

Town of Winchester 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 October 25, 2019



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October 25, 2019

Personal and Confidential

Ms. Stacie Ward
Comptroller
Town of Winchester
3rd Floor, Town Hall 71 Mt. Vernon Street
Winchester, MA 01890

Dear Ms. Ward:

We have performed an actuarial valuation of the Town of Winchester 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 Winchester, of Statement Nos. 74 and 75 of the Governmental Accounting Standards Board ("GASB 74/75") effective for the fiscal years ending June 30, 2018 and June 30, 2019 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

October 25, 2019

ACTUARIAL CERTIFICATION

This is to certify that Odyssey Advisors has conducted an actuarial valuation of certain benefit obligations of the Town of Winchester 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

EXECUTIVE SUMMARY

What caused plan liabilities to change from FY 18 to FY 19?

For the year ending on the Measurement Date of June 30, 2019, due to experience combined with changes in benefit terms the Plan saw an experience loss of \$3,438,391 or 3.96% of the beginning Total OPEB Liability ("TOL"). This was mainly due to Medicare Part B Premium rates increasing by 29%, more than the expected 10% increase due to the expiration of the "hold harmless" provision. During the period there was an investment gain of \$64,520 above the expected return.

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 3.75% to 4.00% decreasing the disclosed liability by \$3.3 million.
- ✓ Given the increase in the share of premiums paid by the Town, the percentage of employees assumed to elect coverage in retirement has been updated from 75% to 80% and the percentage of female retirees who elect coverage for themselves that elect to cover a spouse has been increased from 60% to 70%. increasing the disclosed liability by \$8.7 million.
- ✓ Based on recommendations by PERAC, the mortality table has been updated from the RP-2014 Mortality Table projected generationally with scale MP-2016 to the RP-2014 Mortality Table projected generationally with scale MP-2016 for males and females decreasing the disclosed liability by \$1.5 million.
- ✓ Based on recommendations by PERAC, the rates at which active employees retire have been updated increasing the disclosed liability by \$8.3 million.
- ✓ Assumption changes caused Service Cost to increase by \$230 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

- ✓ The Plan was amended such that the Town's share for Medical premiums is 70% for Medicare Supplement Plans, 50% for the Non-Medicare PPO plan and 75% for the Non-Medicare HMO plan. This resulted in a loss of approximately \$23 million to be recognized immediately. Approximately \$18.5 million is attributable to Active employees and \$4.5 million is attributable to Retirees and Beneficiaries.

EXECUTIVE SUMMARY

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

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 \$3,336,900 of assets as of June 30, 2019.
- ✓ Funding Policy - The Town is expected to contribute \$325,000 annually.
- ✓ Investment Policy - The Town is expected to earn 6.06% per year on assets held in the OPEB Trust based on its investment policy.

EXECUTIVE SUMMARY

Key Drivers of Plan Liabilities

Several key drivers of plan costs and liabilities are:

- ✓ Premiums for Post 65 (Medicare integrated) plans - represent 81.34% 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 non-Medicare integrated plans and 4.50% per year for Medicare integrated plans.
- ✓ Discount Rate (4.00%) – 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 36 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, 2017
Measurement Date & Period Ending	June 30, 2019	June 30, 2018
Reporting Date/Fiscal Year End	June 30, 2019	June 30, 2018
Total OPEB Liability	128,695,134	86,805,009
Per Eligible Active Plan Participant	77,219	N/A
Per Retiree/Spouse Plan Participant	109,629	N/A
Total Annual Service Cost (annual benefit accrual)	4,225,561	3,384,223
Per Eligible Active Plan Participant	5,097	4,087
Expected Employer Share of Retiree Costs	3,962,591	2,566,904
Per Retiree/Spouse Plan Participant	6,716	4,527
Net OPEB Liability as a % of Covered Payroll	194.40%	141.50%
Average Annual Medical Plan Premium (Single Coverage)	7,613	N/A
Average Annual Medical Plan Premium (Family Coverage)	26,025	N/A
<u>Projected 2022 Excise Tax Thresholds</u>		
Annual Medical Plan Premium (Single Coverage)	12,511	
Annual Medical Plan Premium (Family Coverage)	32,676	

* Fiscal Year 2018 column based on roll-forward valuation done as noted in the Fiscal Year 2018 Financial Statement

PRINCIPAL RESULTS OF THE VALUATION

Town of Winchester
Assuming Funding - 4.00% discount rate
Comparison of Plan Liabilities to Prior Valuation*

Valuation Date	July 1, 2018	July 1, 2017
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	64,014,276	N/A
B. Retirees/Disabled	<u>64,680,858</u>	<u>N/A</u>
C. Total	128,695,134	86,805,009
II. Fiduciary Net Position [Plan Assets]	3,336,900	0
III. Net OPEB Liability (Asset) [I. - II.]	125,358,234	86,805,009
IV. Funded Ratio [II. / I.]	2.59%	0.00%
V. Number of Eligible Participants		
A. Actives	829	828
B. Retirees/Disabled & Dependents with Medical Coverage	<u>590</u>	<u>567</u>
C. Total	1,419	1,395
VI. Service Cost	4,225,561	3,384,223
VII. Financial Statement Expense	32,459,202	6,568,570
VIII. Employer Contribution to the OPEB Trust	(3,177,517)	0
IX. Deferred Inflow of Resources	(51,616)	0
X. Deferred Outflow of Resources	13,285,747	0
XI. Money Weighted Rate of Return	5.48%	N/A
XII. 20-year Municipal Bond Rate (SAPIHG)	2.79%	3.75%
XIII. Expected Long Term Rate of Return (Net of Expense)	6.06%	N/A
XIV. Crossover Year	Immediate	Immediate
XV. Discount Rate	4.00%	3.75%

* Fiscal Year 2018 column based on roll-forward valuation done as noted in the Fiscal Year 2018 Financial Statement

PRINCIPAL RESULTS OF THE VALUATION

**Town of Winchester
Plan Liabilities as of the June 30, 2019 Measurement Date
Assuming Funding - 4.00% discount rate**

	General Government Employees and Retirees	School Employees and Retirees	Police Employees	Fire Employees	Health & Human Services Employees	Library Employees	Recreation Enterprise Employees	DPW Employees	Water & Sewer Enterprise Employees	Total
I. Total OPEB Liability										
A. Actives	1,906,448	42,711,945	4,831,357	4,784,415	439,431	909,457	637,484	6,417,967	1,375,772	64,014,276
B. Retirees/Disabled	<u>4,118,232</u>	<u>40,689,916</u>	<u>6,309,926</u>	<u>5,693,806</u>	<u>255,847</u>	<u>1,096,414</u>	<u>498,655</u>	<u>5,518,417</u>	<u>499,645</u>	<u>64,680,858</u>
C. Total	6,024,680	83,401,861	11,141,283	10,478,221	695,278	2,005,871	1,136,139	11,936,384	1,875,417	128,695,134
II. Fiduciary Net Position [Plan Assets]	155,522	2,163,043	288,776	272,187	18,006	52,028	29,486	309,245	48,607	3,336,900
III. Net OPEB Liability (Asset) [I. - II.]	5,869,158	81,238,818	10,852,507	10,206,034	677,272	1,953,843	1,106,653	11,627,139	1,826,810	125,358,234
IV. Number of Eligible Participants										
A. Actives	37	587	45	44	7	15	15	63	16	829
B. Retirees/Disabled	<u>35</u>	<u>373</u>	<u>46</u>	<u>52</u>	<u>4</u>	<u>15</u>	<u>6</u>	<u>52</u>	<u>7</u>	<u>590</u>
C. Total	72	960	91	96	11	30	21	115	23	1,419
For the Reporting Date and Fiscal Year Ending June 30, 2019										
V. Service Cost	132,214	3,086,380	262,574	244,129	23,531	30,998	38,926	336,481	70,328	4,225,561
VI. Financial Statement Expense	1,451,973	21,392,827	2,704,106	2,539,877	176,059	469,835	288,274	2,953,974	482,277	32,459,202
VII. Employer Share of Costs	(203,478)	(2,552,513)	(339,343)	(347,768)	(23,164)	(83,651)	(30,962)	(344,784)	(36,928)	(3,962,591)
VIII. Employer (Payments)/Withdrawals to/from OPEB Trust	(146,616)	(2,068,544)	(272,523)	(255,492)	(17,139)	(48,064)	(28,197)	(293,876)	(47,066)	(3,177,517)
IX. Total Employer Contribution [VII. + VIII.]	(350,094)	(4,621,057)	(611,866)	(603,260)	(40,303)	(131,715)	(59,159)	(638,660)	(83,994)	(7,140,108)

PRINCIPAL RESULTS OF THE VALUATION

Town of Winchester

Assuming Funding - 4.00% 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	20,036,320	42,104,642	62,140,962	2,217,654	45,367,726	47,585,380	109,726,342
B. Spouses	<u>13,409,228</u>	<u>30,285,760</u>	<u>43,694,988</u>	<u>1,254,273</u>	<u>15,841,205</u>	<u>17,095,478</u>	<u>60,790,466</u>
C. Total	33,445,548	72,390,402	105,835,950	3,471,927	61,208,931	64,680,858	170,516,808
Total OPEB Liability							
A. Participants	12,250,452	25,186,660	37,437,112	2,217,654	45,367,726	47,585,380	85,022,492
B. Spouses	<u>8,293,987</u>	<u>18,283,177</u>	<u>26,577,164</u>	<u>1,254,273</u>	<u>15,841,205</u>	<u>17,095,478</u>	<u>43,672,642</u>
C. Total	20,544,439	43,469,837	64,014,276	3,471,927	61,208,931	64,680,858	128,695,134
Service Cost							
A. Participants	744,041	1,763,010	2,507,051	0	0	0	2,507,051
B. Spouses	<u>475,080</u>	<u>1,243,430</u>	<u>1,718,510</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,718,510</u>
C. Total	1,219,121	3,006,440	4,225,561	0	0	0	4,225,561

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	4,225,561
II. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	3,340,032
III. Deferred (Inflows)/Outflows from Plan Experience**	492,606
IV. Deferred (Inflows)/Outflows from Changes of Assumptions**	1,729,090
V. Projected earnings on OPEB plan investments	(94,863)
VI. Deferred (Inflows)/Outflows from Earnings on Plan Investments***	(12,904)
VII. Financial Statement Expense prior to Plan Design Changes [I. + II.+ III. + IV. + V. + VI.]	9,679,522
VIII. Deferred (Inflows)/Outflows from Plan Design Changes*	22,779,680
IX. Financial Statement Expense [VII. + VIII.]	32,459,202

* Recognized Immediately

** Amortized over 6.98 years

*** Amortized over 5.00 years

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 Liability	Plan Fiduciary Net Position	Net OPEB Liability
I. Balances for June 30, 2018	86,805,009	0	86,805,009
II. Prior Period Adjustment	0	0	0
III. Balances for June 30, 2018 with Adjustment [I. + II.]	86,805,009	0	86,805,009
Changes for the year:			
IV. Service Cost	4,225,561	0	4,225,561
V. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	3,340,032	0	3,340,032
VI. Changes in Benefit terms *	22,779,680	0	22,779,680
VII. Change in assumptions **	12,069,052	0	12,069,052
VIII. Differences between actual and expected experience **	3,438,391	0	3,438,391
IX. Net investment income	0	159,383	(159,383)
X. Employer contributions to Trust	0	7,140,108	(7,140,108)
XI. Benefit payments withdrawn from Trust	0	(3,962,591)	3,962,591
XII. Benefit payments excluding Implicit Cost	(3,057,611)	0	(3,057,611)
XIII. Implicit Cost amount	(904,980)	0	(904,980)
XIV. Total Benefit payments including Implicit Cost [XII. + XIII.]	(3,962,591)	0	(3,962,591)
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.]	41,890,125	3,336,900	38,553,225
XVIII. Balances at June 30, 2019 [III.+XVII.]	128,695,134	3,336,900	125,358,234

* Recognized Immediately

** Amortized over 6.98 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 actual & expected experience	Recognition Period (years)	Remaining Balance	2019	2020	2021	2022	2023	2024
2017									
2018	0	5.00	0	0	0	0	0		
2019	3,438,391	6.98	2,945,785	492,606	492,606	492,606	492,606	492,606	492,606
2020									
2021									
2022									
2023									
2024									
2025									
2026									
Total Remaining Balance			2,945,785						
Net increase (decrease) in OPEB expense				492,606	492,606	492,606	492,606	492,606	492,606

Deferred (Inflows)/Outflows in OPEB Expense arising from the recognition of the effects of changes in assumptions									
Fiscal	Differences from changes in Actuarial Assumptions	Recognition Period (years)	Remaining Balance	2019	2020	2021	2022	2023	2024
2017									
2018	0	5.00	0	0	0	0	0		
2019	12,069,052	6.98	10,339,962	1,729,090	1,729,090	1,729,090	1,729,090	1,729,090	1,729,090
2020									
2021									
2022									
2023									
2024									
2025									
2026									
Total Remaining Balance			10,339,962						
Net increase (decrease) in OPEB expense				1,729,090	1,729,090	1,729,090	1,729,090	1,729,090	1,729,090

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	Recognition	Remaining	2019	2020	2021	2022	2023	2024
	actual & expected earnings								
2017									
2018	0	5.00	0	0	0	0	0		
2019	(64,520)	5.00	(51,616)	(12,904)	(12,904)	(12,904)	(12,904)	(12,904)	
2020									
2021									
2022									
2023									
2024									
2025									
2026									
Total Remaining Balance			(51,616)						
Net increase (decrease) in OPEB expense				(12,904)	(12,904)	(12,904)	(12,904)	(12,904)	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		
	Deferred Outflows of Resources	Deferred Inflows of Resources
I. Differences between actual & expected experience	2,945,785	0
II. Changes of assumptions	10,339,962	0
III. Net difference between projected & actual earnings on OPEB plan investments	0	(51,616)
IV. Total [I.+II.+III.]	13,285,747	(51,616)
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	2,208,792
	2021	2,208,792
	2022	2,208,792
	2023	2,208,792
	2024	2,221,696
	Thereafter	2,177,267

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES
(As of the June 30, 2019 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, 2019 Measurement Date, total Town premiums plus implicit costs for the retiree medical program were \$3,962,591. The Town also made a contribution to an OPEB Trust of \$3,177,517 for a total contribution during the measurement period of \$7,140,108 to be reported on the financial statement for the fiscal year ending June 30, 2019.

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	39.00%	Domestic Equity - Large Cap	4.00%
Domestic Equity - Small/Mid Cap	0.00%	Domestic Equity - Small/Mid Cap	6.00%
International Equity - Developed Market	18.75%	International Equity - Developed Market	4.50%
International Equity-Emerging Market	6.75%	International Equity-Emerging Market	7.00%
Domestic Fixed Income	17.50%	Domestic Fixed Income	2.00%
International Fixed Income	8.50%	International Fixed Income	3.00%
Alternatives	1.25%	Alternatives	6.50%
Real Estate	0.00%	Real Estate	6.25%
Cash & Cash Equivalents	8.25%	Cash & Cash Equivalents	0.00%
Total	<u>100.00%</u>		
		I. Real Rate of Return*	<u>3.56%</u>
		II. Inflation Assumption	2.75%
		III. Total Nominal Return [I. + II.]	6.31%
		IV. Investment Expense	0.25%
		V. Net Investment Return [III.-IV.]	<u>6.06%</u>

*Geometric Mean

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2019 Measurement Date)

6. Schedule of The Town's Contributions

<u>Year</u>	<u>Actuarial Determined Contribution</u>	<u>Contributions in relation to the actuarially determined contribution</u>	<u>Contribution deficiency (excess)</u>	<u>Covered employee payroll</u>	<u>Contributions as a percentage of covered employee payroll</u>
June 30, 2019	11,196,214	(7,140,108)	4,056,106	64,485,794	11.07%

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2019 Measurement Date)

7. 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	109,734,217	128,695,134	153,011,263
II. Fiduciary Net Position	<u>3,336,900</u>	<u>3,336,900</u>	<u>3,336,900</u>
III. Net OPEB Liability (Asset) [I.-II.]	106,397,317	125,358,234	149,674,363
IV. Service Cost	3,220,911	4,225,561	5,643,159

8. 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	150,349,528	128,695,134	111,590,689
II. Fiduciary Net Position	<u>3,336,900</u>	<u>3,336,900</u>	<u>3,336,900</u>
III. Net OPEB Liability (Asset) [I.-II.]	147,012,628	125,358,234	108,253,789
IV. Service Cost	5,595,173	4,225,561	3,236,917

EXHIBIT A

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

9. Money Weighted Rate of Return

	Plan Investments / Net External Cash Flows	Periods Invested	Period Weight
I. Beginning value - June 30, 2018	0	12	1.0000
Monthly net external cash flows:			
July	3,177,517	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
<u>June</u>	<u>0</u>	0	0.0000
II. Total net external cash flow	3,177,517		
III. Earnings and increase in fair value	159,383		
IV. Ending value - June 30, 2019 [I.+II.+III.]	3,336,900		
Money Weighted Rate of Return	5.48%		
Asset Value - June 30, 2019	3,336,900		

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

10. OPEB Liability, OPEB Expense

	Fiscal Year Ending June 30, 2019										
	General Government				Health & Human Services		Recreation Enterprise		Water & Sewer Enterprise		Total
	Employees and Retirees	School Employees and Retirees	Police Employees	Fire Employees	Employees	Library Employees	Employees	DPW Employees	Employees		
I. Total OPEB Liability as of June 30, 2019	6,024,680	83,401,861	11,141,283	10,478,221	695,278	2,005,871	1,136,139	11,936,384	1,875,417	128,695,134	
II. Fiduciary Net Position as of June 30, 2019	155,522	2,163,043	288,776	272,187	18,006	52,028	29,486	309,245	48,607	3,336,900	
III. Net OPEB Liability (Asset) as of June 30, 2019 [I. - II.]	5,869,158	81,238,818	10,852,507	10,206,034	677,272	1,953,843	1,106,653	11,627,139	1,826,810	125,358,234	
IV. Service Cost	132,214	3,086,380	262,574	244,129	23,531	30,998	38,926	336,481	70,328	4,225,561	
V. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	154,373	2,173,984	286,458	268,949	18,040	50,838	29,584	308,620	49,186	3,340,032	
VI. Projected Earnings on OPEB Plan Investments	(4,419)	(61,504)	(8,206)	(7,733)	(512)	(1,477)	(838)	(8,791)	(1,383)	(94,863)	
VII. Net Recognition of Deferred (Inflows)/Outflows	1,169,805	16,193,967	2,163,280	2,034,532	135,000	389,476	220,602	2,317,664	364,146	24,988,472	
VIII. Expense Related to Change in Benefit Terms	1,066,399	14,762,545	1,972,063	1,854,697	123,068	355,049	201,102	2,112,799	331,958	22,779,680	
IX. Financial Statement Expense [IV. + V. + VI. + VII. + VIII.]	1,451,973	21,392,827	2,704,106	2,539,877	176,059	469,835	288,274	2,953,974	482,277	32,459,202	
X. Employer Share of Costs	(203,478)	(2,552,513)	(339,343)	(347,768)	(23,164)	(83,651)	(30,962)	(344,784)	(36,928)	(3,962,591)	
XI. Employer (Payments) Withdrawals to/from OPEB Trust	(146,616)	(2,068,544)	(272,523)	(255,492)	(17,139)	(48,064)	(28,197)	(293,876)	(47,066)	(3,177,517)	
XII. Total Employer Contribution [X. + XI.]	(350,094)	(4,621,057)	(611,866)	(603,260)	(40,303)	(131,715)	(59,159)	(638,660)	(83,994)	(7,140,108)	
XIII. Net OPEB Expense [IX. + XII.]	1,101,879	16,771,770	2,092,240	1,936,617	135,756	338,120	229,115	2,315,314	398,283	25,319,094	

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2019 Measurement Date)

11. 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	2,945,785
II. Deferred (Inflow)/Outflow from Investment Experience	(51,616)
III. Deferred (Inflow)/Outflow from Changes in Assumptions	10,339,962
Change in Deferred Inflow/Outflow	
I. Deferred Outflow at the beginning of the period	0
II. Deferred Outflow created during the period	38,287,123
III. Deferred Outflow recognized during the period	25,001,376
IV. Change in Deferred Outflow (II. - III.)	13,285,747
V. Deferred Outflow at end of the period (I. + IV.)	13,285,747
VI. Deferred Inflow at the beginning of the period	0
VII. Deferred Inflow created during the period	(64,520)
VIII. Deferred Inflow recognized during the period	(12,904)
IX. Change in Deferred Inflow (VII. - VIII.)	(51,616)
X. Deferred Inflow at end of the period (VI. + IX.)	(51,616)
Net OPEB Liability	
I. Net OPEB Liability at beginning of period	86,805,009
II. Service Cost	4,225,561
III. Interest on Total OPEB Liability, Service Cost, and Payments	3,340,032
IV. Projected Investment Income	(94,863)
V. Total Employer Contributions	(7,140,108)
VI. Expense Related to Change in Benefit Terms	0
VII. Net OPEB Expense - Before Recognition of Deferred (Inflow)/Outflow (II. + III. + IV. + V. + VI.)	330,622
VIII. Deferred Outflow created during the period	38,287,123
IX. Deferred Inflow created during the period	(64,520)
X. Net OPEB Liability at end of period (I. + VII. + VIII. + IX.)	125,358,234
Net OPEB Expense	
I. Service Cost	4,225,561
II. Interest on Total OPEB Liability, Service Cost, and Payments	3,340,032
III. Projected Investment Income	(94,863)
IV. Recognition of Deferred (Inflow)/Outflow	24,988,472
V. Expense Related to Change in Benefit Terms	0
VI. Financial Statement Expense (I. + II. + III. + IV. + V.)	32,459,202
VII. Benefit Payments	(3,962,591)
VIII. Contributions to Trust	(3,177,517)
IX. Total Employer Payments (VII. + VIII.)	(7,140,108)
X. Total Net OPEB Expense under GASB 75 (VI. + IX.)	25,319,094

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>
I. Service Cost	4,225,561
II. 30 year level dollar amortization of NOL	<u>6,970,653</u>
III. Actuarial Determined Contribution [I. + II.]	11,196,214
IV. Contributions in relation to the actuarially determined contribution	<u>(7,140,108)</u>
V. Contribution deficiency / (excess) [III. + IV.]	<u>4,056,106</u>
Covered employee payroll	64,485,794
Contributions as a % of covered employee payroll	11.07%
Discount Rate	4.00%
Money Weighted Rate of Return	5.48%

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, 2017
For the Reporting Period & Fiscal Year ending on:	June 30, 2019	June 30, 2018
Total OPEB Liability	128,695,134	86,805,009
I. Service Cost	4,225,561	3,384,223
II. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	3,340,032	3,184,347
III. Changes in Benefit terms	22,779,680	0
IV. Difference between Expected & Actual Plan Experience	3,438,391	0
V. Changes of assumptions	12,069,052	0
VI. Benefit Payments Excluding Implicit Cost	(3,057,611)	N/A
VII. Implicit Cost Amount	(904,980)	N/A
VIII. Total Benefit payments including Implicit Cost [VI.+VII.]	(3,962,591)	(2,566,904)
IX. Net Change in OPEB liability [I.+II.+III.+IV.+V.+VIII.]	41,890,125	4,001,666
X. Total OPEB liability - beginning of period	86,805,009	82,803,343
XI. Total OPEB liability - end of period [IX.+X.]	128,695,134	86,805,009
Plan Fiduciary Net Position	3,336,900	0
XII. Earning from Plan Investments	159,383	0
XIII. Employer Contribution to trust	7,140,108	2,566,904
XIV. Benefit payments from trust, including refunds of member contributions	(3,962,591)	(2,566,904)
XV. Administrative expense	0	0
XVI. Other	0	0
XVII. Net change in plan fiduciary net position [XII.+XIII.+XIV.+XV.+XVI.]	3,336,900	0
XVIII. Plan fiduciary net position - beginning of period	0	0
XIX. Plan fiduciary net position - end of period [XVII.+XVIII.]	3,336,900	0
XX. Net OPEB Liability [XI.-XIX.]	125,358,234	86,805,009
XXI. Plan fiduciary net position as % of total OPEB liability [XIX. / XI.]	2.59%	0.00%
XXII. Covered employee payroll	64,485,794	61,331,430
XXIII. Plan NOL as % of covered employee payroll [XX. / XXII.]	194.40%	141.53%
Single Discount Rate to calculate Plan Liabilities	4.00%	3.75%

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:	6.06%, 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:	4.00%, net of OPEB plan investment expense, including inflation.
Inflation:	2.75% 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 B

REQUIRED 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:	590
Active Employees:	<u>829</u>
Total:	1,419

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

- ✓ Due to the GASB 75 standards the discount rate has been changed from 3.75% to 4.00%
- ✓ Given the increase in the share of premiums paid by the Town, the percentage of employees assumed to elect coverage in retirement has been updated from 75% to 80% and the percentage of female retirees who elect coverage for themselves that elect to cover a spouse has been increased from 60% to 70%.
- ✓ Based on recommendations by PERAC, the mortality table has been updated from the RP-2014 Mortality Table projected generationally with scale MP-2016 to the RP-2014 Mortality Table projected generationally with scale MP-2016 for males and females
- ✓ Based on recommendations by PERAC, the rates at which active employees retire have been updated

Contributions:

The contribution requirements of plan members and the Town are established and may be amended through Town ordinances. The Town contributed \$3,177,517 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 \$3,962,591. \$904,980 of the \$3,962,591 represents implicit cost.

APPENDIX I - LIABILITIES, ASSETS, & CASH FLOWS

CURRENT FUNDING POLICY (OPEN GROUP)

Funding - 4.00% 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 6.06% 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	128,695,134	3,336,900	125,358,234	2.59%	4,225,561	3,962,591	3,177,517	7,140,108	3,962,591	0	7,140,108
2020	June 30, 2020	134,106,213	3,873,819	130,232,394	2.89%	4,402,094	4,231,112	325,000	4,556,112	4,231,112	0	4,556,112
2021	June 30, 2021	139,617,385	4,443,275	135,174,110	3.18%	4,568,987	4,469,488	325,000	4,794,488	4,469,488	0	4,794,488
2022	June 30, 2022	145,204,113	5,047,240	140,156,873	3.48%	4,714,290	4,755,091	325,000	5,080,091	4,755,091	0	5,080,091
2023	June 30, 2023	150,776,613	5,687,805	145,088,808	3.77%	4,898,555	5,115,923	325,000	5,440,923	5,115,923	0	5,440,923
2024	June 30, 2024	156,512,108	6,367,189	150,144,919	4.07%	5,088,702	5,367,956	325,000	5,692,956	5,367,956	0	5,692,956
2025	June 30, 2025	162,312,235	7,087,743	155,224,492	4.37%	5,268,137	5,640,732	325,000	5,965,732	5,640,732	0	5,965,732
2026	June 30, 2026	168,256,203	7,851,963	160,404,240	4.67%	5,469,293	5,936,701	325,000	6,261,701	5,936,701	0	6,261,701
2027	June 30, 2027	174,262,712	8,662,495	165,600,217	4.97%	5,731,054	6,241,618	325,000	6,566,618	6,241,618	0	6,566,618
2028	June 30, 2028	180,460,813	9,522,145	170,938,668	5.28%	5,935,299	6,446,313	325,000	6,771,313	6,446,313	0	6,771,313
2029	June 30, 2029	186,754,691	10,433,890	176,320,801	5.59%	6,169,402	6,682,233	325,000	7,007,233	6,682,233	0	7,007,233
2030	June 30, 2030	193,342,197	11,400,886	181,941,311	5.90%	6,350,133	7,029,403	325,000	7,354,403	7,029,403	0	7,354,403
2031	June 30, 2031	199,794,744	12,426,482	187,368,262	6.22%	6,663,640	7,280,378	325,000	7,605,378	7,280,378	0	7,605,378
2032	June 30, 2032	206,099,089	13,514,229	192,584,860	6.56%	6,850,382	7,475,644	325,000	7,800,644	7,475,644	0	7,800,644
2033	June 30, 2033	212,173,977	14,667,894	197,506,083	6.91%	7,048,615	7,837,607	325,000	8,162,607	7,837,607	0	8,162,607
2034	June 30, 2034	219,110,276	15,891,471	203,218,805	7.25%	7,328,532	8,094,117	325,000	8,419,117	8,094,117	0	8,419,117
2035	June 30, 2035	225,830,097	17,189,197	208,640,900	7.61%	7,664,152	8,381,805	325,000	8,706,805	8,381,805	0	8,706,805
2036	June 30, 2036	232,962,979	18,565,565	214,397,414	7.97%	7,908,489	8,664,055	325,000	8,989,055	8,664,055	0	8,989,055
2037	June 30, 2037	240,952,570	20,025,341	220,927,229	8.31%	8,200,530	8,968,775	325,000	9,293,775	8,968,775	0	9,293,775
2038	June 30, 2038	248,984,042	21,573,579	227,410,463	8.66%	8,558,623	9,241,804	325,000	9,566,804	9,241,804	0	9,566,804
2039	June 30, 2039	257,173,894	23,215,641	233,958,253	9.03%	8,857,696	9,499,371	325,000	9,824,371	9,499,371	0	9,824,371
2040	June 30, 2040	265,837,992	24,957,212	240,880,780	9.39%	9,148,997	9,852,654	325,000	10,177,654	9,852,654	0	10,177,654
2041	June 30, 2041	274,690,282	26,804,322	247,885,960	9.76%	9,558,826	10,155,057	325,000	10,480,057	10,155,057	0	10,480,057
2042	June 30, 2042	284,461,302	28,763,367	255,697,935	10.11%	9,968,131	10,442,982	325,000	10,767,982	10,442,982	0	10,767,982
2043	June 30, 2043	294,854,334	30,841,130	264,013,204	10.46%	10,416,716	10,754,214	325,000	11,079,214	10,754,214	0	11,079,214
2044	June 30, 2044	305,944,806	33,044,805	272,900,001	10.80%	10,862,045	11,025,568	325,000	11,350,568	11,025,568	0	11,350,568
2045	June 30, 2045	317,251,042	35,382,023	281,869,019	11.15%	11,342,472	11,479,159	325,000	11,804,159	11,479,159	0	11,804,159
2046	June 30, 2046	329,140,520	37,860,876	291,279,644	11.50%	11,830,409	11,801,582	325,000	12,126,582	11,801,582	0	12,126,582
2047	June 30, 2047	341,853,928	40,489,948	301,363,980	11.84%	12,368,117	12,229,389	325,000	12,554,389	12,229,389	0	12,554,389
2048	June 30, 2048	355,132,110	43,278,342	311,853,768	12.19%	12,951,077	12,615,500	325,000	12,940,500	12,615,500	0	12,940,500
2049	June 30, 2049	369,411,578	46,235,712	323,175,866	12.52%	13,515,487	12,950,109	325,000	13,275,109	12,950,109	0	13,275,109
2050	June 30, 2050	384,149,391	49,372,299	334,777,092	12.85%	14,119,177	13,456,805	325,000	13,781,805	13,456,805	0	13,781,805

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

ALTERNATIVE FUNDING SCENARIO (OPEN GROUP)

6.25% discount rate and funding increasing at 3.00% per year

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 6.06% return	III. Net OPEB Liability (Asset) ("NOL") [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	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	91,029,752	3,336,900	87,692,852	3.67%	2,367,572	3,962,591		3,962,591	3,962,591	0	0
2020	June 30, 2020	95,057,854	6,228,219	88,829,635	6.55%	2,481,358	4,231,112	2,611,149	6,842,261	4,231,112	0	2,611,149
2021	June 30, 2021	99,166,847	9,375,425	89,791,422	9.45%	2,583,171	4,469,488	2,689,483	7,158,971	4,469,488	0	2,689,483
2022	June 30, 2022	103,374,254	12,713,352	90,660,902	12.30%	2,670,582	4,755,091	2,770,167	7,525,258	4,755,091	0	2,770,167
2023	June 30, 2023	107,625,198	16,336,650	91,288,548	15.18%	2,778,950	5,115,923	2,853,272	7,969,195	5,115,923	0	2,853,272
2024	June 30, 2024	111,836,298	20,265,106	91,571,192	18.12%	2,889,260	5,367,956	2,938,870	8,306,826	5,367,956	0	2,938,870
2025	June 30, 2025	116,163,235	24,519,780	91,643,455	21.11%	2,994,575	5,640,732	3,027,036	8,667,768	5,640,732	0	3,027,036
2026	June 30, 2026	120,535,327	29,123,085	91,412,242	24.16%	3,109,696	5,936,701	3,117,847	9,054,548	5,936,701	0	3,117,847
2027	June 30, 2027	124,997,024	34,098,872	90,898,152	27.28%	3,261,053	6,241,618	3,211,382	9,453,000	6,241,618	0	3,211,382
2028	June 30, 2028	129,481,879	39,472,519	90,009,360	30.48%	3,375,328	6,446,313	3,307,723	9,754,036	6,446,313	0	3,307,723
2029	June 30, 2029	134,117,644	45,271,027	88,846,617	33.75%	3,509,484	6,682,233	3,406,955	10,089,188	6,682,233	0	3,406,955
2030	June 30, 2030	138,827,477	51,523,119	87,304,358	37.11%	3,606,863	7,029,403	3,509,164	10,538,567	7,029,403	0	3,509,164
2031	June 30, 2031	143,726,118	58,259,348	85,466,770	40.53%	3,784,608	7,280,378	3,614,439	10,894,817	7,280,378	0	3,614,439
2032	June 30, 2032	148,521,333	65,512,210	83,009,123	44.11%	3,886,603	7,475,644	3,722,872	11,198,516	7,475,644	0	3,722,872
2033	June 30, 2033	153,220,153	73,316,266	79,903,887	47.85%	3,991,069	7,837,607	3,834,558	11,672,165	7,837,607	0	3,834,558
2034	June 30, 2034	157,735,354	81,708,268	76,027,086	51.80%	4,144,763	8,094,117	3,949,595	12,043,712	8,094,117	0	3,949,595
2035	June 30, 2035	162,858,452	90,727,297	72,131,155	55.71%	4,333,479	8,381,805	4,068,083	12,449,888	8,381,805	0	4,068,083
2036	June 30, 2036	167,793,204	100,414,904	67,378,300	59.84%	4,462,590	8,664,055	4,190,125	12,854,180	8,664,055	0	4,190,125
2037	June 30, 2037	173,026,413	110,815,266	62,211,147	64.05%	4,622,455	8,968,775	4,315,829	13,284,604	8,968,775	0	4,315,829
2038	June 30, 2038	178,828,649	121,975,346	56,853,303	68.21%	4,820,220	9,241,804	4,445,304	13,687,108	9,241,804	0	4,445,304
2039	June 30, 2039	184,669,776	133,945,068	50,724,708	72.53%	4,983,723	9,499,371	4,578,663	14,078,034	9,499,371	0	4,578,663
2040	June 30, 2040	190,656,071	146,777,495	43,878,576	76.99%	5,144,440	9,852,654	4,716,023	14,568,677	9,852,654	0	4,716,023
2041	June 30, 2041	196,957,878	160,529,028	36,428,850	81.50%	5,371,682	10,155,057	4,857,504	15,012,561	10,155,057	0	4,857,504
2042	June 30, 2042	203,400,522	175,259,609	28,140,913	86.16%	5,599,277	10,442,982	5,003,229	15,446,211	10,442,982	0	5,003,229
2043	June 30, 2043	210,473,781	191,032,938	19,440,843	90.76%	5,848,112	10,754,214	5,153,326	15,907,540	10,754,214	0	5,153,326
2044	June 30, 2044	217,992,534	207,916,709	10,075,825	95.38%	6,095,688	11,025,568	5,307,926	16,333,494	11,025,568	0	5,307,926
2045	June 30, 2045	226,022,944	225,982,852	40,092	99.98%	6,364,214	11,479,159	5,467,164	16,946,323	11,479,159	0	5,467,164
2046	June 30, 2046	234,204,632	245,307,796	(11,103,164)	104.74%	6,636,543	11,801,582	40,092	11,841,674	11,801,582	0	40,092
2047	June 30, 2047	242,823,300	260,214,737	(17,391,437)	107.16%	6,937,067	12,229,389	0	12,229,389	12,229,389	0	0
2048	June 30, 2048	252,002,433	275,983,750	(23,981,317)	109.52%	7,262,354	12,615,500	0	12,615,500	12,615,500	0	0
2049	June 30, 2049	261,617,862	292,708,365	(31,090,503)	111.88%	7,577,811	12,950,109	0	12,950,109	12,950,109	0	0
2050	June 30, 2050	271,956,891	310,446,492	(38,489,601)	114.15%	7,916,076	13,456,805	0	13,456,805	13,456,805	0	0
2051	June 30, 2051	282,644,443	329,259,549	(46,615,106)	116.49%	8,284,375	13,930,214	0	13,930,214	13,930,214	0	0
2052	June 30, 2052	294,100,103	349,212,678	(55,112,575)	118.74%	8,715,564	14,322,965	0	14,322,965	14,322,965	0	0
2053	June 30, 2053	306,218,529	370,374,966	(64,156,437)	120.95%	9,127,031	14,828,996	0	14,828,996	14,828,996	0	0
2054	June 30, 2054	318,956,884	392,819,689	(73,862,805)	123.16%	9,567,335	15,328,667	0	15,328,667	15,328,667	0	0
2055	June 30, 2055	332,521,790	416,624,562	(84,102,772)	125.29%	10,036,164	15,903,601	0	15,903,601	15,903,601	0	0

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

CONTRIBUTION PROJECTION DISCLOSURES

Projection of Contributions using a July 1, 2018 Valuation Date
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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	64,485,794	0	64,485,794	0	3,962,591	0	3,962,591
June 30, 2020	59,755,014	6,665,354	66,420,368	0	4,231,112	0	4,231,112
June 30, 2021	56,494,337	11,918,642	68,412,979	0	4,469,488	0	4,469,488
June 30, 2022	53,897,187	16,568,181	70,465,368	0	4,755,091	0	4,755,091
June 30, 2023	51,428,639	21,150,690	72,579,329	0	5,115,923	0	5,115,923
June 30, 2024	49,626,214	25,130,495	74,756,709	0	5,367,956	0	5,367,956
June 30, 2025	47,824,206	29,175,204	76,999,410	0	5,640,732	0	5,640,732
June 30, 2026	45,384,858	33,924,534	79,309,392	0	5,936,701	0	5,936,701
June 30, 2027	43,595,196	38,093,478	81,688,674	0	6,241,618	0	6,241,618
June 30, 2028	41,901,076	42,238,258	84,139,334	0	6,446,313	0	6,446,313
June 30, 2029	40,188,836	46,474,678	86,663,514	0	6,682,233	0	6,682,233
June 30, 2030	37,880,119	51,383,300	89,263,419	0	6,990,719	38,684	7,029,403
June 30, 2031	36,865,270	55,076,052	91,941,322	0	7,201,866	78,512	7,280,378
June 30, 2032	34,989,528	59,710,034	94,699,562	0	7,352,722	122,922	7,475,644
June 30, 2033	32,559,774	64,980,775	97,540,549	0	7,656,888	180,719	7,837,607
June 30, 2034	30,473,351	69,993,414	100,466,765	0	7,847,246	246,871	8,094,117
June 30, 2035	28,958,045	74,522,723	103,480,768	0	8,019,139	362,666	8,381,805
June 30, 2036	27,270,712	79,314,479	106,585,191	0	8,176,492	487,563	8,664,055
June 30, 2037	25,749,217	84,033,530	109,782,747	0	8,348,252	620,523	8,968,775
June 30, 2038	24,884,847	88,191,382	113,076,229	0	8,521,975	719,829	9,241,804
June 30, 2039	23,598,387	92,870,129	116,468,516	0	8,669,951	829,420	9,499,371
June 30, 2040	21,814,828	98,147,743	119,962,571	0	8,838,301	1,014,353	9,852,654
June 30, 2041	20,318,239	103,243,209	123,561,448	0	8,934,701	1,220,356	10,155,057
June 30, 2042	18,883,304	108,384,987	127,268,291	0	9,004,107	1,438,875	10,442,982
June 30, 2043	17,894,131	113,192,209	131,086,340	0	9,058,060	1,696,154	10,754,214
June 30, 2044	16,837,311	118,181,619	135,018,930	0	9,050,383	1,975,185	11,025,568
June 30, 2045	15,703,502	123,365,996	139,069,498	0	9,126,689	2,352,470	11,479,159
June 30, 2046	14,419,244	128,822,339	143,241,583	0	9,042,062	2,759,520	11,801,582
June 30, 2047	13,128,057	134,410,773	147,538,830	0	9,044,767	3,184,622	12,229,389
June 30, 2048	12,244,562	139,720,433	151,964,995	0	9,062,128	3,553,372	12,615,500
June 30, 2049	11,279,202	145,244,743	156,523,945	0	9,002,934	3,947,175	12,950,109
June 30, 2050	10,004,554	151,215,109	161,219,663	0	8,995,345	4,461,460	13,456,805
June 30, 2051	8,702,995	157,353,258	166,056,253	0	8,921,803	5,008,411	13,930,214
June 30, 2052	8,000,870	163,037,071	171,037,941	0	8,752,510	5,570,455	14,322,965
June 30, 2053	7,137,649	169,031,430	176,169,079	0	8,646,150	6,182,846	14,828,996
June 30, 2054	5,958,778	175,495,373	181,454,151	0	8,508,144	6,820,523	15,328,667
June 30, 2055	5,063,330	181,834,446	186,897,776	0	8,400,591	7,503,010	15,903,601
June 30, 2056	4,025,038	188,479,671	192,504,709	0	8,186,432	8,253,831	16,440,263
June 30, 2057	3,252,538	195,027,312	198,279,850	0	8,022,755	9,041,999	17,064,754
June 30, 2058	2,748,455	201,479,791	204,228,246	0	7,864,601	9,846,122	17,710,723

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	1,887,971	208,467,122	210,355,093	0	7,706,744	10,671,109	18,377,853
June 30, 2060	1,426,158	215,239,588	216,665,746	0	7,577,733	11,604,577	19,182,310
June 30, 2061	1,043,254	222,122,464	223,165,718	0	7,394,263	12,593,419	19,987,682
June 30, 2062	879,240	228,981,450	229,860,690	0	7,246,344	13,613,399	20,859,743
June 30, 2063	633,589	236,122,922	236,756,511	0	7,074,724	14,692,897	21,767,621
June 30, 2064	300,464	243,558,742	243,859,206	0	6,889,218	15,814,451	22,703,669
June 30, 2065	200,787	250,974,195	251,174,982	0	6,722,173	17,001,033	23,723,206
June 30, 2066	0	258,710,231	258,710,231	0	6,528,347	18,273,272	24,801,619
June 30, 2067	0	266,471,538	266,471,538	0	6,324,431	19,622,049	25,946,480
June 30, 2068	0	274,465,684	274,465,684	0	6,127,393	20,990,583	27,117,976
June 30, 2069	0	282,699,655	282,699,655	0	5,923,182	22,380,572	28,303,754
June 30, 2070	0	291,180,645	291,180,645	0	5,712,129	23,851,252	29,563,381
June 30, 2071	0	299,916,064	299,916,064	0	5,494,839	25,415,705	30,910,544
June 30, 2072	0	308,913,546	308,913,546	0	5,271,666	27,053,534	32,325,200
June 30, 2073	0	318,180,952	318,180,952	0	5,042,846	28,751,060	33,793,906
June 30, 2074	0	327,726,381	327,726,381	0	4,808,784	30,499,526	35,308,310
June 30, 2075	0	337,558,172	337,558,172	0	4,569,858	32,319,252	36,889,110
June 30, 2076	0	347,684,917	347,684,917	0	4,326,528	34,235,906	38,562,434
June 30, 2077	0	358,115,465	358,115,465	0	4,079,539	36,265,941	40,345,480
June 30, 2078	0	368,858,929	368,858,929	0	3,829,689	38,343,480	42,173,169
June 30, 2079	0	379,924,697	379,924,697	0	3,578,109	40,480,487	44,058,596
June 30, 2080	0	391,322,438	391,322,438	0	3,325,985	42,709,278	46,035,263
June 30, 2081	0	403,062,111	403,062,111	0	3,074,686	45,051,891	48,126,577
June 30, 2082	0	415,153,974	415,153,974	0	2,825,899	47,505,619	50,331,518
June 30, 2083	0	427,608,593	427,608,593	0	2,581,063	50,040,429	52,621,492
June 30, 2084	0	440,436,851	440,436,851	0	2,341,828	52,676,951	55,018,779
June 30, 2085	0	453,649,957	453,649,957	0	2,109,798	55,415,634	57,525,432
June 30, 2086	0	467,259,456	467,259,456	0	1,888,475	58,284,538	60,173,013
June 30, 2087	0	481,277,240	481,277,240	0	1,683,803	61,310,916	62,994,719
June 30, 2088	0	495,715,557	495,715,557	0	1,490,714	64,444,828	65,935,542
June 30, 2089	0	510,587,024	510,587,024	0	1,307,723	67,697,594	69,005,317
June 30, 2090	0	525,904,635	525,904,635	0	1,136,121	71,094,845	72,230,966
June 30, 2091	0	541,681,774	541,681,774	0	977,052	74,656,703	75,633,755
June 30, 2092	0	557,932,227	557,932,227	0	831,346	78,394,640	79,225,986
June 30, 2093	0	574,670,194	574,670,194	0	699,530	82,287,357	82,986,887

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	0	3,962,591	3,177,517	7,140,108	0	3,962,591	3,962,591	159,383	3,336,900
June 30, 2020	3,336,900	4,231,112	292,386	4,523,498	0	4,231,112	4,231,112	190,653	3,819,939
June 30, 2021	3,819,939	4,469,488	268,380	4,737,868	0	4,469,488	4,469,488	239,501	4,327,820
June 30, 2022	4,327,820	4,755,091	248,584	5,003,675	0	4,755,091	4,755,091	269,687	4,846,091
June 30, 2023	4,846,091	5,115,923	230,290	5,346,213	0	5,115,923	5,115,923	300,548	5,376,929
June 30, 2024	5,376,929	5,367,956	215,747	5,583,703	0	5,367,956	5,367,956	332,283	5,924,959
June 30, 2025	5,924,959	5,640,732	201,857	5,842,589	0	5,640,732	5,640,732	365,079	6,491,895
June 30, 2026	6,491,895	5,936,701	185,981	6,122,682	0	5,936,701	5,936,701	398,961	7,076,837
June 30, 2027	7,076,837	6,241,618	173,444	6,415,062	0	6,241,618	6,241,618	434,034	7,684,315
June 30, 2028	7,684,315	6,446,313	161,849	6,608,162	0	6,446,313	6,446,313	470,501	8,316,665
June 30, 2029	8,316,665	6,682,233	150,714	6,832,947	0	6,682,233	6,682,233	508,489	8,975,868
June 30, 2030	8,975,868	6,990,719	137,918	7,128,637	0	6,990,719	6,990,719	548,055	9,623,157
June 30, 2031	9,623,157	7,201,866	130,314	7,332,180	0	7,201,866	7,201,866	587,054	10,262,013
June 30, 2032	10,262,013	7,352,722	120,081	7,472,803	0	7,352,722	7,352,722	625,463	10,884,635
June 30, 2033	10,884,635	7,656,888	108,487	7,765,375	0	7,656,888	7,656,888	662,848	11,475,251
June 30, 2034	11,475,251	7,847,246	98,578	7,945,824	0	7,847,246	7,847,246	698,343	12,025,301
June 30, 2035	12,025,301	8,019,139	90,948	8,110,087	0	8,019,139	8,019,139	731,448	12,485,031
June 30, 2036	12,485,031	8,176,492	83,154	8,259,646	0	8,176,492	8,176,492	759,075	12,839,697
June 30, 2037	12,839,697	8,348,252	76,228	8,424,480	0	8,348,252	8,348,252	780,361	13,075,763
June 30, 2038	13,075,763	8,521,975	71,523	8,593,498	0	8,521,975	8,521,975	794,527	13,221,984
June 30, 2039	13,221,984	8,669,951	65,850	8,735,801	0	8,669,951	8,669,951	803,218	13,261,632
June 30, 2040	13,261,632	8,838,301	59,100	8,897,401	0	8,838,301	8,838,301	805,419	13,111,798
June 30, 2041	13,111,798	8,934,701	53,442	8,988,143	0	8,934,701	8,934,701	796,170	12,741,054
June 30, 2042	12,741,054	9,004,107	48,222	9,052,329	0	9,004,107	9,004,107	773,548	12,123,949
June 30, 2043	12,123,949	9,058,060	44,365	9,102,425	0	9,058,060	9,058,060	736,036	11,208,196
June 30, 2044	11,208,196	9,050,383	40,529	9,090,912	0	9,050,383	9,050,383	680,427	9,953,967
June 30, 2045	9,953,967	9,126,689	36,698	9,163,387	0	9,126,689	9,126,689	604,306	8,242,501
June 30, 2046	8,242,501	9,042,062	32,716	9,074,778	0	9,042,062	9,042,062	500,472	6,016,169
June 30, 2047	6,016,169	9,044,767	28,919	9,073,686	0	9,044,767	9,044,767	365,443	3,225,909
June 30, 2048	3,225,909	9,062,128	26,187	9,088,315	0	9,062,128	9,062,128	196,272	222,459
June 30, 2049	222,459	9,002,934	23,420	9,026,354	0	9,002,934	9,002,934	14,180	37,600
June 30, 2050	37,600	8,995,345	20,168	9,015,513	0	8,995,345	8,995,345	2,881	23,049
June 30, 2051	23,049	8,921,803	17,033	8,938,836	0	8,921,803	8,921,803	1,905	18,938
June 30, 2052	18,938	8,752,510	15,203	8,767,713	0	8,752,510	8,752,510	1,602	16,805
June 30, 2053	16,805	8,646,150	13,168	8,659,318	0	8,646,150	8,646,150	1,412	14,580
June 30, 2054	14,580	8,508,144	10,673	8,518,817	0	8,508,144	8,508,144	1,202	11,875
June 30, 2055	11,875	8,400,591	8,805	8,409,396	0	8,400,591	8,400,591	982	9,787
June 30, 2056	9,787	8,186,432	6,795	8,193,227	0	8,186,432	8,186,432	796	7,591
June 30, 2057	7,591	8,022,755	5,331	8,028,086	0	8,022,755	8,022,755	619	5,950
June 30, 2058	5,950	7,864,601	4,374	7,868,975	0	7,864,601	7,864,601	491	4,865

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	4,865	7,706,744	2,917	7,709,661	0	7,706,744	7,706,744	382	3,299
June 30, 2060	3,299	7,577,733	2,139	7,579,872	0	7,577,733	7,577,733	264	2,403
June 30, 2061	2,403	7,394,263	1,519	7,395,782	0	7,394,263	7,394,263	191	1,710
June 30, 2062	1,710	7,246,344	1,243	7,247,587	0	7,246,344	7,246,344	141	1,384
June 30, 2063	1,384	7,074,724	870	7,075,594	0	7,074,724	7,074,724	110	980
June 30, 2064	980	6,889,218	400	6,889,618	0	6,889,218	6,889,218	71	471
June 30, 2065	471	6,722,173	260	6,722,433	0	6,722,173	6,722,173	36	296
June 30, 2066	296	6,528,347	0	6,528,347	0	6,528,347	6,528,347	18	18
June 30, 2067	18	6,324,431	0	6,324,431	0	6,324,431	6,324,431	1	1
June 30, 2068	1	6,127,393	0	6,127,393	0	6,127,393	6,127,393	0	0
June 30, 2069	0	5,923,182	0	5,923,182	0	5,923,182	5,923,182	0	0
June 30, 2070	0	5,712,129	0	5,712,129	0	5,712,129	5,712,129	0	0
June 30, 2071	0	5,494,839	0	5,494,839	0	5,494,839	5,494,839	0	0
June 30, 2072	0	5,271,666	0	5,271,666	0	5,271,666	5,271,666	0	0
June 30, 2073	0	5,042,846	0	5,042,846	0	5,042,846	5,042,846	0	0
June 30, 2074	0	4,808,784	0	4,808,784	0	4,808,784	4,808,784	0	0
June 30, 2075	0	4,569,858	0	4,569,858	0	4,569,858	4,569,858	0	0
June 30, 2076	0	4,326,528	0	4,326,528	0	4,326,528	4,326,528	0	0
June 30, 2077	0	4,079,539	0	4,079,539	0	4,079,539	4,079,539	0	0
June 30, 2078	0	3,829,689	0	3,829,689	0	3,829,689	3,829,689	0	0
June 30, 2079	0	3,578,109	0	3,578,109	0	3,578,109	3,578,109	0	0
June 30, 2080	0	3,325,985	0	3,325,985	0	3,325,985	3,325,985	0	0
June 30, 2081	0	3,074,686	0	3,074,686	0	3,074,686	3,074,686	0	0
June 30, 2082	0	2,825,899	0	2,825,899	0	2,825,899	2,825,899	0	0
June 30, 2083	0	2,581,063	0	2,581,063	0	2,581,063	2,581,063	0	0
June 30, 2084	0	2,341,828	0	2,341,828	0	2,341,828	2,341,828	0	0
June 30, 2085	0	2,109,798	0	2,109,798	0	2,109,798	2,109,798	0	0
June 30, 2086	0	1,888,475	0	1,888,475	0	1,888,475	1,888,475	0	0
June 30, 2087	0	1,683,803	0	1,683,803	0	1,683,803	1,683,803	0	0
June 30, 2088	0	1,490,714	0	1,490,714	0	1,490,714	1,490,714	0	0
June 30, 2089	0	1,307,723	0	1,307,723	0	1,307,723	1,307,723	0	0
June 30, 2090	0	1,136,121	0	1,136,121	0	1,136,121	1,136,121	0	0
June 30, 2091	0	977,052	0	977,052	0	977,052	977,052	0	0
June 30, 2092	0	831,346	0	831,346	0	831,346	831,346	0	0
June 30, 2093	0	699,530	0	699,530	0	699,530	699,530	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	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, 2019	0	3,962,591	0	3,962,591	0	3,962,591	3,962,591
June 30, 2020	3,336,900	4,231,112	3,336,900	894,212	3,146,238	869,909	4,071,244
June 30, 2021	3,819,939	4,469,488	3,819,939	649,549	3,395,887	614,722	4,138,119
June 30, 2022	4,327,820	4,755,091	4,327,820	427,271	3,627,558	393,372	4,236,201
June 30, 2023	4,846,091	5,115,923	4,846,091	269,832	3,829,879	241,672	4,385,452
June 30, 2024	5,376,929	5,367,956	5,367,956	0	3,999,916	0	4,427,635
June 30, 2025	5,924,959	5,640,732	5,640,732	0	3,963,015	0	4,476,834
June 30, 2026	6,491,895	5,936,701	5,936,701	0	3,932,637	0	4,533,705
June 30, 2027	7,076,837	6,241,618	6,241,618	0	3,898,380	0	4,586,462
June 30, 2028	7,684,315	6,446,313	6,446,313	0	3,796,180	0	4,557,898
June 30, 2029	8,316,665	6,682,233	6,682,233	0	3,710,269	0	4,546,188
June 30, 2030	8,975,868	6,990,719	6,990,719	0	3,659,772	0	4,576,361
June 30, 2031	9,623,157	7,201,866	7,201,866	0	3,554,885	0	4,536,449
June 30, 2032	10,262,013	7,352,722	7,352,722	0	3,421,977	0	4,456,477
June 30, 2033	10,884,635	7,656,888	7,656,888	0	3,359,925	0	4,465,483
June 30, 2034	11,475,251	7,847,246	7,847,246	0	3,246,706	0	4,403,581
June 30, 2035	12,025,301	8,019,139	8,019,139	0	3,128,252	0	4,330,012
June 30, 2036	12,485,031	8,176,492	8,176,492	0	3,007,388	0	4,248,160
June 30, 2037	12,839,697	8,348,252	8,348,252	0	2,895,118	0	4,173,516
June 30, 2038	13,075,763	8,521,975	8,521,975	0	2,786,502	0	4,099,391
June 30, 2039	13,221,984	8,669,951	8,669,951	0	2,672,909	0	4,012,992
June 30, 2040	13,261,632	8,838,301	8,838,301	0	2,569,122	0	3,936,344
June 30, 2041	13,111,798	8,934,701	8,934,701	0	2,448,749	0	3,828,925
June 30, 2042	12,741,054	9,004,107	9,004,107	0	2,326,769	0	3,712,873
June 30, 2043	12,123,949	9,058,060	9,058,060	0	2,206,969	0	3,593,993
June 30, 2044	11,208,196	9,050,383	9,050,383	0	2,079,105	0	3,455,266
June 30, 2045	9,953,967	9,126,689	9,126,689	0	1,976,838	0	3,352,744
June 30, 2046	8,242,501	9,042,062	8,242,501	799,561	1,683,314	379,972	3,196,150
June 30, 2047	6,016,169	9,044,767	6,016,169	3,028,598	1,158,443	1,400,150	3,076,307
June 30, 2048	3,225,909	9,062,128	3,225,909	5,836,219	585,673	2,624,810	2,965,754
June 30, 2049	222,459	9,002,934	222,459	8,780,475	38,080	3,841,648	2,835,055
June 30, 2050	37,600	8,995,345	37,600	8,957,745	6,069	3,812,691	2,725,636
June 30, 2051	23,049	8,921,803	23,049	8,898,754	3,508	3,684,643	2,601,209
June 30, 2052	18,938	8,752,510	18,938	8,733,572	2,717	3,517,964	2,455,432
June 30, 2053	16,805	8,646,150	16,805	8,629,345	2,273	3,381,510	2,333,945
June 30, 2054	14,580	8,508,144	14,580	8,493,564	1,860	3,237,845	2,209,913
June 30, 2055	11,875	8,400,591	11,875	8,388,716	1,428	3,110,964	2,099,533
June 30, 2056	9,787	8,186,432	9,787	8,176,645	1,110	2,949,904	1,968,703
June 30, 2057	7,591	8,022,755	7,591	8,015,164	812	2,813,057	1,856,443
June 30, 2058	5,950	7,864,601	5,950	7,858,651	600	2,683,165	1,751,086

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	4,865	7,706,744	4,865	7,701,879	462	2,558,170		1,651,103
June 30, 2060	3,299	7,577,733	3,299	7,574,434	296	2,447,464		1,562,123
June 30, 2061	2,403	7,394,263	2,403	7,391,860	203	2,323,556		1,466,707
June 30, 2062	1,710	7,246,344	1,710	7,244,634	136	2,215,385		1,383,057
June 30, 2063	1,384	7,074,724	1,384	7,073,340	104	2,104,217		1,299,281
June 30, 2064	980	6,889,218	980	6,888,238	69	1,993,460		1,217,408
June 30, 2065	471	6,722,173	471	6,721,702	31	1,892,395		1,143,006
June 30, 2066	296	6,528,347	296	6,528,051	19	1,787,926		1,068,107
June 30, 2067	18	6,324,431	18	6,324,413	1	1,685,076		995,647
June 30, 2068	1	6,127,393	1	6,127,392	0	1,588,211		928,180
June 30, 2069	0	5,923,182	0	5,923,182	0	1,493,554		863,345
June 30, 2070	0	5,712,129	0	5,712,129	0	1,401,191		801,124
June 30, 2071	0	5,494,839	0	5,494,839	0	1,311,256		741,531
June 30, 2072	0	5,271,666	0	5,271,666	0	1,223,809		684,534
June 30, 2073	0	5,042,846	0	5,042,846	0	1,138,872		630,079
June 30, 2074	0	4,808,784	0	4,808,784	0	1,056,496		578,132
June 30, 2075	0	4,569,858	0	4,569,858	0	976,716		528,649
June 30, 2076	0	4,326,528	0	4,326,528	0	899,578		481,589
June 30, 2077	0	4,079,539	0	4,079,539	0	825,170		436,939
June 30, 2078	0	3,829,689	0	3,829,689	0	753,580		394,681
June 30, 2079	0	3,578,109	0	3,578,109	0	684,940		354,820
June 30, 2080	0	3,325,985	0	3,325,985	0	619,374		317,357
June 30, 2081	0	3,074,686	0	3,074,686	0	557,014		282,293
June 30, 2082	0	2,825,899	0	2,825,899	0	498,030		249,649
June 30, 2083	0	2,581,063	0	2,581,063	0	442,518		219,404
June 30, 2084	0	2,341,828	0	2,341,828	0	390,590		191,546
June 30, 2085	0	2,109,798	0	2,109,798	0	342,326		166,047
June 30, 2086	0	1,888,475	0	1,888,475	0	298,087		143,013
June 30, 2087	0	1,683,803	0	1,683,803	0	258,557		122,695
June 30, 2088	0	1,490,714	0	1,490,714	0	222,686		104,521
June 30, 2089	0	1,307,723	0	1,307,723	0	190,041		88,226
June 30, 2090	0	1,136,121	0	1,136,121	0	160,617		73,753
June 30, 2091	0	977,052	0	977,052	0	134,374		61,030
June 30, 2092	0	831,346	0	831,346	0	111,228		49,967
June 30, 2093	0	699,530	0	699,530	0	91,048		40,455

APPENDIX II – PLAN PROVISIONS

<u>Effective Date</u>	GASB 45 was adopted June 30, 2009 GASB 74 was adopted for the fiscal year ending June 30, 2018 GASB 75 was adopted for the fiscal year ending June 30, 2019
<u>Plan Year</u>	July 1 through June 30.
<u>Premium Effective Date</u>	Medicare Supplement Plans: effective January 1, 2019 Non-Medicare Plans: effective July 1, 2019 Dental Plans: N/A
<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 and Tufts as well as \$4,000 of Life Insurance via Boston Mutual.
<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>Medicare Part B</u>	The Town reimburses 50% of Medicare Part B Medicare Part B Penalty reimbursements by the Town were not reflected in this valuation.
<u>Surviving Spouse Coverage</u>	Spousal benefits do not change after the death of a plan participant.

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	Family
Medical	Retirees shall pay 30% of premiums for Medicare Supplement Plans, 50% for the Non-Medicare PPO plan and 25% for the Non-Medicare HMO plan.	Retirees shall pay 30% of premiums for Medicare Supplement Plans, 50% for the Non-Medicare PPO plan and 25% for the Non-Medicare HMO plan.
Dental	N/A	N/A
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

4.00% per annum (previously 3.75%)

Net Long Term Rate of Return

6.06% (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

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

Age	0-4 Years of Service		5-9 Years of Service		10+ Years of Service	
	(Males)	(Females)	(Males)	(Females)	(Males)	(Females)
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

Service	Public Safety	
	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: N/A

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. (previously 75%)

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. (previously 60% for female employees)

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

2.75% 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. Actuarial Accrued Liability	128,695,134	86,805,009
II. Actuarial Accrued Liability (Excluding Implicit Subsidy)	<u>108,401,589</u>	N/A
III. Liability from Implicit Subsidy [I. - II.]	20,293,545	N/A

	For the Measurement Period Ending	
Impact on Payments	<u>June 30, 2019</u>	<u>June 30, 2018</u>
IV. Employer Payments (Including Implicit Subsidy)	3,962,591	2,566,904
V. Actual Employer Payments	<u>3,057,611</u>	N/A
VI. Implicit Subsidy [IV. - V.]	904,980	N/A

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	4,489	2,830	44 & Under	8,824	5,782	65 to 69	4,801	4,801
25 to 29	6,623	2,945	45 to 49	9,693	7,301	70 to 74	4,801	4,801
30 to 34	8,370	3,696	50 to 54	11,402	9,615	75 to 79	4,801	4,801
35 to 39	8,622	4,641	55 to 59	13,182	12,501	80 to 84	4,801	4,801
40 to 44	8,824	5,782	60 to 64	15,686	16,041	85 to 89	4,801	4,801
45 to 49	9,693	7,301	65 to 69	18,803	20,009	90 & Over	4,801	4,801
50 to 54	11,402	9,615	70 to 74	22,173	23,978			
55 to 59	13,182	12,501	75 to 79	25,751	28,320			
60 to 64	15,686	16,041	80 to 84	29,525	32,552			
65 to 69	18,803	20,009	85 to 89	33,702	37,260			
70 & Over	22,173	23,978	90 & Over	33,702	37,260			

*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
A. Average Age at Hire	35.10
B. Average Service	<u>10.03</u>
C. Average Current Age	45.13

Retired Employees & Spouses

Valuation Date	July 1, 2018
A. Under Age 65	66
B. Age 65 & Over	<u>524</u>
C. Total	590

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	24									24
25-29	82									82
30-34	71	40	4	1						116
35-39	49	23	19	6						97
40-44	24	16	24	18	1	1				84
45-49	24	23	18	22	12					99
50-54	32	20	18	14	9	9	9			111
55-59	22	21	19	19	10	7	19	3		120
60-64	7	11	11	14	7	6	5	1	1	63
65-69		1	6	5	6	1	3		2	24
70+	1		2	2	3				1	9
Total	336	155	121	101	48	24	36	4	4	829

APPENDIX IV - PLAN DEMOGRAPHICS

Plan Offerings

	Number of Contracts			
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>	<u>Total</u>
HPHC Choice Net HMO	294		328	622
HPHC Choice Net PPO	6		6	12
Tufts Medicare Preferred	7	2		9
HPHC Medicare Enhanced	194	144		338
Total	501	146	334	981

	Per Contract Costs (monthly)		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
HPHC Choice Net HMO	835.47	1,670.94	2,255.74
HPHC Choice Net PPO	1,054.53		2,847.18
Tufts Medicare Preferred	313.00	626.00	
HPHC Medicare Enhanced	402.09	804.18	
Dental Plan	N/A		N/A

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.