

**Town of South Hadley
Other Postemployment Benefits Plan**

GASB 74 & GASB 75 Actuarial Valuation

With a Valuation Date of July 1, 2018

As of the Measurement Date:
June 30, 2019

For the Reporting Date:
June 30, 2019

Delivered March 16, 2020

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March 16, 2020

Personal and Confidential

Mr. William Sutton
Town Accountant
Town of South Hadley
116 Main Street
South Hadley, MA 01075

Dear Mr. Sutton:

We have performed an actuarial valuation of the Town of South Hadley Other Postemployment Benefits Plan for the Reporting Date & fiscal year ending June 30, 2019 with a Measurement Date of June 30, 2019 and a Valuation Date of July 1, 2018. The figures presented in this report reflect the adoption, by the Town of South Hadley, of Statement Nos. 74 and 75 of the Governmental Accounting Standards Board ("GASB 74/75") effective for the fiscal years ending June 30, 2016 and June 30, 2018 respectively.

The financial results of the actuarial valuation are summarized in the report. The Executive Summaries highlight the results of the valuation. Additional information summarizing census data, actuarial assumptions, claim rates and the methodology for developing them, as well as a glossary of selected terms used in this study, is also included in the report.

All costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures. In our opinion, the actuarial assumptions used are reasonable, reflecting the experience of the plan and reasonable expectations and, in combination, represent our best estimate of the anticipated experience under the plan.

We will be pleased to answer any questions that you may have regarding this actuarial valuation report.

Very truly yours,

A handwritten signature in black ink, appearing to read 'P. Elmore', written over a light blue horizontal line.

Parker E. Elmore, ASA, EA, FCA, MAAA
President, CEO & Actuary

March 16, 2020

ACTUARIAL CERTIFICATION

This is to certify that Odyssey Advisors has conducted an actuarial valuation of certain benefit obligations of the Town of South Hadley other postemployment benefit programs with a Valuation Date of July 1, 2018 with a Measurement Date of June 30, 2019 for the Reporting Date & fiscal year ending June 30, 2019 in accordance with Government Account Standards Board Statement No. 74 & 75 and Actuarial Standards of Practice as issued by the American Academy of Actuaries. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements Numbers 74 & 75 for the determination of the liability for postemployment benefits other than pensions.

The actuarial data is based on the plan of benefits verified by the Town and on participant claims or premium data provided by the Town and/or vendors employed by the Town.

The actuarial computations made are for purposes of fulfilling plan accounting requirements. Determinations for purposes other than meeting financial accounting requirements may yield results significantly different than those reported here. As such, additional determinations may be needed for other purposes including determining the benefit security at termination and/or adequacy of the funding of an ongoing plan.

To the best of our knowledge, this report is complete and accurate and in our opinion represents the information necessary to comply with GASB Statements Number 74 and 75 with respect to the benefit obligations addressed. The signing actuaries are members of the Society of Actuaries, the American Academy of Actuaries and other professional actuarial organizations and meet their "General Qualification Standards for Statements of Actuarial Opinion" to render the actuarial opinion contained herein. Further, in our opinion, the assumptions as approved by the Town are reasonably related to the experience and expectations of the postemployment benefits programs.



Parker E. Elmore, ASA, EA, FCA, MAAA
President, CEO & Actuary



Sarah F. Rothenberg, ASA, MAAA
Consulting Actuary

EXECUTIVE SUMMARY

How did plan liabilities to change from FY 18 to FY 19?

For the year ending on the Measurement Date of June 30, 2019, the Plan saw an experience gain of \$2,497,585 or 6.26% of the beginning Total OPEB Liability ("TOL"). This was mainly due to premiums for Medicare Supplement plans decreasing 3% rather than the expected 10% increase. This was somewhat offset by an increase in the number of eligible employees. During the period there was an investment gain of \$22,123 above the expected return.

Assumption Changes

Some key assumptions have changed since the prior valuation - their impact is detailed below.

- ✓ Based on recommendations by PERAC, the mortality table has been updated from the RP-2000 Employees Mortality Table projected generationally with scale BB and a base year 2009 to the RP-2014 Mortality Table projected generationally with scale MP-2016 for males and females increasing the disclosed liability by \$2.9 million.
- ✓ The expected long-term medical trend has been updated to 4.50% decreasing the disclosed liability by \$3.1 million.
- ✓ Based on recent research by the Society of Actuaries, we have updated the assumption for morbidity or age-related costs of medical care increasing the disclosed liability by \$5.0 million.
- ✓ Assumption changes caused Service Cost to increase by \$63 thousand.

It is important to remember that actuarial assumptions or changes in such do not impact the actual cost of the Plan. Rather, they impact the timing of the recognition of such costs.

Changes in Benefits Terms

- ✓ To the best of our knowledge there have been no material changes in benefit terms that would impact the figures shown in this report.

EXECUTIVE SUMMARY

Recognition Period

- ✓ Changes in assumptions & plan experience are amortized into the net OPEB expense over 5.93 years.
- ✓ Differences between projected & actual earnings on OPEB plan investments are amortized into the net OPEB expense over 5.00 years
- ✓ Changes in benefit terms are to be recognized in full immediately

Events Subsequent to the Measurement Date

To the best of our knowledge there were no material events subsequent to the Measurement Date that would impact the figures shown in this report.

Discount Rate Determinants

- ✓ Employer Current and Future Benefit Payments
- ✓ Municipal Bond Rate – The municipal bond rate was 2.79% as of June 30, 2019.
- ✓ Current Asset Level – The Town had \$1,268,040 of OPEB assets as of June 30, 2019.
- ✓ Funding Policy - The Town is expected to contribute at least \$180,000 per year.
- ✓ Investment Policy - The Town is expected to earn 6.72% on assets based on its investment policy.

EXECUTIVE SUMMARY

Recommended Trust Contributions

We recommend a Fiscal 2020 contribution to an OPEB Trust of \$380,000 beyond pay-as-you-go costs which would increase by 3.00% per year thereafter. We have provided a projection of the Plan's funded status on page 23 using these recommended contributions and your investment policy which is expected to earn 6.72% per year. Based on our forecast, if the Town were to adopt this funding policy, the discount rate would increase to 5.50% and disclosed liabilities for Fiscal 2020 would decrease by \$4.2 million to \$41 million.

Key Drivers of Plan Liabilities

Several key drivers of plan costs and liabilities are:

- ✓ Premiums for Post 65 (Medicare supplement) plans - represent 71.15% of the total plan liabilities
- ✓ Age at which plan participants retire
- ✓ Percentage of plan participants who elect coverage for themselves and/or a spouse
- ✓ Medical care cost inflation rate - We currently assume medical costs increase at 4.50% per year for Active plans and 4.50% per year for Medicare supplement plans.
- ✓ Discount Rate (4.75%) – Higher discount rates yield lower liabilities and vice versa
- ✓ Cost Sharing - Under Massachusetts law you may charge retirees up to 50% of premiums for health insurance

Medicare Buy-In

Recently, some of our clients have seen substantial cost savings by “buying into” Medicare for retirees who would otherwise be ineligible. To buy into Medicare the Town would need to pay the Medicare Part A premium and the Medicare Part A and B penalties. While the cost to buy into Medicare is significant, it is likely still far less than the cost of the claims that the associated retirees are expected to incur. Under Actuarial Standards of Practice for OPEB, we are required to reflect the projected higher healthcare costs that occur as retirees age. The Town currently has 19 retirees or covered spouses who are over the age of 65 and are enrolled in Active medical plans rather than Medicare Supplement (Senior) plans. You may wish to review their Medicare eligibility to see if they are already eligible for Medicare or if a “buy-in” is appropriate as this could yield a reduction in your OPEB annual costs and disclosed liabilities.

EXECUTIVE SUMMARY

Key Plan Metrics

While an actuarial valuation under GASB 74/75 can be very complex with many variables, we find it helpful to look at several key metrics (shown below) to better allow you to manage your plan.

Representative Plan Statistics		
Valuation Date	July 1, 2018	July 1, 2016
Measurement Date & Period Ending	June 30, 2019	June 30, 2018
Reporting Date/Fiscal Year End	June 30, 2019	June 30, 2018
Total OPEB Liability	43,623,797	39,923,190
Per Eligible Active Plan Participant	43,785	47,066
Per Retiree/Spouse Plan Participant	58,635	62,281
Total Annual Service Cost (Annual Benefit Accrual)	1,220,103	1,140,205
Per Eligible Active Plan Participant	2,641	2,872
Expected Employer Share of Retiree Costs	1,785,910	1,481,613
Per Retiree/Spouse Plan Participant	4,476	4,345
Net OPEB Liability as a % of Covered Payroll	188.20%	178.60%
Average Annual Medical Plan Premium (Single Coverage)	5,033	6,532
Average Annual Medical Plan Premium (Family Coverage)	21,004	23,216

EXECUTIVE SUMMARY

Liabilities & Benefit Payments in Today's Dollars

With the growth of medical care costs over time, the nominal accrued liabilities ("TOL") and benefit payments can appear daunting. However, it is important to remember that a dollar paid in the future is worth less than a dollar paid today.

For the Period Ending on the Measurement Date of:	Number of Retirees, Spouses, & Surviving Spouses	Total OPEB Liability	Present Value at 3.00% of Total OPEB Liability	Employer Share of Premiums/Claims Including "Implicit Cost"	Present Value at 3.00% of Employer Share of Premiums / Claims Including "Implicit Cost"
June 30, 2019	399	43,623,797	43,623,797	1,785,910	1,785,910
June 30, 2024	472	50,520,198	43,579,167	2,276,864	1,964,043
June 30, 2029	485	58,253,874	43,346,353	2,671,780	1,988,055
June 30, 2034	486	65,747,423	42,200,769	3,204,054	2,056,560
June 30, 2039	460	74,740,099	41,381,781	3,478,475	1,925,947
June 30, 2044	428	86,874,873	41,491,923	3,861,870	1,844,451
June 30, 2049	397	104,117,970	42,895,225	4,151,040	1,710,174

PRINCIPAL RESULTS OF THE VALUATION

Town of South Hadley
Assuming Funding - 4.75% discount rate
Comparison of Plan Liabilities to Prior Valuation

Valuation Date	July 1, 2018	July 1, 2016
For the Measurement Period ending on the Measurement Date of:	June 30, 2019	June 30, 2018
For the Reporting Period & Fiscal Year ending on:	June 30, 2019	June 30, 2018
I. Total OPEB Liability		
A. Actives	20,228,492	18,685,245
B. Retirees/Disabled	<u>23,395,305</u>	<u>21,237,945</u>
C. Total	43,623,797	39,923,190
II. Fiduciary Net Position [Plan Assets]	1,268,040	892,405
III. Net OPEB Liability (Asset) [I. - II.]	42,355,757	39,030,785
IV. Funded Ratio [II. / I.]	2.91%	2.24%
V. Number of Eligible Participants		
A. Actives	462	397
B. Retirees/Disabled & Dependents	<u>399</u>	<u>341</u>
C. Total	861	738
VI. Service Cost	1,220,103	1,140,205
VII. Financial Statement Expense	3,459,730	2,944,574
VIII. Employer Contribution to the OPEB Trust	(284,150)	(480,000)
IX. Deferred Inflow of Resources	(2,094,106)	0
X. Deferred Outflow of Resources	4,045,654	16,246
XI. Money Weighted Rate of Return	8.89%	3.79%
XII. 20-year Municipal Bond Rate (SAPIHG)	2.79%	2.98%
XIII. Expected Long Term Rate of Return (Net of Expense)	6.72%	7.05%
XIV. Crossover Year	Immediate	Immediate
XV. Discount Rate	4.75%	4.75%

PRINCIPAL RESULTS OF THE VALUATION

Town of South Hadley Plan Liabilities as of the June 30, 2019 Measurement Date

	Town Employees and Retirees	Teacher Employees and Retirees	School Non-Teacher Employees and Retirees	Police Employees and Retirees	Landfill Enterprise Employees and Retirees	Water/Sewer Enterprise Employees and Retirees	Golf Course Enterprise Employees and Retirees	Total
I. Total OPEB Liability								
A. Actives	1,736,989	14,138,646	1,567,727	1,951,589	148,140	685,401	0	20,228,492
B. Retirees/Disabled	<u>4,385,473</u>	<u>13,933,034</u>	<u>2,637,421</u>	<u>1,777,598</u>	<u>459,090</u>	<u>202,689</u>	<u>0</u>	<u>23,395,305</u>
C. Total	6,122,462	28,071,680	4,205,148	3,729,187	607,230	888,090	0	43,623,797
II. Fiduciary Net Position [Plan Assets]	177,964	815,977	122,234	108,399	17,651	25,815	0	1,268,040
III. Net OPEB Liability (Asset) [I. - II.]	5,944,498	27,255,703	4,082,914	3,620,788	589,579	862,275	0	42,355,757
IV. Number of Eligible Participants								
A. Actives	60	265	92	30	4	11	0	462
B. Retirees/Disabled	<u>82</u>	<u>220</u>	<u>66</u>	<u>22</u>	<u>5</u>	<u>4</u>	<u>0</u>	<u>399</u>
C. Total	142	485	158	52	9	15	0	861
For the Reporting Date and Fiscal Year Ending June 30, 2019								
V. Service Cost	128,489	771,740	182,456	107,036	11,116	19,266	0	1,220,103
VI. Financial Statement Expense	440,004	2,213,760	400,456	298,488	41,977	65,045	0	3,459,730
VII. Employer Share of Costs	(289,748)	(1,087,078)	(206,423)	(158,108)	(27,094)	(17,459)	0	(1,785,910)
VIII. Employer (Payments)/Withdrawals to/from OPEB Trust	(39,321)	(183,188)	(27,594)	(24,271)	(3,899)	(5,877)	0	(284,150)
IX. Total Employer Contribution [VII. + VIII.]	(329,069)	(1,270,266)	(234,017)	(182,379)	(30,993)	(23,336)	0	(2,070,060)

PRINCIPAL RESULTS OF THE VALUATION

Town of South Hadley
Assuming Funding - 4.75% discount rate
For the Period Ending on the June 30, 2019 Measurement Date

	Actives			Retirees/Disabled			Grand Total
	Under Age 65	Age 65+	Actives Total	Under Age 65	Age 65 +	Retirees Total	
Present Value of Future Benefits							
A. Participants	9,425,569	11,247,615	20,673,184	2,388,362	18,386,739	20,775,101	41,448,285
B. Spouses	<u>4,891,066</u>	<u>6,136,429</u>	<u>11,027,495</u>	<u>868,106</u>	<u>1,752,098</u>	<u>2,620,204</u>	<u>13,647,699</u>
C. Total	14,316,635	17,384,044	31,700,679	3,256,468	20,138,837	23,395,305	55,095,984
Total OPEB Liability							
A. Participants	6,193,052	7,060,733	13,253,785	2,388,362	18,386,739	20,775,101	34,028,886
B. Spouses	<u>3,136,864</u>	<u>3,837,843</u>	<u>6,974,707</u>	<u>868,106</u>	<u>1,752,098</u>	<u>2,620,204</u>	<u>9,594,911</u>
C. Total	9,329,916	10,898,576	20,228,492	3,256,468	20,138,837	23,395,305	43,623,797
Service Cost							
A. Participants	331,540	462,368	793,908	0	0	0	793,908
B. Spouses	<u>173,563</u>	<u>252,632</u>	<u>426,195</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>426,195</u>
C. Total	505,103	715,000	1,220,103	0	0	0	1,220,103

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES
(As of the June 30, 2019 Measurement Date)

The GASB Standards for accounting and financial reporting for postemployment benefits other than pensions require the following disclosures in the financial statements:

1. OPEB Expense Development

Components of the Town's OPEB Expenses for the Fiscal Year Ending June 30, 2019	
Description	Amount
I. Service Cost	1,220,103
II. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	1,912,383
III. Deferred (Inflows)/Outflows from Plan Experience*	(421,177)
IV. Deferred (Inflows)/Outflows from Changes of Assumptions*	818,147
V. Projected Earnings on OPEB Plan Investments	(69,362)
VI. Deferred (Inflows)/Outflows from Earnings on Plan Investments**	(364)
VII. Financial Statement Expense Prior to Plan Design Changes [I. + II.+ III. + IV. + V. + VI.]	3,459,730
VIII. Deferred (Inflows)/Outflows from Plan Design Changes***	0
IX. Financial Statement Expense [VII. + VIII.]	3,459,730

* Amortized over 5.93 years

** Amortized over 5.00 years

*** Recognized Immediately

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES
(As of the June 30, 2019 Measurement Date)

2. Changes in Net OPEB Liability

Changes in Net OPEB Liability				
		Increase (Decrease)		
		Total OPEB	Plan Fiduciary	Net OPEB
		Liability	Net Position	Liability
I.	Balances for June 30, 2018	39,923,190	892,405	39,030,785
II.	Prior Period Adjustment	0	0	0
III.	Balances for June 30, 2018 with Adjustment [I. + II.]	39,923,190	892,405	39,030,785
Changes for the year:				
IV.	Service Cost	1,220,103	0	1,220,103
V.	Interest on Total OPEB Liability, Service Cost, and Benefit Payments	1,912,383	0	1,912,383
VI.	Changes in Benefit Terms *	0	0	0
VII.	Change in Assumptions **	4,851,616	0	4,851,616
VIII.	Differences Between Actual and Expected Experience **	(2,497,585)	0	(2,497,585)
IX.	Net Investment Income	0	91,485	(91,485)
X.	Employer Contributions to Trust	0	2,070,060	(2,070,060)
XI.	Benefit Payments Withdrawn from Trust	0	(1,785,910)	1,785,910
XII.	Benefit Payments Excluding Implicit Cost	(1,263,860)	0	(1,263,860)
XIII.	Implicit Cost Amount	(522,050)	0	(522,050)
XIV.	Total Benefit Payments Including Implicit Cost [XII. + XIII.]	(1,785,910)	0	(1,785,910)
XV.	Administrative Expense	0	0	0
XVI.	Other Charges	0	0	0
XVII.	Net Changes [IV.+V.+VI.+VII.+VIII.+IX.+X.+XI.+XIV.+XV.+XVI.]	3,700,607	375,635	3,324,972
XVIII.	Balances at June 30, 2019 [III.+XVII.]	43,623,797	1,268,040	42,355,757

* Recognized Immediately

** Amortized over 5.93 years

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2019 Measurement Date)

3. Changes in Net OPEB Expense

Deferred (Inflows)/Outflows in OPEB Expense Arising from the Recognition of the Effects of Differences Between Expected & Actual Experience									
Fiscal	Differences Between			2019	2020	2021	2022	2023	2024
	Actual & Expected Experience	Recognition Period (Years)	Remaining Balance						
2017									
2018	0	5.00	0	0	0	0	0		
2019	(2,497,585)	5.93	(2,076,408)	(421,177)	(421,177)	(421,177)	(421,177)	(421,177)	(391,700)
2020									
2021									
2022									
2023									
2024									
2025									
2026									
Total Remaining Balance			(2,076,408)						
Net increase (decrease) in OPEB Expense				(421,177)	(421,177)	(421,177)	(421,177)	(421,177)	(391,700)

Deferred (Inflows)/Outflows in OPEB Expense Arising from the Recognition of the Effects of Changes in Assumptions									
Fiscal	Differences from			2019	2020	2021	2022	2023	2024
	Changes in Actuarial Assumptions	Recognition Period (years)	Remaining Balance						
2017									
2018	0	5.00	0	0	0	0	0		
2019	4,851,616	5.93	4,033,469	818,147	818,147	818,147	818,147	818,147	760,881
2020									
2021									
2022									
2023									
2024									
2025									
2026									
Total Remaining Balance			4,033,469						
Net increase (decrease) in OPEB Expense				818,147	818,147	818,147	818,147	818,147	760,881

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES
 (As of the June 30, 2019 Measurement Date)

3. Changes in Net OPEB Expense (Continued)

Deferred (Inflows)/Outflows in OPEB Expense Arising from the Recognition of Differences Between Projected & Actual Earnings on OPEB Plan Investments									
Fiscal	Differences Between			2019	2020	2021	2022	2023	2024
	Actual & Expected Earnings	Recognition Period (years)	Remaining Balance						
2017									
2018	20,307	5.00	12,185	4,061	4,061	4,061	4,063		
2019	(22,123)	5.00	(17,698)	(4,425)	(4,425)	(4,425)	(4,425)	(4,423)	
2020									
2021									
2022									
2023									
2024									
2025									
2026									
Total Remaining Balance			(5,513)						
Net increase (decrease) in OPEB Expense				(364)	(364)	(364)	(362)	(4,423)	0

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES
(As of the June 30, 2019 Measurement Date)

3. Changes in Net OPEB Expense (Continued)

Statement of Outflows & Inflows Arising from Current & Prior Reporting Periods for the Measurement Period Ending on June 30, 2019 to be Reported for the Fiscal Year Ending June 30, 2019			
	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>	<u>Total</u>
I. Contributions made subsequent to the Measurement Date	0	0	0
II. Differences Between Actual & Expected Experience	0	(2,076,408)	(2,076,408)
III. Changes of Assumptions	4,033,469	0	4,033,469
IV. Net Difference Between Projected & Actual Earnings on OPEB Plan Investments	<u>12,185</u>	<u>(17,698)</u>	<u>(5,513)</u>
V. Total [I.+II.+III.+IV.]	4,045,654	(2,094,106)	1,951,548

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES
(As of the June 30, 2019 Measurement Date)

3. Changes in Net OPEB Expense (Continued)

Annual Amortization of Deferred (Inflows)/Outflows

The balance of deferred (inflows)/outflows as of June 30, 2019 will be recognized in future years as shown below.

Year ending June 30:

2020	396,606
2021	396,606
2022	396,608
2023	392,547
2024	369,181
Thereafter	0

4. Discount Rate

The discount rate used to measure the Total OPEB liability was 4.75% as of June 30, 2019 and 4.75% as of June 30, 2018. The projection of cash flows used to determine the discount rate assumed that contributions will be made in accordance with the Town's funding policy. Based on these assumptions, the OPEB Plan's Fiduciary Net Position is projected to be insufficient to make all projected benefit payments to current plan members. Therefore, the long-term expected rate of return on the OPEB Plan assets is applied to the projected benefits payments which the Fiduciary Net Position is expected to be sufficient to cover and the Municipal Bond Rate is applied thereafter. The Municipal Bond Rate is based on the S&P Municipal Bond 20 - Year High Grade Index ("SAPIHG"), which was 2.79% as of June 30, 2019. The S&P Municipal Bond 20 - Year High Grade Index is the index rate for 20 year, tax exempt general obligation municipal bonds with an average rate of AA/Aa or higher.

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2019 Measurement Date)

5. Funding Policy

The contribution requirements of plan members and the Town are established and may be amended through Town ordinances. For the period ending on the June 30, 2019 Measurement Date, total Town premiums plus implicit costs for the retiree medical program were \$1,785,910. The Town also contributed \$284,150 to an OPEB Trust for a total contribution during the measurement period of \$2,070,060 to be reported on the financial statement for the fiscal year ending June 30, 2019.

6. Investment Policy

The chart below shows how the long-term rate of return on assets is developed based on the Town's Investment Policy.

Investment Target Allocation & Expected Long-Term Real Rate of Return			
Asset Class	Target Allocation	Asset Class	Long-Term Expected Real Rate of Return*
Domestic Equity - Large Cap	20.00%	Domestic Equity - Large Cap	4.80%
Domestic Equity - Small/Mid Cap	10.00%	Domestic Equity - Small/Mid Cap	5.29%
International Equity - Developed Market	10.00%	International Equity - Developed Market	5.45%
International Equity-Emerging Market	5.00%	International Equity-Emerging Market	6.42%
Domestic Fixed Income	25.00%	Domestic Fixed Income	2.05%
International Fixed Income	10.00%	International Fixed Income	3.00%
Alternatives	20.00%	Alternatives	6.50%
Real Estate	0.00%	Real Estate	6.25%
Cash & Cash Equivalents	0.00%	Cash & Cash Equivalents	0.00%
Total	<u>100.00%</u>		
		I. Real Rate of Return**	4.47%
		II. Inflation Assumption	2.50%
		III. Total Nominal Return [I. + II.]	6.97%
		IV. Investment Expense	0.25%
		V. Net Investment Return [III.-IV.]	<u>6.72%</u>

* Based on 2019 Horizon Survey of Capital Market Assumptions

** Geometric Mean

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES
(As of the June 30, 2019 Measurement Date)

7. Schedule of The Town's Contributions

For the Fiscal Year Ending	Actuarial Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
June 30, 2019	3,775,983	(2,070,060)	1,705,923	22,503,134	9.20%
June 30, 2018	3,495,446	(1,961,613)	1,533,833	21,847,702	8.98%

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2019 Measurement Date)

8. Effect of 1% Change in Healthcare Trend

<u>Impact of a 1% Change in the Healthcare Trend Rate as of the June 30, 2019 Measurement Date</u>			
	<u>1% Decrease</u>	<u>Current Trend Rate</u>	<u>1% Increase</u>
I. Total OPEB Liability	38,137,736	43,623,797	50,419,975
II. Fiduciary Net Position	<u>1,268,040</u>	<u>1,268,040</u>	<u>1,268,040</u>
III. Net OPEB Liability (Asset) [I.-II.]	36,869,696	42,355,757	49,151,935
IV. Service Cost	961,247	1,220,103	1,575,260

9. Effect of 1% Change in Discount Rates

<u>Impact of a 1% Change in the Discount Rate as of the June 30, 2019 Measurement Date</u>			
	<u>1% Decrease</u>	<u>Current Discount Rate</u>	<u>1% Increase</u>
I. Total OPEB Liability	49,708,358	43,623,797	38,644,879
II. Fiduciary Net Position	<u>1,268,040</u>	<u>1,268,040</u>	<u>1,268,040</u>
III. Net OPEB Liability (Asset) [I.-II.]	48,440,318	42,355,757	37,376,839
IV. Service Cost	1,564,166	1,220,103	961,262

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES
(As of the June 30, 2019 Measurement Date)

10. Money Weighted Rate of Return

	Plan	Periods	Period
	Investments /	Invested	Weight
	Net External		
	Cash Flows		
I. Beginning value - June 30, 2018	892,405	12	1.0000
Monthly net external cash flows:			
July	0	11	0.9167
August	0	10	0.8333
September	0	9	0.7500
October	84,150	8	0.6667
November	0	7	0.5833
December	0	6	0.5000
January	200,000	5	0.4167
February	0	4	0.3333
March	0	3	0.2500
April	0	2	0.1667
May	0	1	0.0833
<u>June</u>	<u>0</u>	0	0.0000
II. Total net external cash flow	284,150		
III. Earnings and increase in fair value	91,485		
IV. Ending value - June 30, 2019 [I.+II.+III.]	1,268,040		
Money Weighted Rate of Return	8.89%		
Asset Value - June 30, 2019	1,268,040		

EXHIBIT A
FINANCIAL STATEMENT DISCLOSURES
(As of the June 30, 2019 Measurement Date)

11. OPEB Liability, OPEB Expense

	Fiscal Year Ending June 30, 2019							Total
	Town Employees and Retirees	Teacher Employees and Retirees	School Non- Teacher Employees and Retirees	Police Employees and Retirees	Landfill Enterprise Employees and Retirees	Water/Sewer Enterprise Employees and Retirees	Golf Course Enterprise Employees and Retirees	
I. Total OPEB Liability as of June 30, 2019	6,122,462	28,071,680	4,205,148	3,729,187	607,230	888,090	0	43,623,797
II. Fiduciary Net Position as of June 30, 2019	177,964	815,977	122,234	108,399	17,651	25,815	0	1,268,040
III. Net OPEB Liability (Asset) as of June 30, 2019 [I. - II.]	5,944,498	27,255,703	4,082,914	3,620,788	589,579	862,275	0	42,355,757
IV. Service Cost	128,489	771,740	182,456	107,036	11,116	19,266	0	1,220,103
V. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	265,578	1,231,445	186,459	163,477	26,305	39,119	0	1,912,383
VI. Projected Earnings on OPEB Plan Investments	(9,725)	(44,639)	(6,690)	(5,929)	(965)	(1,414)	0	(69,362)
VII. Net Recognition of Deferred (Inflows)/Outflows	55,662	255,214	38,231	33,904	5,521	8,074	0	396,606
VIII. Expense Related to Change in Benefit Terms	0	0	0	0	0	0	0	0
IX. Financial Statement Expense [IV. + V. + VII. + VIII.]	440,004	2,213,760	400,456	298,488	41,977	65,045	0	3,459,730
X. Employer Share of Costs	(289,748)	(1,087,078)	(206,423)	(158,108)	(27,094)	(17,459)	0	(1,785,910)
XI. Employer (Payments) Withdrawals to/from OPEB Trust	(39,321)	(183,188)	(27,594)	(24,271)	(3,899)	(5,877)	0	(284,150)
XII. Total Employer Contribution [X. + XI.]	(329,069)	(1,270,266)	(234,017)	(182,379)	(30,993)	(23,336)	0	(2,070,060)
XIII. Net OPEB Expense [IX. + XII.]	110,935	943,494	166,439	116,109	10,984	41,709	0	1,389,670

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2019 Measurement Date)

12. OPEB Liability, OPEB Expense and Deferred Inflow/Outflow

Valuation Date	July 1, 2018
For the Measurement Period ending on the Measurement Date of:	June 30, 2019
For the Reporting Period & Fiscal Year ending on:	June 30, 2019
Source of Deferred Inflow/Outflow	
I. Deferred (Inflow)/Outflow from Actual vs. Expected Experience	(2,076,408)
II. Deferred (Inflow)/Outflow from Investment Experience	(5,513)
III. Deferred (Inflow)/Outflow from Changes in Assumptions	4,033,469
Change in Deferred Inflow/Outflow	
I. Deferred Outflow at the beginning of the period	16,246
II. Deferred Outflow created during the period	4,851,616
III. Deferred Outflow recognized during the period	822,208
IV. Change in Deferred Outflow (II. - III.)	4,029,408
V. Deferred Outflow at end of the period (I. + IV.)	4,045,654
VI. Deferred Inflow at the beginning of the period	0
VII. Deferred Inflow created during the period	(2,519,708)
VIII. Deferred Inflow recognized during the period	(425,602)
IX. Change in Deferred Inflow (VII. - VIII.)	(2,094,106)
X. Deferred Inflow at end of the period (VI. + IX.)	(2,094,106)
Net OPEB Liability	
I. Net OPEB Liability at beginning of period	39,030,785
II. Service Cost	1,220,103
III. Interest on Total OPEB Liability, Service Cost, and Payments	1,912,383
IV. Projected Investment Income	(69,362)
V. Total Employer Contributions	(2,070,060)
VI. Expense Related to Change in Benefit Terms	0
VII. Net OPEB Expense - Before Recognition of Deferred (Inflow)/Outflow (II. + III. + IV. + V. + VI.)	993,064
VIII. Deferred Outflow created during the period	4,851,616
IX. Deferred Inflow created during the period	(2,519,708)
X. Net OPEB Liability at end of period (I. + VII. + VIII. + IX.)	42,355,757
Net OPEB Expense	
I. Service Cost	1,220,103
II. Interest on Total OPEB Liability, Service Cost, and Payments	1,912,383
III. Projected Investment Income	(69,362)
IV. Recognition of Deferred (Inflow)/Outflow	396,606
V. Expense Related to Change in Benefit Terms	0
VI. Financial Statement Expense (I. + II. + III. + IV. + V.)	3,459,730
VII. Benefit Payments	(1,785,910)
VIII. Contributions to Trust	(284,150)
IX. Total Employer Payments (VII. + VIII.)	(2,070,060)
X. Total Net OPEB Expense under GASB 75 (VI. + IX.)	1,389,670

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2019 Measurement Date)

The Town's Actuarially Determined Contribution (ADC) is an amount actuarially determined in accordance with the parameters of GASB Statement No. 74/75 which is composed of the service cost and an amortization of the unfunded liability. We have used a 30 year flat dollar amortization of the Town's unfunded liability for the purpose of calculating ADC. The following table shows the components of the Town's annual ADC and the amount actually contributed to the plan:

	Actuarially Determined Contribution - Deficiency / (Excess)	
	For the Fiscal Year Ending:	
	<u>June 30, 2019</u>	<u>June 30, 2018</u>
I. Service Cost	1,220,103	1,140,205
II. 30 Year Level Dollar Amortization of NOL	<u>2,555,880</u>	<u>2,355,241</u>
III. Actuarial Determined Contribution [I. + II.]	3,775,983	3,495,446
IV. Contributions in Relation to the Actuarially Determined Contribution	<u>(2,070,060)</u>	<u>(1,961,613)</u>
V. Contribution Deficiency / (Excess) [III. + IV.]	<u>1,705,923</u>	<u>1,533,833</u>
Covered Employee Payroll	22,503,134	21,847,702
Contributions as a % of Covered Employee Payroll	9.20%	8.98%
Discount Rate	4.75%	4.75%
Money Weighted Rate of Return	8.89%	3.79%

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2019 Measurement Date)

Schedule of Changes in the Town's Net OPEB Liability and Related Ratios		
Valuation Date	July 1, 2018	July 1, 2016
GASB 75 Measurement Date	June 30, 2019	June 30, 2018
For the Reporting Period & Fiscal Year Ending on:	June 30, 2019	June 30, 2018
Total OPEB Liability	43,623,797	39,923,190
I. Service Cost	1,220,103	1,140,205
II. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	1,912,383	1,844,342
III. Changes in Benefit Terms	0	0
IV. Difference Between Expected & Actual Plan Experience	(2,497,585)	0
V. Changes of Assumptions	4,851,616	0
VI. Benefit Payments Excluding Implicit Cost	(1,263,860)	(1,256,848)
VII. Implicit Cost Amount	(522,050)	(224,765)
VIII. Total Benefit Payments Including Implicit Cost [VI.+VII.]	(1,785,910)	(1,481,613)
IX. Net Change in OPEB Liability [I.+II.+III.+IV.+V.+VIII.]	3,700,607	1,502,934
X. Total OPEB Liability - Beginning of Period	39,923,190	38,303,280
XI. Prior Period Adjustment	0	116,976
XII. Total OPEB Liability - Beginning of Period with Adjustment	39,923,190	38,420,256
XIII. Total OPEB Liability - End of Period [IX.+XII.]	43,623,797	39,923,190
Plan Fiduciary Net Position	1,268,040	892,405
XIV. Earning from Plan Investments	91,485	23,727
XV. Employer Contribution to Trust	2,070,060	1,961,613
XVI. Benefit Payments from Trust, Including Refunds of Member Contributions	(1,785,910)	(1,481,613)
XVII. Administrative Expense	0	0
XVIII. Other	0	0
XIX. Net Change in Plan Fiduciary Net Position [XIV.+XV.+XVI.+XVII.+XVIII.]	375,635	503,727
XX. Plan Fiduciary Net Position - Beginning of Period	892,405	388,678
XXI. Prior Period Adjustment	0	0
XXII. Plan Fiduciary Net Position - Beginning of Period with Adjustment	892,405	388,678
XXIII. Plan Fiduciary Net Position - End of Period [XIX.+XXII.]	1,268,040	892,405
XXIV. Net OPEB Liability [XIII.-XXIII.]	42,355,757	39,030,785
XXV. Plan Fiduciary Net Position as % of Total OPEB Liability [XXIII. / XIII.]	2.91%	2.24%
XXVI. Covered Employee Payroll	22,503,134	21,847,702
XXVII. Plan NOL as % of Covered Employee Payroll [XXIV. / XXVI.]	188.22%	178.65%
Single Discount Rate to calculate Plan Liabilities	4.75%	4.75%

EXHIBIT BREQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2019 Measurement Date)

Notes to Required Supplementary Information:

Valuation Date:	Actuarially Determined Contribution was calculated as of July 1, 2018.
Actuarial Cost Method:	Individual Entry Age Normal
Asset-Valuation Method:	Market Value of Assets as of the Measurement Date, June 30, 2019.

Actuarial Assumptions:

Investment Rate of Return:	6.72%, net of OPEB plan investment expense, including inflation.
Municipal Bond Rate	2.79% as of June 30, 2019 (source: S&P Municipal Bond 20-Year High Grade Index – SAPIHG)
Single Equivalent Discount Rate:	4.75%, net of OPEB plan investment expense, including inflation.
Inflation:	2.50% as of June 30, 2019 and for future periods
Salary Increases:	3.00% annually as of June 30, 2019 and for future periods
Cost of Living Adjustment:	Not Applicable

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2019 Measurement Date)

Pre-Retirement Mortality:	General: RP-2014 Mortality Table for Blue Collar Employees projected generationally with scale MP-2016 for males and females Teachers: RP-2014 Mortality Table for White Collar Employees projected generationally with scale MP-2016 for males and females
Post-Retirement Mortality:	General: RP-2014 Mortality Table for Blue Collar Healthy Annuitants projected generationally with scale MP-2016 for males and females Teachers: RP-2014 Mortality Table for White Collar Healthy Annuitants projected generationally with scale MP-2016 for males and females
Disabled Mortality:	General: RP-2014 Mortality Table for Blue Collar Healthy Annuitants projected generationally with scale MP-2016 for males and females, set forward 1 year Teachers: RP-2014 Mortality Table for White Collar Healthy Annuitants projected generationally with scale MP-2016 for males and females

EXHIBIT BREQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2019 Measurement Date)

Plan Membership

At July 1, 2018, OPEB plan membership consisted of the following:

Inactive employees or beneficiaries currently receiving benefits:	399
Active Employees:	<u>462</u>
Total:	861

Events Subsequent to the Measurement Date

To the best of our knowledge there were no material events subsequent to the Measurement Date that would impact the figures shown in this report.

Changes in Assumptions: From June 30, 2018 to June 30, 2019

- ✓ Based on recommendations by PERAC, the mortality table has been updated from the RP-2000 Employees Mortality Table projected generationally with scale BB and a base year 2009 to the RP-2014 Mortality Table projected generationally with scale MP-2016 for males and females
- ✓ The expected long-term medical trend has been updated to 4.50%
- ✓ Based on recent research by the Society of Actuaries, we have updated the assumption for morbidity or age-related costs of medical care

Contributions:

The contribution requirements of plan members and the Town are established and may be amended through Town ordinances. The Town contributed \$284,150 beyond the pay-as-you-go cost for the period ending on the June 30, 2019 Measurement Date. For the year ending on the June 30, 2019 Measurement Date total Town premiums plus implicit costs for the retiree medical program were \$1,785,910. \$522,050 of the \$1,785,910 represents implicit cost.

EXHIBIT BREQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2019 Measurement Date)

Census Data Manipulation:

In the absence of data, the following was assumed:

Spouse Sex:	Male participants had female spouses and vice versa.
Spouse Age:	Male spouses were three years older than female spouses and same sex spouses were the same age.
Hire Age:	Participants who were not on the previous valuation were hired halfway between last valuation and the current valuation. If we did not have census data related to the last valuation, the participants were assumed to have been hired at age forty.
Retiree Age:	Retirees had the same birth date as they had the prior valuation. If we did not have census data related to the last valuation, retirees who were enrolled in Active plans were assumed to be age sixty-two and retirees who were enrolled in Medicare Supplement plans were assumed to be age seventy-two.
School Demographics:	Two thirds of school participants were teachers.
Other Material Changes:	None

APPENDIX I - LIABILITIES, ASSETS, & CASH FLOWS

CURRENT FUNDING POLICY (OPEN GROUP)

Funding - 4.75% discount rate

For the Fiscal Year	Period Ending on the Measurement Date of:	I. Total OPEB Liability ("TOL") as of Measurement Date	II. Fiduciary Net Position as of Measurement Date with an expected 6.72% return	III. Net OPEB Liability (Asset) [I. - II.]	IV. Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Benefit Payments (With Implicit Cost)	VII. Trust Contributions Beyond Pay-as-you-go	VIII. Gross Trust Contributions [VI. + VII.]	IX. Benefit Payments Reimbursed from the Trust	X. Administrative & Investment Expenses Reimbursed from the Trust	XI. Total Employer Payments Less Reimbursements [VIII. - IX. - X.]
2019	June 30, 2019	43,623,797	1,268,040	42,355,757	2.91%	1,220,103	1,785,910	284,150	2,070,060	1,785,910	0	284,150
2020	June 30, 2020	45,048,509	1,539,202	43,509,307	3.42%	1,256,101	1,918,156	180,000	2,098,156	1,918,156	0	180,000
2021	June 30, 2021	46,300,387	1,828,586	44,471,801	3.95%	1,298,141	2,086,152	180,000	2,266,152	2,086,152	0	180,000
2022	June 30, 2022	47,647,242	2,137,417	45,509,825	4.49%	1,343,536	2,148,211	180,000	2,328,211	2,148,211	0	180,000
2023	June 30, 2023	49,087,968	2,467,001	46,620,967	5.03%	1,386,820	2,164,188	180,000	2,344,188	2,164,188	0	180,000
2024	June 30, 2024	50,520,198	2,818,733	47,701,465	5.58%	1,429,758	2,276,864	180,000	2,456,864	2,276,864	0	180,000
2025	June 30, 2025	51,977,586	3,194,102	48,783,484	6.15%	1,475,931	2,357,992	180,000	2,537,992	2,357,992	0	180,000
2026	June 30, 2026	53,499,801	3,594,695	49,905,106	6.72%	1,524,378	2,406,453	180,000	2,586,453	2,406,453	0	180,000
2027	June 30, 2027	55,044,295	4,022,208	51,022,087	7.31%	1,577,074	2,488,564	180,000	2,668,564	2,488,564	0	180,000
2028	June 30, 2028	56,653,847	4,478,450	52,175,397	7.90%	1,629,598	2,545,388	180,000	2,725,388	2,545,388	0	180,000
2029	June 30, 2029	58,253,874	4,965,352	53,288,522	8.52%	1,682,052	2,671,780	180,000	2,851,780	2,671,780	0	180,000
2030	June 30, 2030	59,782,185	5,484,973	54,297,212	9.17%	1,737,136	2,739,399	180,000	2,919,399	2,739,399	0	180,000
2031	June 30, 2031	61,373,228	6,039,513	55,333,715	9.84%	1,793,024	2,863,490	180,000	3,043,490	2,863,490	0	180,000
2032	June 30, 2032	62,869,058	6,631,318	56,237,740	10.55%	1,858,267	3,011,533	180,000	3,191,533	3,011,533	0	180,000
2033	June 30, 2033	64,368,824	7,262,892	57,105,932	11.28%	1,919,815	3,102,987	180,000	3,282,987	3,102,987	0	180,000
2034	June 30, 2034	65,747,423	7,936,908	57,810,515	12.07%	1,984,768	3,204,054	180,000	3,384,054	3,204,054	0	180,000
2035	June 30, 2035	67,314,640	8,656,218	58,658,422	12.86%	2,049,912	3,331,988	180,000	3,511,988	3,331,988	0	180,000
2036	June 30, 2036	68,988,994	9,423,866	59,565,128	13.66%	2,129,350	3,345,118	180,000	3,525,118	3,345,118	0	180,000
2037	June 30, 2037	70,773,486	10,243,099	60,530,387	14.47%	2,208,398	3,399,150	180,000	3,579,150	3,399,150	0	180,000
2038	June 30, 2038	72,570,514	11,117,385	61,453,129	15.32%	2,288,453	3,473,019	180,000	3,653,019	3,473,019	0	180,000
2039	June 30, 2039	74,740,099	12,050,423	62,689,676	16.12%	2,375,650	3,478,475	180,000	3,658,475	3,478,475	0	180,000
2040	June 30, 2040	76,964,116	13,046,161	63,917,955	16.95%	2,465,954	3,557,901	180,000	3,737,901	3,557,901	0	180,000
2041	June 30, 2041	79,304,858	14,108,813	65,196,045	17.79%	2,558,378	3,644,536	180,000	3,824,536	3,644,536	0	180,000
2042	June 30, 2042	81,650,687	15,242,875	66,407,812	18.67%	2,663,374	3,754,842	180,000	3,934,842	3,754,842	0	180,000
2043	June 30, 2043	84,143,075	16,453,146	67,689,929	19.55%	2,768,785	3,777,607	180,000	3,957,607	3,777,607	0	180,000
2044	June 30, 2044	86,874,873	17,744,747	69,130,126	20.43%	2,882,136	3,861,870	180,000	4,041,870	3,861,870	0	180,000
2045	June 30, 2045	89,901,024	19,123,144	70,777,880	21.27%	3,002,762	3,904,999	180,000	4,084,999	3,904,999	0	180,000
2046	June 30, 2046	93,204,074	20,594,169	72,609,905	22.10%	3,130,044	3,927,936	180,000	4,107,936	3,927,936	0	180,000
2047	June 30, 2047	96,452,244	22,164,047	74,288,197	22.98%	3,260,954	4,024,146	180,000	4,204,146	4,024,146	0	180,000
2048	June 30, 2048	100,130,276	23,839,421	76,290,855	23.81%	3,395,565	4,100,286	180,000	4,280,286	4,100,286	0	180,000
2049	June 30, 2049	104,117,970	25,627,380	78,490,590	24.61%	3,546,499	4,151,040	180,000	4,331,040	4,151,040	0	180,000
2050	June 30, 2050	108,315,183	27,535,490	80,779,693	25.42%	3,698,278	4,303,614	180,000	4,483,614	4,303,614	0	180,000

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

ALTERNATIVE FUNDING SCENARIO (OPEN GROUP)

Alternative Funding Scenario - 5.50% discount rate

For the Fiscal Year	Period Ending on the Measurement Date of:	I. Total OPEB Liability ("TOL") as of Measurement Date	II. Fiduciary Net Position as of Measurement Date with expected 6.72% return	III. Net OPEB Liability (Asset) [I. - II.]	IV. Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Benefit Payments (With Implicit Cost)	VII. Trust Contributions Beyond Pay-as-you-go	VIII. Gross Trust Contributions [VI. + VII.]	IX. Benefit Payments Reimbursed from the Trust	X. Administrative & Investment Expenses Reimbursed from the Trust	XI. Total Employer Payments Less Reimbursements [VII. - VIII. - IX.]
2019	June 30, 2019	39,826,549	1,268,040	38,558,509	3.18%	1,021,182	1,785,910	284,150	2,070,060	1,785,910	0	2,070,060
2020	June 30, 2020	40,856,375	1,745,813	39,110,562	4.27%	1,051,311	1,918,156	380,000	2,298,156	1,918,156	0	2,298,156
2021	June 30, 2021	41,800,034	2,267,469	39,532,565	5.42%	1,086,496	2,086,152	391,400	2,477,552	2,086,152	0	2,477,552
2022	June 30, 2022	43,499,786	2,836,310	40,663,476	6.52%	1,124,490	2,148,211	403,142	2,551,353	2,148,211	0	2,551,353
2023	June 30, 2023	44,815,108	3,455,871	41,359,237	7.71%	1,160,717	2,164,188	415,236	2,579,424	2,164,188	0	2,579,424
2024	June 30, 2024	46,122,675	4,129,935	41,992,740	8.95%	1,196,655	2,276,864	427,693	2,704,557	2,276,864	0	2,704,557
2025	June 30, 2025	47,453,210	4,862,552	42,590,658	10.25%	1,235,301	2,357,992	440,524	2,798,516	2,357,992	0	2,798,516
2026	June 30, 2026	48,842,930	5,658,053	43,184,877	11.58%	1,275,849	2,406,453	453,740	2,860,193	2,406,453	0	2,860,193
2027	June 30, 2027	50,252,989	6,521,074	43,731,915	12.98%	1,319,953	2,488,564	467,352	2,955,916	2,488,564	0	2,955,916
2028	June 30, 2028	51,722,444	7,456,574	44,265,870	14.42%	1,363,914	2,545,388	481,373	3,026,761	2,545,388	0	3,026,761
2029	June 30, 2029	53,183,204	8,469,858	44,713,346	15.93%	1,407,816	2,671,780	495,814	3,167,594	2,671,780	0	3,167,594
2030	June 30, 2030	54,578,490	9,566,601	45,011,889	17.53%	1,453,920	2,739,399	510,688	3,250,087	2,739,399	0	3,250,087
2031	June 30, 2031	56,031,047	10,752,872	45,278,175	19.19%	1,500,696	2,863,490	526,009	3,389,499	2,863,490	0	3,389,499
2032	June 30, 2032	57,396,680	12,035,162	45,361,518	20.97%	1,555,301	3,011,533	541,789	3,553,322	3,011,533	0	3,553,322
2033	June 30, 2033	58,765,906	13,420,413	45,345,493	22.84%	1,606,815	3,102,987	558,043	3,661,030	3,102,987	0	3,661,030
2034	June 30, 2034	60,024,512	14,916,048	45,108,464	24.85%	1,661,178	3,204,054	574,784	3,778,838	3,204,054	0	3,778,838
2035	June 30, 2035	61,455,318	16,530,003	44,925,315	26.90%	1,715,701	3,331,988	592,028	3,924,016	3,331,988	0	3,924,016
2036	June 30, 2036	62,983,936	18,270,764	44,713,172	29.01%	1,782,189	3,345,118	609,789	3,954,907	3,345,118	0	3,954,907
2037	June 30, 2037	64,613,107	20,147,403	44,465,704	31.18%	1,848,348	3,399,150	628,083	4,027,233	3,399,150	0	4,027,233
2038	June 30, 2038	66,253,721	22,169,617	44,084,104	33.46%	1,915,351	3,473,019	646,925	4,119,944	3,473,019	0	4,119,944
2039	June 30, 2039	68,234,466	24,347,773	43,886,693	35.68%	1,988,332	3,478,475	666,333	4,144,808	3,478,475	0	4,144,808
2040	June 30, 2040	70,264,906	26,692,952	43,571,954	37.99%	2,063,913	3,557,901	686,323	4,244,224	3,557,901	0	4,244,224
2041	June 30, 2041	72,401,910	29,216,997	43,184,913	40.35%	2,141,269	3,644,536	706,913	4,351,449	3,644,536	0	4,351,449
2042	June 30, 2042	74,543,559	31,932,566	42,610,993	42.84%	2,229,147	3,754,842	728,120	4,482,962	3,754,842	0	4,482,962
2043	June 30, 2043	76,819,011	34,853,188	41,965,823	45.37%	2,317,372	3,777,607	749,964	4,527,571	3,777,607	0	4,527,571
2044	June 30, 2044	79,313,035	37,993,318	41,319,717	47.90%	2,412,243	3,861,870	772,463	4,634,333	3,861,870	0	4,634,333
2045	June 30, 2045	82,075,790	41,368,405	40,707,385	50.40%	2,513,202	3,904,999	795,637	4,700,636	3,904,999	0	4,700,636
2046	June 30, 2046	85,091,343	44,994,956	40,096,387	52.88%	2,619,732	3,927,936	819,506	4,747,442	3,927,936	0	4,747,442
2047	June 30, 2047	88,056,794	48,890,608	39,166,186	55.52%	2,729,299	4,024,146	844,091	4,868,237	4,024,146	0	4,868,237
2048	June 30, 2048	91,414,692	53,074,208	38,340,484	58.06%	2,841,964	4,100,286	869,414	4,969,700	4,100,286	0	4,969,700
2049	June 30, 2049	95,055,299	57,565,890	37,489,409	60.56%	2,968,290	4,151,040	895,496	5,046,536	4,151,040	0	5,046,536
2050	June 30, 2050	98,887,189	62,387,166	36,500,023	63.09%	3,095,324	4,303,614	922,361	5,225,975	4,303,614	0	5,225,975
2051	June 30, 2051	102,910,525	67,561,018	35,349,507	65.65%	3,233,789	4,485,820	950,032	5,435,852	4,485,820	0	5,435,852
2052	June 30, 2052	107,128,168	73,111,996	34,016,172	68.25%	3,380,681	4,627,569	978,533	5,606,102	4,627,569	0	5,606,102
2053	June 30, 2053	111,450,363	79,066,326	32,384,037	70.94%	3,538,131	4,817,286	1,007,889	5,825,175	4,817,286	0	5,825,175
2054	June 30, 2054	116,056,253	85,452,023	30,604,230	73.63%	3,702,495	5,025,954	1,038,126	6,064,080	5,025,954	0	6,064,080
2055	June 30, 2055	120,999,744	92,299,012	28,700,732	76.28%	3,880,672	5,155,956	1,069,270	6,225,226	5,155,956	0	6,225,226

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

CONTRIBUTION PROJECTION DISCLOSURES

Projection of Contributions using a July 1, 2018 Valuation Date

For the Period Ending on the Measurement Date	I. Payroll for current employees	II. Payroll for future employees	III. Total Payroll [I.+II.]	IV. Contributions from current employees	V. Employer Payments for current plan members	VI. Employer Payments for future employees	VII. Total Payments [IV.+V.+VI.]
June 30, 2019	22,503,134	0	22,503,134	0	1,785,910	0	1,785,910
June 30, 2020	21,131,590	2,046,638	23,178,228	0	1,918,156	0	1,918,156
June 30, 2021	20,005,080	3,868,495	23,873,575	0	2,086,152	0	2,086,152
June 30, 2022	19,122,477	5,467,305	24,589,782	0	2,148,211	0	2,148,211
June 30, 2023	18,341,392	6,986,083	25,327,475	0	2,164,188	0	2,164,188
June 30, 2024	17,569,888	8,517,411	26,087,299	0	2,276,864	0	2,276,864
June 30, 2025	16,767,266	10,102,652	26,869,918	0	2,357,992	0	2,357,992
June 30, 2026	15,932,508	11,743,508	27,676,016	0	2,406,453	0	2,406,453
June 30, 2027	15,141,231	13,365,065	28,506,296	0	2,488,564	0	2,488,564
June 30, 2028	14,330,515	15,030,970	29,361,485	0	2,545,388	0	2,545,388
June 30, 2029	13,519,750	16,722,580	30,242,330	0	2,671,780	0	2,671,780
June 30, 2030	12,751,815	18,397,785	31,149,600	0	2,728,523	10,876	2,739,399
June 30, 2031	12,011,643	20,072,445	32,084,088	0	2,835,893	27,597	2,863,490
June 30, 2032	11,424,621	21,621,990	33,046,611	0	2,960,655	50,878	3,011,533
June 30, 2033	10,850,442	23,187,567	34,038,009	0	3,020,163	82,824	3,102,987
June 30, 2034	10,282,785	24,776,364	35,059,149	0	3,081,220	122,834	3,204,054
June 30, 2035	9,674,921	26,436,002	36,110,923	0	3,179,106	152,882	3,331,988
June 30, 2036	9,188,765	28,005,486	37,194,251	0	3,157,234	187,884	3,345,118
June 30, 2037	8,735,692	29,574,387	38,310,079	0	3,170,768	228,382	3,399,150
June 30, 2038	8,256,365	31,203,016	39,459,381	0	3,210,469	262,550	3,473,019
June 30, 2039	7,825,462	32,817,700	40,643,162	0	3,178,013	300,462	3,478,475
June 30, 2040	7,447,669	34,414,788	41,862,457	0	3,202,351	355,550	3,557,901
June 30, 2041	7,002,965	36,115,366	43,118,331	0	3,217,053	427,483	3,644,536
June 30, 2042	6,644,680	37,767,201	44,411,881	0	3,239,908	514,934	3,754,842
June 30, 2043	6,287,689	39,456,548	45,744,237	0	3,154,626	622,981	3,777,607
June 30, 2044	5,945,460	41,171,104	47,116,564	0	3,112,324	749,546	3,861,870
June 30, 2045	5,642,658	42,887,403	48,530,061	0	3,050,513	854,486	3,904,999
June 30, 2046	5,399,737	44,586,226	49,985,963	0	2,956,546	971,390	3,927,936
June 30, 2047	5,152,311	46,333,231	51,485,542	0	2,923,503	1,100,643	4,024,146
June 30, 2048	4,839,664	48,190,444	53,030,108	0	2,883,169	1,217,117	4,100,286
June 30, 2049	4,598,101	50,022,910	54,621,011	0	2,808,659	1,342,381	4,151,040
June 30, 2050	4,380,934	51,878,707	56,259,641	0	2,812,997	1,490,617	4,303,614
June 30, 2051	4,162,354	53,785,076	57,947,430	0	2,827,807	1,658,013	4,485,820
June 30, 2052	3,907,015	55,778,838	59,685,853	0	2,785,832	1,841,737	4,627,569
June 30, 2053	3,612,944	57,863,485	61,476,429	0	2,771,390	2,045,896	4,817,286
June 30, 2054	3,271,882	60,048,840	63,320,722	0	2,757,816	2,268,138	5,025,954
June 30, 2055	2,957,539	62,262,805	65,220,344	0	2,679,367	2,476,589	5,155,956
June 30, 2056	2,596,597	64,580,357	67,176,954	0	2,635,660	2,699,014	5,334,674
June 30, 2057	2,236,414	66,955,849	69,192,263	0	2,587,364	2,934,722	5,522,086
June 30, 2058	1,917,287	69,350,744	71,268,031	0	2,505,743	3,173,858	5,679,601

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

CONTRIBUTION PROJECTION DISCLOSURES (CONTINUED)

Projection of Contributions using a July 1, 2018 Valuation Date

For the Period Ending on the Measurement Date	I. Payroll for current employees	II. Payroll for future employees	III. Total Payroll [I.+II.]	IV. Contributions from current employees	V. Employer Payments for current plan members	VI. Employer Payments for future employees	VII. Total Payments [IV.+V.+VI.]
June 30, 2059	1,588,197	71,817,875	73,406,072	0	2,427,408	3,425,181	5,852,589
June 30, 2060	1,229,946	74,378,308	75,608,254	0	2,367,849	3,701,190	6,069,039
June 30, 2061	948,529	76,927,973	77,876,502	0	2,283,539	4,000,891	6,284,430
June 30, 2062	710,491	79,502,306	80,212,797	0	2,181,454	4,324,847	6,506,301
June 30, 2063	489,274	82,129,907	82,619,181	0	2,098,877	4,676,986	6,775,863
June 30, 2064	316,838	84,780,918	85,097,756	0	2,025,591	5,053,432	7,079,023
June 30, 2065	205,043	87,445,646	87,650,689	0	1,947,631	5,429,599	7,377,230
June 30, 2066	123,968	90,156,242	90,280,210	0	1,887,231	5,827,819	7,715,050
June 30, 2067	72,530	92,916,086	92,988,616	0	1,833,750	6,246,467	8,080,217
June 30, 2068	26,523	95,751,751	95,778,274	0	1,782,103	6,666,903	8,449,006
June 30, 2069	10,801	98,640,821	98,651,622	0	1,725,836	7,106,195	8,832,031
June 30, 2070	0	101,611,171	101,611,171	0	1,668,569	7,568,131	9,236,700
June 30, 2071	0	104,659,506	104,659,506	0	1,610,306	8,052,603	9,662,909
June 30, 2072	0	107,799,291	107,799,291	0	1,551,136	8,559,094	10,110,230
June 30, 2073	0	111,033,270	111,033,270	0	1,491,148	9,087,356	10,578,504
June 30, 2074	0	114,364,268	114,364,268	0	1,430,388	9,637,323	11,067,711
June 30, 2075	0	117,795,196	117,795,196	0	1,368,859	10,213,980	11,582,839
June 30, 2076	0	121,329,052	121,329,052	0	1,306,603	10,813,670	12,120,273
June 30, 2077	0	124,968,924	124,968,924	0	1,243,672	11,437,028	12,680,700
June 30, 2078	0	128,717,992	128,717,992	0	1,180,178	12,089,003	13,269,181
June 30, 2079	0	132,579,532	132,579,532	0	1,116,307	12,765,503	13,881,810
June 30, 2080	0	136,556,918	136,556,918	0	1,052,183	13,467,677	14,519,860
June 30, 2081	0	140,653,626	140,653,626	0	987,891	14,201,523	15,189,414
June 30, 2082	0	144,873,235	144,873,235	0	923,605	14,967,477	15,891,082
June 30, 2083	0	149,219,432	149,219,432	0	859,491	15,766,092	16,625,583
June 30, 2084	0	153,696,015	153,696,015	0	795,748	16,599,873	17,395,621
June 30, 2085	0	158,306,895	158,306,895	0	732,634	17,473,978	18,206,612
June 30, 2086	0	163,056,102	163,056,102	0	670,397	18,382,722	19,053,119
June 30, 2087	0	167,947,785	167,947,785	0	609,254	19,331,127	19,940,381
June 30, 2088	0	172,986,219	172,986,219	0	549,560	20,322,257	20,871,817
June 30, 2089	0	178,175,806	178,175,806	0	491,634	21,353,002	21,844,636
June 30, 2090	0	183,521,080	183,521,080	0	435,859	22,427,261	22,863,120
June 30, 2091	0	189,026,712	189,026,712	0	382,591	23,552,025	23,934,616
June 30, 2092	0	194,697,513	194,697,513	0	332,194	24,726,791	25,058,985
June 30, 2093	0	200,538,438	200,538,438	0	285,005	25,954,632	26,239,637

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

FIDUCIARY NET POSITION PROJECTION DISCLOSURES

Projection of OPEB Plan's Fiduciary Net Position using a July 1, 2018 Valuation Date

For the Period Ending on the Measurement Date	I. Beginning Fiduciary Net Position for Current Plan Members	II. Employer Share of Benefit Payments for Current Plan Members	III. Contributions to Trust for Current Plan Members beyond Pay-as-you- go	IV. Gross Contributions to Trust for Current Plan Members [II. + III.]	V. Administrative Expenses Withdrawn from the Trust for Current Plan Members	VI. Benefit Payments Withdrawn from the Trust for Current Plan Members	VII. Trust Withdrawals for Current Plan Members [V. +VI.]	VIII. Investment Earnings	IX. Ending Fiduciary Net Position for Current Plan Members
June 30, 2019	892,405	1,785,910	284,150	2,070,060	0	1,785,910	1,785,910	91,485	1,268,040
June 30, 2020	1,268,040	1,918,156	164,106	2,082,262	0	1,918,156	1,918,156	83,112	1,515,258
June 30, 2021	1,515,258	2,086,152	150,833	2,236,985	0	2,086,152	2,086,152	106,811	1,772,902
June 30, 2022	1,772,902	2,148,211	139,979	2,288,190	0	2,148,211	2,148,211	123,766	2,036,647
June 30, 2023	2,036,647	2,164,188	130,351	2,294,539	0	2,164,188	2,164,188	141,171	2,308,169
June 30, 2024	2,308,169	2,276,864	121,231	2,398,095	0	2,276,864	2,276,864	159,116	2,588,516
June 30, 2025	2,588,516	2,357,992	112,323	2,470,315	0	2,357,992	2,357,992	177,661	2,878,500
June 30, 2026	2,878,500	2,406,453	103,622	2,510,075	0	2,406,453	2,406,453	196,860	3,178,982
June 30, 2027	3,178,982	2,488,564	95,608	2,584,172	0	2,488,564	2,488,564	216,788	3,491,378
June 30, 2028	3,491,378	2,545,388	87,853	2,633,241	0	2,545,388	2,545,388	237,524	3,816,755
June 30, 2029	3,816,755	2,671,780	80,469	2,752,249	0	2,671,780	2,671,780	259,146	4,156,370
June 30, 2030	4,156,370	2,728,523	73,687	2,802,210	0	2,728,523	2,728,523	281,744	4,500,925
June 30, 2031	4,500,925	2,835,893	67,388	2,903,281	0	2,835,893	2,835,893	304,690	4,845,406
June 30, 2032	4,845,406	2,960,655	62,228	3,022,883	0	2,960,655	2,960,655	327,668	5,184,424
June 30, 2033	5,184,424	3,020,163	57,379	3,077,542	0	3,020,163	3,020,163	350,290	5,509,269
June 30, 2034	5,509,269	3,081,220	52,794	3,134,014	0	3,081,220	3,081,220	371,968	5,811,197
June 30, 2035	5,811,197	3,179,106	48,226	3,227,332	0	3,179,106	3,179,106	392,106	6,098,647
June 30, 2036	6,098,647	3,157,234	44,469	3,201,703	0	3,157,234	3,157,234	411,299	6,366,531
June 30, 2037	6,366,531	3,170,768	41,045	3,211,813	0	3,170,768	3,170,768	429,188	6,608,382
June 30, 2038	6,608,382	3,210,469	37,663	3,248,132	0	3,210,469	3,210,469	445,328	6,828,823
June 30, 2039	6,828,823	3,178,013	34,657	3,212,670	0	3,178,013	3,178,013	460,042	7,023,060
June 30, 2040	7,023,060	3,202,351	32,023	3,234,374	0	3,202,351	3,202,351	473,008	7,172,541
June 30, 2041	7,172,541	3,217,053	29,234	3,246,287	0	3,217,053	3,217,053	482,961	7,257,253
June 30, 2042	7,257,253	3,239,908	26,931	3,266,839	0	3,239,908	3,239,908	488,578	7,257,828
June 30, 2043	7,257,828	3,154,626	24,742	3,179,368	0	3,154,626	3,154,626	488,544	7,148,133
June 30, 2044	7,148,133	3,112,324	22,714	3,135,038	0	3,112,324	3,112,324	481,105	6,902,406
June 30, 2045	6,902,406	3,050,513	20,929	3,071,442	0	3,050,513	3,050,513	464,533	6,533,382
June 30, 2046	6,533,382	2,956,546	19,445	2,975,991	0	2,956,546	2,956,546	439,686	6,021,123
June 30, 2047	6,021,123	2,923,503	18,013	2,941,516	0	2,923,503	2,923,503	405,215	5,343,708
June 30, 2048	5,343,708	2,883,169	16,427	2,899,596	0	2,883,169	2,883,169	359,640	4,502,658
June 30, 2049	4,502,658	2,808,659	15,153	2,823,812	0	2,808,659	2,808,659	303,079	3,478,509
June 30, 2050	3,478,509	2,812,997	14,017	2,827,014	0	2,812,997	2,812,997	234,219	2,236,128
June 30, 2051	2,236,128	2,827,807	12,929	2,840,736	0	2,827,807	2,827,807	150,695	741,739
June 30, 2052	741,739	2,785,832	11,783	2,797,615	0	2,785,832	2,785,832	50,234	62,017
June 30, 2053	62,017	2,771,390	10,579	2,781,969	0	2,771,390	2,771,390	4,517	15,096
June 30, 2054	15,096	2,757,816	9,301	2,767,117	0	2,757,816	2,757,816	1,322	10,623
June 30, 2055	10,623	2,679,367	8,162	2,687,529	0	2,679,367	2,679,367	984	9,146
June 30, 2056	9,146	2,635,660	6,958	2,642,618	0	2,635,660	2,635,660	845	7,803
June 30, 2057	7,803	2,587,364	5,818	2,593,182	0	2,587,364	2,587,364	717	6,535
June 30, 2058	6,535	2,505,743	4,842	2,510,585	0	2,505,743	2,505,743	599	5,441

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

FIDUCIARY POSITION PROJECTION DISCLOSURES (CONTINUED)

Projection of OPEB Plan's Fiduciary Net Position using a July 1, 2018 Valuation Date										
For the Period Ending on the Measurement Date	I. Beginning Fiduciary Net Position for Current Plan Members	II. Employer Share of Benefit Payments for Current Plan Members	III. Contributions to Trust for Current Plan Members beyond Pay-as-you-go	IV. Gross Contributions to Trust for Current Plan Members [III. + III.]	V. Administrative Expenses Withdrawn from the Trust for Current Plan Members	VI. Benefit Payments Withdrawn from the Trust for Current Plan Members	VII. Trust Withdrawals for Current Plan Members [V. + VI.]	VIII. Investment Earnings	IX. Ending Fiduciary Net Position for Current Plan Members	
June 30, 2059	5,441	2,427,408	3,894	2,431,302	0	2,427,408	2,427,408	494	4,388	
June 30, 2060	4,388	2,367,849	2,928	2,370,777	0	2,367,849	2,367,849	392	3,320	
June 30, 2061	3,320	2,283,539	2,192	2,285,731	0	2,283,539	2,283,539	296	2,488	
June 30, 2062	2,488	2,181,454	1,594	2,183,048	0	2,181,454	2,181,454	220	1,814	
June 30, 2063	1,814	2,098,877	1,066	2,099,943	0	2,098,877	2,098,877	157	1,223	
June 30, 2064	1,223	2,025,591	670	2,026,261	0	2,025,591	2,025,591	104	774	
June 30, 2065	774	1,947,631	421	1,948,052	0	1,947,631	1,947,631	66	487	
June 30, 2066	487	1,887,231	247	1,887,478	0	1,887,231	1,887,231	41	288	
June 30, 2067	288	1,833,750	140	1,833,890	0	1,833,750	1,833,750	24	164	
June 30, 2068	164	1,782,103	50	1,782,153	0	1,782,103	1,782,103	13	63	
June 30, 2069	63	1,725,836	20	1,725,856	0	1,725,836	1,725,836	5	25	
June 30, 2070	25	1,668,569	0	1,668,569	0	1,668,569	1,668,569	2	2	
June 30, 2071	2	1,610,306	0	1,610,306	0	1,610,306	1,610,306	0	0	
June 30, 2072	0	1,551,136	0	1,551,136	0	1,551,136	1,551,136	0	0	
June 30, 2073	0	1,491,148	0	1,491,148	0	1,491,148	1,491,148	0	0	
June 30, 2074	0	1,430,388	0	1,430,388	0	1,430,388	1,430,388	0	0	
June 30, 2075	0	1,368,859	0	1,368,859	0	1,368,859	1,368,859	0	0	
June 30, 2076	0	1,306,603	0	1,306,603	0	1,306,603	1,306,603	0	0	
June 30, 2077	0	1,243,672	0	1,243,672	0	1,243,672	1,243,672	0	0	
June 30, 2078	0	1,180,178	0	1,180,178	0	1,180,178	1,180,178	0	0	
June 30, 2079	0	1,116,307	0	1,116,307	0	1,116,307	1,116,307	0	0	
June 30, 2080	0	1,052,183	0	1,052,183	0	1,052,183	1,052,183	0	0	
June 30, 2081	0	987,891	0	987,891	0	987,891	987,891	0	0	
June 30, 2082	0	923,605	0	923,605	0	923,605	923,605	0	0	
June 30, 2083	0	859,491	0	859,491	0	859,491	859,491	0	0	
June 30, 2084	0	795,748	0	795,748	0	795,748	795,748	0	0	
June 30, 2085	0	732,634	0	732,634	0	732,634	732,634	0	0	
June 30, 2086	0	670,397	0	670,397	0	670,397	670,397	0	0	
June 30, 2087	0	609,254	0	609,254	0	609,254	609,254	0	0	
June 30, 2088	0	549,560	0	549,560	0	549,560	549,560	0	0	
June 30, 2089	0	491,634	0	491,634	0	491,634	491,634	0	0	
June 30, 2090	0	435,859	0	435,859	0	435,859	435,859	0	0	
June 30, 2091	0	382,591	0	382,591	0	382,591	382,591	0	0	
June 30, 2092	0	332,194	0	332,194	0	332,194	332,194	0	0	
June 30, 2093	0	285,005	0	285,005	0	285,005	285,005	0	0	

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

BENEFIT PAYMENT PROJECTION DISCLOSURES

Actuarial Present Values of Projected Benefit Payments using a July 1, 2018 Valuation Date

For the Period Ending on the Measurement Date	I. Beginning Fiduciary Net Position for Current Plan Members		III. Funded	IV. Unfunded	V. Present Value of	VI. Present Value of	VII. Present Value of
	II. Benefit Payments	Portion of Benefit Payments	Portion of Benefit Payments	Portion of Benefit Payments	Funded Benefit Payments	Unfunded Benefit Payments	Benefit Payments using Single Equivalent Discount Rate
June 30, 2019	892,405	1,785,910	892,405	893,505	892,405	893,505	1,785,910
June 30, 2020	1,268,040	1,918,156	1,268,040	650,116	1,188,193	632,447	1,832,844
June 30, 2021	1,515,258	2,086,152	1,515,258	570,894	1,330,439	540,284	1,904,712
June 30, 2022	1,772,902	2,148,211	1,772,902	375,309	1,458,637	345,533	1,874,140
June 30, 2023	2,036,647	2,164,188	2,036,647	127,541	1,570,119	114,231	1,804,105
June 30, 2024	2,308,169	2,276,864	2,276,864	0	1,644,781	0	1,813,617
June 30, 2025	2,588,516	2,357,992	2,357,992	0	1,596,127	0	1,794,702
June 30, 2026	2,878,500	2,406,453	2,406,453	0	1,526,359	0	1,750,126
June 30, 2027	3,178,982	2,488,564	2,488,564	0	1,479,048	0	1,729,348
June 30, 2028	3,491,378	2,545,388	2,545,388	0	1,417,561	0	1,690,165
June 30, 2029	3,816,755	2,671,780	2,671,780	0	1,394,256	0	1,695,187
June 30, 2030	4,156,370	2,728,523	2,728,523	0	1,334,208	0	1,654,193
June 30, 2031	4,500,925	2,835,893	2,835,893	0	1,299,392	0	1,642,821
June 30, 2032	4,845,406	2,960,655	2,960,655	0	1,271,136	0	1,638,814
June 30, 2033	5,184,424	3,020,163	3,020,163	0	1,215,035	0	1,597,401
June 30, 2034	5,509,269	3,081,220	3,081,220	0	1,161,543	0	1,557,213
June 30, 2035	5,811,197	3,179,106	3,179,106	0	1,122,980	0	1,535,225
June 30, 2036	6,098,647	3,157,234	3,157,234	0	1,045,028	0	1,456,852
June 30, 2037	6,366,531	3,170,768	3,170,768	0	983,422	0	1,398,025
June 30, 2038	6,608,382	3,210,469	3,210,469	0	933,035	0	1,352,573
June 30, 2039	6,828,823	3,178,013	3,178,013	0	865,445	0	1,279,350
June 30, 2040	7,023,060	3,202,351	3,202,351	0	817,159	0	1,231,812
June 30, 2041	7,172,541	3,217,053	3,217,053	0	769,219	0	1,182,430
June 30, 2042	7,257,253	3,239,908	3,239,908	0	725,904	0	1,137,867
June 30, 2043	7,257,828	3,154,626	3,154,626	0	662,290	0	1,058,640
June 30, 2044	7,148,133	3,112,324	3,112,324	0	612,265	0	997,992
June 30, 2045	6,902,406	3,050,513	3,050,513	0	562,318	0	934,667
June 30, 2046	6,533,382	2,956,546	2,956,546	0	510,679	0	865,586
June 30, 2047	6,021,123	2,923,503	2,923,503	0	473,174	0	817,845
June 30, 2048	5,343,708	2,883,169	2,883,169	0	437,262	0	770,689
June 30, 2049	4,502,658	2,808,659	2,808,659	0	399,139	0	717,381
June 30, 2050	3,478,509	2,812,997	2,812,997	0	374,584	0	686,533
June 30, 2051	2,236,128	2,827,807	2,236,128	591,679	279,017	244,992	659,453
June 30, 2052	741,739	2,785,832	741,739	2,044,093	86,724	823,380	620,770
June 30, 2053	62,017	2,771,390	62,017	2,709,373	6,794	1,061,700	590,086
June 30, 2054	15,096	2,757,816	15,096	2,742,720	1,550	1,045,557	561,080
June 30, 2055	10,623	2,679,367	10,623	2,668,744	1,022	989,706	520,874
June 30, 2056	9,146	2,635,660	9,146	2,626,514	824	947,573	489,589
June 30, 2057	7,803	2,587,364	7,803	2,579,561	659	905,340	459,242
June 30, 2058	6,535	2,505,743	6,535	2,499,208	517	853,300	424,974

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

BENEFIT PAYMENT PROJECTION DISCLOSURES (CONTINUED)

Actuarial Present Values of Projected Benefit Payments using a July 1, 2018 Valuation Date

For the Period Ending on the Measurement Date	I. Beginning Fiduciary Net Position for Current Plan Members	II. Benefit Payments	III. Funded Portion of Benefit Payments	IV. Unfunded Portion of Benefit Payments	V. Present Value of Funded Benefit Payments	VI. Present Value of Unfunded Benefit Payments	VII. Present Value of Benefit Payments using Single Equivalent Discount Rate
June 30, 2059	5,441	2,427,408	5,441	2,421,967	404	804,453	393,378
June 30, 2060	4,388	2,367,849	4,388	2,363,461	305	763,685	366,660
June 30, 2061	3,320	2,283,539	3,320	2,280,219	216	716,764	337,878
June 30, 2062	2,488	2,181,454	2,488	2,178,966	152	666,320	308,417
June 30, 2063	1,814	2,098,877	1,814	2,097,063	104	623,846	283,545
June 30, 2064	1,223	2,025,591	1,223	2,024,368	66	585,853	261,474
June 30, 2065	774	1,947,631	774	1,946,857	39	548,109	240,228
June 30, 2066	487	1,887,231	487	1,886,744	23	516,748	222,425
June 30, 2067	288	1,833,750	288	1,833,462	13	488,507	206,510
June 30, 2068	164	1,782,103	164	1,781,939	7	461,876	191,768
June 30, 2069	63	1,725,836	63	1,725,773	2	435,161	177,453
June 30, 2070	25	1,668,569	25	1,668,544	1	409,295	163,935
June 30, 2071	2	1,610,306	2	1,610,304	0	384,273	151,174
June 30, 2072	0	1,551,136	0	1,551,136	0	360,094	139,142
June 30, 2073	0	1,491,148	0	1,491,148	0	336,760	127,812
June 30, 2074	0	1,430,388	0	1,430,388	0	314,258	117,151
June 30, 2075	0	1,368,859	0	1,368,859	0	292,566	107,126
June 30, 2076	0	1,306,603	0	1,306,603	0	271,671	97,706
June 30, 2077	0	1,243,672	0	1,243,672	0	251,558	88,864
June 30, 2078	0	1,180,178	0	1,180,178	0	232,227	80,576
June 30, 2079	0	1,116,307	0	1,116,307	0	213,689	72,826
June 30, 2080	0	1,052,183	0	1,052,183	0	195,940	65,590
June 30, 2081	0	987,891	0	987,891	0	178,968	58,843
June 30, 2082	0	923,605	0	923,605	0	162,774	52,567
June 30, 2083	0	859,491	0	859,491	0	147,358	46,742
June 30, 2084	0	795,748	0	795,748	0	132,721	41,351
June 30, 2085	0	732,634	0	732,634	0	118,874	36,378
June 30, 2086	0	670,397	0	670,397	0	105,819	31,807
June 30, 2087	0	609,254	0	609,254	0	93,554	27,621
June 30, 2088	0	549,560	0	549,560	0	82,094	23,806
June 30, 2089	0	491,634	0	491,634	0	71,445	20,350
June 30, 2090	0	435,859	0	435,859	0	61,619	17,239
June 30, 2091	0	382,591	0	382,591	0	52,618	14,459
June 30, 2092	0	332,194	0	332,194	0	44,445	11,996
June 30, 2093	0	285,005	0	285,005	0	37,095	9,834

APPENDIX II – PLAN PROVISIONS

<u>Effective Date</u>	GASB 74 was adopted for the fiscal year ending June 30, 2016 GASB 75 was adopted for the fiscal year ending June 30, 2018
<u>Plan Year</u>	July 1 through June 30.
<u>Premium Effective Date</u>	Medicare Supplement Plans: effective January 1, 2020 Non-Medicare Plans: effective July 1, 2019 Dental Plans: effective July 1, 2019
<u>Creditable Service</u>	Elapsed time from date of hire to termination of service date.
<u>Benefits Offered</u>	Comprehensive Medical Insurance through Blue Cross Blue Shield of Massachusetts, Dental Insurance and \$5,000 of Group Term Life Insurance.
<u>Medicare Part B</u>	Medicare Part B Premium reimbursements by the Town were not reflected in this valuation. Medicare Part B Penalty reimbursements by the Town were not reflected in this valuation.
<u>Surviving Spouse Coverage</u>	All participants who become surviving spouses after January 1, 2015 pay 100%.

APPENDIX II – PLAN PROVISIONS

Eligibility

Hire Date	Eligibility
Before April 2, 2012	<ul style="list-style-type: none"> • Age 55 with 10 years of creditable service • 20 years of service regardless of age
On or after April 2, 2012	<ul style="list-style-type: none"> • Age 60 with 10 years of creditable service

Participant Contributions

Group	Individual	Two-Person / Family
Medical	<ul style="list-style-type: none"> • 26% for Network Blue • 45% for all other plans 	<ul style="list-style-type: none"> • 35% for Network Blue • 45% for all other plans
Dental	100%	100%
Life	50%	N/A

APPENDIX III - ACTUARIAL METHODS & ASSUMPTIONS

Pre-Retirement Mortality

General: RP-2014 Mortality Table for Blue Collar Employees projected generationally with scale MP-2016 for males and females
Teachers: RP-2014 Mortality Table for White Collar Employees projected generationally with scale MP-2016 for males and females

Post-Retirement Mortality

General: RP-2014 Mortality Table for Blue Collar Healthy Annuitants projected generationally with scale MP-2016 for males and females
Teachers: RP-2014 Mortality Table for White Collar Healthy Annuitants projected generationally with scale MP-2016 for males and females

Disabled Mortality

General: RP-2014 Mortality Table for Blue Collar Healthy Annuitants projected generationally with scale MP-2016 for males and females, set forward 1 year
Teachers: RP-2014 Mortality Table for White Collar Healthy Annuitants projected generationally with scale MP-2016 for males and females

Assumption Experience Study

The actuarial assumptions used to calculate the actuarial accrued liability and the service cost primarily reflect the latest experience studies of the Massachusetts PERAC issued in 2014 and their most recent analysis of retiree mortality during 2015 and 2016.

Discount Rate

4.75% per annum (previously 4.75%, used in the calculation of the Interest Cost)

Net Long Term Rate of Return

6.72% (based on investment policy)

Municipal Bond Rate

2.79% as of June 30, 2019 (source: S&P Municipal Bond 20-Year High Grade Index – SAPIHG)

Actuarial Cost Method

Individual Entry Age Normal

Asset-Valuation Method

Market Value of Assets as of the Measurement Date, June 30, 2019

APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

Employee Termination

It was assumed that employees would terminate employment in accordance with the sample rates shown in the following table:

Non-Public Safety Employees

Service	Male	Female
0	15.00%	15.00%
5	7.60%	7.60%
10	5.40%	5.40%
15	3.30%	3.30%
20	2.00%	2.00%

Public Safety Employees

Service	Male	Female
0	9.00%	9.00%
5	6.00%	6.00%
10	3.50%	3.50%
15	2.00%	2.00%
20	1.50%	1.50%
25	1.50%	1.50%
30	1.50%	1.50%

APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

Retirement Rates for Eligible Employees

Age	Standard Male	Standard Female	Male Teachers	Female Teachers	Public Safety
45 - 49	0.00%	0.00%	0.00%	0.00%	6.00%
50 - 51	3.00%	3.00%	2.00%	1.50%	6.00%
52	3.00%	3.00%	2.00%	1.50%	6.00%
53	3.00%	3.00%	2.00%	1.50%	7.50%
54	3.00%	3.50%	2.00%	2.00%	15.00%
55	3.50%	5.00%	6.00%	5.00%	25.00%
56	3.50%	5.00%	20.00%	15.00%	15.00%
57	4.00%	5.50%	40.00%	35.00%	15.00%
58	5.00%	6.00%	50.00%	35.00%	15.00%
59	6.00%	6.50%	50.00%	35.00%	15.00%
60	9.00%	7.50%	40.00%	35.00%	20.00%
61	11.00%	10.00%	40.00%	35.00%	20.00%
62	15.00%	15.00%	35.00%	35.00%	20.00%
63	15.00%	15.00%	35.00%	35.00%	20.00%
64	16.00%	15.00%	35.00%	35.00%	30.00%
65	20.00%	20.00%	35.00%	35.00%	50.00%
66	20.00%	20.00%	40.00%	35.00%	25.00%
67	20.00%	20.00%	40.00%	30.00%	25.00%
68	20.00%	20.00%	40.00%	30.00%	25.00%
69	20.00%	20.00%	40.00%	30.00%	25.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%
71	100.00%	100.00%	100.00%	100.00%	100.00%
72	100.00%	100.00%	100.00%	100.00%	100.00%

Permanent Disability Rates

Age	Standard	Teachers	Public
20	0.01%	0.05%	0.20%
30	0.01%	0.07%	0.21%
40	0.07%	0.21%	0.71%
50	0.13%	0.42%	1.10%
60	0.12%	0.50%	0.80%

APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONSTrend Rate

Medicare Supplement Plans: Initial Trend of 4.50% for 2019 grading down 0.00% per year for an ultimate trend rate of 4.50%.

Non-Medicare Plans: Initial Trend of 4.50% for 2019 grading down 0.00% per year for an ultimate trend rate of 4.50%.

Dental Plans: Initial Trend of 4.50% for 2019 grading down 0.00% per year for an ultimate trend rate of 4.50%.

Participation Rate

It was assumed that 80% of employees eligible to receive retirement benefits would enroll in the retiree medical plans upon retirement. For life insurance plans, it was assumed that 80% of eligible employees would elect coverage upon retirement.

Spouse Participation Rate

It was assumed that 80% of male employees and 70% of female employees who elect retiree healthcare coverage for themselves would also elect coverage for a spouse upon retirement.

Spouse Demographics

It was assumed that a male spouse is three years older than a female spouse and same sex spouses were assumed to be the same age. For current retirees, the actual census information was used, if available.

School Demographics

In the absence of census data specifying which participants were teachers it was assumed that two thirds of school participants were teachers. If available, actual census data was used.

Compensation Increases

3.00% per year.

Inflation Rate

2.50% per year.

APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

Implicit Subsidy

The implicit subsidy arises because retirees who are not eligible for Medicare are charged the same premium as active employees, even though their actual medical costs are higher on average. Consequently, a portion of the premiums being paid for active employees are being used to “subsidize” the premiums of retirees. Actuarial Standards of Practice and GASB standards require the liability associated with this implicit subsidy to be valued. The chart below shows a breakdown of how implicit cost impacts reported cash flows and liabilities. Actuarial Standard of Practice No. 6 (“ASOP 6”) requires us to recognize this implicit subsidy while the plan sponsor may only pay the premiums billed by an insurance provider.

Impact of Implicit Subsidy		
	As of the Measurement Date	
Impact on Liability	<u>June 30, 2019</u>	<u>June 30, 2018</u>
I. Total OPEB Liability	43,623,797	39,923,190
II. Total OPEB Liability (Excluding Implicit Subsidy)	<u>34,792,832</u>	<u>35,966,329</u>
III. Liability from Implicit Subsidy [I. - II.]	8,830,965	3,956,861

	For the Measurement Period Ending	
Impact on Payments	<u>June 30, 2019</u>	<u>June 30, 2018</u>
IV. Employer Payments (Including Implicit Subsidy)	1,785,910	1,481,613
V. Actual Employer Payments	<u>1,263,860</u>	<u>1,256,848</u>
VI. Implicit Subsidy [IV. - V.]	522,050	224,765

APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

Pre-65 and post-65 per capita costs were developed using fully insured premium rates.

ANNUAL PER CAPITA CLAIMS*

ACTIVE EMPLOYEES			RETIREE - NOT MEDICARE ELIGIBLE			RETIREE - MEDICARE ELIGIBLE		
Age Bracket	Female	Male	Age Bracket	Female	Male	Age Bracket	Female	Male
24 & Under	3,414	2,152	44 & Under	6,711	4,398	65 to 69	4,044	4,044
25 to 29	5,037	2,240	45 to 49	7,372	5,553	70 to 74	4,044	4,044
30 to 34	6,365	2,811	50 to 54	8,672	7,313	75 to 79	4,044	4,044
35 to 39	6,557	3,530	55 to 59	10,025	9,507	80 to 84	4,044	4,044
40 to 44	6,711	4,398	60 to 64	11,930	12,200	85 to 89	4,044	4,044
45 to 49	7,372	5,553	65 to 69	14,300	15,218	90 & Over	4,044	4,044
50 to 54	8,672	7,313	70 to 74	16,864	18,237			
55 to 59	10,025	9,507	75 to 79	19,585	21,539			
60 to 64	11,930	12,200	80 to 84	22,455	24,757			
65 to 69	14,300	15,218	85 to 89	25,632	28,338			
70 & Over	16,864	18,237	90 & Over	25,632	28,338			

*Based on SOA 'Health Care Costs--From Birth to Death' study published in 2013

APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

Open Group Forecast

For the projection of plan liabilities in future years, it was assumed that the number of active employees will remain constant and those who terminate employment or retire will be replaced with new employees with the demographics below:

Open Group Forecast Population Demographics		
Age	Male	Female
20	8.0%	5.0%
30	7.0%	14.0%
40	20.0%	19.0%
50	10.0%	10.0%
60	<u>3.0%</u>	<u>4.0%</u>
Total	48.0%	52.0%

Additional Comments

The liabilities being reported as of the Measurement Date of June 30, 2019 reflect a closed group and do not reflect any new entrants after the valuation date.

To the best of our knowledge all employees who are eligible on the valuation date are included in the actuarial valuation.

APPENDIX IV - PLAN DEMOGRAPHICS

Active Employees

Valuation Date	July 1, 2018	July 1, 2016
A. Average Age at Hire	35.86	35.69
B. Average Service	<u>9.86</u>	<u>11.24</u>
C. Average Current Age	45.72	46.93

Retired Employees & Spouses

Valuation Date	July 1, 2018	July 1, 2016
A. Under Age 65	77	77
B. Age 65 & Over	<u>322</u>	<u>264</u>
C. Total	399	341

Average Service Age

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-24	19	2								21
25-29	47	10								57
30-34	20	6	6							32
35-39	15	10	13							38
40-44	20	9	13	11	4	1				58
45-49	16	9	19	7	6	2				59
50-54	13	13	21	12	13	3	1			76
55-59	14	11	12	10	8	1	4	1		61
60-64	7	6	12	7	11	4	1			48
65-69	3	1	1		2	2				9
70+		1	1		1					3
Total	174	78	98	47	45	13	6	1		462

APPENDIX IV - PLAN DEMOGRAPHICS

Plan Offerings

Number of Contracts

	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>	<u>Total</u>
Network Blue	140	75	117	332
Blue Care Elect	14		8	22
Medex II	310			310
Total	464	75	125	664

Per Contract Costs (monthly)

	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
Network Blue	633.26	1,474.70	1,817.88
Blue Care Elect	729.84		1,993.26
Medex II	337.00	674.00	
Delta Dental Premier	46.34		140.46
Guardian Advantage (High)	52.36	99.38	153.86
Guardian Advantage (Core)	28.86	56.94	106.42

APPENDIX V - OVERVIEW OF GASB 74 & 75

Before Statements 74 and 75, GASB statement 45 established the reporting standards for Other Postemployment Benefit (“OPEB”) plans. It was designed to recognize the Other Postemployment Benefits earned by employees throughout their working career vs. when they are paid in retirement – accrual accounting vs. “pay-as-you-go” accounting. Additionally, each eligible active employee earns benefits each year representing benefits to be paid in retirement or a “Service Cost”. These amounts are reflected in your financial statement each year so that OPEB benefits for an eligible employee shall be fully charged to the financial statement when that eligible employee terminates employment.

In 2012 GASB issued GASB Statements 67 and 68 to update and standardize the financial reporting of pension liabilities. This increased the transparency of pension liabilities by moving them to the balance sheet and made financial statement disclosures of pension liabilities more comparable between municipal entities. GASB Statements 74 and 75 are designed to have the same effect on OPEB plans.

GASB 74 and 75 require retiree medical plans to disclose information about asset and liability levels and show historical contribution information. GASB 74 only applies in situations where a separate trust is established to prefund these benefits. GASB 75 requires employers to perform periodic actuarial valuations to determine annual accounting costs and to keep a running tally of the extent to which these amounts are over or under funded.

GASB 74 and 75 apply to those benefits provided after retirement, except for pension benefits, such as medical, dental and life insurance. The philosophy behind the accounting standard is that these postemployment benefits are part of the compensation earned by employees in return for their services, and the cost of these benefits should be recognized while employees are providing those services, rather than after they have retired. This philosophy has already been applied for years to defined benefit pensions; GASB 74 and 75 extend this practice to all other postemployment benefits.

APPENDIX V – OVERVIEW OF GASB 74 & 75

The process of determining the liability for OPEB benefits is based on many assumptions about future events. The key actuarial assumptions are:

Turnover and retirement rates – How likely is it that an employee will qualify for postemployment benefits and when will they start?

Medical inflation and claims cost assumptions – When an employee starts receiving postemployment benefits many years from now, how much will be paid each year for the benefits and how rapidly will the costs grow?

Mortality assumption – How long is a retiree likely to receive benefits?

Discount rate assumption – What is the present value of those future benefit payments in terms of today's dollars?

Since the liability is being recognized over the employee's whole career with the Town, the present value is divided into three pieces: the part that is attributed to past years (the "Total OPEB Liability" or "Past Service Liability"), the part that is being earned this year (the "Service Cost"), and the part that will be earned in future years (the "Future Service Liability").

Once the Accrued Liability and the Service Cost have been calculated, the next step is to determine an actuarially determined contribution. This is an amount that if paid annually would fully prefund the benefits for current active and retired employees. This consists of two pieces:

- ✓ Service Cost – because the benefits earned by active employees each year should be paid for each year
- ✓ Past Service Cost – a catch-up payment to fund the Accrued Liability over a period of time determined by an actuary

The final step is to keep track going forward of how much of the contribution is actually paid. There is no requirement to actually fund these benefits, but the cumulative deficiency must be disclosed on the Town's financial statements as the Net OPEB Liability (NOL). If you decide to fully fund the NOL this will appear in the financial statement as a Net OPEB Asset. In addition, the Discount Rate used to calculate the liabilities must reflect the expected investment income of whatever funds are set aside to prefund the benefits; if there is no prefunding then the Discount Rate will be much lower and the liabilities significantly higher than if the benefits are prefunded.

GLOSSARY

Accrual Accounting – A system of accounting in which revenues are recorded when earned and outlays are recorded when goods are received or services performed, even though the actual receipt of revenues and payment for goods or services may occur, in whole or in part, at a different time.

Actuarially Determined Contribution – Amount of funding required annually to fully fund plan benefits. Determined by the actuary using a consistent methodology.

Amortization – Allows the recognition of liability over a fixed period of time.

Cash Basis Accounting – A system of accounting in which revenues are recorded when received and outlays are recorded when payment is made.

Deferred Inflows/Outflows of Resources – Amounts arising from experience gains and losses that have not been recognized into the OPEB Expense but will be recognized in the future.

Discount Rate – The interest rate used to calculate the present value of future cash flows. Under GASB 75, the rate should be the expected long-term rate of return on investments for a plan that is being fully funded, the 20-year municipal bond index for a pay-as-you-go plan, and a blend of the two rates for a plan that is being partially funded.

Entry Age Normal – Under this method, the annual service cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement. The annual service cost for each active member is a level percent of payroll. The total OPEB liability is the actuarial present value of the projected benefit times the ratio of past service to expected total service at retirement/termination.

Fiduciary Net Position – The value of cash, investments, other assets and property belonging to an OPEB trust.

GLOSSARY

Government Accounting Standards Board (GASB) – “The Governmental Accounting Standards Board (GASB) was organized in 1984 by the Financial Accounting Foundation (FAF) to establish standards of financial accounting and reporting for state and local governmental entities. Its standards guide the preparation of external financial reports of those entities.”

Implicit Subsidy – The liability that arises because retirees who are not eligible for Medicare are charged the same premium as active employees even though their actual medical costs are higher on average.

Irrevocable Contribution – The transfer of assets to a qualified trust in which assets may only be withdrawn for the purpose of providing retiree other postemployment benefits.

Net OPEB Liability (NOL) – Total OPEB Liability less the Fiduciary Net Position.

Other Postemployment Benefits (OPEB) – Benefits that an employee will begin to receive at the start of retirement. This does not include pension benefits paid to the retired employee.

OPEB Trust – An entity which holds assets for the sole purpose of funding OPEB. All contributions and earnings within this entity must be irrevocable and protected from creditors.

Pay-as-you-go funding – Paying benefits (such as pensions or OPEB) on a cash basis, with no money set aside for future liabilities which are already incurred.

Service Cost – The actuarially determined present value contribution needed to fund benefits which are earned for employee service rendered during the current year. Service cost depends on many factors, including the interest rate used to discount future cashflows, and expected inflation.

Total OPEB Liability (TOL) – That portion, as determined by the Individual Entry Age Normal Actuarial Cost Method, of the Actuarial Present Value of benefits and expenses which are not provided for by future Service Costs.