participants. The System is a component unit of the Town of Hull, Massachusetts (the “Town”). The Town and the Hull Housing Authority (the “Authority”) contribute to the System.

Employees of the Town (with the exception of teachers and certain administrative personnel employed by the School Department who participate in a separate plan) and the Authority are covered by the System. Participation in the System is mandatory immediately upon the commencement of employment for all permanent, full-time employees.

At December 31, 2017, membership in the System consisted of:

Retirees and beneficiaries currently receiving benefits	143
Active plan members	178
Inactive plan members	<u>30</u>
Total	<u>351</u>

**Plan Benefits** – Massachusetts contributory retirement system benefits are uniform from one retirement system to another. For employees with service dates beginning before April 2, 2012, the System provides for retirement allowance benefits up to a maximum of 80% of a participant’s highest consecutive three-year average annual rate of regular compensation. For those employees who began their service after April 2, 2012, the System provides for retirement allowance benefits up to a maximum of 80% of a participant’s highest consecutive five-year average annual rate of regular compensation. Benefit payments are based upon a participant’s age, length of creditable service, level of compensation and group classification.

The retirement allowance consists of two parts – an annuity and a pension. Participants’ accumulated total deductions and a portion of the interest they generate constitute the annuity. The difference between the total retirement benefit and annuity is the pension.

Participants who resign from service and who are not eligible to receive a retirement allowance are entitled to request a refund of their accumulated total contributions. In addition, depending upon the number of years of creditable service, such employees may be entitled to receive interest, which has accrued on those contributions. A vested employee who has not reached their eligible retirement age and elects to leave his accumulation on deposit may apply for benefits upon reaching his eligible retirement age.

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

**Retirement Requirements** – In order to receive retirement benefits, participants must meet one of the following two categories:

**Normal Retirement** – Generally, normal retirement occurs between ages 65 and 67. However, most participants with a hire date before April 2, 2012, may retire after twenty years of service or at any time after attaining age 55. For most participants hired on or after April 2, 2012, they must attain the age of 60 before they can retire. Participants with hire dates subsequent to January 1, 1978 must have a minimum of ten years' creditable service in order to retire at age 55 or 60, as applicable. Participants become vested after ten years of service. Benefits commencing before age 65 are generally provided at a reduced rate. However, members working in certain occupations may retire with full benefits earlier than age 65.

Participants who resign from service and who are not eligible to receive a retirement allowance or are under the age of 55 may request a refund of their accumulated total contributions. In addition, depending on the number of years of creditable service, these employees may be entitled to interest that has accrued on their contributions. A vested employee under the age of 55 who elects to leave his accumulated contributions on deposit may apply for pension benefits upon reaching his eligible retirement age.

**Disability Retirements** – The System provides for both an ordinary disability retirement, where a participant is permanently incapacitated from a cause unrelated to employment, and an accidental disability retirement, where the disability is the result of an injury or illness received or aggravated in the performance of one's duty. The amount of benefits to be received in such cases is dependent upon several factors, including the age at which the disability retirement occurs, the years of service, average compensation and veteran status. In addition, certain provisions are in place relative to death benefits for beneficiaries of employees who die in active service.

**Public Availability of Financial Statements** – The Hull Retirement Board issues a publicly available financial report that includes financial statements and required supplementary information for the System. That report may be obtained by writing to the Hull Retirement Board, 253 Atlantic Avenue, Hull, MA 02045.

## 2. SIGNIFICANT ACCOUNTING POLICIES

**Basis of Accounting** – The financial statements of the System have been prepared on the accrual basis of accounting. The accounting records of the System are maintained on a calendar-year basis in accordance with the standards and procedures established by Public Employee Retirement Administration Commission ("PERAC") and Massachusetts law.

**Estimates** – The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America, or GAAP, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Cash and Cash Equivalents** – Cash and cash equivalents include cash on hand, demand deposits and short-term holdings with original maturities of three months or less from the date of acquisition.

**Investments** – The carrying amounts of the System’s investments approximate their fair value. When actively quoted observable prices are not available, the System generally uses either implied pricing from similar investments or valuation models based on net present values of estimated future cash flows (adjusted as appropriate for liquidity, credit, market and/or other risk factors).

The System categorizes its fair value measurements within the fair value hierarchy established by GAAP. This hierarchy is based on valuation inputs used to measure the fair value of the asset or liability. The three levels of the hierarchy are as follows:

- *Level 1* – Inputs are quoted prices in active markets for identical investments at the measurement date.
- *Level 2* – Inputs (other than quoted prices included in Level 1) are either directly or indirectly observable for the investment through correlation with market data at the measurement date and for the duration of the instrument’s anticipated life.
- *Level 3* – Inputs reflect the System’s best estimate of what market participants would use in pricing the investment at the measurement date.

The remaining investments not categorized under the fair value hierarchy are shown at net asset value (“NAV”). These are investments in non-governmental entities for which a readily determinable fair value is not available, such as member units or an ownership interest in partners’ capital to which a proportionate share of net assets is attributed. Investments at NAV are commonly calculated by subtracting the fair value of liabilities from the fair value of assets.

All of the System’s investments are invested with the State Treasurer investment pool administered by the Commonwealth of Massachusetts’ Pension Reserve Investment Management Board, or PRIM. The specific investment held by the System is the PRIT General Allocation Fund, which consists of a diverse set of investments that includes domestic and international equities and fixed income securities, private debt, private equity, venture, timber and real estate investments. The determination of the fair value of these investments is very subjective and the period-end values are reported to the System as NAV. Investments in the PRIT General Allocation Fund are more liquid than investments in private equity and real estate holdings, but generally cannot be resold to third parties. The System may liquidate its investment in the PRIT General Allocation Fund at any time with less than thirty days’ notice. Distributions from the PRIT Absolute Fund are received regularly and deposited into an accompanying short-term cash investment account.

Because of the inherent uncertainty of valuations used in many of the System’s investments measured at NAV, estimated values may differ significantly from the values that would have been used had a readily available market for positions in privately held companies or the real estate existed at December 31, 2017. These differences could have a material adverse effect on the System’s financial statements.

**Fair Value of Financial Instruments** – The carrying amounts of cash and cash equivalents, accounts receivable and other current assets and accounts payable approximate their fair value due to the relatively short-term maturities.

**Revenue Recognition** – Contributions are recognized as additions in the period in which they become due pursuant to formal commitments, and statutory or contractual requirements. Contributions appropriated by the Town and the Authority are on a fiscal-year basis. Investment purchases and sales are recorded on their trade dates. Interest and dividends are recorded when earned. Investment income is allocated to the various funds on the basis of a rate determined annually by PERAC.

**3. SYSTEM ADMINISTRATION**

The System is administered by a five-person Board consisting of the Town Accountant, two members who are elected by the participants in or retired from the service of the System, one member appointed by the Town Manager and one member appointed by the other members of the Board.

At the time of this report, the Board was comprised as follows:

		<u>Term Expires</u>
Ex-Officio Member:	Mr. J. Michael Buckley (Town Accountant)	No specified date
Appointed Member:	Mr. John Reilly, Jr.	No specified date
Elected Member:	Mr. John King	December 30, 2020
Elected Member:	Mr. Brian Thompson	December 30, 2020
Board Appointed Member:	Mr. Gregory Galvin	January 24, 2020

The Board is required to meet at least once a month and keep a record of its proceedings. The Board annually submits a financial statement of condition for the System with the Commissioner of PERAC. All retirement allowances are approved by the Board and submitted to a PERAC actuary for verification prior to payments being made. Expenses incurred by the System must be approved by a majority of the Board.

**4. DEPOSITS AND INVESTMENTS**

Massachusetts General Laws Chapter 32 and PERAC regulations require the System to invest funds only in preapproved investment instruments, which include but are not necessarily limited to bank deposits, money markets, certificates of deposit, U.S. obligations, repurchase agreements, certain corporate bonds and equities and investment pools.

**Investment Policy** – The Board is responsible for the establishing and amending investment policy decisions. The Board adopted the investment policy used by PRIM as all of its investments are invested with PRIM.

According to its investment policy, PRIM’s overall objective is to achieve the highest level of investment performance that is compatible with its risk tolerance and prudent investment practices. PRIM maintains a long-term perspective in formulating and implementing its investment policies and evaluating its investment performance. PRIM seeks to generate long-term investment performance that meets or exceeds actuarially-targeted rates of return (currently at 7.4%). PRIM establishes investment benchmarks by asset class to compare its actual performance against. Finally, PRIM compares its investment performance against the investment performance of other large public and private pension plans with the goal to be in the top 50% of this universe.

At December 31, 2017, all of the System’s investments are held in the custody of PRIM within their PRIT General Allocation Fund. The PRIT General Allocation Fund is comprised of a diverse set of investments accounts. The PRIT General Allocation Fund’s target weights and the long-term expected rates of return for each of these asset classes were as follows:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equities	18%	7.50% to 7.75%
International equities	22%	7.80% to 9.30%
Fixed income	22%	3.50% to 8.80%
Private equity	11%	9.50%
Real estate	10%	6.70%
Hedge funds	13%	6.25%
Timber	4%	6.25%

Actual asset allocations at December 31, 2017 were within the acceptable deviations from the target allocations illustrated above, as set forth under PRIM’s investment policy.

**Rate of Return** – The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. The 2017 money-weighted rate of return was approximately 17.12%.

**Custodial Credit Risk: Deposits** – Deposits are subject to the risk of bank failure. The System may be unable to recover the full amount of its deposits in any one bank institution in the event of a bank failure. The System’s policy for custodial credit risk of deposits is to rely on Federal Deposit Insurance Corporation insurance coverage for the first \$250,000 of deposits held at each financial institution and the Depositors Insurance Fund for amounts in excess of \$250,000. At December 31, 2017, all of the System’s bank deposits were fully insured by either insurance.

**Custodial Credit Risk: Investments** – Custodial credit risk for investments is the risk that, in the event of a failure of the counterparty, the System will not be able to recover the value of its investments or collateral securities that are in the possession of the outside party. The System’s policy for custodial credit risk of investments intends that all investments are either insured and/or registered in the name of the System. At December 31, 2017, the System was not exposed to custodial credit risk on its investments.

**Interest Rate Risk: Deposits** – This is the risk that fair value losses may arise due to increasing interest rates, such risk is reduced by the fact that the System maintains such funds in highly liquid bank accounts; thereby, allowing for timely re-allocation of such holdings should the need arise.

**Interest Rate Risk: Investments** – Debt securities are subject to interest rate risk. Debt securities may be adversely affected by changes in interest rates, which may negatively affect the fair value of individual debt instruments. The System does not have a formal investment policy that limits investments maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

**Foreign Currency Risk: Deposits and Investments** –The System did not hold any specific security denominated in a foreign currency at December 31, 2017.

**Securities Credit Risk: Investments** – In the case of investments, there is the risk that in the event of an invested party will be unable to fulfill its obligations, such as to provide required payments to investors, to meet current or future performance expectations, to abide by industry regulations and proper operational practices, ceasing to exist, or filing for bankruptcy. In those instances, the System may not be able to recover the full amount of its principal investment and/or investment earnings. As previously noted, PERAC and Massachusetts statutory regulations have been enacted to reduce this risk. In evaluating its credit risk, the System relies on credit ratings assigned by Moody’s Investor Services, Inc. and Standard and Poor’s Financial Services, LLC. The System does voluntarily self-impose certain investment restrictions; however, those can be changed at the Board’s discretion. The System maintains a significant portion (approximately 99%) of its monetary assets as investment holdings.

The System’s pooled investment with PRIT was not subject to credit quality ratings from leading credit rating agencies. At December 31, 2017, uninsured short-term investment funds with fair values of \$200,377 were reported as cash equivalents. These funds represent temporary holdings of excess cash resources. The System intends to reinvest these amounts in less than one year. Accordingly, the fair values of these amounts have been classified as cash equivalents in these financial statements.

**Concentration of Credit Risk: Investments** – All of the System’s investments are with the PRIM General Allocation Account at December 31, 2017.

## 5. FUNDING POLICY

**Employee Contributions** – Employees whose creditable service began prior to January 1, 1975, contribute 5% of their base salary or wage; those whose service date is subsequent to January 1, 1975, and prior to January 1, 1984, contribute 7%; those whose service date is subsequent to January 1, 1984, and prior to July 1, 1996, contribute 8%, and those whose service date is subsequent to July 1, 1996, contribute 9%. In addition, employees hired on or after January 1, 1979 contribute an additional 2% on earnings in excess of \$30,000.

**Employer Contributions (Funding)** – Under the provisions of Chapter 32 of Massachusetts General Law, participating employers are assessed their share of the total retirement cost based on independent actuarial study.

Employer contributions of \$3,762,961 were made in 2017, which was the annual required contribution. Employer contributions as a percentage of covered payroll was approximately 37% in 2017.

**Cost of Living Adjustment (COLA)** – Through 1998, the Massachusetts Legislature was able to grant cost-of-living increases to benefits being paid to retirees. These increases were expressed as a percentage of the retiree’s allowance subject to a maximum dollar increase. All COLA’s granted from 1982 through June 30, 1998, are reimbursed to the System by the Commonwealth of Massachusetts since the Commonwealth was financially responsible for COLA adjustments during this time frame; any COLA’s granted thereafter by the Board are required to be funded by the System directly. A COLA may be approved in excess of the Consumer Price Index, or CPI, but for 2017 is not to exceed 3% annually on the first \$13,000 of a retirement allowance. The System has historically approved a COLA annually, usually at the maximum 3% rate.

The Commonwealth is expected to continue funding the cost-of-living amounts granted to retirees prior to 1998 for the duration of their selected retirement option.

## 6. ACTUARIAL VALUATION

The System is statutorily required to adopt the funding schedule that will fully amortize the unfunded actuarial accrued liability by June 30, 2040. As of the latest actuarial valuation, the System has selected a funding schedule that amortizes the unfunded actuarial accrued liability to \$0 by June 30, 2033.

The components of the System's net pension liability at December 31, 2017 (dollar amounts in thousands) were as follows:

Total pension liability	\$ 75,818
Plan fiduciary net position	<u>48,465</u>
Net pension liability	<u>\$ 27,353</u>
Plan fiduciary net position as a percentage of total pension liability	63.9%

The total pension liability was determined by an actuarial valuation as of January 1, 2018. The significant actuarial assumptions used in the January 1, 2018 report were as follows:

Actuarial cost method:	Entry age normal
Amortization method:	Top appropriation increases by 4.0% per year until 2030 with a final amortization in 2031
Remaining amortization period:	13 years from July 1, 2018
Asset valuation method:	Market value of assets
Investment rate of return:	7.40% per year, net of expenses (previously 7.75%)
Projected salary increases:	Select and ultimate by job group; ultimate rates of 4.25% for group 1 and 4.75% for group 4 (previously 4.50% per year)
Cost of living adjustments:	3% on the first \$13,000 of benefits
Pre-retirement mortality:	The RP-2000 Employees table projected generationally with Scale BB and a base year of 2009 (gender distinct)
Post-retirement mortality:	The RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2009 (gender distinct)
Disabled life mortality:	The RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2012 (gender distinct)

**Discount Rate** – The discount rate used to measure the total pension liability in the January 1, 2018 actuarial valuation report was 7.40%, which represents a decrease from the previous discount rate of 7.75%. The projection of cash flows used to determine the discount rate assumed plan member contributions were made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially-determined contribution rates and the member rate. Based on those assumptions, the System'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.

**Expected Real Rate of Return** – The long-term expected rate of return on System investments was determined using a building-block method in which best-estimate ranges of expected future 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 System’s target allocation as of December 31, 2017 are summarized in the investment policy table in Note 4.

**Sensitivity Analysis** – The following illustrates the net position liability at December 31, 2017 calculated using the current discount rate of 7.4%, as well as the projection of what the net position liability would be if it were calculated using a discount rate that is 1.0% lower (6.4%) and 1.0% higher (8.4%) than the current rate (dollar amounts in thousands):

	1% Decrease <u>(6.4%)</u>	Current Discount <u>(7.4%)</u>	1% Increase <u>(8.4%)</u>
Net pension liability	\$ 35,732	\$ 27,353	\$ 20,239

**7. NET POSITION RESTRICTED FOR PENSIONS**

Net position restricted for pensions, as of December 31, 2017, were comprised of four funds:

<u>Description</u>	<u>Amount</u>	<u>Purpose</u>
Annuity Savings Fund	\$ 10,495,785	Active members’ contribution balance
Annuity Reserve Fund	3,873,468	Retired members’ contribution balance
Pension Fund	2,553,419	Amounts appropriated to fund future retirement
Pension Reserve Fund	<u>31,542,503</u>	Remaining net assets
	<u>\$ 48,465,175</u>	

**8. COMMITMENTS AND CONTINGENCIES**

The System is subject to a variety of claims that arise from time to time in the ordinary course of business. Although management of the System currently believes that resolving claims against the System, individually or in aggregate, will not have a material adverse impact on the System’s financial position or its results of operations, these matters are subject to inherent uncertainties and management’s views of these matters may change in the future.

\* \* \* \* \*

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

REQUIRED SUPPLEMENTARY INFORMATION - UNAUDITED  
DECEMBER 31, 2017

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
*(Dollar Amounts in Thousands)*

	2017	2016	2015	2014
<b>Total pension liability:</b>				
Service cost	\$ 1,885	\$ 735	\$ 735	\$ 735
Interest	5,209	5,032	5,290	5,160
Differences between expected and actual experience	1,066	-	(347)	(2,513)
Changes in assumptions	4,675	-	-	-
Benefit payments, including refunds of member contributions	(4,698)	(4,573)	(4,478)	(2,624)
Net change in total pension liability	8,137	1,194	1,200	758
Total pension liability - beginning of year	67,681	66,487	65,287	64,529
Total pension liability - end of year (a)	<u>\$ 75,818</u>	<u>\$ 67,681</u>	<u>\$ 66,487</u>	<u>\$ 65,287</u>
<b>Plan fiduciary net position:</b>				
Contributions - employer	\$ 3,763	\$ 3,602	\$ 3,469	\$ 3,403
Contributions - members	1,061	986	957	975
Contributions - nonemployer contributing entities	311	195	342	157
Net investment income	6,995	2,794	326	2,591
Benefit payments, including refunds of member contributions	(4,881)	(4,573)	(4,547)	(3,734)
Administrative expenses	(157)	(159)	(124)	(157)
Other	-	1	23	25
Net change in plan fiduciary net position	7,092	2,846	446	3,260
Plan fiduciary net position - beginning of year	41,373	38,527	38,081	34,821
Plan fiduciary net position - end of year (b)	<u>\$ 48,465</u>	<u>\$ 41,373</u>	<u>\$ 38,527</u>	<u>\$ 38,081</u>
Net pension liability - end of year (a) - (b)	<u>\$ 27,353</u>	<u>\$ 26,308</u>	<u>\$ 27,960</u>	<u>\$ 27,206</u>
Plan fiduciary net position as a percentage of the total pension liability	63.9%	61.1%	57.9%	58.3%
Covered-employee payroll	\$ 10,062	\$ 10,105	\$ 9,670	\$ 9,338
Net pension liability as a percentage of covered-employee payroll	271.8%	260.3%	289.1%	291.3%

Note: This schedule is presented to illustrate the requirement to show information for ten years, however until a full ten-year trend is compiled, information is presented for those years in which information is available.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**REQUIRED SUPPLEMENTARY INFORMATION - UNAUDITED**  
**DECEMBER 31, 2017**

**SCHEDULE OF CONTRIBUTIONS**  
*(Dollar Amounts in Thousands)*

	2017	2016	2015	2014
Actuarially-determined contribution	\$ 3,763	\$ 3,602	\$ 3,469	\$ 3,403
Contributions in relation to the actuarially-determined contribution	<u>3,763</u>	<u>3,602</u>	<u>3,469</u>	<u>3,403</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered-employee payroll	\$ 10,062	\$ 10,105	\$ 9,670	\$ 9,338
Contribution as a percentage of covered-employee payroll	37.4%	35.6%	35.9%	36.4%

**SCHEDULE OF INVESTMENT RETURNS**

	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	17.12%	7.34%	0.86%	7.46%

Note: These schedules are presented to illustrate the requirement to show information for ten years, however until a full ten-year trend is compiled, information is presented for those years in which information is available.

See independent auditors' report.

**HULL CONTRIBUTORY RETIREMENT SYSTEM  
(A Component Unit of the Town of Hull, Massachusetts)**

**NOTES TO REQUIRED SUPPLEMENTARY INFORMATION  
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017**

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**A. CHANGES OF BENEFIT TERMS**

The System may be amended or terminated in whole or in part at any time by the Massachusetts Legislature, provided that no such modification, amendment or termination shall be made that would deprive a current member of superannuation pension rights or benefits provided under applicable laws of Massachusetts, if such member has paid the stipulated contributions specified in sections or provisions of such laws. There were no significant changes to the System's benefit terms in 2017.

**B. SIGNIFICANT ACTUARIAL ASSUMPTIONS AND METHODS**

The significant actuarial assumptions used in the January 1, 2018 report were as follows:

Actuarial cost method:	Entry age normal
Amortization method:	Top appropriation increases by 4.0% per year until 2030 with a final amortization in 2031
Remaining amortization period:	13 years from July 1, 2018
Asset valuation method:	Market value of assets
Investment rate of return:	7.40% per year, net of expenses (previously 7.75%)
Projected salary increases:	Select and ultimate by job group; ultimate rates of 4.25% for group 1 and 4.75% for group 4 (previously 4.50% per year)
Cost of living adjustments:	3% on the first \$13,000 of benefits
Pre-retirement mortality:	The RP-2000 Employees table projected generationally with Scale BB and a base year of 2009 (gender distinct)
Post-retirement mortality:	The RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2009 (gender distinct)
Disabled life mortality:	The RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2012 (gender distinct)
Actuarial cost method:	Entry age normal

**C. CHANGES TO ACTUARIAL ASSUMPTIONS AND METHODS**

In 2017, the System decreased the discount rate used in its actuarial valuation to 7.40% from 7.75% per annum. Additionally, the mortality rates for pre-retirement and post-retirement and disabilities were modified.



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

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited, 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, the financial statements of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2017, and the related notes to the financial statements which collectively comprise the System's basic financial statements and have issued our report thereon dated December 4, 2018.

**Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

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

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

### **Compliance and Other Matters**

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

### **Purpose of this Report**

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

*Roselli, Clark & Associates*

Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
December 4, 2018



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**INDEPENDENT AUDITORS' REPORT ON AUDIT OF SPECIFIC ELEMENTS, ACCOUNTS  
AND ITEMS OF FINANCIAL STATEMENTS**

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited the accompanying schedule of employer allocations of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2017. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources and total pension expense (specified column totals) included in the accompanying schedule of pension amounts by employer of the System as of and for the year ended December 31, 2017, and the related notes thereto.

**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 financial statements that are free from material misstatement, whether due to fraud or error.

**Auditors' Responsibility**

Our responsibility is to express opinions on the schedule of employer allocations and the specified column 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 and the standards applicable to financial audits contained in *Government Audit 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 schedule of employer allocations and specified column 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 column totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and the specified column 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 column 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, and total pension expense for the total of all participating entities of the System as of and for the year ended December 31, 2017, in accordance with accounting principles generally accepted in the United States of America.

**Other Matters**

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the System as of and for the year ended December 31, 2016, and our report thereon, dated December 4, 2018, expressed an unmodified opinion on those financial statements.

*Roselli, Clark & Associates*

Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
December 4, 2018

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
 (A Component Unit of the Town of Hull, Massachusetts)

**SCHEDULE OF EMPLOYER ALLOCATIONS**  
**FOR THE YEAR ENDED DECEMBER 31, 2017**

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*(Dollar Amounts in Thousands)*

Employer	Actual Employer Contributions	Employer Allocation Percentage
Town of Hull	\$ 3,579	95.11%
Hull Light and Power	171	4.54%
Hull Housing Authority	13	0.35%
Total	\$ 3,763	100.0%

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

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**SCHEDULE OF PENSION AMOUNTS BY EMPLOYER**  
**FOR THE YEAR ENDED DECEMBER 31, 2017**

	Town of Hull	Hull Light and Power	Hull Housing Authority	Total
Net pension liability	\$ 26,015,438	\$ 1,241,826	\$ 95,736	\$ 27,353,000
Deferred outflows of resources:				
Differences between expected and actual experience	\$ -	\$ -	\$ -	\$ -
Changes of assumptions	3,436,324	164,030	12,646	3,613,000
Changes in proportion and differences between employer contributions and proportionate share of contributions	17,000	-	-	17,000
Total deferred outflows of resources	\$ 3,453,324	\$ 164,030	\$ 12,646	\$ 3,630,000
Deferred inflows of resources:				
Differences between expected and actual experience	\$ 826,506	\$ 39,453	\$ 3,041	\$ 869,000
Net difference between projected and actual investment earnings on pension plan investments	1,566,461	74,774	5,765	1,647,000
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	9,000	8,000	17,000
Total deferred inflows of resources	\$ 2,392,967	\$ 123,227	\$ 16,806	\$ 2,533,000
Pension expense (income):				
Proportionate share of plan pension expense	\$ 3,882,449	\$ 185,232	\$ 14,280	\$ 4,081,961
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	38,585	(22,371)	(16,214)	-
Total employer pension expense	\$ 3,921,034	\$ 162,861	\$ (1,934)	\$ 4,081,961

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

**HULL CONTRIBUTORY RETIREMENT SYSTEM  
(A Component Unit of the Town of Hull, Massachusetts)**

**NOTES TO PENSION PLAN SCHEDULES  
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017**

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**A. INTRODUCTION**

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, establishes financial reporting requirements for governments that provide employees with pension benefits. GASB 68 requires employers to recognize a net pension liability or net pension asset as employees earn pension benefits. Employers participating in the Hull Contributory Retirement System (the "Retirement System") will recognize their proportionate share of the collective pension amounts for all benefits provided by the Retirement System.

**B. METHOD OF PROPORTIONATE SHARE ALLOCATION**

The basis for the proportionate share allocation by employer as found in the Schedule of Employer Allocations and Schedule of Pension Amounts by Employer is consistent with the manner in which employer contributions to the Retirement System are determined. The net pension liability, deferred outflows of resources, deferred inflows of resources and pension expense is based upon actual historical employer contributions to the Retirement System from the census data submitted to the Retirement System for pay periods ending December 31, 2017.

**C. EXPECTED FUTURE AMORTIZATION OF DEFERRED BALANCES**

The following table summarizes the expected amortization of the deferred outflows of resources and inflows of resources into pension expense (benefit):

<u>Measurement Period</u> <u>Ended December 31:</u>	<u>Town of</u> <u>Hull</u>	<u>Hull Light</u> <u>and Power</u>	<u>Hull Housing</u> <u>Authority</u>	<u>Total</u>
2018	\$ 1,206,902	\$ 33,797	\$ (11,698)	\$ 1,240,699
2019	681,993	9,645	(16,637)	691,638
2020	165,340	37,897	14,763	203,237
2021	(528,790)	(18,334)	11,124	(547,124)
2022	(286,281)	(13,665)	(1,054)	(299,946)
2024	(160,736)	(7,673)	(592)	(168,409)
2025	(18,071)	(864)	(66)	(18,935)
	<u>\$ 1,060,357</u>	<u>\$ 40,803</u>	<u>\$ (4,160)</u>	<u>\$ 1,101,160</u>

**HULL CONTRIBUTORY  
RETIREMENT SYSTEM  
(A Component Unit of the  
Town of Hull, Massachusetts)**

Report on Examination of  
Basic Financial Statements  
And Additional Information  
Year Ended December 31, 2016

Report on Internal Control and Compliance  
Year Ended December 31, 2016

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
**(A Component Unit of the Town of Hull, Massachusetts)**

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**DECEMBER 31, 2016**

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**ROSELLI, CLARK & ASSOCIATES**  
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## INDEPENDENT AUDITORS' REPORT

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited the accompanying financial statements of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2016, and the related notes to the financial statements, which collectively comprise the System's basic 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.

### Auditors' Responsibility

Our responsibility is to express opinions 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 auditors' 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 opinions.

## Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the System as of December 31, 2016, and the respective changes in 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 the management's discussion and analysis, and the schedules of changes in net pension liability and related ratios, contributions and investment returns as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic 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 basic financial statements, and other knowledge we obtained during our audit of the basic 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 a report dated July 14, 2017 on our consideration of the System's internal control over financial reporting and 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 System's internal control over financial reporting and compliance.

*Roselli, Clark & Associates*

Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
July 14, 2017

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Our discussion and analysis of the Hull Contributory Retirement System's (the "System") financial performance provides an overview of the System's financial activities for the calendar year ended December 31, 2016. You should read it in conjunction with the basic financial statements, footnotes and required supplementary information that follows this discussion.

### Financial Highlights

The System's funding objective is to meet long-term benefit obligations through contributions and investment income. As of January 1, 2016 (the latest available actuarial information date), the funded ratio was approximately 59% based on the actuarial value of assets at that date.

The System's fiduciary net position increased over \$2.8 million in 2016 versus an increase of approximately \$0.4 million in 2015. This improvement was primarily attributable to a significant improvement in the investment return experienced by the System in 2016. The System's 2016 investment return, net of investment management fees, exceeded 7.3% in 2016, which was significantly greater than the 0.9% return in 2015. The System's 2016 return lagged the 2016 returns posted by the S&P 500 (8.7%) and the Dow Jones Industrial Average (11.8%).

### Overview of the Financial Statements

This discussion and analysis is intended as an introduction to the System's basic financial statements. The basic financial statements are comprised of a Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position, Notes to Financial Statements and Required Supplementary Information.

**Statement of Fiduciary Net Position** – presents information on the System's assets, deferred outflows of resources, liabilities, deferred inflows of resources and fiduciary net position restricted for pensions. This statement reflects the System's investments at fair value, as well as cash, receivables and other assets and liabilities. Over time, the increase or decrease in fiduciary net position serves as a useful indicator of the System's financial health and condition.

**Statement of Changes in Fiduciary Net Position** – presents information showing how the System's fiduciary net position changed during the year. It reflects contributions by members and participating employers along with deductions for retirement benefits, refunds, withdrawals and administrative expenses. Investment income, including realized and unrealized gains on pooled investments, during the year is also presented.

**Notes to the Financial Statements** – provide additional information that is essential for the reader to gain a full understanding of the data provided in the financial statements.

**Required Supplementary Information** – includes this management's discussion and analysis and various unaudited schedules.

## Financial Analysis

### Fiduciary Net Position

The System's total assets as of December 31, 2016, approximated \$41.4 million and principally consisted of investments recorded at fair value. Total assets increased nearly \$2.9 million year-over-year. This increase was due primarily to the appreciation in investments in 2016.

	December 31,	
	2016	2015
<b>Assets</b>		
Cash and cash equivalents	\$ 238,670	\$ 153,920
Investments	41,119,659	38,271,035
Receivables and other current assets	35,830	102,700
<b>Total Assets</b>	<b>41,394,159</b>	<b>38,527,655</b>
<b>Liabilities</b>		
Accounts payable and accrued expenses	21,120	259
<b>Total Liabilities</b>	<b>21,120</b>	<b>259</b>
<b>Fiduciary Net Position</b>	<b>\$ 41,373,039</b>	<b>\$ 38,527,396</b>

### Change in Fiduciary Net Position

Fiduciary net position increased by approximately \$2.9 million in 2016 versus an increase of approximately \$0.4 million in 2015. The improvement in the System's results from operations was due to a significant improvement in investment returns in 2016.

	Year Ended December 31,	
	2016	2015
<b>Additions</b>		
Contributions	\$ 4,783,957	\$ 4,791,449
Investment income, net of management fees	2,793,902	326,121
<b>Total Additions</b>	<b>7,577,859</b>	<b>5,117,570</b>
<b>Deductions</b>		
Benefits and refunds to Plan members	4,573,054	4,547,349
Administrative and other expenses	159,162	123,909
<b>Total Deductions</b>	<b>4,732,216</b>	<b>4,671,258</b>
<b>Change in Fiduciary Net Position</b>	<b>\$ 2,845,643</b>	<b>\$ 446,312</b>

**Additions** – The amount needed to finance pension benefits is accumulated through the collection of employers and employees’ contributions, reimbursements from the Commonwealth of Massachusetts for pre-1998 Cost of Living Adjustments and through earnings on investments. Employer and employee contributions were consistent year-over-year. Employer contributions in 2016 of approximately \$3.6 million represented over 75% of total contributions. Employer contributions are determined by actuarial valuation.

The System’s investment return, net of investment management fees, exceeded 7.3% in 2016, which was a significant improvement from the prior year. This investment return however lagged the returns posted by the S&P 500 and Dow Jones Industrial Average as well as the System’s targeted discount rate of 7.75%.

**Deductions** – The primary deductions for the System include the payment of pension benefits to participants and beneficiaries, refunds of contributions and the costs of administering the system. Benefit and refund payments to Plan members in 2016 were approximately \$4.6 million, which was relatively consistent with the prior year.

Administrative and other expenses, which primarily consist of System operations payroll, board stipends, legal, and service provider costs increased by over \$35,000 year-over-year.

#### **Overall Financial Position**

As of January 1, 2016 (the date of the latest available full actuarial study), the System’s funded ratio was approximately 59% based on the actuarial value of the System’s assets at that date. This actuarial study projects the System to be fully funded by 2033.

The discount rate used by the System in its latest actuarial valuation study is 7.75%, which over the long-term the System hopes to achieve. The actual returns posted by the System (net of investment management fees) over the past three years have failed to achieve this return. The System believes that its investments can, over the long-term, achieve this target. However, should the System be unable to meet this long-term investment return target, the System may need to lower the discount rate it uses in future actuarial studies. By lowering the discount rate, it will be unlikely the System can achieve a fully-funded status by 2033 without significant increases in employer contributions.

#### **Contacting the System’s Financial Management Personnel**

Our discussion and analysis is designed to provide the Hull Retirement Board, our membership, taxpayers, investors and creditors with a general overview of the System’s financial results and to demonstrate the System’s accountability for the funding it receives. If you have any questions about this report or need additional financial information, contact the Retirement Board at 253 Atlantic Avenue, Hull, Massachusetts 02045.

**HULL CONTRIBUTORY RETIREMENT SYSTEM  
(A Component Unit of the Town of Hull, Massachusetts)**

**STATEMENT OF FIDUCIARY NET POSITION  
DECEMBER 31, 2016**

---

**ASSETS**

Cash and cash equivalents	\$ 238,670
Investments	41,119,659
Receivables	<u>35,830</u>
Total assets	<u>41,394,159</u>

**DEFERRED OUTFLOWS OF RESOURCES**

-

**LIABILITIES**

Accounts payable and accrued expenses	<u>21,120</u>
Total liabilities	<u>21,120</u>

**DEFERRED INFLOWS OF RESOURCES**

-

**NET POSITION RESTRICTED FOR PENSIONS**

\$ 41,373,039

See notes to the financial statements.

**HULL CONTRIBUTORY RETIREMENT SYSTEM  
(A Component Unit of the Town of Hull, Massachusetts)**

**STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
YEAR ENDED DECEMBER 31, 2016**

**ADDITIONS**

Contributions:	
Employer contributions – appropriations	\$ 3,601,596
Employee contributions – member deductions and payments	986,156
Transfers from other systems	65,726
Reimbursements from other systems	78,529
Receipts from the Commonwealth of Massachusetts	<u>51,228</u>
Total contributions	<u>4,783,235</u>
Investment earnings, net:	
Interest and dividends	1,125,730
Net appreciation in fair value of investments	1,878,957
Less management fees	<u>(210,785)</u>
Net investment income	<u>2,793,902</u>
Other income	<u>722</u>
Total additions	<u>7,577,859</u>

**DEDUCTIONS**

Benefits and refunds to Plan members:	
Benefit payments to pensioners and beneficiaries	4,075,465
Member refunds	181,419
Transfers to other systems	115,721
Reimbursements to other systems	200,449
Administrative expenses:	
System operations payroll and board stipends	89,474
Other administrative expenses	<u>69,688</u>
Total deductions	<u>4,732,216</u>

**NET INCREASE IN NET POSITION** 2,845,643

**NET POSITION RESTRICTED FOR PENSIONS**

Beginning of year	<u>38,527,396</u>
End of year	<u>\$ 41,373,039</u>

See notes to the financial statements.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**NOTES TO THE FINANCIAL STATEMENTS**  
**AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2016**

---

**1. DESCRIPTION OF THE PLAN**

**General** – The Hull Contributory Retirement System (the “System”) is a multiple employer defined benefit pension plan established and administered by the Hull Retirement Board under the provisions of Chapter 32 of the Massachusetts General Laws to provide pension benefits for participants. The System is a component unit of the Town of Hull, Massachusetts (the “Town”). The Town and the Hull Housing Authority (the “Authority”) contribute to the System.

Employees of the Town (with the exception of teachers and certain administrative personnel employed by the School Department who participate in a separate plan) and the Authority are covered by the System. Participation in the System is mandatory immediately upon the commencement of employment for all permanent, full-time employees.

At December 31, 2016, membership in the System consisted of:

Retirees and beneficiaries currently receiving benefits	146
Active plan members	173
Inactive plan members	<u>25</u>
Total	<u>344</u>

**Plan Benefits** – Massachusetts contributory retirement system benefits are uniform from one retirement system to another. For employees with service dates beginning before April 2, 2012, the System provides for retirement allowance benefits up to a maximum of 80% of a participant’s highest consecutive three-year average annual rate of regular compensation. For those employees who began their service after April 2, 2012, the System provides for retirement allowance benefits up to a maximum of 80% of a participant’s highest consecutive five-year average annual rate of regular compensation. Benefit payments are based upon a participant’s age, length of creditable service, level of compensation and group classification.

The retirement allowance consists of two parts – an annuity and a pension. Participants’ accumulated total deductions and a portion of the interest they generate constitute the annuity. The difference between the total retirement benefit and annuity is the pension.

Participants who resign from service and who are not eligible to receive a retirement allowance are entitled to request a refund of their accumulated total contributions. In addition, depending upon the number of years of creditable service, such employees may be entitled to receive interest, which has accrued on those contributions. A vested employee who has not reached their eligible retirement age and elects to leave his accumulation on deposit may apply for benefits upon reaching his eligible retirement age.

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

**Retirement Requirements** – In order to receive retirement benefits, participants must meet one of the following two categories:

**Normal Retirement** – Generally, normal retirement occurs between ages 65 and 67. However, most participants with a hire date before April 2, 2012, may retire after twenty years of service or at any time after attaining age 55. For most participants hired on or after April 2, 2012, they must attain the age of 60 before they can retire. Participants with hire dates subsequent to January 1, 1978 must have a minimum of ten years' creditable service in order to retire at age 55 or 60, as applicable. Participants become vested after ten years of service. Benefits commencing before age 65 are generally provided at a reduced rate. However, members working in certain occupations may retire with full benefits earlier than age 65.

Participants who resign from service and who are not eligible to receive a retirement allowance or are under the age of 55 may request a refund of their accumulated total contributions. In addition, depending on the number of years of creditable service, these employees may be entitled to interest that has accrued on their contributions. A vested employee under the age of 55 who elects to leave his accumulated contributions on deposit may apply for pension benefits upon reaching his eligible retirement age.

**Disability Retirements** – The System provides for both an ordinary disability retirement, where a participant is permanently incapacitated from a cause unrelated to employment, and an accidental disability retirement, where the disability is the result of an injury or illness received or aggravated in the performance of one's duty. The amount of benefits to be received in such cases is dependent upon several factors, including the age at which the disability retirement occurs, the years of service, average compensation and veteran status. In addition, certain provisions are in place relative to death benefits for beneficiaries of employees who die in active service.

**Public Availability of Financial Statements** – The Hull Retirement Board issues a publicly available financial report that includes financial statements and required supplementary information for the System. That report may be obtained by writing to the Hull Retirement Board, 253 Atlantic Avenue, Hull, MA 02045.

## 2. SIGNIFICANT ACCOUNTING POLICIES

**Basis of Accounting** – The financial statements of the System have been prepared on the accrual basis of accounting. The accounting records of the System are maintained on a calendar-year basis in accordance with the standards and procedures established by Public Employee Retirement Administration Commission ("PERAC") and Massachusetts law.

**Estimates** – The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America, or GAAP, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Cash and Cash Equivalents** – Cash and cash equivalents include cash on hand, demand deposits and short-term holdings with original maturities of three months or less from the date of acquisition.

**Investments** – The carrying amounts of the System’s investments approximate their fair value. When actively quoted observable prices are not available, the System generally uses either implied pricing from similar investments or valuation models based on net present values of estimated future cash flows (adjusted as appropriate for liquidity, credit, market and/or other risk factors).

The System categorizes its fair value measurements within the fair value hierarchy established by GAAP. This hierarchy is based on valuation inputs used to measure the fair value of the asset or liability. The three levels of the hierarchy are as follows:

- *Level 1* – Inputs are quoted prices in active markets for identical investments at the measurement date.
- *Level 2* – Inputs (other than quoted prices included in Level 1) are either directly or indirectly observable for the investment through correlation with market data at the measurement date and for the duration of the instrument’s anticipated life.
- *Level 3* – Inputs reflect the System’s best estimate of what market participants would use in pricing the investment at the measurement date.

The remaining investments not categorized under the fair value hierarchy are shown at net asset value (“NAV”). These are investments in non-governmental entities for which a readily determinable fair value is not available, such as member units or an ownership interest in partners’ capital to which a proportionate share of net assets is attributed. Investments at NAV are commonly calculated by subtracting the fair value of liabilities from the fair value of assets.

All of the System’s investments are invested with the State Treasurer investment pool administered by the Commonwealth of Massachusetts’ Pension Reserve Investment Management Board, or PRIM. The specific investment held by the System is the PRIT General Allocation Fund, which consists of a diverse set of investments that includes domestic and international equities and fixed income securities, private debt, private equity, venture, timber and real estate investments. The determination of the fair value of these investments is very subjective and the period-end values are reported to the System as NAV. Investments in the PRIT General Allocation Fund are more liquid than investments in private equity and real estate holdings, but generally cannot be resold to third parties. The System may liquidate its investment in the PRIT General Allocation Fund at any time with less than thirty days’ notice. Distributions from the PRIT Absolute Fund are received regularly and deposited into an accompanying short-term cash investment account.

Because of the inherent uncertainty of valuations used in many of the System’s investments measured at NAV, estimated values may differ significantly from the values that would have been used had a readily available market for positions in privately held companies or the real estate existed at December 31, 2016. These differences could have a material adverse effect on the System’s financial statements.

**Fair Value of Financial Instruments** – The carrying amounts of cash and cash equivalents, accounts receivable and other current assets and accounts payable approximate their fair value due to the relatively short-term maturities.

**Revenue Recognition** – Contributions are recognized as additions in the period in which they become due pursuant to formal commitments, and statutory or contractual requirements. Contributions appropriated by the Town and the Authority are on a fiscal-year basis. Investment purchases and sales are recorded on their trade dates. Interest and dividends are recorded when earned. Investment income is allocated to the various funds on the basis of a rate determined annually by PERAC.

### 3. SYSTEM ADMINISTRATION

The System is administered by a five-person Board consisting of the Town Accountant, two members who are elected by the participants in or retired from the service of the System, one member appointed by the Town Manager and one member appointed by the other members of the Board.

At the time of this report, the Board was comprised as follows:

		<u>Term Expires</u>
Ex-Officio Member:	Mr. J. Michael Buckley (Town Accountant)	No specified date
Appointed Member:	Mr. John Reilly, Jr.	No specified date
Elected Member:	Mr. John King	December 30, 2017
Elected Member:	Mr. Brian Thompson	December 30, 2017
Board Appointed Member:	Mr. Gregory Galvin	January 24, 2020

The Board is required to meet at least once a month and keep a record of its proceedings. The Board annually submits a financial statement of condition for the System with the Commissioner of PERAC. All retirement allowances are approved by the Board and submitted to a PERAC actuary for verification prior to payments being made. Expenses incurred by the System must be approved by a majority of the Board.

### 4. DEPOSITS AND INVESTMENTS

Massachusetts General Laws Chapter 32 and PERAC regulations require the System to invest funds only in preapproved investment instruments, which include but are not necessarily limited to bank deposits, money markets, certificates of deposit, U.S. obligations, repurchase agreements, certain corporate bonds and equities and investment pools.

**Investment Policy** – The Board is responsible for the establishing and amending investment policy decisions. The Board adopted the investment policy used by PRIM as all of its investments are invested with PRIM.

According to its investment policy, PRIM’s overall objective is to achieve the highest level of investment performance that is compatible with its risk tolerance and prudent investment practices. PRIM maintains a long-term perspective in formulating and implementing its investment policies and evaluating its investment performance. PRIM seeks to generate long-term investment performance that meets or exceeds actuarially-targeted rates of return (currently at 7.75%). PRIM establishes investment benchmarks by asset class to compare its actual performance against. Finally, PRIM compares its investment performance against the investment performance of other large public and private pension plans with the goal to be in the top 50% of this universe.

At December 31, 2016, all of the System’s investments are held in the custody of PRIM within their PRIT General Allocation Fund. The PRIT General Allocation Fund is comprised of a diverse set of investments accounts. The PRIT General Allocation Fund’s target weights and the long-term expected rates of return for each of these asset classes were as follows:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equities	18%	7.50% to 7.75%
International equities	22%	7.83% to 9.61%
Fixed income	23%	3.75% to 9.06%
Private equity	10%	9.50%
Real estate	10%	6.50%
Hedge funds	13%	6.48%
Timber	4%	6.00%

Actual asset allocations at December 31, 2016 were within the acceptable deviations from the target allocations illustrated above, as set forth under PRIM’s investment policy.

**Rate of Return** – The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. The 2016 money-weighted rate of return was approximately 7.34%.

**Custodial Credit Risk: Deposits** – Deposits are subject to the risk of bank failure. The System may be unable to recover the full amount of its deposits in any one bank institution in the event of a bank failure. The System’s policy for custodial credit risk of deposits is to rely on Federal Deposit Insurance Corporation insurance coverage for the first \$250,000 of deposits held at each financial institution and the Depositors Insurance Fund for amounts in excess of \$250,000. At December 31, 2016, all of the System’s bank deposits were fully insured by either insurance.

**Custodial Credit Risk: Investments** – Custodial credit risk for investments is the risk that, in the event of a failure of the counterparty, the System will not be able to recover the value of its investments or collateral securities that are in the possession of the outside party. The System’s policy for custodial credit risk of investments intends that all investments are either insured and/or registered in the name of the System. At December 31, 2016, the System was not exposed to custodial credit risk on its investments.

**Interest Rate Risk: Deposits** – This is the risk that fair value losses may arise due to increasing interest rates, such risk is reduced by the fact that the System maintains such funds in highly liquid bank accounts; thereby, allowing for timely re-allocation of such holdings should the need arise.

**Interest Rate Risk: Investments** – Debt securities are subject to interest rate risk. Debt securities may be adversely affected by changes in interest rates, which may negatively affect the fair value of individual debt instruments. The System does not have a formal investment policy that limits investments maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

**Foreign Currency Risk: Deposits and Investments** –The System did not hold any specific security denominated in a foreign currency at December 31, 2016.

**Securities Credit Risk: Investments** – In the case of investments, there is the risk that in the event of an invested party will be unable to fulfill its obligations, such as to provide required payments to investors, to meet current or future performance expectations, to abide by industry regulations and proper operational practices, ceasing to exist, or filing for bankruptcy. In those instances, the System may not be able to recover the full amount of its principal investment and/or investment earnings. As previously noted, PERAC and Massachusetts statutory regulations have been enacted to reduce this risk. In evaluating its credit risk, the System relies on credit ratings assigned by Moody’s Investor Services, Inc. and Standard and Poor’s Financial Services, LLC. The System does voluntarily self-impose certain investment restrictions; however, those can be changed at the Board’s discretion. The System maintains a significant portion (approximately 99%) of its monetary assets as investment holdings.

The System’s pooled investment with PRIT was not subject to credit quality ratings from leading credit rating agencies. At December 31, 2016, uninsured short-term investment funds with fair values of \$75,133 were reported as cash equivalents. These funds represent temporary holdings of excess cash resources. The System intends to reinvest these amounts in less than one year. Accordingly, the fair values of these amounts have been classified as cash equivalents in these financial statements.

**Concentration of Credit Risk: Investments** – All of the System’s investments are with the PRIM General Allocation Account at December 31, 2016.

## 5. FUNDING POLICY

**Employee Contributions** – Employees whose creditable service began prior to January 1, 1975, contribute 5% of their base salary or wage; those whose service date is subsequent to January 1, 1975, and prior to January 1, 1984, contribute 7%; those whose service date is subsequent to January 1, 1984, and prior to July 1, 1996, contribute 8%, and those whose service date is subsequent to July 1, 1996, contribute 9%. In addition, employees hired on or after January 1, 1979 contribute an additional 2% on earnings in excess of \$30,000.

**Employer Contributions (Funding)** – Under the provisions of Chapter 32 of Massachusetts General Law, participating employers are assessed their share of the total retirement cost based on independent actuarial study.

Employer contributions of \$3,601,596 were made in 2016, which was the annual required contribution. Employer contributions as a percentage of covered payroll was approximately 36% in 2016.

**Cost of Living Adjustment (COLA)** – Through 1998, the Massachusetts Legislature was able to grant cost-of-living increases to benefits being paid to retirees. These increases were expressed as a percentage of the retiree’s allowance subject to a maximum dollar increase. All COLA’s granted from 1982 through June 30, 1998, are reimbursed to the System by the Commonwealth of Massachusetts since the Commonwealth was financially responsible for COLA adjustments during this time frame; any COLA’s granted thereafter by the Board are required to be funded by the System directly. A COLA may be approved in excess of the Consumer Price Index, or CPI, but for 2016 is not to exceed 3% annually on the first \$12,000 of a retirement allowance. The System has historically approved a COLA annually, usually at the maximum 3% rate.

The Commonwealth is expected to continue funding the cost-of-living amounts granted to retirees prior to 1998 for the duration of their selected retirement option.

## 6. ACTUARIAL VALUATION

The System is statutorily required to adopt the funding schedule that will fully amortize the unfunded actuarial accrued liability by June 30, 2040. As of the latest actuarial valuation, the System has selected a funding schedule that amortizes the unfunded actuarial accrued liability to \$0 by June 30, 2033.

The components of the System's net pension liability at December 31, 2016 (dollar amounts in thousands) were as follows:

Total pension liability	\$ 67,681
Plan fiduciary net position	<u>41,373</u>
Net pension liability	<u>\$ 26,308</u>
Plan fiduciary net position as a percentage of total pension liability	 61.1%

The total pension liability was determined by an actuarial valuation as of January 1, 2016 and updated to roll forward to December 31, 2016. The significant actuarial assumptions used in the January 1, 2016 report were as follows:

Actuarial cost method:	Entry age normal
Amortization method:	Approximate level percent of payroll (closed)
Remaining amortization period:	15 years for the fresh start base
Asset valuation method:	Market value of assets (adjusted by accounts payable and receivable)
Investment rate of return:	7.75% per year, net of expenses
Projected salary increases:	4.50% per year
Cost of living adjustments:	3% on the first \$13,000 of benefits
Healthy life mortality:	The RP-2000 Mortality Table (sex distinct) projected to 2017 with Scale AA.
Disabled life mortality:	The RP-2000 Mortality Table (sex distinct) projected to 2010 with Scale AA set-forward 2 years.

**Discount Rate** – The discount rate used to measure the total pension liability in the January 1, 2016 actuarial valuation report was 7.75%. The projection of cash flows used to determine the discount rate assumed plan member contributions were made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially-determined contribution rates and the member rate. Based on those assumptions, the System'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.

**Expected Real Rate of Return** – The long-term expected rate of return on System investments was determined using a building-block method in which best-estimate ranges of expected future 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 System's target allocation as of December 31, 2016 are summarized in the investment policy table in Note 4.

**Sensitivity Analysis** – The following illustrates the net position liability at December 31, 2016 calculated using the current discount rate of 7.75%, as well as the projection of what the net position liability would be if it were calculated using a discount rate that is 1.0% lower (6.75%) and 1.0% higher (8.75%) than the current rate (dollar amounts in thousands):

	1% Decrease <u>(6.75%)</u>	Current Discount <u>(7.75%)</u>	1% Increase <u>(8.75%)</u>
Net pension liability	\$ 34,585	\$ 26,308	\$ 19,377

**7. NET POSITION RESTRICTED FOR PENSIONS**

Net position restricted for pensions, as of December 31, 2016, were comprised of four funds:

<u>Description</u>	<u>Amount</u>	<u>Purpose</u>
Annuity Savings Fund	\$ 9,805,751	Active members' contribution balance
Annuity Reserve Fund	4,102,994	Retired members' contribution balance
Pension Fund	2,651,791	Amounts appropriated to fund future retirement
Pension Reserve Fund	<u>24,812,503</u>	Remaining net assets
	<u>\$ 38,527,396</u>	

**8. COMMITMENTS AND CONTINGENCIES**

The System is subject to a variety of claims that arise from time to time in the ordinary course of business. Although management of the System currently believes that resolving claims against the System, individually or in aggregate, will not have a material adverse impact on the System's financial position or its results of operations, these matters are subject to inherent uncertainties and management's views of these matters may change in the future.

\* \* \* \* \*

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
**(A Component Unit of the Town of Hull, Massachusetts)**

**REQUIRED SUPPLEMENTARY INFORMATION - UNAUDITED**  
**DECEMBER 31, 2016**

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
*(Dollar Amounts in Thousands)*

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total pension liability:			
Service cost	\$ 735	\$ 735	\$ 735
Interest	5,032	5,290	5,160
Differences between expected and actual experience	-	(347)	(2,513)
Benefit payments, including refunds of member contributions	<u>(4,573)</u>	<u>(4,478)</u>	<u>(2,624)</u>
Net change in total pension liability	1,194	1,200	758
Total pension liability - beginning of year	<u>66,487</u>	<u>65,287</u>	<u>64,529</u>
Total pension liability - end of year (a)	<u>\$ 67,681</u>	<u>\$ 66,487</u>	<u>\$ 65,287</u>
Plan fiduciary net position:			
Contributions - employer	\$ 3,602	\$ 3,469	\$ 3,403
Contributions - members	986	957	975
Contributions - nonemployer contributing entities	195	342	157
Net investment income	2,794	326	2,591
Benefit payments, including refunds of member contributions	(4,573)	(4,547)	(3,734)
Administrative expenses	(159)	(124)	(157)
Other	<u>1</u>	<u>23</u>	<u>25</u>
Net change in plan fiduciary net position	2,846	446	3,260
Plan fiduciary net position - beginning of year	<u>38,527</u>	<u>38,081</u>	<u>34,821</u>
Plan fiduciary net position - end of year (b)	<u>\$ 41,373</u>	<u>\$ 38,527</u>	<u>\$ 38,081</u>
Net pension liability - end of year (a) - (b)	<u>\$ 26,308</u>	<u>\$ 27,960</u>	<u>\$ 27,206</u>
Plan fiduciary net position as a percentage of the total pension liability	61.1%	57.9%	58.3%
Covered-employee payroll	\$ 10,105	\$ 9,670	\$ 9,338
Net pension liability as a percentage of covered-employee payroll	260.3%	289.1%	291.3%

Note: This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, information is presented for those years in which information is available.

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
**(A Component Unit of the Town of Hull, Massachusetts)**

**REQUIRED SUPPLEMENTARY INFORMATION - UNAUDITED**  
**DECEMBER 31, 2016**

**SCHEDULE OF CONTRIBUTIONS**  
*(Dollar Amounts in Thousands)*

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Actuarially-determined contribution	\$ 3,602	\$ 3,469	\$ 3,403
Contributions in relation to the actuarially-determined contribution	<u>3,602</u>	<u>3,469</u>	<u>3,403</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered-employee payroll	\$ 10,105	\$ 9,670	\$ 9,338
Contribution as a percentage of covered-employee payroll	35.6%	35.9%	36.4%

**SCHEDULE OF INVESTMENT RETURNS**

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Annual money-weighted rate of return, net of investment expense	7.34%	0.86%	7.46%

Note: These schedules are presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, information is presented for those years in which information is available.

See independent auditors' report.

**HULL CONTRIBUTORY RETIREMENT SYSTEM  
(A Component Unit of the Town of Hull, Massachusetts)**

**NOTES TO REQUIRED SUPPLEMENTARY INFORMATION  
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2016**

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**A. CHANGES OF BENEFIT TERMS**

The System may be amended or terminated in whole or in part at any time by the Massachusetts Legislature, provided that no such modification, amendment or termination shall be made that would deprive a current member of superannuation pension rights or benefits provided under applicable laws of Massachusetts, if such member has paid the stipulated contributions specified in sections or provisions of such laws. There were no significant changes to the System's benefit terms in 2016.

**B. SIGNIFICANT ACTUARIAL ASSUMPTIONS AND METHODS**

The significant actuarial assumptions used in the January 1, 2016 report were as follows:

Actuarial cost method:	Entry age normal
Amortization method:	Approximate level percent of payroll (closed)
Remaining amortization period:	15 years for the fresh start base
Asset valuation method:	Market value of assets (adjusted by accounts payable and receivable)
Investment rate of return:	7.75% per year, net of expenses
Projected salary increases:	4.50% per year
Cost of living adjustments:	3% on the first \$13,000 of benefits
Healthy life mortality:	The RP-2000 Mortality Table (sex distinct) projected to 2017 with Scale AA.
Disabled life mortality:	The RP-2000 Mortality Table (sex distinct) projected to 2010 with Scale AA set-forward 2 years.

**C. CHANGES TO ACTUARIAL ASSUMPTIONS AND METHODS**

In 2016, the System adopted several assumption changes in mortality rates for pre-retirement and post-retirement and disabilities.



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

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited, 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, the financial statements of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2016, and the related notes to the financial statements which collectively comprise the System's basic financial statements and have issued our report thereon dated July 14, 2017.

**Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

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

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

### **Compliance and Other Matters**

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

### **Purpose of this Report**

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

*Roselli, Clark & Associates*

Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
July 14, 2017



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**INDEPENDENT AUDITORS' REPORT ON AUDIT OF SPECIFIC ELEMENTS, ACCOUNTS  
AND ITEMS OF FINANCIAL STATEMENTS**

To the Hull Retirement Board  
Hull Contributory Retirement System  
Hull, Massachusetts

We have audited the accompanying schedule of employer allocations of the Hull Contributory Retirement System (the "System"), a component unit of the Town of Hull, Massachusetts, as of and for the year ended December 31, 2016. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources and total pension expense (specified column totals) included in the accompanying schedule of pension amounts by employer of the System as of and for the year ended December 31, 2016, and the related notes thereto.

**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 financial statements that are free from material misstatement, whether due to fraud or error.

**Auditors' Responsibility**

Our responsibility is to express opinions on the schedule of employer allocations and the specified column 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 and the standards applicable to financial audits contained in *Government Audit 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 schedule of employer allocations and specified column 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 column totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and the specified column 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 column 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, and total pension expense for the total of all participating entities of the System as of and for the year ended December 31, 2016, in accordance with accounting principles generally accepted in the United States of America.

**Other Matters**

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the System as of and for the year ended December 31, 2016, and our report thereon, dated July 14, 2017, expressed an unmodified opinion on those financial statements.

*Roselli, Clark & Associates*

Roselli, Clark & Associates  
Certified Public Accountants  
Woburn, Massachusetts  
July 14, 2017

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**SCHEDULE OF EMPLOYER ALLOCATIONS**  
**FOR THE YEAR ENDED DECEMBER 31, 2016**

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*(Dollar Amounts in Thousands)*

Employer	Actual Employer Contributions	Employer Allocation Percentage
Town of Hull	\$ 3,443	95.59%
Hull Light and Power	159	4.41%
Hull Housing Authority	-	0.00%
Total	\$ 3,602	100.0%

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

**HULL CONTRIBUTORY RETIREMENT SYSTEM**  
(A Component Unit of the Town of Hull, Massachusetts)

**SCHEDULE OF PENSION AMOUNTS BY EMPLOYER**  
**FOR THE YEAR ENDED DECEMBER 31, 2016**

*(Dollar Amounts in Thousands)*

	Town of Hull	Hull Light and Power	Hull Housing Authority	Total
Net pension liability	\$ 25,122	\$ 1,165	\$ 21	\$ 26,308
Deferred outflows of resources:				
Differences between expected and actual experience	\$ -	\$ -	\$ -	\$ -
Net difference between projected and actual investment earnings on pension plan investments	2,255	105	2	2,362
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	155	-	-	155
Total deferred outflows of resources	\$ 2,410	\$ 105	\$ 2	\$ 2,517
Deferred inflows of resources:				
Differences between expected and actual experience	\$ 1,901	\$ 88	\$ 2	\$ 1,991
Net difference between projected and actual investment earnings on pension plan investments	-	-	-	-
Changes of assumptions	-	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	61	94	155
Total deferred inflows of resources	\$ 1,901	\$ 149	\$ 96	\$ 2,146
Pension expense (income):				
Proportionate share of plan pension expense	\$ 2,633	\$ 142	\$ 1	\$ 2,776
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	59	(28)	(31)	-
Total employer pension expense	\$ 2,692	\$ 114	\$ (30)	\$ 2,776

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

**HULL CONTRIBUTORY RETIREMENT SYSTEM  
(A Component Unit of the Town of Hull, Massachusetts)**

**NOTES TO PENSION PLAN SCHEDULES  
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2016**

**A. INTRODUCTION**

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, establishes financial reporting requirements for governments that provide employees with pension benefits. GASB 68 requires employers to recognize a net pension liability or net pension asset as employees earn pension benefits. Employers participating in the Hull Contributory Retirement System (the "Retirement System") will recognize their proportionate share of the collective pension amounts for all benefits provided by the Retirement System.

**B. METHOD OF PROPORTIONATE SHARE ALLOCATION**

The basis for the proportionate share allocation by employer as found in the Schedule of Employer Allocations and Schedule of Pension Amounts by Employer is consistent with the manner in which employer contributions to the Retirement System are determined. The net pension liability, deferred outflows of resources, deferred inflows of resources and pension expense is based upon actual historical employer contributions to the Retirement System from the census data submitted to the Retirement System for pay periods ending December 31, 2016.

**C. EXPECTED FUTURE AMORTIZATION OF DEFERRED BALANCES**

The following table summarizes the expected amortization of the deferred outflows of resources and inflows of resources into pension expense (dollar amounts are in thousands):

	2017	2018	2019	2020	2021	Thereafter	Total
<u>Town of Hull</u>							
Difference between projected and actual investment earnings on pension plan investments, net	\$ 938	\$ 937	\$ 408	\$ (28)	\$ -	\$ -	\$ 2,255
Difference between expected and actual experience	(288)	(288)	(288)	(289)	(288)	(460)	(1,901)
Net effect of change in proportion of beginning reported balances	59	58	58	(20)	-	-	155
<u>Hull Light and Power</u>							
Difference between projected and actual investment earnings on pension plan investments, net	43	43	20	(1)	-	-	105
Difference between expected and actual experience	(14)	(14)	(14)	(14)	(14)	(18)	(88)
Net effect of change in proportion of beginning reported balances	(28)	(27)	(27)	21	-	-	(61)
<u>Hull Housing Authority</u>							
Difference between projected and actual investment earnings on pension plan investments, net	1	1	-	-	-	-	2
Difference between expected and actual experience	-	(1)	-	-	-	(1)	(2)
Net effect of change in proportion of beginning reported balances	(31)	(31)	(31)	(1)	-	-	(94)
<u>Total</u>							
Difference between projected and actual investment earnings on pension plan investments, net	982	981	428	(29)	-	-	2,362
Difference between expected and actual experience	(302)	(303)	(302)	(303)	(302)	(479)	(1,991)
Net effect of change in proportion of beginning reported balances	-	-	-	-	-	-	-



**COMMONWEALTH OF MASSACHUSETTS**

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