



East Coast
11 Hayward Ave, Building 4
Colchester, CT 06415
(860) 537-9080

West Coast
1350 E. Flamingo Road, Suite 254
Las Vegas, NV 89119
(702) 979-2880

**Town of Bellingham Other
Postemployment Benefits Plan**

GASB 74/75 Actuarial Valuation

With a Valuation Date of July 1, 2017

As of the Measurement Date:

June 30, 2018

For the Reporting Date:

June 30, 2018

As of the Measurement Date:

June 30, 2019

For the Reporting Date:

June 30, 2019

&

Delivered January 20, 2019

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January 20, 2019

Personal and Confidential

Ms. Mary MacKinnon
Chief Financial Officer
Town of Bellingham
10 Mechanic Street
Bellingham, MA 02019

Dear Ms. MacKinnon:

We have performed an actuarial valuation of the Town of Bellingham Other Postemployment Benefits Plan for the Reporting Date & fiscal year ending June 30, 2018 with a Measurement Date of June 30, 2018 and a Valuation Date of July 1, 2017. The figures presented in this report reflect the adoption, by the Town of Bellingham, of Statement Nos. 74 and 75 of the Governmental Accounting Standards Board ("GASB 74/75") effective for the fiscal years ending June 30, 2017 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 'Parker E. Elmore'.

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



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ACTUARIAL CERTIFICATION

This is to certify that Odyssey Advisors has conducted an actuarial valuation of certain benefit obligations of the Town of Bellingham other postemployment benefit programs with a Valuation Date of July 1, 2017 with a Measurement Date of June 30, 2018 for the Reporting Date & fiscal year ending June 30, 2018 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.

A handwritten signature in black ink, appearing to read 'Parker E. Elmore'.

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

EXECUTIVE SUMMARY

What caused plan liabilities to change from FY 17 to FY 18?

For the year ending on the Measurement Date of June 30, 2018, the Plan saw a loss of \$1,834,685 or 3.12% of the beginning Total OPEB Liability ("TOL"). This was mainly due to an unexpected increase in the number of retirees as well as premiums for non-Medicare integrated plans increasing more than the expected 16%. This was mostly offset by premiums for Medicare integrated plans increasing less than the expected 16% increase.

Assumption changes

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

- ✓ Due to the GASB 75 standards the discount rate has been changed from 3.25% to 3.50% decreasing the disclosed liability by \$2.7 million.
- ✓ Retirement rates for teachers have been updated decreasing the disclosed liability by \$4.5 million.
- ✓ Assumption changes caused Service Cost to increase by \$110 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.

Recognition Period

- ✓ Changes in assumptions & plan experience are amortized into the net OPEB expense over time until fully recognized
- ✓ Changes in benefit terms are to be recognized in full immediately

EXECUTIVE SUMMARY

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.

Key Drivers of Plan Liabilities

Several key drivers of plan costs and liabilities are:

- ✓ Premiums for Post 65 (Medicare Integrated) plans - represent 83% 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 5.0% per year
- ✓ Discount Rate (3.50%) – 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

Discount Rate Determinants

1. Employer Current and Future Benefit Payments
2. Municipal Bond Rate – The municipal bond rate was 3.45% as of June 30, 2018.
3. Current Asset Level – The Town currently has \$506,868 in assets.
4. Funding Policy - The Town is expected to contribute \$100,000 in fiscal 2020.
5. Investment Policy - The Town is expected to earn 2.75% on assets based on its investment policy.

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, 2017	July 1, 2015
Measurement Date & Period Ending	June 30, 2018	June 30, 2017
Reporting Date/Fiscal Year End	June 30, 2018	June 30, 2017
Total OPEB Liability	68,268,802	58,819,995
Per Eligible Active Plan Participant	83,241	77,612
Per Retiree/Spouse Plan Participant	96,864	84,981
Total Annual Service Cost (annual benefit accrual)	2,517,169	2,771,538
Per Eligible Active Plan Participant	5,190	5,884
Expected Employer Share of Retiree Costs	1,525,583	1,284,525
Per Retiree/Spouse Plan Participant	5,297	4,903
Net OPEB Liability as a % of Payroll	225.90%	212.50%
Average Annual Medical Plan Premium (Single Coverage)	8,147	7,578
Average Annual Medical Plan Premium (Family Coverage)	26,852	21,992
Projected 2022 Excise Tax Thresholds		
Annual Medical Plan Premium (Single Coverage)	12,511	
Annual Medical Plan Premium (Family Coverage)	32,676	

EXECUTIVE SUMMARY

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.

Impact of Implicit Subsidy		
	As of the Measurement Date	
Impact on Liability	<u>June 30, 2018</u>	<u>June 30, 2017</u>
I. Actuarial Accrued Liability	68,268,802	58,819,995
II. Actuarial Accrued Liability (Excluding Implicit Subsidy)	60,496,864	N/A
III. Liability from Implicit Subsidy [I. - II.]	7,771,938	N/A

For the Measurement Period Ending		
Impact on Payments	<u>June 30, 2018</u>	<u>June 30, 2017</u>
IV. Employer Payments (Including Implicit Subsidy)	1,525,583	1,284,525
V. Actual Employer Payments	1,286,488	N/A
VI. Implicit Subsidy [IV. - V.]	239,095	N/A

PRINCIPAL RESULTS OF THE VALUATION

Town of Bellingham
Assuming Funding - 3.50% discount rate
Comparison of Plan Liabilities to Prior Valuation

Valuation Date	July 1, 2017	July 1, 2015
For the Measurement Period ending on the Measurement Date of:	June 30, 2018	June 30, 2017
For the Reporting Period & Fiscal Year ending on:	June 30, 2018	June 30, 2017

I. Present Value of Future Benefits		
A. Actives	66,213,744	N/A
B. Retirees/Disabled	<u>27,896,866</u>	N/A
C. Total	94,110,610	N/A
II. Present Value of Future Normal Cost	25,841,808	N/A
III. Total OPEB Liability (Individual Entry Age Normal)		
A. Actives	40,371,936	36,555,030
B. Retirees/Disabled	<u>27,896,866</u>	<u>22,264,965</u>
C. Total	68,268,802	58,819,995
IV. Fiduciary Net Position [Plan Assets]	506,868	503,984
V. Net OPEB Liability (Asset) [III. - IV.]	67,761,934	58,316,011
VI. Funded Ratio [IV. / III.]	0.74%	0.86%
VII. Annual Covered Payroll	29,992,073	27,445,923
VIII. Net OPEB Liability (Asset) as % of Covered Payroll	225.9%	212.5%
IX. Number of Eligible Participants		
A. Actives	485	471
B. Retirees/Disabled	<u>288</u>	<u>262</u>
C. Total	773	733
X. Service Cost	2,517,169	2,771,538
XI. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	2,120,333	1,871,855
XII. Projected Earnings on OPEB Plan Investments	(13,860)	N/A
XIII. Net Recognition of Deferred (Inflows)/Outflows	<u>1,125,757</u>	N/A
XIV. Financial Statement Expense [X.+XI.+XII.+XIII.]	5,749,399	N/A
XV. Employer Share of Costs	(1,525,583)	(1,284,525)
XVI. Employer (Payments)/Withdrawals to/from OPEB Trust	0	0
XVII. Total Employer Contribution [XV. + XVI.]	(1,525,583)	(1,284,525)
XVIII. Other Changes	<u>0</u>	<u>0</u>
XIX. Net OPEB Expense [XIV.+XVII.+XVIII.]	4,223,816	N/A
XX. Discount Rate	3.50%	3.25%



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PRINCIPAL RESULTS OF THE VALUATION

Town of Bellingham
Plan Liabilities as of the June 30, 2018 Measurement Date
Assuming Funding - 3.50% discount rate

	Town Employees and Retirees	School Employees and Retirees	Police Employees and Retirees	Fire Employees and Retirees	Highway Employees and Retirees	Sewer Enterprise Employees and Retirees	Sanitation Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Total
I. Present Value of Future Benefits									
A. Actives	5,753,738	46,196,230	5,984,421	5,347,953	1,103,724	183,073	0	1,644,605	66,213,744
B. Retirees/Disabled	<u>19,920,441</u>	<u>6,659,594</u>	<u>530,643</u>	<u>309,936</u>	<u>243,789</u>	<u>0</u>	<u>82,908</u>	<u>149,555</u>	<u>27,896,866</u>
C. Total	25,674,179	52,855,824	6,515,064	5,657,889	1,347,513	183,073	82,908	1,794,160	94,110,610
II. Present Value of Future Normal Cost	2,639,459	17,614,506	2,428,029	2,368,746	295,166	59,341	0	436,561	25,841,808
III. Total OPEB Liability									
A. Actives	3,114,279	28,581,724	3,556,392	2,979,207	808,558	123,732	0	1,208,044	40,371,936
B. Retirees/Disabled	<u>19,920,441</u>	<u>6,659,594</u>	<u>530,643</u>	<u>309,936</u>	<u>243,789</u>	<u>0</u>	<u>82,908</u>	<u>149,555</u>	<u>27,896,866</u>
C. Total	23,034,720	35,241,318	4,087,035	3,289,143	1,052,347	123,732	82,908	1,357,599	68,268,802
IV. Fiduciary Net Position [Plan Assets]	171,346	261,144	30,414	24,377	7,901	905	623	10,158	506,868
V. Net OPEB Liability (Asset) [III. - IV.]	22,863,374	34,980,174	4,056,621	3,264,766	1,044,446	122,827	82,285	1,347,441	67,761,934
VI. Annual Covered Payroll	3,004,194	19,920,650	3,068,963	2,556,898	638,930	58,629	N/A	743,809	29,992,073
VII. Net OPEB Liability (Asset) as % of Covered Payroll	761.0%	175.6%	132.2%	127.7%	163.5%	209.5%	N/A	181.2%	225.9%
VIII. Number of Eligible Participants									
A. Actives	55	352	30	27	9	1	0	11	485
B. Retirees/Disabled	<u>229</u>	<u>45</u>	<u>3</u>	<u>1</u>	<u>6</u>	<u>0</u>	<u>1</u>	<u>3</u>	<u>288</u>
C. Total	284	397	33	28	15	1	1	14	773
For the Reporting Date and Fiscal Year Ending June 30, 2018									
IX. Service Cost	363,703	1,726,497	178,115	183,333	24,661	3,484	0	37,376	2,517,169
X. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	692,559	1,113,356	128,938	105,113	32,099	3,855	2,455	41,958	2,120,333
XI. Recognition of Deferred (Inflows)/Outflows from Plan Design Changes	0	0	0	0	0	0	0	0	0
XII. Recognition of Deferred (Inflows)/Outflows from Expected & Actual Experience	109,759	167,924	19,475	15,673	5,014	590	395	6,469	325,299
XIII. Recognition of Deferred (Inflows)/Outflows from Changes in Assumptions	257,854	421,196	48,974	39,954	12,032	1,469	915	15,869	798,263
XIV. Projected Earnings on OPEB Plan Investments	(4,688)	(7,140)	(831)	(666)	(216)	(25)	(17)	(277)	(13,860)
XV. Recognition of Deferred (Inflows)/Outflows from Earnings on Investments	<u>741</u>	<u>1,131</u>	<u>132</u>	<u>106</u>	<u>34</u>	<u>4</u>	<u>3</u>	<u>44</u>	<u>2,195</u>
XVI. Financial Statement Expense [IX.+X.+XI.+XII.+XIII.+XIV.+XV.]	1,419,928	3,422,964	374,803	343,513	73,624	9,377	3,751	101,439	5,749,399
XVII. Employer Share of Costs	(954,078)	(478,303)	(24,491)	(15,314)	(31,494)	(1)	(3,194)	(18,708)	(1,525,583)
XVIII. Employer (Payments)/Withdrawals to/from OPEB Trust	0	0	0	0	0	0	0	0	0
XIX. Total Employer Contribution [XVII. + XVIII.]	(954,078)	(478,303)	(24,491)	(15,314)	(31,494)	(1)	(3,194)	(18,708)	(1,525,583)
XX. Other Changes	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
XXI. Net OPEB Expense [XVI.+XIX.+XX.]	465,850	2,944,661	350,312	328,199	42,130	9,376	557	82,731	4,223,816

Town of Bellingham Other Postemployment Benefits Plan

Actuarial Valuation as of July 1, 2017

January 20, 2019

Page 2

PRINCIPAL RESULTS OF THE VALUATION

Town of Bellingham
Assuming Funding - 3.50% discount rate
For the Period ending on the June 30, 2018 Measurement Date

	<u>Present Value of Future Benefits</u>	<u>Total OPEB Liability (Individual Entry Age Normal)</u>	<u>Service Cost</u>
Actives			
Under Age 65			
A. Participants	11,898,122	7,300,051	458,470
B. Spouses	<u>5,127,899</u>	<u>3,250,892</u>	<u>189,054</u>
C. Total	17,026,021	10,550,943	647,524
Age 65 and Over			
A. Participants	31,248,641	18,537,662	1,136,973
B. Spouses	<u>17,939,082</u>	<u>11,283,331</u>	<u>732,672</u>
C. Total	49,187,723	29,820,993	1,869,645
Actives Total			
A. Participants	43,146,763	25,837,713	1,595,443
B. Spouses	<u>23,066,981</u>	<u>14,534,223</u>	<u>921,726</u>
C. Total	66,213,744	40,371,936	2,517,169
 Retirees/Disabled			
Under Age 65			
A. Participants	767,956	767,956	0
B. Spouses	<u>270,140</u>	<u>270,140</u>	<u>0</u>
C. Total	1,038,096	1,038,096	0
Age 65 and Over			
A. Participants	23,801,830	23,801,830	0
B. Spouses	<u>3,056,940</u>	<u>3,056,940</u>	<u>0</u>
C. Total	26,858,770	26,858,770	0
Retirees/Disabled Total			
A. Participants	24,569,786	24,569,786	0
B. Spouses	<u>3,327,080</u>	<u>3,327,080</u>	<u>0</u>
C. Total	27,896,866	27,896,866	0
 Total Population			
A. Participants	67,716,549	50,407,499	1,595,443
B. Spouses	<u>26,394,061</u>	<u>17,861,303</u>	<u>921,726</u>
C. Total	94,110,610	68,268,802	2,517,169

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2018 Measurement Date)

The GASB Standards for accounting and financial reporting for postemployment benefits other than pensions require the following disclosures in the financial statements related to the retiree medical, dental and life insurance benefits;

1. OPEB EXPENSE DEVELOPMENT

Components of the Town's OPEB Expenses for the Fiscal Year Ending June 30, 2018	
Description	Amount
I. Service Cost	2,517,169
II. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	2,120,333
III. Deferred (Inflows)/Outflows from Plan Design Changes*	0
IV. Deferred (Inflows)/Outflows from Plan Experience**	325,299
V. Deferred (Inflows)/Outflows from Changes of Assumptions**	798,263
VI. Projected earnings on OPEB plan investments	(13,860)
VII. Deferred (Inflows)/Outflows from Earnings on Plan Investments***	2,195
IX. Financial statement expense [I. + II.+ III. + IV. + V. + VI. + VII.]	5,749,399

* Recognized Immediately

** Amortized over 5.64 years

*** Amortized over 5 years

EXHIBIT A
FINANCIAL STATEMENT DISCLOSURES
 (As of the June 30, 2018 Measurement Date)

2. CHANGES IN NET OPEB LIABILITY

Changes in Net OPEB Liability			
	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
I. Balances at June 30, 2017 GASB 45	54,162,815	503,984	53,658,831
II. Change in Assumptions for GASB 75	4,657,180	0	4,657,180
III. Balances at June 30, 2017 GASB 75 [I. + II.]	58,819,995	503,984	58,316,011
Changes for the year:			
IV. Service Cost	2,517,169	0	2,517,169
V. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	2,120,333	0	2,120,333
VI. Changes in Benefit terms *	0	0	0
VII. Change in assumptions **	4,502,203	0	4,502,203
VIII. Differences between actual and expected experience **	1,834,685	0	1,834,685
IX. Net Investment Income	0	2,884	(2,884)
X. Employer Contributions to Trust	0	1,525,583	(1,525,583)
XI. Benefit Payments Withdrawn from Trust	0	(1,525,583)	1,525,583
XII. Benefit payments excluding Implicit Cost	(1,286,488)	0	(1,286,488)
XIII. Implicit Cost amount	(239,095)	0	(239,095)
XIV. Total Benefit payments including Implicit Cost [XII. + XIII.]	(1,525,583)	0	(1,525,583)
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.]	9,448,807	2,884	9,445,923
XVIII. Balances at June 30, 2018 [III.+XVII.]	68,268,802	506,868	67,761,934

* Recognized Immediately

** Amortized over 5.64 years

EXHIBIT A
FINANCIAL STATEMENT DISCLOSURES
 (As of the June 30, 2018 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 Year	Differences between actual & expected experience			Remaining Balance	2017	2018	2019	2020	2021	2022
	Recognition Period (years)									
2017										
2018	1,834,685	5.64	1,509,386		325,299	325,299	325,299	325,299	325,299	
2019										
2020										
2021										
2022										
2023										
2024										
2025										
2026										
Net increase (decrease) in OPEB expense				0	325,299	325,299	325,299	325,299	325,299	

Deferred (Inflows)/Outflows in OPEB Expense arising from the recognition of the effects of Changes in Assumptions										
Fiscal Year	Differences from changes in Actuarial Assumptions			Remaining Balance	2017	2018	2019	2020	2021	2022
	Actuarial Assumptions	Recognition Period (years)								
2017										
2018	4,502,203	5.64	3,703,940		798,263	798,263	798,263	798,263	798,263	
2019										
2020										
2021										
2022										
2023										
2024										
2025										
2026										
Net increase (decrease) in OPEB expense				0	798,263	798,263	798,263	798,263	798,263	

EXHIBIT A
FINANCIAL STATEMENT DISCLOSURES
 (As of the June 30, 2018 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 Year	Differences			<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
	between actual & expected earnings	Recognition Period (years)	Remaining Balance				
2017							
2018	10,976	5.00	8,781		2,195	2,195	2,195
2019							
2020							
2021							
2022							
2023							
2024							
2025							
2026							
Net increase (decrease) in OPEB expense		0	2,195	2,195	2,195	2,195	2,196

EXHIBIT A
FINANCIAL STATEMENT DISCLOSURES
 (As of the June 30, 2018 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, 2018 to be reported for the fiscal year ending June 30, 2018		
	Deferred Outflows of Resources	Deferred Inflows of Resources
I. Differences between actual & expected experience	1,509,386	0
II. Changes of assumptions	3,703,940	0
III. Net difference between projected & actual earnings on OPEB plan investments	<u>8,781</u>	<u>0</u>
IV. Total [I.+II.+III.]	5,222,107	0
Annual Amortization of Deferred (Inflows)/Outflows		
The balance of deferred (inflows)/outflows as of June 30, 2018 will be recognized in future years as shown below.		
Year ending June 30:		
	2019	1,125,757
	2020	1,125,757
	2021	1,125,757
	2022	1,125,758
	2023	719,078
	Thereafter	0

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2018 Measurement Date)

4. 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, 2018 Measurement Date total Town premiums plus implicit costs for the retiree medical program were \$1,525,583. The Town also made a contribution to an OPEB Trust of \$0 for a total contribution during the measurement period of \$1,525,583 to be reported on the financial statement for the fiscal year ending June 30, 2018.

5. 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	0.00%	Domestic Equity - Large Cap	4.00%
Domestic Equity - Small/Mid Cap	0.00%	Domestic Equity - Small/Mid Cap	6.00%
International Equity - Developed Market	0.00%	International Equity - Developed Market	4.50%
International Equity-Emerging Market	0.00%	International Equity-Emerging Market	7.00%
Domestic Fixed Income	0.00%	Domestic Fixed Income	2.00%
International Fixed Income	0.00%	International Fixed Income	3.00%
Alternatives	0.00%	Alternatives	6.50%
Real Estate	0.00%	Real Estate	6.25%
Cash	<u>100.00%</u>	Cash	<u>0.00%</u>
Total	<u>100.00%</u>		
		I. Real Rate of Return	0.00%
		II. Inflation Assumption	2.75%
		III. Total Nominal Return [I. + II.]	2.75%
		IV. Investment Expense	0.00%
		V. Net Investment Return [III.-IV.]	2.75%

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2018 Measurement Date)

6. ACTUARILY DETERMINED CONTRIBUTION (ADC)

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 for the fiscal year and the amount actually contributed to the plan:

Actuarially Determined Contribution - Deficiency / (Excess)	
<u>For the Period Ending on the June 30, 2018 to be Reported on June 30, 2018</u>	
I. Service Cost	2,517,169
II. 30 year level flat dollar amortization of NOL at 3.50%	3,559,717
III. Actuarial Determined Contribution [I. + II.]	6,076,886
IV. Contributions in relation to the actuarially determined contribution	(1,525,583)
V. Contribution deficiency / (excess) [III. + IV.]	4,551,303
<hr/>	
Covered employee payroll	29,992,073
<hr/>	
Contributions as a % of covered employee payroll	5.09%

7. FUNDED STATUS AND FUNDING PROGRESS

Fiscal Year	Measurement Date	Fiduciary Net Position	Total OPEB Liability	Net OPEB Liability	Funded Ratio	Covered Payroll	NOL as a % of Covered Payroll
2015	7/1/2014	\$350,627	\$46,279,520	\$45,928,893	0.8%	\$25,811,008	177.9%
2016	7/1/2015	\$401,364	\$51,001,792	\$50,600,428	0.8%	\$26,646,528	189.9%
2017	7/1/2016	\$415,412	\$54,162,815	\$53,747,403	0.8%	\$27,445,923	195.8%
2018	6/30/2018	\$506,868	\$68,268,802	\$67,761,934	0.7%	\$29,992,073	225.9%
2019	6/30/2019 (est.)	\$520,807	\$71,652,593	\$71,131,786	0.7%	\$30,891,835	230.3%
2020	6/30/2020 (est.)	\$636,495	\$75,901,088	\$75,264,593	0.8%	\$31,818,590	236.5%

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2018 Measurement Date)

8. EFFECT OF 1% CHANGE IN HEALTHCARE TREND

Impact of a 1% Change in the Healthcare Trend Rate as of the June 30, 2018 Measurement Date

	<u>1% Decrease (4.00%)</u>	<u>Current Trend Rate (5.00%)</u>	<u>1% Increase (6.00%)</u>
I. Total OPEB Liability	47,215,229	68,268,802	95,640,363
II. Fiduciary Net Position	<u>506,868</u>	<u>506,868</u>	<u>506,868</u>
III. Net OPEB Liability (Asset) [I.-II.]	46,708,361	67,761,934	95,133,495
IV. Service Cost	1,316,905	2,517,169	4,215,027

Impact of a 1% Change in the Healthcare Trend Rate as of the June 30, 2019 Measurement Date

	<u>1% Decrease (4.00%)</u>	<u>Current Trend Rate (5.00%)</u>	<u>1% Increase (6.00%)</u>
I. Total OPEB Liability	49,554,260	71,652,593	100,382,438
II. Fiduciary Net Position	<u>520,807</u>	<u>520,807</u>	<u>520,807</u>
III. Net OPEB Liability (Asset) [I.-II.]	49,033,453	71,131,786	99,861,631
IV. Service Cost	1,385,023	2,647,363	4,433,032

9. EFFECT OF 1% CHANGE IN DISCOUNT RATES

Impact of a 1% Change in the Discount Rate as of the June 30, 2018 Measurement Date

	<u>1% Decrease (2.50%)</u>	<u>Current Discount Rate (3.50%)</u>	<u>1% Increase (4.50%)</u>
I. Total OPEB Liability	81,002,239	68,268,802	58,277,927
II. Fiduciary Net Position	<u>506,868</u>	<u>506,868</u>	<u>506,868</u>
III. Net OPEB Liability (Asset) [I.-II.]	80,495,371	67,761,934	57,771,059
IV. Service Cost	3,357,153	2,517,169	1,912,440

Impact of a 1% Change in the Discount Rate as of the June 30, 2019 Measurement Date

	<u>1% Decrease (2.50%)</u>	<u>Current Discount Rate (3.50%)</u>	<u>1% Increase (4.50%)</u>
I. Total OPEB Liability	85,017,172	71,652,593	61,166,514
II. Fiduciary Net Position	<u>520,807</u>	<u>520,807</u>	<u>520,807</u>
III. Net OPEB Liability (Asset) [I.-II.]	84,496,365	71,131,786	60,645,707
IV. Service Cost	3,530,793	2,647,363	2,011,356

EXHIBIT A
FINANCIAL STATEMENT DISCLOSURES
 (As of the June 30, 2018 Measurement Date)

10. MONEY WEIGHTED RATE OF RETURN

	Plan Investments / Net External Cash Flows	Periods Invested	Period Weight
I. Beginning value - June 30, 2017	503,984	12	1.0000
Monthly net external cash flows:			
July	0	11	0.9167
August	0	10	0.8333
September	0	9	0.7500
October	0	8	0.6667
November	0	7	0.5833
December	0	6	0.5000
January	0	5	0.4167
February	0	4	0.3333
March	0	3	0.2500
April	0	2	0.1667
May	0	1	0.0833
June	0	0	0.0000
II. Total net external cash flow	0		
III. Earnings and increase in fair value	2,884		
IV. Ending value - June 30, 2018 [I.+II.+III.]	506,868		
Money Weighted Rate of Return	0.57%		
Asset Value - June 30, 2018	506,868		

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2018 Measurement Date)

11. PLAN CASH FLOWS

Aggregate External (Noninvestment Cash Flows)	
<u>For the Year Ending on the June 30, 2018 Measurement Date</u>	
Additions	
<u>Contributions</u>	
Member contributions	0
Employer contributions	0
Other income	0
Deductions	
Service benefits	0
Disability benefits	0
Death benefits	0
Refunds	0
Administrative expenses	0
Beginning balances of noninvestment-related assets and liabilities	
Contribution receivable	0
Prepaid expenses	0
Accrued expenses & benefits payable	0
Ending balances of noninvestment-related assets and liabilities	
Contribution receivable	0
Prepaid expenses	0
Accrued expenses & benefits payable	0
Change in capital assets - depreciation	0
Aggregate external cash flows	0

EXHIBIT A
FINANCIAL STATEMENT DISCLOSURES
 (As of the June 30, 2018 Measurement Date)

11. PLAN CASH FLOWS (CONTINUED)
**Reconciliation of Beginning & Ending Balances of OPEB Plan Investments,
 Aggregate External Cash Flows, and Net Investment Income**
For the Year Ending on the June 30, 2018 Measurement Date

I. Total OPEB plan investments on June 30, 2017	415,412
II. Aggregate external cash flows	0
III. Net investment income	<u>2,884</u>
IV. Total OPEB plan investments on June 30, 2018 [I.+II.+III.]	<u>506,868</u>



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 Colchester, CT 06415
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West Coast
 1350 E. Flamingo Road, Suite 254
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EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2018 Measurement Date)

12. OPEB LIABILITY, OPEB EXPENSE AND ADC

	Fiscal Year Ending June 30, 2018								
	Town Employees and Retirees	School Employees and Retirees	Police Employees and Retirees	Fire Employees and Retirees	Highway Enterprise Employees and Retirees	Sewer Enterprise Employees and Retirees	Sanitation Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Total
I. Total OPEB Liability as of June 30, 2018	23,034,720	35,241,318	4,087,035	3,289,143	1,052,347	123,732	82,908	1,357,599	68,268,802
II. Fiduciary Net Position as of June 30, 2018	171,346	261,144	30,414	24,377	7,901	905	623	10,158	506,868
III. Net OPEB Liability (Asset) as of June 30, 2018 [I. - II.]	22,863,374	34,980,174	4,056,621	3,264,766	1,044,446	122,827	82,285	1,347,441	67,761,934
IV. Service Cost	363,703	1,726,497	178,115	183,333	24,661	3,484	-	37,376	2,517,169
V. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	692,559	1,113,356	128,938	105,113	32,099	3,855	2,455	41,958	2,120,333
VI. Projected Earnings on OPEB Plan Investments	(4,688)	(7,140)	(831)	(666)	(216)	(25)	(17)	(277)	(13,860)
VII. Net Recognition of Deferred (Inflows)/Outflows	368,354	590,251	68,581	55,733	17,080	2,063	1,313	22,382	1,125,757
VIII. Financial Statement Expense [IV. + V. + VI. + VII.]	1,419,928	3,422,964	374,803	343,513	73,624	9,377	3,751	101,439	5,749,399
IX. Employer Share of Costs	(954,078)	(478,303)	(24,491)	(15,314)	(31,494)	(1)	(3,194)	(18,708)	(1,525,583)
X. Employer (Payments) Withdrawals to/from OPEB Trust									
XI. Total Employer Contribution [IX. + X.]	(954,078)	(478,303)	(24,491)	(15,314)	(31,494)	(1)	(3,194)	(18,708)	(1,525,583)
XII. Net OPEB Expense [VIII. + XI.]	465,850	2,944,661	350,312	328,199	42,130	9,376	557	82,731	4,223,816
XIII. Actuarial Determined Contribution (ADC)	1,564,777	3,564,100	391,220	354,840	79,529	9,936	4,323	108,161	6,076,886
XIV. Total Expected Contribution	954,078	478,303	24,491	15,314	31,494	1	3,194	18,708	1,525,583
XV. Percentage of ADC Contributed [XIV. / XIII.]	61%	13%	6%	4%	40%	0%	74%	17%	25%

	Fiscal Year Ending June 30, 2019								
	Town Employees and Retirees	School Employees and Retirees	Police Employees and Retirees	Fire Employees and Retirees	Highway Enterprise Employees and Retirees	Sewer Enterprise Employees and Retirees	Sanitation Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Total
I. Total OPEB Liability as of June 30, 2019	23,145,139	37,806,818	4,395,942	3,586,304	1,079,987	131,854	82,155	1,424,394	71,652,593
II. Fiduciary Net Position as of June 30, 2019	176,060	268,325	31,250	25,047	8,118	930	640	10,437	520,807
III. Net OPEB Liability (Asset) as of June 30, 2019 [I. - II.]	22,969,079	37,538,493	4,364,692	3,561,257	1,071,869	130,924	81,515	1,413,957	71,131,786
IV. Service Cost	382,514	1,815,796	187,328	192,815	25,937	3,664	-	39,309	2,647,363
V. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	800,986	1,287,666	149,125	121,570	37,125	4,459	2,839	48,527	2,452,297
VI. Projected Earnings on OPEB plan investments	(4,714)	(7,181)	(836)	(670)	(217)	(25)	(17)	(279)	(13,939)
VII. Net Recognition of Deferred (Inflows)/Outflows	368,368	590,278	68,584	55,737	17,079	2,063	1,310	22,338	1,125,757
VIII. Financial Statement Expense [IV. + V. + VI. + VII.]	1,547,154	3,686,559	404,201	369,452	79,924	10,161	4,132	109,895	6,211,478
IX. Employer Share of Costs	(1,073,081)	(537,962)	(27,546)	(17,224)	(35,422)	(1)	(3,592)	(21,041)	(1,715,869)
X. Employer (Payments) Withdrawals to/from OPEB Trust									
XI. Total Employer Contribution [IX. + X.]	(1,073,081)	(537,962)	(27,546)	(17,224)	(35,422)	(1)	(3,592)	(21,041)	(1,715,869)
XII. Net OPEB Expense [VIII. + XI.]	474,073	3,148,597	376,655	352,228	44,502	10,160	540	88,854	4,495,609
XIII. Actuarial Determined Contribution (ADC)	1,589,141	3,787,794	416,617	379,897	82,245	10,542	4,282	113,588	6,384,106
XIV. Total Expected Contribution	1,073,081	537,962	27,546	17,224	35,422	1	3,592	21,041	1,715,869
XV. Percentage of ADC Contributed [XIV. / XIII.]	68%	14%	7%	5%	43%	0%	84%	19%	27%

EXHIBIT A
FINANCIAL STATEMENT DISCLOSURES
 (As of the June 30, 2018 Measurement Date)

13. OPEB LIABILITY, OPEB EXPENSE AND DEFERRED INFLOW/OUTFLOW

Valuation Date	July 1, 2017	July 1, 2017
For the Measurement Period ending on the Measurement Date of:	June 30, 2018	June 30, 2019
For the Reporting Period & Fiscal Year ending on:	June 30, 2018	June 30, 2019

Source of Deferred Inflow/Outflow

I. Deferred (Inflow)/Outflow from Actual vs. Expected Experience	1,509,386	1,184,087
II. Deferred (Inflow)/Outflow from Investment Experience	8,781	6,586
III. Deferred (Inflow)/Outflow from Changes in Benefit Terms	0	0
IV. Deferred (Inflow)/Outflow from Changes in Assumptions	3,703,940	2,905,677

Change in Deferred Inflow/Outflow

I. Deferred Outflow at the beginning of the period	0	5,222,107
II. Deferred Outflow created during the period	6,347,864	0
III. Deferred Outflow recognized during the period	1,125,757	1,125,757
IV. Change in Deferred Outflow (II. - III.)	5,222,107	(1,125,757)
V. Deferred Outflow at end of the period (I. + IV.)	5,222,107	4,096,350
VI. Deferred Inflow at the beginning of the period	0	0
VII. Deferred Inflow created during the period	0	0
VIII. Deferred Inflow recognized during the period	0	0
IX. Change in Deferred Inflow (VII. - VIII.)	0	0
X. Deferred Inflow at end of the period (VI. + IX.)	0	0

Net OPEB Liability

I. Net OPEB Liability at beginning of period	58,316,011	67,761,934
II. Service Cost	2,517,169	2,647,363
III. Interest on Total OPEB Liability, Service Cost, and Payments	2,120,333	2,452,297
IV. Projected Investment Income	(13,860)	(13,939)
V. Total Employer Contributions	(1,525,583)	(1,715,869)
VI. Net OPEB Expense - Before Recognition of Deferred (Inflow)/Outflow (II. + III. + IV. + V.)	3,098,059	3,369,852
VII. Deferred Outflow created during the period	6,347,864	0
VIII. Deferred Inflow created during the period	0	0
IX. Net OPEB Liability at end of period (I. + VI. + VII. + VIII.)	67,761,934	71,131,786

Net OPEB Expense

I. Service Cost	2,517,169	2,647,363
II. Interest on Total OPEB Liability, Service Cost, and Payments	2,120,333	2,452,297
III. Projected Investment Income	(13,860)	(13,939)
IV. Recognition of Deferred (Inflow)/Outflow	1,125,757	1,125,757
V. Financial Statement Expense (I. + II. + III. + IV.)	5,749,399	6,211,478
VI. Benefit Payments	(1,525,583)	(1,715,869)
VII. Contributions to Trust	0	0
VIII. Total Employer Payments (VI. + VII.)	(1,525,583)	(1,715,869)
IX. Total Employer Payments (V. + VIII.)	4,223,816	4,495,609

Valuation Date	July 1, 2017	July 1, 2017
For the Measurement Period ending on the Measurement Date of:	June 30, 2018	June 30, 2019
For the Reporting Period & Fiscal Year ending on:	June 30, 2018	June 30, 2019

EXHIBIT B
REQUIRED SUPPLEMENTARY INFORMATION
 (As of the June 30, 2018 Measurement Date)

Schedule of Changes in the Town's Net OPEB Liability and Related Ratios

Valuation Date	July 1, 2017	July 1, 2015
For the Reporting Period & Fiscal Year ending on:	June 30, 2018	June 30, 2017
Total OPEB Liability		
I. Service Cost	2,517,169	2,771,538
II. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	2,120,333	1,871,855
III. Changes in Benefit terms	0	0
IV. Difference between Expected & Actual Plan Experience	4,502,203	0
V. Changes of assumptions	1,834,685	0
VI. Benefit Payments Excluding Implicit Cost	(1,286,488)	N/A
VII. Implicit Cost Amount	(239,095)	N/A
VIII. Total Benefit payments including Implicit Cost [VI.+VII.]	(1,525,583)	(1,284,525)
IX. Net Change in OPEB liability [I.+II.+III.+IV.+V.+VIII.]	9,448,807	3,358,868
X. Total OPEB liability - beginning of period	58,819,995	55,461,127
XI. Total OPEB liability - end of period [IX.+X.]	68,268,802	58,819,995
Plan Fiduciary Net Position		
XII. Earning from Plan Investments	2,884	1,508
XIII. Employer Contribution to trust	1,525,583	1,210,598
XIV. Benefit payments from trust, including refunds of member contributions	(1,525,583)	(1,210,598)
XV. Administrative expense	0	0
XVI. Other	0	0
XVII. Net change in plan fiduciary net position [XII.+XIII.+XIV.+XV.+XVI.]	2,884	1,508
XVIII. Plan fiduciary net position - beginning of period	503,984	502,476
XIX. Plan fiduciary net position - end of period [XVII.+XVIII.]	506,868	503,984
XX. Net OPEB Liability [XI.-XIX.]	67,761,934	58,316,011
XXI. Plan fiduciary net position as % of total OPEB liability [XIX. / XI.]	0.74%	0.86%
XXII. Covered employee payroll	29,992,073	27,445,923
XXIII. Plan NOL as % of covered employee payroll [XX. / XXII.]	225.93%	212.48%
Single Discount Rate to calculate Plan Liabilities	3.50%	3.25%

EXHIBIT B
REQUIRED SUPPLEMENTARY INFORMATION
 (As of the June 30, 2018 Measurement Date)

Actuarially Determined Contribution - Deficiency / (Excess)		For the Fiscal Year Ending:	
		<u>June 30, 2018</u>	<u>June 30, 2017</u>
I. Service Cost		2,517,169	2,771,538
II. 30 year level dollar amortization of NOL		<u>3,063,497</u>	<u>2,804,180</u>
III. Actuarial Determined Contribution [I. + II.]		5,580,666	5,575,718
IV. Contributions in relation to the actuarially determined contribution		<u>(1,525,583)</u>	<u>(1,210,598)</u>
V. Contribution deficiency / (excess) [III. + IV.]		<u>4,055,083</u>	<u>4,365,120</u>
<hr/>			
Covered employee payroll		29,992,073	27,445,923
Contributions as a % of covered employee payroll		5.09%	4.41%
Discount Rate		3.50%	3.25%
Money Weighted Rate of Return		0.57%	2.75%

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION (As of the June 30, 2018 Measurement Date)

Notes to Required Supplementary Information:

Valuation Date:	Actuarially Determined Contribution was calculated as of July 1, 2017.
Actuarial Cost Method:	Individual Entry Age Normal
Asset-Valuation Method:	Market Value of Assets as of the Measurement Date, June 30, 2018.

Actuarial Assumptions:

Investment Rate of Return:	2.75%, net of OPEB plan investment expense, including inflation.
Municipal Bond Rate	3.45% as of June 30, 2018 (source: S&P Municipal Bond 20-Year High Grade Index - SAPIHG)
Single Equivalent Discount Rate:	3.50%, net of OPEB plan investment expense, including inflation.
Inflation:	2.75% as of June 30, 2018 and for future periods
Salary Increases:	3.00% annually as of June 30, 2018 and for future periods
Cost of Living Adjustment:	Not Applicable
Pre-Retirement Mortality:	RP-2000 Employees Mortality Table projected generationally with scale BB and a base year 2009 for males and females
Post-Retirement Mortality:	RP-2000 Healthy Annuitant Mortality Table projected generationally with scale BB and a base year 2009 for males and females
Disabled Mortality:	RP-2000 Healthy Annuitant Table projected generationally with Scale BB and a base year 2012 for males and females

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION (As of the June 30, 2018 Measurement Date)

Notes to Required Supplementary Information (Continued):

Plan Membership

At July 1, 2017, OPEB plan membership consisted of the following:

Inactive employees or beneficiaries currently receiving benefits:	288
Active Employees:	<u>485</u>
Total:	773

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, 2017 to June 30, 2018

- Discount rate is 3.50% previously 3.25%
- Teacher retirement rates were updated

Contributions:

The contribution requirements of plan members and the Town are established and may be amended through Town ordinances. The Town contributed \$0 beyond the pay-as-you-go cost for the period ending on the June 30, 2018 Measurement Date. For the year ending on the June 30, 2018 Measurement Date total Town premiums plus implicit costs for the retiree medical program were \$1,525,583. \$239,095 of the \$1,525,583 was implicit cost.

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

CURRENT FUNDING POLICY (OPEN GROUP)

Total Medical, Dental & Life Insurance - Funding - 3.50% discount rate

For the Fiscal Year	Period Ending on the Measurement	Date of: Measurement	I. Total OPEB Liability ("TOL") as of Measurement	II. Fiduciary Net Position as of Measurement			IV. Funded Ratio [II. / I]	VI. Employer Share of Premiums / Claims	VII. Excess Employer Payments (beyond claims)	VIII. Total Employer Payments [VI. + VII.]
				Date with expected 2.75% return	III. Net OPEB Liability (Asset) [I. - II.]	V. Service Cost				
2018	June 30, 2018	68,268,802	506,868	67,761,934	0.74%	2,517,169	1,525,583	0	1,525,583	
2019	June 30, 2019	71,652,593	520,807	71,131,786	0.73%	2,647,363	1,715,869	0	1,715,869	
2020	June 30, 2020	75,901,088	636,495	75,264,593	0.84%	2,818,147	1,838,266	100,000	1,938,266	
2021	June 30, 2021	79,671,467	653,999	79,017,468	0.82%	2,991,496	1,988,662	0	1,988,662	
2022	June 30, 2022	83,548,736	671,984	82,876,752	0.80%	3,162,713	2,165,189	0	2,165,189	
2023	June 30, 2023	87,549,920	690,464	86,859,456	0.79%	3,348,553	2,336,059	0	2,336,059	
2024	June 30, 2024	91,717,181	709,452	91,007,729	0.77%	3,530,359	2,488,744	0	2,488,744	
2025	June 30, 2025	96,020,201	728,962	95,291,239	0.76%	3,735,566	2,663,450	0	2,663,450	
2026	June 30, 2026	100,528,169	749,008	99,779,161	0.75%	3,931,021	2,818,291	0	2,818,291	
2027	June 30, 2027	105,149,119	769,606	104,379,513	0.73%	4,137,837	3,019,092	0	3,019,092	
2028	June 30, 2028	109,844,728	790,770	109,053,958	0.72%	4,330,696	3,231,318	0	3,231,318	
2029	June 30, 2029	114,696,199	812,516	113,883,683	0.71%	4,528,997	3,411,144	0	3,411,144	
2030	June 30, 2030	119,573,071	834,860	118,738,211	0.70%	4,754,616	3,622,973	0	3,622,973	
2031	June 30, 2031	124,748,065	857,819	123,890,246	0.69%	4,969,772	3,850,020	0	3,850,020	
2032	June 30, 2032	129,981,136	881,409	129,099,727	0.68%	5,218,651	4,037,756	0	4,037,756	
2033	June 30, 2033	135,517,497	905,648	134,611,849	0.67%	5,465,851	4,203,669	0	4,203,669	
2034	June 30, 2034	141,332,456	930,553	140,401,903	0.66%	5,726,133	4,421,455	0	4,421,455	
2035	June 30, 2035	147,444,144	956,143	146,488,001	0.65%	6,002,464	4,614,938	0	4,614,938	
2036	June 30, 2036	153,595,203	982,437	152,612,766	0.64%	6,291,094	4,771,893	0	4,771,893	
2037	June 30, 2037	160,339,906	1,009,454	159,330,452	0.63%	6,587,323	4,976,846	0	4,976,846	
2038	June 30, 2038	167,500,759	1,037,214	166,463,545	0.62%	6,919,050	5,176,020	0	5,176,020	
2039	June 30, 2039	174,977,175	1,065,737	173,911,438	0.61%	7,253,774	5,361,895	0	5,361,895	
2040	June 30, 2040	182,690,745	1,095,045	181,595,700	0.60%	7,609,983	5,568,723	0	5,568,723	
2041	June 30, 2041	190,994,721	1,125,159	189,869,562	0.59%	7,988,717	5,861,282	0	5,861,282	
2042	June 30, 2042	199,763,029	1,156,101	198,606,928	0.58%	8,401,092	6,134,713	0	6,134,713	
2043	June 30, 2043	208,872,132	1,187,894	207,684,238	0.57%	8,833,425	6,388,220	0	6,388,220	
2044	June 30, 2044	218,584,705	1,220,561	217,364,144	0.56%	9,291,657	6,664,869	0	6,664,869	
2045	June 30, 2045	228,893,729	1,254,126	227,639,603	0.55%	9,778,432	6,958,803	0	6,958,803	
2046	June 30, 2046	239,703,474	1,288,614	238,414,860	0.54%	10,294,335	7,205,031	0	7,205,031	
2047	June 30, 2047	251,098,584	1,324,051	249,774,533	0.53%	10,842,975	7,486,621	0	7,486,621	
2048	June 30, 2048	263,314,480	1,360,462	261,954,018	0.52%	11,413,917	7,726,981	0	7,726,981	
2049	June 30, 2049	276,496,644	1,397,875	275,098,769	0.51%	12,019,831	7,981,844	0	7,981,844	

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

ALTERNATIVE FUNDING SCENARIO (OPEN GROUP)

Total Medical, Dental & Life Insurance - 6.50% discount rate and increasing at 3.00% per year
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For the Fiscal Year	Period Ending on the Measurement Date of:	II. Fiduciary Net								VIII. Total Employer Payments [VI. + VII.]
		I. Total OPEB Liability ("TOL")	Position as of Measurement as of Measurement Date	II. Fiduciary Net Position as of Measurement Date with expected 6.50% return	III. Net OPEB Liability (Asset) ("NOL") [I. - II.]	IV. Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Premiums / Claims	VII. Annual Funding / (Payments)	
2018	June 30, 2018	42,015,771	506,868	41,508,903	1.21%	1,106,926	1,525,583	0	1,525,583	
2019	June 30, 2019	44,325,487	2,146,347	42,179,140	4.84%	1,205,722	1,715,869	1,556,735	3,272,604	
2020	June 30, 2020	46,678,619	3,892,392	42,786,227	8.34%	1,287,224	1,838,266	1,603,437	3,441,703	
2021	June 30, 2021	49,138,465	5,800,126	43,338,339	11.80%	1,369,156	1,988,662	1,651,540	3,640,202	
2022	June 30, 2022	51,680,376	7,881,504	43,798,872	15.25%	1,449,970	2,165,189	1,701,086	3,866,275	
2023	June 30, 2023	54,281,999	10,149,303	44,132,696	18.70%	1,537,042	2,336,059	1,752,119	4,088,178	
2024	June 30, 2024	56,955,061	12,617,174	44,337,887	22.15%	1,621,080	2,488,744	1,804,683	4,293,427	
2025	June 30, 2025	59,732,302	15,299,702	44,432,600	25.61%	1,717,198	2,663,450	1,858,823	4,522,273	
2026	June 30, 2026	62,588,765	18,212,466	44,376,299	29.10%	1,808,200	2,818,291	1,914,588	4,732,879	
2027	June 30, 2027	65,576,403	21,372,109	44,204,294	32.59%	1,903,867	3,019,092	1,972,026	4,991,118	
2028	June 30, 2028	68,625,130	24,796,404	43,828,726	36.13%	1,992,513	3,231,318	2,031,187	5,262,505	
2029	June 30, 2029	71,709,495	28,504,332	43,205,163	39.75%	2,082,505	3,411,144	2,092,123	5,503,267	
2030	June 30, 2030	74,887,670	32,516,160	42,371,510	43.42%	2,185,714	3,622,973	2,154,887	5,777,860	
2031	June 30, 2031	78,064,261	36,853,529	41,210,732	47.21%	2,283,421	3,850,020	2,219,534	6,069,554	
2032	June 30, 2032	81,412,272	41,539,542	39,872,730	51.02%	2,397,235	4,037,756	2,286,120	6,323,876	
2033	June 30, 2033	84,791,037	46,598,861	38,192,176	54.96%	2,510,236	4,203,669	2,354,704	6,558,373	
2034	June 30, 2034	88,359,238	52,057,814	36,301,424	58.92%	2,629,445	4,421,455	2,425,345	6,846,800	
2035	June 30, 2035	92,094,271	57,944,500	34,149,771	62.92%	2,755,729	4,614,938	2,498,105	7,113,043	
2036	June 30, 2036	96,008,365	64,288,908	31,719,457	66.96%	2,887,449	4,771,893	2,573,048	7,344,941	
2037	June 30, 2037	99,962,033	71,123,043	28,838,990	71.15%	3,022,525	4,976,846	2,650,239	7,627,085	
2038	June 30, 2038	104,293,243	78,481,057	25,812,186	75.25%	3,174,485	5,176,020	2,729,746	7,905,766	
2039	June 30, 2039	108,877,644	86,399,392	22,478,252	79.35%	3,326,719	5,361,895	2,811,638	8,173,533	
2040	June 30, 2040	113,679,288	94,916,930	18,762,358	83.50%	3,489,146	5,568,723	2,895,987	8,464,710	
2041	June 30, 2041	118,635,688	104,075,155	14,560,533	87.73%	3,661,854	5,861,282	2,982,867	8,844,149	
2042	June 30, 2042	123,951,466	113,918,324	10,033,142	91.91%	3,850,138	6,134,713	3,072,353	9,207,066	
2043	June 30, 2043	129,547,560	124,493,648	5,053,912	96.10%	4,047,534	6,388,220	3,164,524	9,552,744	
2044	June 30, 2044	135,369,951	135,851,487	(481,536)	100.36%	4,256,916	6,664,869	3,259,460	9,924,329	
2045	June 30, 2045	141,553,874	148,045,558	(6,491,684)	104.59%	4,479,088	6,958,803	(2,407,953)	4,550,850	
2046	June 30, 2046	148,098,481	155,183,540	(7,085,059)	104.78%	4,714,519	7,205,031	(2,479,715)	4,725,316	
2047	June 30, 2047	154,972,582	162,711,433	(7,738,851)	104.99%	4,964,806	7,486,621	(2,490,512)	4,996,109	
2048	June 30, 2048	162,228,752	170,717,497	(8,488,745)	105.23%	5,225,230	7,726,981	(2,521,815)	5,205,166	
2049	June 30, 2049	170,013,562	179,211,651	(9,198,089)	105.41%	5,501,503	7,981,844	(2,501,751)	5,480,093	

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS
CONTRIBUTION PROJECTION DISCLOSURES
Projection of Contributions using a July 1, 2017 Valuation Date

For the Period Ending on the Measurement Date	I. Payroll for current employees	II. Payroll for future employees	III. Total employee 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, 2018	29,992,073	0	29,992,073	0	1,525,583	0	1,525,583
June 30, 2019	28,741,666	2,150,169	30,891,835	0	1,715,869	0	1,715,869
June 30, 2020	27,721,646	4,096,944	31,818,590	0	1,838,266	0	1,838,266
June 30, 2021	26,931,665	5,841,483	32,773,148	0	1,988,662	0	1,988,662
June 30, 2022	26,071,335	7,685,007	33,756,342	0	2,165,189	0	2,165,189
June 30, 2023	25,290,556	9,478,476	34,769,032	0	2,336,059	0	2,336,059
June 30, 2024	24,489,106	11,322,997	35,812,103	0	2,488,744	0	2,488,744
June 30, 2025	23,812,260	13,074,206	36,886,466	0	2,663,450	0	2,663,450
June 30, 2026	23,099,772	14,893,288	37,993,060	0	2,818,291	0	2,818,291
June 30, 2027	22,477,507	16,655,345	39,132,852	0	3,019,092	0	3,019,092
June 30, 2028	21,719,272	18,587,566	40,306,838	0	3,231,318	0	3,231,318
June 30, 2029	20,958,153	20,557,890	41,516,043	0	3,390,037	21,107	3,411,144
June 30, 2030	20,262,952	22,498,572	42,761,524	0	3,570,233	52,740	3,622,973
June 30, 2031	19,452,363	24,592,007	44,044,370	0	3,751,102	98,918	3,850,020
June 30, 2032	18,848,715	26,516,986	45,365,701	0	3,877,807	159,949	4,037,756
June 30, 2033	18,216,776	28,509,896	46,726,672	0	3,968,760	234,909	4,203,669
June 30, 2034	17,533,263	30,595,209	48,128,472	0	4,120,404	301,051	4,421,455
June 30, 2035	16,889,510	32,682,816	49,572,326	0	4,236,593	378,345	4,614,938
June 30, 2036	16,220,143	34,839,353	51,059,496	0	4,306,469	465,424	4,771,893
June 30, 2037	15,416,515	37,174,766	52,591,281	0	4,428,537	548,309	4,976,846
June 30, 2038	14,700,618	39,468,401	54,169,019	0	4,536,589	639,431	5,176,020
June 30, 2039	14,198,060	41,596,030	55,794,090	0	4,603,113	758,782	5,361,895
June 30, 2040	13,546,793	43,921,120	57,467,913	0	4,656,435	912,288	5,568,723
June 30, 2041	12,806,203	46,385,747	59,191,950	0	4,758,697	1,102,585	5,861,282
June 30, 2042	12,170,384	48,797,325	60,967,709	0	4,804,154	1,330,559	6,134,713
June 30, 2043	11,465,880	51,330,860	62,796,740	0	4,794,824	1,593,396	6,388,220
June 30, 2044	10,702,064	53,978,578	64,680,642	0	4,835,747	1,829,122	6,664,869
June 30, 2045	9,963,418	56,657,643	66,621,061	0	4,866,571	2,092,232	6,958,803
June 30, 2046	9,138,399	59,481,294	68,619,693	0	4,824,451	2,380,580	7,205,031
June 30, 2047	8,374,144	62,304,140	70,678,284	0	4,823,658	2,662,963	7,486,621
June 30, 2048	7,513,614	65,285,019	72,798,633	0	4,759,840	2,967,141	7,726,981
June 30, 2049	6,720,047	68,262,545	74,982,592	0	4,674,596	3,307,248	7,981,844
June 30, 2050	6,044,772	71,187,298	77,232,070	0	4,622,076	3,679,936	8,302,012
June 30, 2051	5,249,885	74,299,147	79,549,032	0	4,548,342	4,087,894	8,636,236
June 30, 2052	4,548,987	77,386,516	81,935,503	0	4,471,384	4,532,191	9,003,575
June 30, 2053	3,792,924	80,600,644	84,393,568	0	4,408,176	5,015,291	9,423,467
June 30, 2054	3,056,303	83,869,072	86,925,375	0	4,350,719	5,506,944	9,857,663
June 30, 2055	2,431,445	87,101,691	89,533,136	0	4,339,114	6,033,151	10,372,265
June 30, 2056	1,893,088	90,326,042	92,219,130	0	4,257,183	6,596,414	10,853,597
June 30, 2057	1,393,376	93,592,328	94,985,704	0	4,184,025	7,188,565	11,372,590

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS
CONTRIBUTION PROJECTION DISCLOSURES (CONTINUED)
Projection of Contributions using a July 1, 2017 Valuation Date (Continued)

For the Period	I. Payroll for current employees	II. Payroll for future employees	III. Total employee 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, 2058	1,025,544	96,809,731	97,835,275	0	4,159,842	7,815,751	11,975,593
June 30, 2059	741,826	100,028,507	100,770,333	0	4,068,974	8,488,396	12,557,370
June 30, 2060	497,249	103,296,194	103,793,443	0	4,013,938	9,204,296	13,218,234
June 30, 2061	295,208	106,612,038	106,907,246	0	3,971,279	9,966,328	13,937,607
June 30, 2062	140,465	109,973,998	110,114,463	0	3,920,984	10,777,750	14,698,734
June 30, 2063	60,140	113,357,757	113,417,897	0	3,858,311	11,637,624	15,495,935
June 30, 2064	8,295	116,812,139	116,820,434	0	3,791,481	12,535,527	16,327,008
June 30, 2065	0	120,325,047	120,325,047	0	3,716,557	13,481,913	17,198,470
June 30, 2066	0	123,934,798	123,934,798	0	3,634,899	14,479,894	18,114,793
June 30, 2067	0	127,652,842	127,652,842	0	3,547,144	15,521,819	19,068,963
June 30, 2068	0	131,482,427	131,482,427	0	3,452,936	16,615,422	20,068,358
June 30, 2069	0	135,426,900	135,426,900	0	3,352,453	17,762,401	21,114,854
June 30, 2070	0	139,489,707	139,489,707	0	3,245,566	18,962,488	22,208,054
June 30, 2071	0	143,674,398	143,674,398	0	3,132,403	20,220,231	23,352,634
June 30, 2072	0	147,984,630	147,984,630	0	3,012,953	21,535,625	24,548,578
June 30, 2073	0	152,424,169	152,424,169	0	2,887,474	22,913,509	25,800,983
June 30, 2074	0	156,996,894	156,996,894	0	2,756,197	24,354,357	27,110,554
June 30, 2075	0	161,706,801	161,706,801	0	2,619,190	25,860,004	28,479,194
June 30, 2076	0	166,558,005	166,558,005	0	2,477,230	27,433,639	29,910,869
June 30, 2077	0	171,554,745	171,554,745	0	2,330,861	29,076,379	31,407,240
June 30, 2078	0	176,701,387	176,701,387	0	2,180,650	30,792,915	32,973,565
June 30, 2079	0	182,002,429	182,002,429	0	2,027,264	32,585,708	34,612,972
June 30, 2080	0	187,462,502	187,462,502	0	1,871,941	34,461,044	36,332,985
June 30, 2081	0	193,086,377	193,086,377	0	1,715,230	36,423,898	38,139,128
June 30, 2082	0	198,878,968	198,878,968	0	1,559,573	38,479,803	40,039,376
June 30, 2083	0	204,845,337	204,845,337	0	1,405,761	40,633,579	42,039,340
June 30, 2084	0	210,990,697	210,990,697	0	1,255,705	42,894,248	44,149,953
June 30, 2085	0	217,320,418	217,320,418	0	1,110,621	45,263,352	46,373,973
June 30, 2086	0	223,840,031	223,840,031	0	972,057	47,748,899	48,720,956
June 30, 2087	0	230,555,232	230,555,232	0	840,989	50,357,949	51,198,938
June 30, 2088	0	237,471,889	237,471,889	0	718,915	53,095,838	53,814,753
June 30, 2089	0	244,596,046	244,596,046	0	606,322	55,970,577	56,576,899
June 30, 2090	0	251,933,927	251,933,927	0	505,215	58,989,636	59,494,851
June 30, 2091	0	259,491,945	259,491,945	0	415,254	62,162,642	62,577,896
June 30, 2092	0	267,276,703	267,276,703	0	336,712	65,496,218	65,832,930
June 30, 2093	0	275,295,004	275,295,004	0	269,552	69,000,443	69,269,995
June 30, 2094	0	283,553,854	283,553,854	0	212,919	72,683,482	72,896,401
June 30, 2095	0	292,060,470	292,060,470	0	166,098	76,554,367	76,720,465
June 30, 2096	0	300,822,284	300,822,284	0	127,605	80,623,418	80,751,023

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

FIDUCIARY NET POSITION PROJECTION DISCLOSURES

Projection of OPEB Plan's Fiduciary Net Position using a July 1, 2017 Valuation Date								
For the Period Ending on the Measurement Date	I. Beginning Fiduciary Net Position for Current Plan Members	II. Portion of Employer Contributions for Current Plan Members	III. Total Benefit Payments	IV. Administrative Expense	V. Total Contributions to Trust	VI. Contributions to Trust for Current Plan Members	VII. Investment Earnings	VIII. Ending Fiduciary Net Position for Current Plan Members
June 30, 2018	503,984	1,525,583	1,525,583	0	0	0	2,884	506,868
June 30, 2019	506,868	1,715,869	1,715,869	0	0	0	13,939	520,807
June 30, 2020	520,807	1,838,266	1,838,266	0	100,000	87,124	15,512	623,443
June 30, 2021	623,443	1,988,662	1,988,662	0	0	0	17,145	640,588
June 30, 2022	640,588	2,165,189	2,165,189	0	0	0	17,616	658,204
June 30, 2023	658,204	2,336,059	2,336,059	0	0	0	18,101	676,305
June 30, 2024	676,305	2,488,744	2,488,744	0	0	0	18,598	694,903
June 30, 2025	694,903	2,663,450	2,663,450	0	0	0	19,110	714,013
June 30, 2026	714,013	2,818,291	2,818,291	0	0	0	19,635	733,648
June 30, 2027	733,648	3,019,092	3,019,092	0	0	0	20,175	753,823
June 30, 2028	753,823	3,231,318	3,231,318	0	0	0	20,730	774,553
June 30, 2029	774,553	3,390,037	3,411,144	0	0	0	21,300	774,746
June 30, 2030	774,746	3,570,233	3,622,973	0	0	0	21,306	743,312
June 30, 2031	743,312	3,751,102	3,850,020	0	0	0	20,441	664,835
June 30, 2032	664,835	3,877,807	4,037,756	0	0	0	18,283	523,169
June 30, 2033	523,169	3,968,760	4,203,669	0	0	0	14,387	302,647
June 30, 2034	302,647	4,120,404	4,421,455	0	0	0	8,323	9,919
June 30, 2035	9,919	4,236,593	4,614,938	0	0	0	273	273
June 30, 2036	273	4,306,469	4,771,893	0	0	0	8	8
June 30, 2037	8	4,428,537	4,976,846	0	0	0	0	0
June 30, 2038	0	4,536,589	5,176,020	0	0	0	0	0
June 30, 2039	0	4,603,113	5,361,895	0	0	0	0	0
June 30, 2040	0	4,656,435	5,568,723	0	0	0	0	0
June 30, 2041	0	4,758,697	5,861,282	0	0	0	0	0
June 30, 2042	0	4,804,154	6,134,713	0	0	0	0	0
June 30, 2043	0	4,794,824	6,388,220	0	0	0	0	0
June 30, 2044	0	4,835,747	6,664,869	0	0	0	0	0
June 30, 2045	0	4,866,571	6,958,803	0	0	0	0	0
June 30, 2046	0	4,824,451	7,205,031	0	0	0	0	0
June 30, 2047	0	4,823,658	7,486,621	0	0	0	0	0
June 30, 2048	0	4,759,840	7,726,981	0	0	0	0	0
June 30, 2049	0	4,674,596	7,981,844	0	0	0	0	0
June 30, 2050	0	4,622,076	8,302,012	0	0	0	0	0
June 30, 2051	0	4,548,342	8,636,236	0	0	0	0	0
June 30, 2052	0	4,471,384	9,003,575	0	0	0	0	0
June 30, 2053	0	4,408,176	9,423,467	0	0	0	0	0
June 30, 2054	0	4,350,719	9,857,663	0	0	0	0	0
June 30, 2055	0	4,339,114	10,372,265	0	0	0	0	0
June 30, 2056	0	4,257,183	10,853,597	0	0	0	0	0
June 30, 2057	0	4,184,025	11,372,590	0	0	0	0	0

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS
FIDUCIARY POSITION PROJECTION DISCLOSURES (CONTINUED)

Projection of OPEB Plan's Fiduciary Net Position using a July 1, 2017 Valuation Date (Continued)								
For the Period Ending on the Measurement Date	I. Beginning Fiduciary Net Position for Current Plan	II. Portion of Employer Contributions for Current Plan	III. Total Benefit Payments	IV. Administrative Expense	V. Total Contributions to Trust	VI. Contributions to Trust for Current Plan	VII. Investment Earnings	VIII. Ending Fiduciary Net Position for Current Plan
Members	Members	Payments			Members	Members	Earnings	Members
June 30, 2058	0	4,159,842	11,975,593	0	0	0	0	0
June 30, 2059	0	4,068,974	12,557,370	0	0	0	0	0
June 30, 2060	0	4,013,938	13,218,234	0	0	0	0	0
June 30, 2061	0	3,971,279	13,937,607	0	0	0	0	0
June 30, 2062	0	3,920,984	14,698,734	0	0	0	0	0
June 30, 2063	0	3,858,311	15,495,935	0	0	0	0	0
June 30, 2064	0	3,791,481	16,327,008	0	0	0	0	0
June 30, 2065	0	3,716,557	17,198,470	0	0	0	0	0
June 30, 2066	0	3,634,899	18,114,793	0	0	0	0	0
June 30, 2067	0	3,547,144	19,068,963	0	0	0	0	0
June 30, 2068	0	3,452,936	20,068,358	0	0	0	0	0
June 30, 2069	0	3,352,453	21,114,854	0	0	0	0	0
June 30, 2070	0	3,245,566	22,208,054	0	0	0	0	0
June 30, 2071	0	3,132,403	23,352,634	0	0	0	0	0
June 30, 2072	0	3,012,953	24,548,578	0	0	0	0	0
June 30, 2073	0	2,887,474	25,800,983	0	0	0	0	0
June 30, 2074	0	2,756,197	27,110,554	0	0	0	0	0
June 30, 2075	0	2,619,190	28,479,194	0	0	0	0	0
June 30, 2076	0	2,477,230	29,910,869	0	0	0	0	0
June 30, 2077	0	2,330,861	31,407,240	0	0	0	0	0
June 30, 2078	0	2,180,650	32,973,565	0	0	0	0	0
June 30, 2079	0	2,027,264	34,612,972	0	0	0	0	0
June 30, 2080	0	1,871,941	36,332,985	0	0	0	0	0
June 30, 2081	0	1,715,230	38,139,128	0	0	0	0	0
June 30, 2082	0	1,559,573	40,039,376	0	0	0	0	0
June 30, 2083	0	1,405,761	42,039,340	0	0	0	0	0
June 30, 2084	0	1,255,705	44,149,953	0	0	0	0	0
June 30, 2085	0	1,110,621	46,373,973	0	0	0	0	0
June 30, 2086	0	972,057	48,720,956	0	0	0	0	0
June 30, 2087	0	840,989	51,198,938	0	0	0	0	0
June 30, 2088	0	718,915	53,814,753	0	0	0	0	0
June 30, 2089	0	606,322	56,576,899	0	0	0	0	0
June 30, 2090	0	505,215	59,494,851	0	0	0	0	0
June 30, 2091	0	415,254	62,577,896	0	0	0	0	0
June 30, 2092	0	336,712	65,832,930	0	0	0	0	0
June 30, 2093	0	269,552	69,269,995	0	0	0	0	0
June 30, 2094	0	212,919	72,896,401	0	0	0	0	0
June 30, 2095	0	166,098	76,720,465	0	0	0	0	0
June 30, 2096	0	127,605	80,751,023	0	0	0	0	0

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

BENEFIT PAYMENT PROJECTION DISCLOSURES

Actuarial Present Values of Projected Benefit Payments using a July 1, 2017 Valuation Date

For the Period Ending on the Measurement Date	Beginning Fiduciary Net Position for Current Plan		Funded Portion of Benefit Payments		Unfunded Portion of Benefit Payments		Present Value of Benefit Payments		Present Value of Benefit Payments using Single Equivalent Discount
	Members	Benefit Payments		Payments		Payments	Funded Benefit Payments	Unfunded Benefit Payments	Rate
June 30, 2018	503,984	1,525,583	503,984	1,021,599	503,984	503,984	1,021,599	1,021,599	1,525,583
June 30, 2019	506,868	1,715,869	506,868	1,209,001	493,302	493,302	1,168,706	1,168,706	1,659,008
June 30, 2020	520,807	1,838,266	520,807	1,317,459	493,302	493,302	1,231,104	1,231,104	1,718,451
June 30, 2021	623,443	1,988,662	623,443	1,365,219	574,713	574,713	1,233,215	1,233,215	1,797,440
June 30, 2022	640,588	2,165,189	640,588	1,524,601	574,714	574,714	1,331,286	1,331,286	1,892,142
June 30, 2023	658,204	2,336,059	658,204	1,677,855	574,713	574,713	1,416,277	1,416,277	1,973,813
June 30, 2024	676,305	2,488,744	676,305	1,812,439	574,714	574,714	1,478,890	1,478,890	2,033,139
June 30, 2025	694,903	2,663,450	694,903	1,968,547	574,713	574,713	1,552,734	1,552,734	2,103,758
June 30, 2026	714,013	2,818,291	714,013	2,104,278	574,714	574,714	1,604,476	1,604,476	2,152,294
June 30, 2027	733,648	3,019,092	733,648	2,285,444	574,713	574,713	1,684,533	1,684,533	2,229,238
June 30, 2028	753,823	3,231,318	753,823	2,477,495	574,713	574,713	1,765,227	1,765,227	2,306,876
June 30, 2029	774,553	3,390,037	774,553	2,615,484	574,713	574,713	1,801,435	1,801,435	2,339,987
June 30, 2030	774,746	3,570,233	774,746	2,795,487	559,471	559,471	1,861,241	1,861,241	2,382,704
June 30, 2031	743,312	3,751,102	743,312	3,007,790	522,405	522,405	1,935,849	1,935,849	2,420,454
June 30, 2032	664,835	3,877,807	664,835	3,212,972	454,745	454,745	1,998,986	1,998,986	2,419,294
June 30, 2033	523,169	3,968,760	523,169	3,445,591	348,269	348,269	2,072,265	2,072,265	2,393,987
June 30, 2034	302,647	4,120,404	302,647	3,817,757	196,077	196,077	2,219,569	2,219,569	2,403,096
June 30, 2035	9,919	4,236,593	9,919	4,226,674	6,254	6,254	2,375,406	2,375,406	2,388,980
June 30, 2036	273	4,306,469	273	4,306,196	168	168	2,339,438	2,339,438	2,347,911
June 30, 2037	8	4,428,537	8	4,428,529	5	5	2,325,713	2,325,713	2,334,452
June 30, 2038	0	4,536,589	0	4,536,589	0	0	2,303,058	2,303,058	2,312,164
June 30, 2039	0	4,603,113	0	4,603,113	0	0	2,258,946	2,258,946	2,268,325
June 30, 2040	0	4,656,435	0	4,656,435	0	0	2,208,953	2,208,953	2,218,562
June 30, 2041	0	4,758,697	0	4,758,697	0	0	2,182,226	2,182,226	2,192,152
June 30, 2042	0	4,804,154	0	4,804,154	0	0	2,129,646	2,129,646	2,139,754
June 30, 2043	0	4,794,824	0	4,794,824	0	0	2,054,669	2,054,669	2,064,829
June 30, 2044	0	4,835,747	0	4,835,747	0	0	2,003,141	2,003,141	2,013,444
June 30, 2045	0	4,866,571	0	4,866,571	0	0	1,948,722	1,948,722	1,959,131
June 30, 2046	0	4,824,451	0	4,824,451	0	0	1,867,469	1,867,469	1,877,815
June 30, 2047	0	4,823,658	0	4,823,658	0	0	1,804,932	1,804,932	1,815,289
June 30, 2048	0	4,759,840	0	4,759,840	0	0	1,721,692	1,721,692	1,731,913
June 30, 2049	0	4,674,596	0	4,674,596	0	0	1,634,504	1,634,504	1,644,532
June 30, 2050	0	4,622,076	0	4,622,076	0	0	1,562,276	1,562,276	1,572,171
June 30, 2051	0	4,548,342	0	4,548,342	0	0	1,486,115	1,486,115	1,495,823
June 30, 2052	0	4,471,384	0	4,471,384	0	0	1,412,278	1,412,278	1,421,784
June 30, 2053	0	4,408,176	0	4,408,176	0	0	1,345,909	1,345,909	1,355,236
June 30, 2054	0	4,350,719	0	4,350,719	0	0	1,284,094	1,284,094	1,293,247
June 30, 2055	0	4,339,114	0	4,339,114	0	0	1,237,985	1,237,985	1,247,056
June 30, 2056	0	4,257,183	0	4,257,183	0	0	1,174,128	1,174,128	1,182,965
June 30, 2057	0	4,184,025	0	4,184,025	0	0	1,115,491	1,115,491	1,124,108

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS
BENEFIT PAYMENT PROJECTION DISCLOSURES (CONTINUED)

Actuarial Present Values of Projected Benefit Payments using a July 1, 2017 Valuation Date (Continued)								
For the Period Ending on the Measurement Date	Beginning			Unfunded			Present Value of Benefit Payments using Single Equivalent Discount	
	Fiduciary Net Position for Current Plan	Benefit Payments	Funded Portion of Benefit Payments	Portion of Benefit Payments	Present Value of Funded Benefit Payments	Present Value of Unfunded Benefit Payments	Rate	
June 30, 2058	0	4,159,842	0	4,159,842	0	1,072,081		1,080,576
June 30, 2059	0	4,068,974	0	4,068,974	0	1,013,712		1,021,946
June 30, 2060	0	4,013,938	0	4,013,938	0	966,672		974,716
June 30, 2061	0	3,971,279	0	3,971,279	0	924,522		932,400
June 30, 2062	0	3,920,984	0	3,920,984	0	882,391		890,085
June 30, 2063	0	3,858,311	0	3,858,311	0	839,348		846,833
June 30, 2064	0	3,791,481	0	3,791,481	0	797,319		804,589
June 30, 2065	0	3,716,557	0	3,716,557	0	755,515		762,554
June 30, 2066	0	3,634,899	0	3,634,899	0	714,288		721,085
June 30, 2067	0	3,547,144	0	3,547,144	0	673,812		680,358
June 30, 2068	0	3,452,936	0	3,452,936	0	634,055		640,341
June 30, 2069	0	3,352,453	0	3,352,453	0	595,086		601,105
June 30, 2070	0	3,245,566	0	3,245,566	0	556,912		562,655
June 30, 2071	0	3,132,403	0	3,132,403	0	519,580		525,042
June 30, 2072	0	3,012,953	0	3,012,953	0	483,110		488,285
June 30, 2073	0	2,887,474	0	2,887,474	0	447,559		452,442
June 30, 2074	0	2,756,197	0	2,756,197	0	412,973		417,561
June 30, 2075	0	2,619,190	0	2,619,190	0	379,365		383,655
June 30, 2076	0	2,477,230	0	2,477,230	0	346,845		350,837
June 30, 2077	0	2,330,861	0	2,330,861	0	315,474		319,168
June 30, 2078	0	2,180,650	0	2,180,650	0	285,307		288,704
June 30, 2079	0	2,027,264	0	2,027,264	0	256,398		259,503
June 30, 2080	0	1,871,941	0	1,871,941	0	228,863		231,680
June 30, 2081	0	1,715,230	0	1,715,230	0	202,714		205,250
June 30, 2082	0	1,559,573	0	1,559,573	0	178,175		180,439
June 30, 2083	0	1,405,761	0	1,405,761	0	155,250		157,254
June 30, 2084	0	1,255,705	0	1,255,705	0	134,056		135,813
June 30, 2085	0	1,110,621	0	1,110,621	0	114,616		116,141
June 30, 2086	0	972,057	0	972,057	0	96,972		98,282
June 30, 2087	0	840,989	0	840,989	0	81,101		82,213
June 30, 2088	0	718,915	0	718,915	0	67,018		67,950
June 30, 2089	0	606,322	0	606,322	0	54,638		55,409
June 30, 2090	0	505,215	0	505,215	0	44,010		44,639
June 30, 2091	0	415,254	0	415,254	0	34,967		35,475
June 30, 2092	0	336,712	0	336,712	0	27,409		27,812
June 30, 2093	0	269,552	0	269,552	0	21,210		21,527
June 30, 2094	0	212,919	0	212,919	0	16,196		16,440
June 30, 2095	0	166,098	0	166,098	0	12,213		12,400
June 30, 2096	0	127,605	0	127,605	0	9,070		9,211

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS
FIDUCIARY NET POSITION
**Determination of Beginning & Ending Balances of OPEB Plan Investments for Purposes
of Calculating the Annual Money-Weighted Rate of Return**

	Assets as of June 30, 2017	Assets as of June 30, 2018
Assets		
Cash and cash equivalents	503,984	506,868
Receivables:		
Investment income	0	0
Receivables from brokers for unsettled trades	0	0
Investments		
Fixed income	0	0
Stocks	0	0
Cash and cash equivalents	0	0
Real estate	0	0
Alternative investments	0	0
Invested securities lending cash collateral	0	0
Liabilities		
Securities lending cash collateral	0	0
Payable to brokers for unsettled trades	0	0
Total OPEB plan investments	503,984	506,868

EXHIBIT A
FINANCIAL STATEMENT DISCLOSURES
FIDUCIARY NET POSITION

Statement of Fiduciary Net Position		
	<u>June 30, 2018</u>	<u>June 30, 2019 (Projected)</u>
Assets		
I. Cash and cash equivalents	506,868	520,807
Receivables & Prepaid expenses:		
II. Contributions	0	0
III. Investment Income	0	0
IV. Receivables from brokers for unsettled trades	0	0
V. Prepaid expenses	0	0
VI. Total Receivables [II.+III.+IV.+V.]	<hr/> 0	<hr/> 0
OPEB Trust Investments:		
VII. Fixed Income	0	0
VIII. Stocks	0	0
IX. Cash and cash equivalents	0	0
X. Real estate	0	0
XI. Alternative investments	0	0
XII. Total Investments [VII.+VIII.+IX.+X.+XI.]	<hr/> 0	<hr/> 0
Invested securities lending cash collateral	0	0
Capital assets, net of accumulated depreciation	0	0
Total Assets	506,868	520,807
Liabilities		
XIII. Accrued expenses and benefits payable	0	0
XIV. Securities lending cash collateral	0	0
XV. Payable to brokers for unsettled trades	0	0
XVI. Total liabilities [XIII.+XIV.+XV.]	0	0
XVII. Net Position restricted for OPEB [XII.-XVI.]	506,868	520,807

EXHIBIT A
FINANCIAL STATEMENT DISCLOSURES
FIDUCIARY NET POSITION

Statement of Changes in Fiduciary Net Position	
<u>For the Year Ending on the June 30, 2018 Measurement Date</u>	
Additions	
<u>Contributions</u>	
Employer Contributions to OPEB Trust	0
Total Contributions	0
Investment Income / (loss)	
Interest	2,884
Dividends	0
Equity fund income, net	0
Net increase in fair value of investments	0
Securities lending income	0
Less investment expenses:	
Direct investment expense	N/A
Securities lending management fees	N/A
Securities lending borrower rebates	N/A
Net investment expense	N/A
Net investment income	<u>2,884</u>
Total Additions	<u>2,884</u>
Deductions	
Service benefits	0
Disability benefits	0
Death benefits	0
Refunds	0
Administrative expenses	0
Total deductions	0
Net increase (decrease)	2,884
Net Position restricted for OPEB	
As of June 30, 2017	<u>503,984</u>
As of June 30, 2018	506,868

APPENDIX II – PLAN PROVISIONS

<u>Effective Date</u>	GASB 45 was adopted July 1, 2007
	GASB 74 was adopted for the fiscal year ending June 30, 2017
	GASB 75 was adopted for the fiscal year ending June 30, 2018
<u>Plan Year</u>	July 1 through June 30.
<u>Eligibility</u>	An employee hired before April 2, 2012 shall become eligible to retire under this plan upon attainment of age 55 as an active member and completion of 10 years of service or an employee shall be able to retire with 20 years of service regardless of age. Those hired on or after April 2, 2012 shall be eligible to retire upon attainment of age 60 (55 for public safety) with 10 years of creditable service.
<u>Creditable Service</u>	Elapsed time from date of hire to termination of service date.
<u>Benefits Offered</u>	Comprehensive Medical Insurance offered through Harvard Pilgrim & Blue Cross Blue Shield of Massachusetts and \$1,000 of Group Term Life Insurance.
<u>Excise Tax</u>	Under the Patient Protection and Affordable Care Act (“PPACA”), a 40% tax will be imposed on the cost of medical benefits in excess of a specified threshold.
<u>Participant Contributions</u>	<p>a. Medical: b. Dental: c. Life:</p> <p>Employees will pay 50% of premiums in retirement. Retirees shall pay 100% of premiums. Employees will pay 50% of premiums in retirement.</p>
<u>Medicare Part B</u>	<p>The Town does not reimburse Medicare Part B.</p> <p>The Town does not reimburse Medicare Part B Penalties.</p>
<u>Surviving Spouse Coverage</u>	Spousal benefits do not change after the death of a plan participant.

APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

IMPLICIT SUBSIDY

A retiree who is paying 100% of the cost sharing premium is most likely not paying 100% of the true cost of the medical benefits. This is known as an “implicit subsidy”. GASB 74 and 75 require the plan sponsor to measure the liability for this subsidy; that is, the difference between the true cost of the medical benefits and the cost sharing premiums paid by the retiree. 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.

PLAN DEMOGRAPHICS

ACTIVE EMPLOYEES

Valuation Date	<u>July 1, 2017</u>	<u>July 1, 2015</u>
A. Average Age at Hire	36.52	<u>36.27</u>
B. Average Service	<u>11.03</u>	<u>10.74</u>
C. Average Current Age	47.55	47.01

RETIRED EMPLOYEES & SPOUSES

Valuation Date	<u>July 1, 2017</u>	<u>July 1, 2015</u>
A. Under Age 65	38	<u>59</u>
B. Age 65 & Over	<u>250</u>	<u>203</u>
C. Total	288	262



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APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

CLAIM COST DEVELOPMENT

	Number of Contracts			
	Single	Two-Person	Family	Total
HMO Blue	106		194	300
Master Health Plus	2		1	3
Harvard Pilgrim	37		105	142
Medex	192		9	201
Total	337	9	300	646

	Per Contract Costs (monthly) - FY 2019		
	Single	Two-Person	Family
HMO Blue	898.18		2,338.04
Master Health Plus	2,342.06		5,811.12
Harvard Pilgrim	898.18		2,338.04
Medex	557.86	1,115.72	
Dental Plan	40.97		120.78

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	8,948	3,744	44 & Under	8,948	6,820	65 to 69	6,694	6,694
25 to 29	8,948	4,031	45 to 49	9,930	8,136	70 to 74	6,694	6,694
30 to 34	8,948	4,856	50 to 54	10,905	9,828	75 to 79	6,694	6,694
35 to 39	8,948	5,797	55 to 59	11,867	11,955	80 to 84	6,694	6,694
40 to 44	8,948	6,820	60 to 64	13,422	14,336	85 to 89	6,694	6,694
45 to 49	9,930	8,136	65 to 69	14,786	15,795	90 & Over	6,694	6,694
50 to 54	10,905	9,828	70 to 74	16,341	17,439			
55 to 59	11,867	11,955	75 to 79	17,684	18,885			
60 to 64	13,422	14,336	80 to 84	18,578	19,846			
65 to 69	14,786	15,795	85 to 89	19,532	20,862			
70 & Over	16,341	17,439	90 & Over	20,528	21,926			

APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

Pre-Retirement Mortality

RP-2000 Employees Mortality Table projected generationally with scale BB and a base year 2009 for males and females

Post-Retirement Mortality

RP-2000 Healthy Annuitant Mortality Table projected generationally with scale BB and a base year 2009 for males and females

Disabled Mortality

RP-2000 Healthy Annuitant Table projected generationally with Scale BB and a base year 2012 for males and females

Mortality Experience Study

The mortality assumptions reflect PERAC's recent experience analysis published in 2014 (based on the years 2006-2011), updated to reflect data through January 1, 2015 for post-retirement mortality, and professional judgement. As such, mortality assumptions reflect observed current mortality as well as expected mortality improvements.

Discount Rate

3.50% per annum (previously 3.25%)

Long Term Rate of Return

2.75% (based on investment policy)

Municipal Bond Rate

3.45% as of June 30, 2018 (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, 2018.

APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

Excise Tax

The PPACA Excise tax is expected to take effect for tax years beginning after December 31, 2021. The projected 2022 threshold amounts are \$12,511 for single coverage and \$32,676 for family coverage. For qualified retirees and those engaged in high risk professions, a "kicker" amount of \$1,650 for single coverage and \$3,450 for family coverage is expected to be added to the above thresholds.

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						
<u>Age</u>	<u>0-4 Years of Service (Males)</u>	<u>0-4 Years of Service (Females)</u>	<u>5-9 Years of Service (Males)</u>	<u>5-9 Years of Service (Females)</u>	<u>10+ Years of Service (Males)</u>	<u>10+ Years of Service (Females)</u>
20	27.00%	27.00%	12.00%	12.00%	6.00%	6.00%
30	23.00%	23.00%	10.00%	10.00%	5.50%	5.50%
40	16.00%	16.00%	8.00%	8.00%	3.50%	3.50%
50	18.00%	18.00%	6.00%	6.00%	3.00%	3.00%
60	18.00%	18.00%	5.00%	5.00%	3.50%	3.50%

Public Safety Employees		
<u>Service</u>	<u>Public Safety Male</u>	<u>Public Safety Female</u>
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

<u>Age</u>	<u>Standard Male</u>	<u>Standard Female</u>	<u>Male Teachers</u>	<u>Female Teachers</u>	<u>Public Safety</u>
45 - 49	0.00%	0.00%	0.00%	0.00%	1.00%
50 - 51	1.00%	1.50%	2.00%	1.50%	2.00%
52	1.00%	2.50%	2.00%	1.50%	2.00%
53	1.00%	2.50%	2.00%	1.50%	5.00%
54	2.00%	2.50%	2.00%	2.00%	7.50%
55	2.00%	5.50%	6.00%	5.00%	15.00%
56	2.50%	6.50%	20.00%	15.00%	10.00%
57	2.50%	6.50%	40.00%	35.00%	10.00%
58	5.00%	6.50%	50.00%	35.00%	10.00%
59	6.50%	6.50%	50.00%	35.00%	15.00%
60	12.00%	5.00%	40.00%	35.00%	20.00%
61	20.00%	13.00%	40.00%	35.00%	20.00%
62	30.00%	15.00%	35.00%	35.00%	25.00%
63	25.00%	12.50%	35.00%	35.00%	25.00%
64	22.00%	18.00%	35.00%	35.00%	30.00%
65	40.00%	15.00%	35.00%	35.00%	100.00%
66	25.00%	20.00%	40.00%	35.00%	100.00%
67	25.00%	20.00%	40.00%	30.00%	100.00%
68	30.00%	25.00%	40.00%	30.00%	100.00%
69	30.00%	20.00%	40.00%	30.00%	100.00%
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%

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

Permanent Disability Rates

<u>Age</u>	<u>Standard</u>	<u>Teachers</u>	<u>Public Safety</u>
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 & ASSUMPTIONS

<u>Medical & Dental Trend Rate</u>	Initial trend of 5.00% for 2018 grading down 0.00% per year for an ultimate trend rate of 5.00%.
<u>Participation Rate</u>	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.
<u>Spouse Participation Rate</u>	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.
<u>Spouse Demographics</u>	If provided, the actual census information was used. Otherwise it was assumed that a male spouse is three years older than a female spouse and same sex spouses are assumed to be the same age.
<u>Compensation Increases</u>	3.00% per year.
<u>Inflation Rate</u>	2.75% per year.

APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

Open Group Forecast

It was assumed for projecting plan liabilities in future years that the active population would remain unchanged and that 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 values in this report reflect a closed group and do not reflect any new entrants after the valuation date.

All employees who are plan participants on the valuation date are included in the actuarial valuation.

APPENDIX IV – 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 post-employment 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 post-employment benefits.

APPENDIX IV – 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 post-employment benefits and when will they start?

Medical inflation and claims cost assumptions: When an employee starts receiving post-employment 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.

GASB - Government Accounting Standards Board. "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.

GLOSSARY

(continued)

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

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

Other Post Employment 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 earning 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.