

# Town of Duxbury Other Postemployment Benefits Plan

## GASB 74 & GASB 75 Actuarial Valuation

With a Valuation Date of July 1, 2019

As of the Measurement Date:  
June 30, 2020

For the Reporting Date:  
June 30, 2020

Delivered September 24, 2020



## TABLE OF CONTENTS

	<u>PAGE</u>
<u>EXECUTIVE SUMMARY</u>	I
<u>PRINCIPAL RESULTS OF THE VALUATION</u>	1
<u>EXHIBITS</u>	
A        FINANCIAL STATEMENT DISCLOSURES	4
B        REQUIRED SUPPLEMENTARY INFORMATION	16
<u>APPENDIX</u>	
I        LIABILITIES, ASSETS, & CASH FLOWS	22
II       PLAN PROVISIONS	31
III      ACTUARIAL METHODS & ASSUMPTIONS	33
IV      PLAN DEMOGRAPHICS	40
V      OVERVIEW OF GASB 74 & 75	42
<u>GLOSSARY</u>	44



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September 24, 2020

***Personal and Confidential***

Mr. John Adams  
Finance Director  
Town of Duxbury  
878 Tremont Street  
Duxbury, MA 02332

Dear Mr. Adams:

We have performed an actuarial valuation of the Town of Duxbury Other Postemployment Benefits Plan for the Reporting Date & fiscal year ending June 30, 2020 with a Measurement Date of June 30, 2020 and a Valuation Date of July 1, 2019. The figures presented in this report reflect the adoption, by the Town of Duxbury, 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 'P. Elmore', written over a light blue horizontal line.

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

September 24, 2020

ACTUARIAL CERTIFICATION

This is to certify that Odyssey Advisors has conducted an actuarial valuation of certain benefit obligations of the Town of Duxbury other postemployment benefit programs with a Valuation Date of July 1, 2019 with a Measurement Date of June 30, 2020 for the Reporting Date & fiscal year ending June 30, 2020 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 'P. Elmore', written over a light blue horizontal line.

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

A handwritten signature in black ink, appearing to read 'Andrew D. Taggart', written over a light blue horizontal line.

Andrew D. Taggart, ASA, MAAA  
Consulting Actuary

## EXECUTIVE SUMMARY

### How did plan liabilities change from FY 19 to FY 20?

#### Plan Experience

For the year ending on the Measurement Date of June 30, 2020, experience was largely in line with expectation, with an experience gain of \$681,729 or 1.92% of the beginning Total OPEB Liability ("TOL"). This was mainly due to the average Active plan premium increasing by 6% rather than the expected 9% increase and the average Medicare Supplement plan premiums increasing by 8% rather than the expected 9% 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 7.50% to 6.25% increasing the disclosed liability by \$6.2 million.
- ✓ Based on recommendations by PERAC, the mortality table has been updated from the RP-2014 Blue Collar Mortality with Scale MP-2015 to the RP-2014 Mortality Table projected generationally with scale MP-2016 for males and females decreasing the disclosed liability by \$690 thousand.
- ✓ The percentage of employees assumed to elect coverage in retirement has been updated increasing the disclosed liability by \$1.8 million.
- ✓ Assumption changes caused Service Cost to increase by \$330 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.

#### Investment Experience

- ✓ During the period there was an investment loss of \$98,575 due to asset performance below the expected rate of return.

#### Changes in Benefits Terms

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

## EXECUTIVE SUMMARY

### Recognition Period

- ✓ Changes in assumptions & plan experience are amortized into the net OPEB expense over 5.63 years.
- ✓ Differences between projected & actual earnings on OPEB plan investments are amortized into the net OPEB expense over 5.00 years
- ✓ Changes in benefit terms are to be recognized in full immediately

### Events Subsequent to the Measurement Date

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

### Discount Rate Determinants

- ✓ Employer Current and Future Benefit Payments
- ✓ Municipal Bond Rate – The municipal bond rate was 2.66% as of June 30, 2020.
- ✓ Current Asset Level – The Town had \$2,864,459 of OPEB assets as of June 30, 2020.
- ✓ Funding Policy - The Town is expected to contribute \$600,000 in Fiscal 2021 and \$300,000 thereafter until Fiscal 2029 and then \$1.8 Million annually thereafter.
- ✓ Investment Policy - The Town is expected to earn 6.70% on assets 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 supplement) plans - represent 67.62% of the total plan liabilities
- ✓ Age at which plan participants retire
- ✓ Percentage of plan participants who elect coverage for themselves and/or a spouse
- ✓ Medical care cost inflation rate - We currently assume medical costs increase at 4.50% per year for Active plans and 4.50% per year for Medicare supplement plans.
- ✓ Discount Rate (6.25%) – 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 three 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. If you are in this situation, we encourage you to talk to your healthcare consultant to see if this might be viable.

## 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, 2019	July 1, 2018
Measurement Date & Period Ending	June 30, 2020	June 30, 2019
Reporting Date/Fiscal Year End	June 30, 2020	June 30, 2019
Total OPEB Liability	43,778,129	35,481,007
Per Eligible Active Plan Participant	38,058	N/A
Per Retiree/Spouse Plan Participant	38,079	N/A
Total Annual Service Cost (Annual Benefit Accrual)	1,026,856	767,015
Per Eligible Active Plan Participant	1,694	1,274
Expected Employer Share of Retiree Costs	2,060,313	1,642,697
Per Retiree/Spouse Plan Participant	3,787	3,003
Net OPEB Liability as a % of Covered Payroll	86.00%	72.10%



## EXECUTIVE SUMMARY

### Liabilities & Benefit Payments in Today's Dollars

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

For the Period Ending on the Measurement Date of:	Number of Retirees, Spouses, & Surviving Spouses	Total OPEB Liability	Present Value at 3.00% of Total OPEB Liability	Employer Share of Premiums/Claims Including "Implicit Cost"	Present Value at 3.00% of Employer Share of Premiums / Claims Including "Implicit Cost"
June 30, 2020	544	43,778,129	43,778,129	2,060,313	2,060,313
June 30, 2025	638	52,124,045	44,962,659	2,456,271	2,118,801
June 30, 2030	657	61,633,482	45,861,099	3,099,225	2,306,114
June 30, 2035	656	71,323,583	45,779,894	3,880,415	2,490,691
June 30, 2040	622	82,234,739	45,531,381	4,369,096	2,419,063
June 30, 2045	592	95,985,367	45,843,146	5,167,057	2,467,815
June 30, 2050	569	113,335,433	46,692,698	5,860,433	2,414,421

## PRINCIPAL RESULTS OF THE VALUATION

### Town of Duxbury Assuming Funding - 6.25% discount rate Comparison of Plan Liabilities to Prior Valuation

Valuation Date	July 1, 2019	July 1, 2018
For the Measurement Period ending on the Measurement Date of:	June 30, 2020	June 30, 2019
For the Reporting Period & Fiscal Year ending on:	June 30, 2020	June 30, 2019
I. Total OPEB Liability		
A. Actives	23,063,342	N/A
B. Retirees/Disabled	<u>20,714,787</u>	<u>N/A</u>
C. Total	43,778,129	35,481,007
II. Fiduciary Net Position [Plan Assets]	2,864,459	2,776,977
III. Net OPEB Liability (Asset) [I. - II.]	40,913,670	32,704,030
IV. Funded Ratio [II. / I.]	6.54%	7.83%
V. Number of Eligible Participants		
A. Actives	606	602
B. Retirees/Disabled & Dependents	<u>544</u>	<u>547</u>
C. Total	1,150	1,149
VI. Service Cost	1,026,856	767,015
VII. Financial Statement Expense	1,584,969	(10,482)
VIII. Employer Contribution to the OPEB Trust	0	(300,000)
IX. Deferred Inflow of Resources	(10,543,551)	(13,105,112)
X. Deferred Outflow of Resources	6,123,423	0
XI. Money Weighted Rate of Return	3.15%	8.89%
XII. 20-year Municipal Bond Rate (SAPIHG)	2.66%	N/A
XIII. Expected Long Term Rate of Return (Net of Expense)	6.70%	7.50%
XIV. Crossover Year	2072	N/A
XV. Discount Rate	6.25%	7.50%

## PRINCIPAL RESULTS OF THE VALUATION

### Town of Duxbury Plan Liabilities as of the June 30, 2020 Measurement Date

	Town Employees and Retirees	School Employees and Retirees	Police Employees and Retirees	Fire Employees and Retirees	Dispatch Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Total
I. Total OPEB Liability							
A. Actives	3,002,667	16,349,084	1,764,968	1,481,427	140,679	324,517	23,063,342
B. Retirees/Disabled	<u>9,425,134</u>	<u>10,541,773</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>747,880</u>	<u>20,714,787</u>
C. Total	12,427,801	26,890,857	1,764,968	1,481,427	140,679	1,072,397	43,778,129
II. Fiduciary Net Position [Plan Assets]	836,342	1,809,648	118,775	99,694	0	0	2,864,459
III. Net OPEB Liability (Asset) [I. - II.]	11,591,459	25,081,209	1,646,193	1,381,733	140,679	1,072,397	40,913,670
IV. Number of Eligible Participants							
A. Actives	112	411	33	27	15	8	606
B. Retirees/Disabled	<u>254</u>	<u>287</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>544</u>
C. Total	366	698	33	27	15	11	1,150
<b>For the Reporting Date and Fiscal Year Ending June 30, 2020</b>							
V. Service Cost	160,614	689,002	75,364	69,335	20,223	12,318	1,026,856
VI. Financial Statement Expense	298,339	1,038,562	101,950	91,918	23,889	30,311	1,584,969
VII. Employer Share of Costs	(931,458)	(1,069,033)	(13,099)	(14,698)	0	(32,025)	(2,060,313)
VIII. Employer (Payments)/Withdrawals to/from OPEB Trust	0	0	0	0	0	0	0
IX. Total Employer Contribution [VII. + VIII.]	(931,458)	(1,069,033)	(13,099)	(14,698)	0	(32,025)	(2,060,313)

## PRINCIPAL RESULTS OF THE VALUATION

**Town of Duxbury**  
**Assuming Funding - 6.25% discount rate**  
**For the Period Ending on the June 30, 2020 Measurement Date**

	<b>Actives</b>			<b>Retirees/Disabled</b>			<b>Grand Total</b>
	Under Age 65	Age 65+	Actives Total	Under Age 65	Age 65 +	Retirees Total	
<b>Present Value of Future Benefits</b>							
A. Participants	9,672,518	10,017,690	19,690,208	2,205,629	11,658,355	13,863,984	33,554,192
B. Spouses	<u>5,215,955</u>	<u>7,014,672</u>	<u>12,230,627</u>	<u>1,221,469</u>	<u>5,629,334</u>	<u>6,850,803</u>	<u>19,081,430</u>
C. Total	14,888,473	17,032,362	31,920,835	3,427,098	17,287,689	20,714,787	52,635,622
<b>Total OPEB Liability</b>							
A. Participants	6,995,229	7,258,032	14,253,261	2,205,629	11,658,355	13,863,984	28,117,245
B. Spouses	<u>3,752,086</u>	<u>5,057,995</u>	<u>8,810,081</u>	<u>1,221,469</u>	<u>5,629,334</u>	<u>6,850,803</u>	<u>15,660,884</u>
C. Total	10,747,315	12,316,027	23,063,342	3,427,098	17,287,689	20,714,787	43,778,129
<b>Service Cost</b>							
A. Participants	296,347	336,432	632,779	0	0	0	632,779
B. Spouses	<u>158,095</u>	<u>235,982</u>	<u>394,077</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>394,077</u>
C. Total	454,442	572,414	1,026,856	0	0	0	1,026,856

## EXHIBIT A

### FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2020 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

<b>Components of the Town's OPEB Expenses for the Fiscal Year Ending June 30, 2020</b>	
<b>Description</b>	<b>Amount</b>
I. Service Cost	1,026,856
II. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	2,662,225
III. Deferred (Inflows)/Outflows from Plan Experience*	(426,920)
IV. Deferred (Inflows)/Outflows from Changes of Assumptions*	(1,500,738)
V. Projected Earnings on OPEB Plan Investments	(186,057)
VI. Deferred (Inflows)/Outflows from Earnings on Plan Investments**	9,603
VII. Financial Statement Expense Prior to Plan Design Changes [I. + II. + III. + IV. + V. + VI.]	1,584,969
VIII. Expense Related to Change in Benefit Terms***	0
IX. Financial Statement Expense [VII. + VIII.]	1,584,969

\* Amortized over 5.63 years

\*\* Amortized over 5.00 years

\*\*\* Recognized Immediately

## EXHIBIT A

### FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2020 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
<b>I. Balances for June 30, 2019</b>	35,481,007	2,776,977	32,704,030
<b>II. Prior Period Adjustment</b>	0	0	0
<b>III. Balances for June 30, 2019 with Adjustment [I. + II.]</b>	35,481,007	2,776,977	32,704,030
<b>Changes for the year:</b>			
IV. Service Cost	1,026,856	0	1,026,856
V. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	2,662,225	0	2,662,225
VI. Changes in Benefit Terms *	0	0	0
VII. Change in Assumptions **	7,350,083	0	7,350,083
VIII. Differences Between Actual and Expected Experience **	(681,729)	0	(681,729)
IX. Net Investment Income	0	87,482	(87,482)
X. Employer Contributions to Trust	0	2,060,313	(2,060,313)
XI. Benefit Payments Withdrawn from Trust	0	(2,060,313)	2,060,313
XII. Benefit Payments Excluding Implicit Cost	(1,556,612)	0	(1,556,612)
XIII. Implicit Cost Amount	(503,701)	0	(503,701)
XIV. Total Benefit Payments Including Implicit Cost [XII. + XIII.]	(2,060,313)	0	(2,060,313)
XV. Administrative Expense	0	0	0
XVI. Other Charges	0	0	0
<b>XVII. Net Changes [IV.+V.+VI.+VII.+VIII.+IX.+X.+XI.+XIV.+XV.+XVI.]</b>	8,297,122	87,482	8,209,640
<b>XVIII. Balances at June 30, 2020 [III.+XVII.]</b>	43,778,129	2,864,459	40,913,670

\* Recognized Immediately

\*\* Amortized over 5.63 years

## EXHIBIT A

### FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2020 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	2020	2021	2022	2023	2024	2025
2017									
2018	(1,896,167)	6.20	(978,670)	(305,832)	(305,832)	(305,832)	(305,832)	(61,174)	
2019	0	6.20	0	0	0	0	0	0	0
2020	(681,729)	5.63	(560,641)	(121,088)	(121,088)	(121,088)	(121,088)	(121,088)	(76,289)
2021									
2022									
2023									
2024									
2025									
2026									
Total Remaining Balance			(1,539,311)						
Net increase (decrease) in OPEB Expense				(426,920)	(426,920)	(426,920)	(426,920)	(182,262)	(76,289)

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	2020	2021	2022	2023	2024	2025
2017									
2018	(17,398,798)	6.20	(8,980,024)	(2,806,258)	(2,806,258)	(2,806,258)	(2,806,258)	(561,250)	
2019	0	6.20	0	0	0	0	0	0	0
2020	7,350,083	5.63	6,044,563	1,305,520	1,305,520	1,305,520	1,305,520	1,305,520	822,483
2021									
2022									
2023									
2024									
2025									
2026									
Total Remaining Balance			(2,935,461)						
Net increase (decrease) in OPEB Expense				(1,500,738)	(1,500,738)	(1,500,738)	(1,500,738)	744,270	822,483

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2020 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 Actual & Expected Earnings	Recognition Period (years)	Remaining Balance	2020	2021	2022	2023	2024	2025
2017									
2018	(30,595)	5.00	(12,238)	(6,119)	(6,119)	(6,119)			
2019	(19,964)	5.00	(11,978)	(3,993)	(3,993)	(3,993)	(3,992)		
2020	98,575	5.00	78,860	19,715	19,715	19,715	19,715	19,715	
2021									
2022									
2023									
2024									
2025									
2026									
Total Remaining Balance			54,644						
Net increase (decrease) in OPEB Expense				9,603	9,603	9,603	15,723	19,715	0



EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES  
(As of the June 30, 2020 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, 2020 to be Reported for the Fiscal Year Ending June 30, 2020			
	Deferred Outflows of Resources	Deferred Inflows of Resources	Total
I. Contributions made subsequent to the Measurement Date	0	0	0
II. Differences Between Actual & Expected Experience	0	(1,539,311)	(1,539,311)
III. Changes of Assumptions	6,044,563	(8,980,024)	(2,935,461)
IV. Net Difference Between Projected & Actual Earnings on OPEB Plan Investments	<u>78,860</u>	<u>(24,216)</u>	<u>54,644</u>
V. Total [I.+II.+III.+IV.]	6,123,423	(10,543,551)	(4,420,128)

## EXHIBIT A

### FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2020 Measurement Date)

#### 3. Changes in Net OPEB Expense (Continued)

##### **Annual Amortization of Deferred (Inflows)/Outflows**

The balance of deferred (inflows)/outflows as of June 30, 2020 will be recognized in future years as shown below.

##### **Year ending June 30:**

2021	(1,918,055)
2022	(1,918,055)
2023	(1,911,935)
2024	581,723
2025	746,194
Thereafter	0

#### 4. Discount Rate

The discount rate used to measure the Total OPEB liability was 6.25% as of June 30, 2020 and 7.50% as of June 30, 2019. The projection of cash flows used to determine the discount rate assumed that contributions will be made in accordance with the Town's funding policy. Based on these assumptions, the OPEB Plan's Fiduciary Net Position is projected to be insufficient to make all projected benefit payments to current plan members. Therefore, the long-term expected rate of return on the OPEB Plan assets is applied to the projected benefits payments which the Fiduciary Net Position is expected to be sufficient to cover and the Municipal Bond Rate is applied thereafter. The Municipal Bond Rate is based on the S&P Municipal Bond 20 - Year High Grade Index ("SAPIHG"), which was 2.66% as of June 30, 2020. The S&P Municipal Bond 20 - Year High Grade Index is the index rate for 20 year, tax exempt general obligation municipal bonds with an average rate of AA/Aa or higher.

## EXHIBIT A

### FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2020 Measurement Date)

#### 5. Funding Policy

The contribution requirements of plan members and the Town are established and may be amended through Town ordinances. For the period ending on the June 30, 2020 Measurement Date, total Town premiums plus implicit costs for the retiree medical program were \$2,060,313. The Town also contributed \$0 to an OPEB Trust for a total contribution during the measurement period of \$2,060,313 to be reported on the financial statement for the fiscal year ending June 30, 2020.

#### 6. Investment Policy

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

Investment Target Allocation & Expected Long-Term Real Rate of Return			
Asset Class	Target Allocation	Asset Class	Long-Term Expected Real Rate of Return*
Domestic Equity - Large Cap	50.00%	Domestic Equity - Large Cap	4.80%
Domestic Equity - Small/Mid Cap	6.00%	Domestic Equity - Small/Mid Cap	5.29%
International Equity - Developed Market	6.00%	International Equity - Developed Market	5.45%
International Equity-Emerging Market	3.00%	International Equity-Emerging Market	6.42%
Domestic Fixed Income	20.00%	Domestic Fixed Income	2.05%
International Fixed Income	2.00%	International Fixed Income	3.00%
Alternatives	8.50%	Alternatives	6.50%
Real Estate	3.00%	Real Estate	6.25%
Cash & Cash Equivalents	1.50%	Cash & Cash Equivalents	0.00%
Total	100.00%		
		I. Real Rate of Return**	4.45%
		II. Inflation Assumption	2.50%
		III. Total Nominal Return [I. + II.]	6.95%
		IV. Investment Expense	0.25%
		V. Net Investment Return [III.-IV.]	6.70%

\* Based on 2019 Horizon Survey of Capital Market Assumptions

\*\* Geometric Mean

## EXHIBIT A

### FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2020 Measurement Date)

#### 7. Schedule of The Town's Contributions

For the Fiscal Year Ending	Actuarial Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
June 30, 2020	3,899,586	(2,060,313)	1,839,273	47,569,693	4.33%
June 30, 2019	2,220,064	(1,942,697)	277,367	45,331,009	4.29%
June 30, 2018	2,220,064	(1,920,064)	300,000	43,798,076	4.38%
June 30, 2017	2,292,355	(1,992,355)	300,000	44,107,553	4.52%

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2020 Measurement Date)

8. Effect of 1% Change in Healthcare Trend

<u>Impact of a 1% Change in the Healthcare Trend Rate as of the June 30, 2020 Measurement Date</u>			
	<u>1% Decrease</u>	<u>Current Trend Rate</u>	<u>1% Increase</u>
I. Total OPEB Liability	38,418,293	43,778,129	50,394,745
II. Fiduciary Net Position	<u>2,864,459</u>	<u>2,864,459</u>	<u>2,864,459</u>
III. Net OPEB Liability (Asset) [I.-II.]	35,553,834	40,913,670	47,530,286
IV. Service Cost	819,155	1,026,856	1,305,584

9. Effect of 1% Change in Discount Rates

<u>Impact of a 1% Change in the Discount Rate as of the June 30, 2020 Measurement Date</u>			
	<u>1% Decrease</u>	<u>Current Discount Rate</u>	<u>1% Increase</u>
I. Total OPEB Liability	49,602,385	43,778,129	38,819,362
II. Fiduciary Net Position	<u>2,864,459</u>	<u>2,864,459</u>	<u>2,864,459</u>
III. Net OPEB Liability (Asset) [I.-II.]	46,737,926	40,913,670	35,954,903
IV. Service Cost	1,311,870	1,026,856	799,286

## EXHIBIT A

### FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2020 Measurement Date)

#### 10. Money Weighted Rate of Return

	Plan Investments / Net External Cash Flows	Periods Invested	Period Weight
I. Beginning value - June 30, 2019	2,776,977	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
<u>June</u>	<u>0</u>	0	0.0000
II. Total net external cash flow	0		
III. Earnings and increase in fair value	87,482		
IV. Ending value - June 30, 2020 [I.+II.+III.]	2,864,459		
Money Weighted Rate of Return	3.15%		
Asset Value - June 30, 2020	2,864,459		

**EXHIBIT A**  
**FINANCIAL STATEMENT DISCLOSURES**  
(As of the June 30, 2020 Measurement Date)

**11. OPEB Liability, OPEB Expense**

	Fiscal Year Ending June 30, 2020						
	Town Employees and Retirees	School Employees and Retirees	Police Employees and Retirees	Fire Employees and Retirees	Dispatch Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Total
I. Total OPEB Liability as of June 30, 2020	12,427,801	26,890,857	1,764,968	1,481,427	140,679	1,072,397	43,778,129
II. Fiduciary Net Position as of June 30, 2020	836,342	1,809,648	118,775	99,694	0	0	2,864,459
III. Net OPEB Liability (Asset) as of June 30, 2020 [I. - II.]	11,591,459	25,081,209	1,646,193	1,381,733	140,679	1,072,397	40,913,670
IV. Service Cost	160,614	689,002	75,364	69,335	20,223	12,318	1,026,856
V. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	736,704	1,645,075	111,653	93,985	9,830	64,978	2,662,225
VI. Projected Earnings on OPEB Plan Investments	(54,479)	(117,344)	(7,738)	(6,496)	0	0	(186,057)
VII. Net Recognition of Deferred (Inflows)/Outflows	(544,500)	(1,178,171)	(77,329)	(64,906)	(6,164)	(46,985)	(1,918,055)
VIII. Expense Related to Change in Benefit Terms	0	0	0	0	0	0	0
IX. Financial Statement Expense [IV. + V. + VII. + VIII.]	298,339	1,038,562	101,950	91,918	23,889	30,311	1,584,969
X. Employer Share of Costs	(931,458)	(1,069,033)	(13,099)	(14,698)	0	(32,025)	(2,060,313)
XI. Employer (Payments) Withdrawals to/from OPEB Trust	0	0	0	0	0	0	0
XII. Total Employer Contribution [X. + XI.]	(931,458)	(1,069,033)	(13,099)	(14,698)	0	(32,025)	(2,060,313)
XIII. Net OPEB Expense [IX. + XII.]	(633,119)	(30,471)	88,851	77,220	23,889	(1,714)	(475,344)

  

	Fiscal Year Ending June 30, 2021						
	Town Employees and Retirees	School Employees and Retirees	Police Employees and Retirees	Fire Employees and Retirees	Dispatch Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Total
I. Total OPEB Liability as of June 30, 2021	12,383,376	28,185,888	1,944,387	1,634,761	171,784	1,118,686	45,438,882
II. Fiduciary Net Position as of June 30, 2021	1,061,283	2,315,342	153,254	128,671	2,343	15,259	3,676,152
III. Net OPEB Liability (Asset) as of June 30, 2021 [I. - II.]	11,322,093	25,870,546	1,791,133	1,506,090	169,441	1,103,427	41,762,730
IV. Service Cost	166,781	715,462	78,258	71,998	21,000	12,791	1,066,290
V. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	757,353	1,691,183	114,782	96,619	10,105	66,799	2,736,841
VI. Projected Earnings on OPEB plan investments	(61,424)	(133,512)	(8,804)	(7,391)	(75)	(487)	(211,693)
VII. Net Recognition of Deferred (Inflows)/Outflows	(522,724)	(1,189,776)	(82,076)	(69,006)	(7,251)	(47,222)	(1,918,055)
VIII. Expense Related to Change in Benefit Terms	0	0	0	0	0	0	0
IX. Financial Statement Expense [IV. + V. + VI. + VII. + VIII.]	339,986	1,083,357	102,160	92,220	23,779	31,881	1,673,383
X. Employer Share of Costs	(968,559)	(1,111,614)	(13,621)	(15,283)	0	(33,301)	(2,142,378)
XI. Employer (Payments) Withdrawals to/from OPEB Trust	(163,517)	(372,182)	(25,675)	(21,586)	(2,268)	(14,772)	(600,000)
XII. Total Employer Contribution [X. + XI.]	(1,132,076)	(1,483,796)	(39,296)	(36,869)	(2,268)	(48,073)	(2,742,378)
XIII. Net OPEB Expense [IX. + XII.]	(792,090)	(400,439)	62,864	55,351	21,511	(16,192)	(1,068,995)

## EXHIBIT A

### FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2020 Measurement Date)

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

Valuation Date	July 1, 2019
For the Measurement Period ending on the Measurement Date of:	June 30, 2020
For the Reporting Period & Fiscal Year ending on:	June 30, 2020
<b>Source of Deferred Inflow/Outflow</b>	
I. Deferred (Inflow)/Outflow from Actual vs. Expected Experience	(1,539,311)
II. Deferred (Inflow)/Outflow from Investment Experience	54,644
III. Deferred (Inflow)/Outflow from Changes in Assumptions	(2,935,461)
<b>Change in Deferred Inflow/Outflow</b>	
I. Deferred Outflow at the beginning of the period	0
II. Deferred Outflow created during the period	7,448,658
III. Deferred Outflow recognized during the period	1,325,235
IV. Change in Deferred Outflow (II. - III. )	6,123,423
V. Deferred Outflow at end of the period (I. + IV. )	6,123,423
VI. Deferred Inflow at the beginning of the period	(13,105,112)
VII. Deferred Inflow created during the period	(681,729)
VIII. Deferred Inflow recognized during the period	(3,243,290)
IX. Change in Deferred Inflow (VII. - VIII. )	2,561,561
X. Deferred Inflow at end of the period (VI. + IX. )	(10,543,551)
<b>Net OPEB Liability</b>	
I. Net OPEB Liability at beginning of period	32,704,030
II. Service Cost	1,026,856
III. Interest on Total OPEB Liability, Service Cost, and Payments	2,662,225
IV. Projected Investment Income	(186,057)
V. Total Employer Contributions	(2,060,313)
VI. Expense Related to Change in Benefit Terms	0
VII. Net OPEB Expense - Before Recognition of Deferred (Inflow)/Outflow (II. + III. + IV. + V. + VI. )	1,442,711
VIII. Deferred Outflow created during the period	7,448,658
IX. Deferred Inflow created during the period	(681,729)
X. Net OPEB Liability at end of period (I. + VII. + VIII. + IX. )	40,913,670
<b>Net OPEB Expense</b>	
I. Service Cost	1,026,856
II. Interest on Total OPEB Liability, Service Cost, and Payments	2,662,225
III. Projected Investment Income	(186,057)
IV. Recognition of Deferred (Inflow)/Outflow	(1,918,055)
V. Expense Related to Change in Benefit Terms	0
VI. Financial Statement Expense (I. + II. + III. + IV. + V. )	1,584,969
VII. Benefit Payments	(2,060,313)
VIII. Contributions to Trust	0
IX. Total Employer Payments (VII. + VIII. )	(2,060,313)
X. Total Net OPEB Expense under GASB 75 (VI. + IX. )	(475,344)



## EXHIBIT B

### REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2020 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:

<b>Actuarially Determined Contribution - Deficiency / (Excess)</b>				
	<u>June 30, 2020</u>	<u>June 30, 2019</u>	<u>For the Fiscal Year Ending:</u> <u>June 30, 2018</u>	<u>June 30, 2017</u>
I. Service Cost	1,026,856	767,015	733,986	1,574,616
II. 30 Year Level Dollar Amortization of NOL	<u>2,872,730</u>	<u>1,453,049</u>	<u>1,486,078</u>	<u>717,739</u>
III. Actuarial Determined Contribution [I. + II.]	3,899,586	2,220,064	2,220,064	2,292,355
IV. Contributions in Relation to the Actuarially Determined Contribution	<u>(2,060,313)</u>	<u>(1,942,697)</u>	<u>(1,920,064)</u>	<u>(1,992,355)</u>
V. Contribution Deficiency / (Excess) [III. + IV.]	<u>1,839,273</u>	<u>277,367</u>	<u>300,000</u>	<u>300,000</u>
Covered Employee Payroll	47,569,693	45,331,009	43,798,076	44,107,553
Contributions as a % of Covered Employee Payroll	4.33%	4.29%	4.38%	4.52%
Discount Rate	6.25%	7.50%	7.50%	6.00%
Money Weighted Rate of Return	3.15%	8.89%	6.30%	5.93%

## EXHIBIT B

### REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2020 Measurement Date)

<b>Schedule of Changes in the Town's Net OPEB Liability and Related Ratios</b>				
<b>Valuation Date</b>	<b>July 1, 2019</b>	<b>July 1, 2018</b>	<b>July 1, 2018</b>	<b>July 1, 2016</b>
<b>GASB 75 Measurement Date</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>	<b>June 30, 2017</b>
<b>For the Reporting Period &amp; Fiscal Year Ending on:</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>	<b>June 30, 2017</b>
<b>Total OPEB Liability</b>	43,778,129	35,481,007	33,801,101	51,784,190
I. Service Cost	1,026,856	767,015	733,986	1,574,616
II. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	2,662,225	2,555,588	2,197,954	2,145,961
III. Changes in Benefit Terms	0	0	0	0
IV. Difference Between Expected & Actual Plan Experience	(681,729)	0	(1,896,167)	0
V. Changes of Assumptions	7,350,083	0	(17,398,798)	0
VI. Benefit Payments Excluding Implicit Cost	(1,556,612)	N/A	N/A	N/A
VII. Implicit Cost Amount	(503,701)	N/A	N/A	N/A
VIII. Total Benefit Payments Including Implicit Cost [VI.+VII.]	(2,060,313)	(1,642,697)	(1,620,064)	(1,692,355)
IX. Net Change in OPEB Liability [I.+II.+III.+IV.+V.+VIII.]	8,297,122	1,679,906	(17,983,089)	2,028,222
X. Total OPEB Liability - Beginning of Period	35,481,007	33,801,101	51,784,190	49,755,968
XI. Prior Period Adjustment	0	0	0	0
XII. Total OPEB Liability - Beginning of Period with Adjustment	35,481,007	33,801,101	51,784,190	49,755,968
XIII. Total OPEB Liability - End of Period [IX.+XII.]	43,778,129	35,481,007	33,801,101	51,784,190
<b>Plan Fiduciary Net Position</b>	2,864,459	2,776,977	2,268,765	1,847,698
XIV. Earning from Plan Investments	87,482	208,212	121,067	90,773
XV. Employer Contribution to Trust	2,060,313	1,942,697	1,920,064	1,992,355
XVI. Benefit Payments from Trust, Including Refunds of Member Contributions	(2,060,313)	(1,642,697)	(1,620,064)	(1,692,355)
XVII. Administrative Expense	0	0	0	0
XVIII. Other	0	0	0	0
XIX. Net Change in Plan Fiduciary Net Position [XIV.+XV.+XVI.+XVII.+XVIII.]	87,482	508,212	421,067	390,773
XX. Plan Fiduciary Net Position - Beginning of Period	2,776,977	2,268,765	1,847,698	1,456,925
XXI. Prior Period Adjustment	0	0	0	0
XXII. Plan Fiduciary Net Position - Beginning of Period with Adjustment	2,776,977	2,268,765	1,847,698	1,456,925
XXIII. Plan Fiduciary Net Position - End of Period [XIX.+XXII.]	2,864,459	2,776,977	2,268,765	1,847,698
XXIV. Net OPEB Liability [XIII.-XXIII.]	40,913,670	32,704,030	31,532,336	49,936,492
XXV. Plan Fiduciary Net Position as % of Total OPEB Liability [XXIII. / XIII.]	6.54%	7.83%	6.71%	3.57%
XXVI. Covered Employee Payroll	47,569,693	45,331,009	43,798,076	44,107,553
XXVII. Plan NOL as % of Covered Employee Payroll [XXIV. / XXVI.]	86.01%	72.14%	71.99%	113.22%
Single Discount Rate to calculate Plan Liabilities	6.25%	7.50%	7.50%	6.00%

EXHIBIT BREQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2020 Measurement Date)

Notes to Required Supplementary Information:

Valuation Date:	Actuarially Determined Contribution was calculated as of July 1, 2019.
Actuarial Cost Method:	Individual Entry Age Normal
Asset-Valuation Method:	Market Value of Assets as of the Measurement Date, June 30, 2020.

Actuarial Assumptions:

Investment Rate of Return:	6.70%, net of OPEB plan investment expense, including inflation.
Municipal Bond Rate	2.66% as of June 30, 2020 (source: S&P Municipal Bond 20-Year High Grade Index – SAPIHG)
Single Equivalent Discount Rate:	6.25%, net of OPEB plan investment expense, including inflation.
Inflation:	2.50% as of June 30, 2020 and for future periods
Salary Increases:	3.00% annually as of June 30, 2020 and for future periods
Cost of Living Adjustment:	Not Applicable

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2020 Measurement Date)

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

EXHIBIT BREQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2020 Measurement Date)

Plan Membership

At July 1, 2019, OPEB plan membership consisted of the following:

Inactive employees or beneficiaries currently receiving benefits:	544
Active Employees:	<u>606</u>
Total:	1,150

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, 2019 to June 30, 2020

- ✓ Due to the GASB 75 standards the discount rate has been changed from 7.50% to 6.25%
- ✓ Based on recommendations by PERAC, the mortality table has been updated from the RP-2014 Blue Collar Mortality with Scale MP-2015 to the RP-2014 Mortality Table projected generationally with scale MP-2016 for males and females
- ✓ The percentage of employees assumed to elect coverage in retirement has been 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, 2020 Measurement Date. For the year ending on the June 30, 2020 Measurement Date total Town premiums plus implicit costs for the retiree medical program were \$2,060,313. \$503,701 of the \$2,060,313 represents implicit cost.

EXHIBIT BREQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2020 Measurement Date)

Census Data Manipulation:

In the absence of data, the following was assumed:

Spouse Sex:	Male participants had female spouses and vice versa.
Spouse Age:	Male spouses were three years older than female spouses and same sex spouses were the same age.
Hire Age:	Participants who were not on the previous valuation were hired halfway between last valuation and the current valuation. If we did not have census data related to the last valuation, the participants were assumed to have been hired at age forty.
Retiree Age:	Retirees had the same birth date as they had the prior valuation. If we did not have census data related to the last valuation, retirees who were enrolled in Active plans were assumed to be age sixty-two and retirees who were enrolled in Medicare Supplement plans were assumed to be age seventy-two. Those not enrolled in a medical plan were assumed to be sixty-seven.
School Demographics:	Two thirds of school participants were teachers.
Other Material Changes:	No other data changes were deemed to be material.

## APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

### CURRENT FUNDING POLICY (OPEN GROUP)

#### Funding - 6.25% 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 6.70% return	III. Net OPEB Liability (Asset) [I. - II.]	IV. Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Benefit Payments (With Implicit Cost)	VII. Trust Contributions Beyond Pay-as-you-go	VIII. Gross Trust Contributions [VI. + VII.]	IX. Benefit Payments Reimbursed from the Trust	X. Administrative & Investment Expenses Reimbursed from the Trust	XI. Total Employer Payments Less Reimbursements [VIII. - IX. - X.]
2020	June 30, 2020	43,778,129	2,864,459	40,913,670	6.54%	1,026,856	2,060,313	0	2,060,313	2,060,313	0	0
2021	June 30, 2021	45,438,882	3,676,152	41,762,730	8.09%	1,066,290	2,142,378	600,000	2,742,378	2,142,378	0	600,000
2022	June 30, 2022	46,914,902	4,232,341	42,682,561	9.02%	1,103,966	2,256,002	300,000	2,556,002	2,256,002	0	300,000
2023	June 30, 2023	48,572,831	4,825,795	43,747,036	9.94%	1,140,414	2,306,060	300,000	2,606,060	2,306,060	0	300,000
2024	June 30, 2024	50,325,983	5,459,010	44,866,973	10.85%	1,182,333	2,347,066	300,000	2,647,066	2,347,066	0	300,000
2025	June 30, 2025	52,124,045	6,134,651	45,989,394	11.77%	1,226,881	2,456,271	300,000	2,756,271	2,456,271	0	300,000
2026	June 30, 2026	53,942,089	6,855,560	47,086,529	12.71%	1,272,304	2,595,684	300,000	2,895,684	2,595,684	0	300,000
2027	June 30, 2027	55,798,449	7,624,770	48,173,679	13.66%	1,320,466	2,709,777	300,000	3,009,777	2,709,777	0	300,000
2028	June 30, 2028	57,708,775	8,445,517	49,263,258	14.63%	1,364,238	2,793,973	300,000	3,093,973	2,793,973	0	300,000
2029	June 30, 2029	59,673,858	9,321,254	50,352,604	15.62%	1,411,443	2,925,685	300,000	3,225,685	2,925,685	0	300,000
2030	June 30, 2030	61,633,482	11,805,100	49,828,382	19.15%	1,466,137	3,099,225	1,800,000	4,899,225	3,099,225	0	1,800,000
2031	June 30, 2031	63,647,002	14,455,364	49,191,638	22.71%	1,511,998	3,192,307	1,800,000	4,992,307	3,192,307	0	1,800,000
2032	June 30, 2032	65,537,579	17,283,196	48,254,383	26.37%	1,567,663	3,355,619	1,800,000	5,155,619	3,355,619	0	1,800,000
2033	June 30, 2033	67,431,108	20,300,493	47,130,615	30.11%	1,618,936	3,579,530	1,800,000	5,379,530	3,579,530	0	1,800,000
2034	June 30, 2034	69,378,399	23,519,948	45,858,451	33.90%	1,679,635	3,707,080	1,800,000	5,507,080	3,707,080	0	1,800,000
2035	June 30, 2035	71,323,583	26,955,107	44,368,476	37.79%	1,739,363	3,880,415	1,800,000	5,680,415	3,880,415	0	1,800,000
2036	June 30, 2036	73,226,025	30,620,422	42,605,603	41.82%	1,801,959	4,063,153	1,800,000	5,863,153	4,063,153	0	1,800,000
2037	June 30, 2037	75,344,356	34,531,313	40,813,043	45.83%	1,868,301	4,108,501	1,800,000	5,908,501	4,108,501	0	1,800,000
2038	June 30, 2038	77,486,422	38,704,233	38,782,189	49.95%	1,940,131	4,193,485	1,800,000	5,993,485	4,193,485	0	1,800,000
2039	June 30, 2039	79,722,813	43,156,739	36,566,074	54.13%	2,010,256	4,349,854	1,800,000	6,149,854	4,349,854	0	1,800,000
2040	June 30, 2040	82,234,739	47,907,563	34,327,176	58.26%	2,089,612	4,369,096	1,800,000	6,169,096	4,369,096	0	1,800,000
2041	June 30, 2041	84,835,051	52,976,692	31,858,359	62.45%	2,167,540	4,374,382	1,800,000	6,174,382	4,374,382	0	1,800,000
2042	June 30, 2042	87,413,999	58,385,453	29,028,546	66.79%	2,254,187	4,553,472	1,800,000	6,353,472	4,553,472	0	1,800,000
2043	June 30, 2043	90,358,203	64,156,601	26,201,602	71.00%	2,345,854	4,651,557	1,800,000	6,451,557	4,651,557	0	1,800,000
2044	June 30, 2044	93,195,615	70,314,416	22,881,199	75.45%	2,446,763	4,865,917	1,800,000	6,665,917	4,865,917	0	1,800,000
2045	June 30, 2045	95,985,367	76,884,804	19,100,563	80.10%	2,548,339	5,167,057	1,800,000	6,967,057	5,167,057	0	1,800,000
2046	June 30, 2046	99,063,185	83,895,408	15,167,777	84.69%	2,655,842	5,292,746	1,800,000	7,092,746	5,292,746	0	1,800,000
2047	June 30, 2047	102,227,935	91,375,723	10,852,212	89.38%	2,776,166	5,516,605	1,800,000	7,316,605	5,516,605	0	1,800,000
2048	June 30, 2048	105,648,054	99,357,219	6,290,835	94.05%	2,897,294	5,688,676	1,800,000	7,488,676	5,688,676	0	1,800,000
2049	June 30, 2049	109,395,299	107,873,475	1,521,824	98.61%	3,028,093	5,726,376	1,800,000	7,526,376	5,726,376	0	1,800,000
2050	June 30, 2050	113,335,433	116,960,320	(3,624,887)	103.20%	3,164,998	5,860,433	1,800,000	7,660,433	5,860,433	0	1,800,000
2051	June 30, 2051	117,482,802	122,027,491	(4,544,689)	103.87%	3,302,284	5,983,103	(2,680,819)	3,302,284	5,983,103	0	(2,680,819)

## APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

### SAMPLE FUNDING SCHEDULE - DISPATCH

#### Sample Dispatch Funding Schedule - 6.25% 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 6.70% return	III. Net OPEB Liability (Asset) [I. - II.]	IV. Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Benefit Payments (With Implicit Cost)	VII. Trust Contributions Beyond Pay-as-you-go	VIII. Gross Trust Contributions [VI. + VII.]	IX. Benefit Payments Reimbursed from the Trust	X. Administrative & Investment Expenses Reimbursed from the Trust	XI. Total Employer Payments Less Reimbursements [VIII. - IX. - X.]
2020	June 30, 2020	140,679	0	140,679	0.00%	20,223	0	0	0	0	0	0
2021	June 30, 2021	171,784	28,923	142,861	16.84%	21,000	0	28,000	28,000	0	0	28,000
2022	June 30, 2022	204,833	60,651	144,182	29.61%	21,742	0	28,840	28,840	0	0	28,840
2023	June 30, 2023	240,736	95,399	145,337	39.63%	22,459	0	29,705	29,705	0	0	29,705
2024	June 30, 2024	279,645	133,395	146,250	47.70%	23,285	0	30,596	30,596	0	0	30,596
2025	June 30, 2025	321,863	174,885	146,978	54.34%	24,162	0	31,514	31,514	0	0	31,514
2026	June 30, 2026	367,652	220,131	147,521	59.87%	25,057	0	32,459	32,459	0	0	32,459
2027	June 30, 2027	417,253	269,415	147,838	64.57%	26,005	0	33,433	33,433	0	0	33,433
2028	June 30, 2028	470,962	323,037	147,925	68.59%	26,867	0	34,436	34,436	0	0	34,436
2029	June 30, 2029	528,943	381,318	147,625	72.09%	27,797	0	35,469	35,469	0	0	35,469
2030	June 30, 2030	591,536	444,603	146,933	75.16%	28,874	0	36,533	36,533	0	0	36,533
2031	June 30, 2031	659,186	513,261	145,925	77.86%	29,777	0	37,629	37,629	0	0	37,629
2032	June 30, 2032	732,023	587,685	144,338	80.28%	30,874	0	38,758	38,758	0	0	38,758
2033	June 30, 2033	810,578	668,297	142,281	82.45%	31,883	0	39,921	39,921	0	0	39,921
2034	June 30, 2034	895,115	755,547	139,568	84.41%	33,079	0	41,119	41,119	0	0	41,119
2035	June 30, 2035	986,206	849,917	136,289	86.18%	34,255	0	42,353	42,353	0	0	42,353
2036	June 30, 2036	1,084,240	951,923	132,317	87.80%	35,488	0	43,624	43,624	0	0	43,624
2037	June 30, 2037	1,189,711	1,062,116	127,595	89.28%	36,794	0	44,933	44,933	0	0	44,933
2038	June 30, 2038	1,303,162	1,181,084	122,078	90.63%	38,209	0	46,281	46,281	0	0	46,281
2039	June 30, 2039	1,425,207	1,309,457	115,750	91.88%	39,590	0	47,669	47,669	0	0	47,669
2040	June 30, 2040	1,556,347	1,447,908	108,439	93.03%	41,153	0	49,099	49,099	0	0	49,099
2041	June 30, 2041	1,697,344	1,597,157	100,187	94.10%	42,688	0	50,572	50,572	0	0	50,572
2042	June 30, 2042	1,848,784	1,757,972	90,812	95.09%	44,394	0	52,089	52,089	0	0	52,089
2043	June 30, 2043	2,011,502	1,931,176	80,326	96.01%	46,199	0	53,652	53,652	0	0	53,652
2044	June 30, 2044	2,186,307	2,117,648	68,659	96.86%	48,187	0	55,262	55,262	0	0	55,262
2045	June 30, 2045	2,374,150	2,318,326	55,824	97.65%	50,187	0	56,920	56,920	0	0	56,920
2046	June 30, 2046	2,575,858	2,534,214	41,644	98.38%	52,304	0	58,628	58,628	0	0	58,628
2047	June 30, 2047	2,792,422	2,766,384	26,038	99.07%	54,674	0	60,387	60,387	0	0	60,387
2048	June 30, 2048	3,025,040	3,015,981	9,059	99.70%	57,060	0	62,199	62,199	0	0	62,199
2049	June 30, 2049	3,274,731	3,284,228	(9,497)	100.29%	59,636	0	64,065	64,065	0	0	64,065



## APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

### SAMPLE FUNDING SCHEDULE - WATER

#### Sample Water Funding Schedule - 6.25% 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 6.70% return	III. Net OPEB Liability (Asset) [I. - II.]	IV. Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Benefit Payments (With Implicit Cost)	VII. Trust Contributions Beyond Pay-as-you-go	VIII. Gross Trust Contributions [VI. + VII.]	IX. Benefit Payments Reimbursed from the Trust	X. Administrative & Investment Expenses Reimbursed from the Trust	XI. Total Employer Payments Less Reimbursements [VIII. - IX. - X.]
2020	June 30, 2020	1,072,397	0	1,072,397	0.00%	12,318	32,025	0	32,025	32,025	0	0
2021	June 30, 2021	1,118,686	45,450	1,073,236	4.06%	12,791	33,301	44,000	77,301	33,301	0	44,000
2022	June 30, 2022	1,167,868	93,945	1,073,923	8.04%	21,742	44,430	44,000	88,430	44,430	0	44,000
2023	June 30, 2023	1,218,163	145,689	1,072,474	11.96%	22,459	45,416	44,000	89,416	45,416	0	44,000
2024	June 30, 2024	1,271,347	200,900	1,070,447	15.80%	23,285	46,223	44,000	90,223	46,223	0	44,000
2025	June 30, 2025	1,327,901	259,810	1,068,091	19.57%	24,162	48,374	44,000	92,374	48,374	0	44,000
2026	June 30, 2026	1,386,704	322,667	1,064,037	23.27%	25,057	51,120	44,000	95,120	51,120	0	44,000
2027	June 30, 2027	1,447,303	389,736	1,057,567	26.93%	26,005	53,367	44,000	97,367	53,367	0	44,000
2028	June 30, 2028	1,510,380	461,298	1,049,082	30.54%	26,867	55,025	44,000	99,025	55,025	0	44,000
2029	June 30, 2029	1,576,606	537,655	1,038,951	34.10%	27,797	57,619	44,000	101,619	57,619	0	44,000
2030	June 30, 2030	1,645,286	619,128	1,026,158	37.63%	28,874	61,036	44,000	105,036	61,036	0	44,000
2031	June 30, 2031	1,715,881	706,060	1,009,821	41.15%	29,777	62,870	44,000	106,870	62,870	0	44,000
2032	June 30, 2032	1,789,957	798,816	991,141	44.63%	30,874	66,086	44,000	110,086	66,086	0	44,000
2033	June 30, 2033	1,866,513	897,787	968,726	48.10%	31,883	70,496	44,000	114,496	70,496	0	44,000
2034	June 30, 2034	1,944,380	1,003,389	940,991	51.60%	33,079	73,008	44,000	117,008	73,008	0	44,000
2035	June 30, 2035	2,025,795	1,116,066	909,729	55.09%	34,255	76,421	44,000	120,421	76,421	0	44,000
2036	June 30, 2036	2,110,030	1,236,293	873,737	58.59%	35,488	80,020	44,000	124,020	80,020	0	44,000
2037	June 30, 2037	2,197,130	1,364,575	832,555	62.11%	36,794	80,913	44,000	124,913	80,913	0	44,000
2038	June 30, 2038	2,290,141	1,501,452	788,689	65.56%	38,209	82,587	44,000	126,587	82,587	0	44,000
2039	June 30, 2039	2,388,743	1,647,499	741,244	68.97%	39,590	85,666	44,000	129,666	85,666	0	44,000
2040	June 30, 2040	2,491,801	1,803,332	688,469	72.37%	41,153	86,045	44,000	130,045	86,045	0	44,000
2041	June 30, 2041	2,602,570	1,969,605	632,965	75.68%	42,688	86,149	44,000	130,149	86,149	0	44,000
2042	June 30, 2042	2,721,786	2,147,019	574,767	78.88%	44,394	89,677	44,000	133,677	89,677	0	44,000
2043	June 30, 2043	2,846,629	2,336,319	510,310	82.07%	46,199	91,608	44,000	135,608	91,608	0	44,000
2044	June 30, 2044	2,979,202	2,538,302	440,900	85.20%	48,187	95,830	44,000	139,830	95,830	0	44,000
2045	June 30, 2045	3,117,822	2,753,818	364,004	88.33%	50,187	101,761	44,000	145,761	101,761	0	44,000
2046	June 30, 2046	3,261,117	2,983,774	277,343	91.50%	52,304	104,236	44,000	148,236	104,236	0	44,000
2047	June 30, 2047	3,413,066	3,229,137	183,929	94.61%	54,674	108,645	44,000	152,645	108,645	0	44,000
2048	June 30, 2048	3,572,485	3,490,939	81,546	97.72%	57,060	112,033	44,000	156,033	112,033	0	44,000
2049	June 30, 2049	3,740,911	3,770,282	(29,371)	100.79%	59,636	112,776	44,000	156,776	112,776	0	44,000

## APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

### CONTRIBUTION PROJECTION DISCLOSURES

**Table 1: Projection of Contributions using a July 1, 2019 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, 2020	47,569,693	0	47,569,693	0	2,060,313	0	2,060,313
June 30, 2021	44,720,364	4,276,420	48,996,784	0	2,142,378	0	2,142,378
June 30, 2022	42,301,136	8,165,552	50,466,688	0	2,256,002	0	2,256,002
June 30, 2023	40,172,147	11,808,542	51,980,689	0	2,306,060	0	2,306,060
June 30, 2024	38,130,083	15,410,027	53,540,110	0	2,347,066	0	2,347,066
June 30, 2025	36,321,531	18,824,782	55,146,313	0	2,456,271	0	2,456,271
June 30, 2026	34,638,023	22,162,679	56,800,702	0	2,595,684	0	2,595,684
June 30, 2027	33,141,901	25,362,822	58,504,723	0	2,709,777	0	2,709,777
June 30, 2028	31,510,530	28,749,335	60,259,865	0	2,793,973	0	2,793,973
June 30, 2029	29,860,147	32,207,514	62,067,661	0	2,925,685	0	2,925,685
June 30, 2030	28,585,470	35,344,221	63,929,691	0	3,099,225	0	3,099,225
June 30, 2031	27,278,469	38,569,113	65,847,582	0	3,178,413	13,894	3,192,307
June 30, 2032	26,126,957	41,696,052	67,823,009	0	3,320,300	35,319	3,355,619
June 30, 2033	24,866,931	44,990,768	69,857,699	0	3,514,172	65,358	3,579,530
June 30, 2034	23,805,762	48,147,668	71,953,430	0	3,598,644	108,436	3,707,080
June 30, 2035	22,744,173	51,367,860	74,112,033	0	3,717,269	163,146	3,880,415
June 30, 2036	21,668,487	54,666,907	76,335,394	0	3,861,053	202,100	4,063,153
June 30, 2037	20,657,599	57,967,857	78,625,456	0	3,859,482	249,019	4,108,501
June 30, 2038	19,732,369	61,251,851	80,984,220	0	3,890,810	302,675	4,193,485
June 30, 2039	18,670,146	64,743,601	83,413,747	0	4,006,024	343,830	4,349,854
June 30, 2040	17,752,709	68,163,450	85,916,159	0	3,979,746	389,350	4,369,096
June 30, 2041	16,769,506	71,724,138	88,493,644	0	3,918,110	456,272	4,374,382
June 30, 2042	15,797,261	75,351,192	91,148,453	0	4,009,506	543,966	4,553,472
June 30, 2043	14,837,646	79,045,261	93,882,907	0	4,000,101	651,456	4,651,557
June 30, 2044	13,983,881	82,715,513	96,699,394	0	4,078,171	787,746	4,865,917
June 30, 2045	13,031,401	86,568,975	99,600,376	0	4,217,357	949,700	5,167,057
June 30, 2046	11,996,649	90,591,738	102,588,387	0	4,210,127	1,082,619	5,292,746
June 30, 2047	11,096,971	94,569,068	105,666,039	0	4,283,795	1,232,810	5,516,605
June 30, 2048	10,170,163	98,665,857	108,836,020	0	4,288,621	1,400,055	5,688,676
June 30, 2049	9,325,832	102,775,269	112,101,101	0	4,184,430	1,541,946	5,726,376
June 30, 2050	8,506,849	106,957,285	115,464,134	0	4,165,145	1,695,288	5,860,433
June 30, 2051	7,555,257	111,372,801	118,928,058	0	4,106,311	1,876,792	5,983,103
June 30, 2052	6,601,247	115,894,653	122,495,900	0	3,943,734	2,079,481	6,023,215
June 30, 2053	5,718,123	120,452,654	126,170,777	0	3,863,500	2,303,140	6,166,640
June 30, 2054	4,832,328	125,123,572	129,955,900	0	3,724,531	2,553,638	6,278,169
June 30, 2055	4,109,173	129,745,404	133,854,577	0	3,622,238	2,829,597	6,451,835
June 30, 2056	3,394,700	134,475,514	137,870,214	0	3,579,322	3,093,314	6,672,636
June 30, 2057	2,713,486	139,292,834	142,006,320	0	3,552,535	3,375,017	6,927,552
June 30, 2058	2,190,854	144,075,656	146,266,510	0	3,422,322	3,676,887	7,099,209
June 30, 2059	1,583,310	149,071,195	150,654,505	0	3,272,845	3,979,582	7,252,427

## APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

### CONTRIBUTION PROJECTION DISCLOSURES (CONTINUED)

**Table 1: Projection of Contributions using a July 1, 2019 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, 2060	1,137,764	154,036,376	155,174,140	0	3,212,539	4,299,478	7,512,017
June 30, 2061	833,080	158,996,284	159,829,364	0	3,099,456	4,650,606	7,750,062
June 30, 2062	641,969	163,982,276	164,624,245	0	3,016,005	5,027,615	8,043,620
June 30, 2063	410,582	169,152,390	169,562,972	0	2,961,382	5,437,111	8,398,493
June 30, 2064	193,109	174,456,752	174,649,861	0	2,909,048	5,882,148	8,791,196
June 30, 2065	135,241	179,754,116	179,889,357	0	2,836,289	6,360,213	9,196,502
June 30, 2066	65,044	185,220,994	185,286,038	0	2,768,470	6,842,944	9,611,414
June 30, 2067	23,634	190,820,985	190,844,619	0	2,708,699	7,352,362	10,061,061
June 30, 2068	0	196,569,958	196,569,958	0	2,645,278	7,891,841	10,537,119
June 30, 2069	0	202,467,057	202,467,057	0	2,576,953	8,429,660	11,006,613
June 30, 2070	0	208,541,069	208,541,069	0	2,504,346	8,992,692	11,497,038
June 30, 2071	0	214,797,301	214,797,301	0	2,427,495	9,584,510	12,012,005
June 30, 2072	0	221,241,220	221,241,220	0	2,346,365	10,199,556	12,545,921
June 30, 2073	0	227,878,457	227,878,457	0	2,261,066	10,845,061	13,106,127
June 30, 2074	0	234,714,811	234,714,811	0	2,171,780	11,519,505	13,691,285
June 30, 2075	0	241,756,255	241,756,255	0	2,078,688	12,221,489	14,300,177
June 30, 2076	0	249,008,943	249,008,943	0	1,982,162	12,962,388	14,944,550
June 30, 2077	0	256,479,211	256,479,211	0	1,882,613	13,728,849	15,611,462
June 30, 2078	0	264,173,587	264,173,587	0	1,780,467	14,528,418	16,308,885
June 30, 2079	0	272,098,795	272,098,795	0	1,676,247	15,363,886	17,040,133
June 30, 2080	0	280,261,759	280,261,759	0	1,570,510	16,229,290	17,799,800
June 30, 2081	0	288,669,612	288,669,612	0	1,463,756	17,131,841	18,595,597
June 30, 2082	0	297,329,700	297,329,700	0	1,356,632	18,069,264	19,425,896
June 30, 2083	0	306,249,591	306,249,591	0	1,249,668	19,047,763	20,297,431
June 30, 2084	0	315,437,079	315,437,079	0	1,143,605	20,071,375	21,214,980
June 30, 2085	0	324,900,191	324,900,191	0	1,039,182	21,136,318	22,175,500
June 30, 2086	0	334,647,197	334,647,197	0	937,158	22,252,126	23,189,284
June 30, 2087	0	344,686,613	344,686,613	0	838,313	23,413,851	24,252,164
June 30, 2088	0	355,027,211	355,027,211	0	743,464	24,625,632	25,369,096
June 30, 2089	0	365,678,027	365,678,027	0	653,386	25,891,582	26,544,968
June 30, 2090	0	376,648,368	376,648,368	0	568,772	27,208,790	27,777,562
June 30, 2091	0	387,947,819	387,947,819	0	490,160	28,585,748	29,075,908
June 30, 2092	0	399,586,254	399,586,254	0	417,950	30,020,582	30,438,532
June 30, 2093	0	411,573,842	411,573,842	0	352,380	31,519,490	31,871,870
June 30, 2094	0	423,921,057	423,921,057	0	293,613	33,087,781	33,381,394

## APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

### FIDUCIARY NET POSITION PROJECTION DISCLOSURES

**Table 2: Projection of OPEB Plan's Fiduciary Net Position using a July 1, 2019 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, 2020	2,776,977	2,060,313	0	2,060,313	0	2,060,313	2,060,313	87,482	2,864,459
June 30, 2021	2,864,459	2,142,378	547,632	2,690,010	0	2,142,378	2,142,378	193,217	3,605,308
June 30, 2022	3,605,308	2,256,002	251,460	2,507,462	0	2,256,002	2,256,002	249,843	4,106,611
June 30, 2023	4,106,611	2,306,060	231,848	2,537,908	0	2,306,060	2,306,060	282,784	4,621,243
June 30, 2024	4,621,243	2,347,066	213,653	2,560,719	0	2,347,066	2,347,066	316,665	5,151,561
June 30, 2025	5,151,561	2,456,271	197,592	2,653,863	0	2,456,271	2,456,271	351,667	5,700,820
June 30, 2026	5,700,820	2,595,684	182,945	2,778,629	0	2,595,684	2,595,684	387,984	6,271,749
June 30, 2027	6,271,749	2,709,777	169,945	2,879,722	0	2,709,777	2,709,777	425,808	6,867,502
June 30, 2028	6,867,502	2,793,973	156,873	2,950,846	0	2,793,973	2,793,973	465,293	7,489,668
June 30, 2029	7,489,668	2,925,685	144,327	3,070,012	0	2,925,685	2,925,685	506,564	8,140,559
June 30, 2030	8,140,559	3,099,225	804,851	3,904,076	0	3,099,225	3,099,225	571,943	9,517,353
June 30, 2031	9,517,353	3,178,413	745,680	3,924,093	0	3,178,413	3,178,413	662,238	10,911,377
June 30, 2032	10,911,377	3,320,300	693,401	4,013,701	0	3,320,300	3,320,300	753,915	12,323,374
June 30, 2033	12,323,374	3,514,172	640,738	4,154,910	0	3,514,172	3,514,172	846,783	13,745,537
June 30, 2034	13,745,537	3,598,644	595,529	4,194,173	0	3,598,644	3,598,644	940,578	15,173,208
June 30, 2035	15,173,208	3,717,269	552,400	4,269,669	0	3,717,269	3,717,269	1,034,810	16,597,272
June 30, 2036	16,597,272	3,861,053	510,946	4,371,999	0	3,861,053	3,861,053	1,128,856	18,034,974
June 30, 2037	18,034,974	3,859,482	472,922	4,332,404	0	3,859,482	3,859,482	1,223,929	19,482,806
June 30, 2038	19,482,806	3,890,810	438,583	4,329,393	0	3,890,810	3,890,810	1,319,802	20,938,516
June 30, 2039	20,938,516	4,006,024	402,886	4,408,910	0	4,006,024	4,006,024	1,416,158	22,413,730
June 30, 2040	22,413,730	3,979,746	371,931	4,351,677	0	3,979,746	3,979,746	1,513,978	23,910,289
June 30, 2041	23,910,289	3,918,110	341,099	4,259,209	0	3,918,110	3,918,110	1,613,231	25,408,347
June 30, 2042	25,408,347	4,009,506	311,964	4,321,470	0	4,009,506	4,009,506	1,712,641	26,888,986
June 30, 2043	26,888,986	4,000,101	284,480	4,284,581	0	4,000,101	4,000,101	1,810,938	28,332,948
June 30, 2044	28,332,948	4,078,171	260,301	4,338,472	0	4,078,171	4,078,171	1,906,886	29,712,389
June 30, 2045	29,712,389	4,217,357	235,506	4,452,863	0	4,217,357	4,217,357	1,998,492	30,996,687
June 30, 2046	30,996,687	4,210,127	210,491	4,420,618	0	4,210,127	4,210,127	2,083,715	32,208,274
June 30, 2047	32,208,274	4,283,795	189,035	4,472,830	0	4,283,795	4,283,795	2,164,184	33,328,683
June 30, 2048	33,328,683	4,288,621	168,201	4,456,822	0	4,288,621	4,288,621	2,238,565	34,335,394
June 30, 2049	34,335,394	4,184,430	149,744	4,334,174	0	4,184,430	4,184,430	2,305,406	35,248,598
June 30, 2050	35,248,598	4,165,145	132,615	4,297,760	0	4,165,145	4,165,145	2,366,027	36,051,952
June 30, 2051	36,051,952	4,106,311	114,350	4,220,661	0	4,106,311	4,106,311	2,419,249	36,708,759
June 30, 2052	36,708,759	3,943,734	97,001	4,040,735	0	3,943,734	3,943,734	2,462,684	37,188,963
June 30, 2053	37,188,963	3,863,500	81,577	3,945,077	0	3,863,500	3,863,500	2,494,349	37,461,749
June 30, 2054	37,461,749	3,724,531	66,932	3,791,463	0	3,724,531	3,724,531	2,512,143	37,487,186
June 30, 2055	37,487,186	3,622,238	55,258	3,677,496	0	3,622,238	3,622,238	2,513,463	37,226,310
June 30, 2056	37,226,310	3,579,322	44,320	3,623,642	0	3,579,322	3,579,322	2,495,623	36,672,939
June 30, 2057	36,672,939	3,552,535	34,395	3,586,930	0	3,552,535	3,552,535	2,458,220	35,790,537
June 30, 2058	35,790,537	3,422,322	26,961	3,449,283	0	3,422,322	3,422,322	2,398,855	34,539,466
June 30, 2059	34,539,466	3,272,845	18,917	3,291,762	0	3,272,845	3,272,845	2,314,768	32,893,569

## APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

### FIDUCIARY POSITION PROJECTION DISCLOSURES (CONTINUED)

**Table 2: Projection of OPEB Plan's Fiduciary Net Position using a July 1, 2019 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, 2060	32,893,569	3,212,539	13,198	3,225,737	0	3,212,539	3,212,539	2,204,304	29,697,192
June 30, 2061	29,697,192	3,099,456	9,382	3,108,838	0	3,099,456	3,099,456	1,990,021	26,608,109
June 30, 2062	26,608,109	3,016,005	7,019	3,023,024	0	3,016,005	3,016,005	1,782,975	23,599,057
June 30, 2063	23,599,057	2,961,382	4,359	2,965,741	0	2,961,382	2,961,382	1,581,280	20,641,504
June 30, 2064	20,641,504	2,909,048	1,990	2,911,038	0	2,909,048	2,909,048	1,383,046	17,733,985
June 30, 2065	17,733,985	2,836,289	1,353	2,837,642	0	2,836,289	2,836,289	1,188,222	14,898,589
June 30, 2066	14,898,589	2,768,470	632	2,769,102	0	2,768,470	2,768,470	998,226	12,130,470
June 30, 2067	12,130,470	2,708,699	223	2,708,922	0	2,708,699	2,708,699	812,749	9,421,871
June 30, 2068	9,421,871	2,645,278	0	2,645,278	0	2,645,278	2,645,278	631,265	6,776,593
June 30, 2069	6,776,593	2,576,953	0	2,576,953	0	2,576,953	2,576,953	454,032	4,199,640
June 30, 2070	4,199,640	2,504,346	0	2,504,346	0	2,504,346	2,504,346	281,376	1,695,294
June 30, 2071	1,695,294	2,427,495	0	2,427,495	0	2,427,495	2,427,495	113,585	113,585
June 30, 2072	113,585	2,346,365	0	2,346,365	0	2,346,365	2,346,365	7,610	7,610
June 30, 2073	7,610	2,261,066	0	2,261,066	0	2,261,066	2,261,066	510	510
June 30, 2074	510	2,171,780	0	2,171,780	0	2,171,780	2,171,780	34	34
June 30, 2075	34	2,078,688	0	2,078,688	0	2,078,688	2,078,688	2	2
June 30, 2076	2	1,982,162	0	1,982,162	0	1,982,162	1,982,162	0	0
June 30, 2077	0	1,882,613	0	1,882,613	0	1,882,613	1,882,613	0	0
June 30, 2078	0	1,780,467	0	1,780,467	0	1,780,467	1,780,467	0	0
June 30, 2079	0	1,676,247	0	1,676,247	0	1,676,247	1,676,247	0	0
June 30, 2080	0	1,570,510	0	1,570,510	0	1,570,510	1,570,510	0	0
June 30, 2081	0	1,463,756	0	1,463,756	0	1,463,756	1,463,756	0	0
June 30, 2082	0	1,356,632	0	1,356,632	0	1,356,632	1,356,632	0	0
June 30, 2083	0	1,249,668	0	1,249,668	0	1,249,668	1,249,668	0	0
June 30, 2084	0	1,143,605	0	1,143,605	0	1,143,605	1,143,605	0	0
June 30, 2085	0	1,039,182	0	1,039,182	0	1,039,182	1,039,182	0	0
June 30, 2086	0	937,158	0	937,158	0	937,158	937,158	0	0
June 30, 2087	0	838,313	0	838,313	0	838,313	838,313	0	0
June 30, 2088	0	743,464	0	743,464	0	743,464	743,464	0	0
June 30, 2089	0	653,386	0	653,386	0	653,386	653,386	0	0
June 30, 2090	0	568,772	0	568,772	0	568,772	568,772	0	0
June 30, 2091	0	490,160	0	490,160	0	490,160	490,160	0	0
June 30, 2092	0	417,950	0	417,950	0	417,950	417,950	0	0
June 30, 2093	0	352,380	0	352,380	0	352,380	352,380	0	0
June 30, 2094	0	293,613	0	293,613	0	293,613	293,613	0	0

## APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

### BENEFIT PAYMENT PROJECTION DISCLOSURES

**Table 3: Actuarial Present Values of Projected Benefit Payments using a July 1, 2019 Valuation Date**

For the Period Ending on the Measurement Date	I. Beginning Fiduciary Net Position for Current Plan Members	II. Benefit Payments for Current Plan Members	III. Funded Portion of Benefit Payments	IV. Unfunded Portion of Benefit Payments [II. - III.]	V. Present Value of Funded Benefit Payments using the Long-Term Rate of Return [6.70%]	VI. Present Value of Unfunded Benefit Payments using the Municipal Bond Rate [2.66%]	VII. Present Value of Benefit Payments using the Single Equivalent Discount Rate [6.17%]	
June 30, 2020	2,776,977	2,060,313	2,060,313	0	2,060,313	0	2,060,313	Sum of Column V.
June 30, 2021	2,864,459	2,142,378	2,142,378	0	2,007,852	0	2,017,793	47,062,395
June 30, 2022	3,605,308	2,256,002	2,256,002	0	1,981,576	0	2,001,247	
June 30, 2023	4,106,611	2,306,060	2,306,060	0	1,898,355	0	1,926,692	Sum of Column VI.
June 30, 2024	4,621,243	2,347,066	2,347,066	0	1,810,788	0	1,846,918	4,363,649
June 30, 2025	5,151,561	2,456,271	2,456,271	0	1,776,046	0	1,820,452	
June 30, 2026	5,700,820	2,595,684	2,595,684	0	1,758,998	0	1,811,905	Sum of Column VII.
June 30, 2027	6,271,749	2,709,777	2,709,777	0	1,721,007	0	1,781,549	[V. + VI.]
June 30, 2028	6,867,502	2,793,973	2,793,973	0	1,663,056	0	1,730,083	51,426,044
June 30, 2029	7,489,668	2,925,685	2,925,685	0	1,632,104	0	1,706,290	
June 30, 2030	8,140,559	3,099,225	3,099,225	0	1,620,350	0	1,702,390	
June 30, 2031	9,517,353	3,178,413	3,178,413	0	1,557,406	0	1,644,360	
June 30, 2032	10,911,377	3,320,300	3,320,300	0	1,524,770	0	1,617,873	
June 30, 2033	12,323,374	3,514,172	3,514,172	0	1,512,466	0	1,612,764	
June 30, 2034	13,745,537	3,598,644	3,598,644	0	1,451,567	0	1,555,490	
June 30, 2035	15,173,208	3,717,269	3,717,269	0	1,405,263	0	1,513,328	
June 30, 2036	16,597,272	3,861,053	3,861,053	0	1,367,965	0	1,480,456	
June 30, 2037	18,034,974	3,859,482	3,859,482	0	1,281,545	0	1,393,796	
June 30, 2038	19,482,806	3,890,810	3,890,810	0	1,210,822	0	1,323,399	
June 30, 2039	20,938,516	4,006,024	4,006,024	0	1,168,395	0	1,283,350	
June 30, 2040	22,413,730	3,979,746	3,979,746	0	1,087,845	0	1,200,791	
June 30, 2041	23,910,289	3,918,110	3,918,110	0	1,003,746	0	1,113,446	
June 30, 2042	25,408,347	4,009,506	4,009,506	0	962,662	0	1,073,159	
June 30, 2043	26,888,986	4,000,101	4,000,101	0	900,097	0	1,008,381	
June 30, 2044	28,332,948	4,078,171	4,078,171	0	860,041	0	968,277	
June 30, 2045	29,712,389	4,217,357	4,217,357	0	833,547	0	943,095	
June 30, 2046	30,996,687	4,210,127	4,210,127	0	779,867	0	886,729	
June 30, 2047	32,208,274	4,283,795	4,283,795	0	743,686	0	849,777	
June 30, 2048	33,328,683	4,288,621	4,288,621	0	697,773	0	801,262	
June 30, 2049	34,335,394	4,184,430	4,184,430	0	638,070	0	736,332	
June 30, 2050	35,248,598	4,165,145	4,165,145	0	595,247	0	690,316	
June 30, 2051	36,051,952	4,106,311	4,106,311	0	549,990	0	640,989	
June 30, 2052	36,708,759	3,943,734	3,943,734	0	495,047	0	579,811	
June 30, 2053	37,188,963	3,863,500	3,863,500	0	454,522	0	534,984	
June 30, 2054	37,461,749	3,724,531	3,724,531	0	410,659	0	485,749	
June 30, 2055	37,487,186	3,622,238	3,622,238	0	374,302	0	444,936	
June 30, 2056	37,226,310	3,579,322	3,579,322	0	346,642	0	414,097	
June 30, 2057	36,672,939	3,552,535	3,552,535	0	322,444	0	387,098	
June 30, 2058	35,790,537	3,422,322	3,422,322	0	291,121	0	351,224	
June 30, 2059	34,539,466	3,272,845	3,272,845	0	260,923	0	316,351	

## APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

### BENEFIT PAYMENT PROJECTION DISCLOSURES (CONTINUED)

**Table 3: Actuarial Present Values of Projected Benefit Payments using a July 1, 2019 Valuation Date**

For the Period Ending on the Measurement Date	I. Beginning Fiduciary Net Position for Current Plan Members	II. Benefit Payments for Current Plan Members	III. Funded Portion of Benefit Payments	IV. Unfunded Portion of Benefit Payments [II. - III.]	V. Present Value of Funded Benefit Payments using the Long-Term Rate of Return [6.70%]	VI. Present Value of Unfunded Benefit Payments using the Municipal Bond Rate [2.66%]	VII. Present Value of Benefit Payments using the Single Equivalent Discount Rate [6.17%]
June 30, 2060	32,893,569	3,212,539	3,212,539	0	240,033	0	292,464
June 30, 2061	29,697,192	3,099,456	3,099,456	0	217,042	0	265,760
June 30, 2062	26,608,109	3,016,005	3,016,005	0	197,937	0	243,566
June 30, 2063	23,599,057	2,961,382	2,961,382	0	182,148	0	225,248
June 30, 2064	20,641,504	2,909,048	2,909,048	0	167,694	0	208,400
June 30, 2065	17,733,985	2,836,289	2,836,289	0	153,233	0	191,372
June 30, 2066	14,898,589	2,768,470	2,768,470	0	140,177	0	175,933
June 30, 2067	12,130,470	2,708,699	2,708,699	0	128,538	0	162,125
June 30, 2068	9,421,871	2,645,278	2,645,278	0	117,647	0	149,121
June 30, 2069	6,776,593	2,576,953	2,576,953	0	107,411	0	136,822
June 30, 2070	4,199,640	2,504,346	2,504,346	0	97,830	0	125,235
June 30, 2071	1,695,294	2,427,495	2,427,495	0	88,874	0	114,332
June 30, 2072	113,585	2,346,365	850,370	1,495,995	29,178	381,955	104,085
June 30, 2073	7,610	2,261,066	713,735	1,547,331	22,952	384,825	94,468
June 30, 2074	510	2,171,780	675,059	1,496,721	20,345	362,592	85,461
June 30, 2075	34	2,078,688	641,815	1,436,873	18,129	339,073	77,041
June 30, 2076	2	1,982,162	609,016	1,373,146	16,122	315,638	69,192
June 30, 2077	0	1,882,613	575,094	1,307,519	14,268	292,765	61,895
June 30, 2078	0	1,780,467	540,710	1,239,757	12,573	270,399	55,133
June 30, 2079	0	1,676,247	506,249	1,169,998	11,032	248,571	48,887
June 30, 2080	0	1,570,510	471,408	1,099,102	9,628	227,458	43,140
June 30, 2081	0	1,463,756	436,735	1,027,021	8,360	207,034	37,869
June 30, 2082	0	1,356,632	402,355	954,277	7,218	187,385	33,057
June 30, 2083	0	1,249,668	368,510	881,158	6,196	168,543	28,680
June 30, 2084	0	1,143,605	335,566	808,039	5,288	150,552	24,719
June 30, 2085	0	1,039,182	303,454	735,728	4,481	133,527	21,156
June 30, 2086	0	937,158	272,602	664,556	3,773	117,485	17,969
June 30, 2087	0	838,313	242,981	595,332	3,152	102,520	15,139
June 30, 2088	0	743,464	214,819	528,645	2,612	88,677	12,646
June 30, 2089	0	653,386	188,335	465,051	2,146	75,988	10,467
June 30, 2090	0	568,772	163,588	405,184	1,747	64,490	8,582
June 30, 2091	0	490,160	140,766	349,394	1,409	54,169	6,966
June 30, 2092	0	417,950	119,894	298,056	1,124	45,013	5,594
June 30, 2093	0	352,380	101,018	251,362	888	36,977	4,442
June 30, 2094	0	293,613	84,173	209,440	693	30,012	3,486



## APPENDIX II – PLAN PROVISIONS

<u>Effective Date</u>	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>Premium Effective Date</u>	<b>Medicare Supplement Plans:</b> effective December 1, 2020 <b>Non-Medicare Plans:</b> effective June 1, 2020 <b>Dental Plans:</b> N/A
<u>Creditable Service</u>	Elapsed time from date of hire to termination of service date.
<u>Benefits Offered</u>	Comprehensive Medical & \$2,000 of Life Insurance.
<u>Medicare Part B</u>	Medicare Part B Premium reimbursements by the Town were not reflected in this valuation. Medicare Part B Penalty reimbursements have been reflected.
<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"> <li>• Age 55 with 10 years of creditable service</li> <li>• 20 years of service regardless of age</li> </ul>
On or after April 2, 2012	<ul style="list-style-type: none"> <li>• Age 60 with 10 years of creditable service</li> </ul>

### Participant Contributions

Group	Individual	Two-Person / Family
Medical	50%	50%
Dental	100%	100%
Life	50%	N/A

APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONSPre-Retirement Mortality

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

6.25% per annum (previously 7.50%, used in the calculation of the Interest Cost)

Net Long Term Rate of Return

6.70% (based on investment policy)

Municipal Bond Rate

2.66% as of June 30, 2020 (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, 2020

## APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

### Employee Termination

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

#### **Non-Public Safety Employees**

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

#### **Public Safety Employees**

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

## APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

### Retirement Rates for Eligible Employees

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

### Permanent Disability Rates

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

### APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

#### Trend Rate

**Medicare Supplement Plans:** Initial Trend of 4.50% for 2020 grading down 0.00% per year for an ultimate trend rate of 4.50%.

**Non-Medicare Plans:** Initial Trend of 4.50% for 2020 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.

#### Spouse Participation Rate

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

#### Spouse Demographics

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

#### Medicare Eligibility

It was assumed that retirees who were over age 66 on the valuation date and were enrolled in an Active plan were ineligible for Medicare and all other participants would be eligible for Medicare at age 65, absent any information to the contrary.

#### School Demographics

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

#### Compensation Increases

3.00% per year.

#### Inflation Rate

2.50% per year.

### APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

#### Implicit Subsidy

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

<b>Impact of Implicit Subsidy</b>	
	<b>As Of The Measurement Date</b>
<b>Impact on Liability</b>	<b><u>June 30, 2020</u></b>
I. Total OPEB Liability	43,778,129
II. Total OPEB Liability (Excluding Implicit Subsidy)	<u>36,993,873</u>
III. Liability from Implicit Subsidy [I. - II.]	6,784,256

  

	<b>For the Measurement Period Ending</b>
<b>Impact on Payments</b>	<b><u>June 30, 2020</u></b>
IV. Employer Payments (Including Implicit Subsidy)	2,060,313
V. Actual Employer Payments	<u>1,556,612</u>
VI. Implicit Subsidy [IV. - V.]	503,701

### 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	4,552	2,870	44 & Under	8,947	5,863	65 to 69	4,013	4,013
25 to 29	6,716	2,986	45 to 49	9,828	7,402	70 to 74	4,013	4,013
30 to 34	8,486	3,748	50 to 54	11,561	9,749	75 to 79	4,013	4,013
35 to 39	8,742	4,706	55 to 59	13,365	12,675	80 to 84	4,013	4,013
40 to 44	8,947	5,863	60 to 64	15,904	16,264	85 to 89	4,013	4,013
45 to 49	9,828	7,402	65 to 69	19,065	20,288	90 & Over	4,013	4,013
50 to 54	11,561	9,749	70 to 74	22,482	24,312			
55 to 59	13,365	12,675	75 to 79	26,109	28,714			
60 to 64	15,904	16,264	80 to 84	29,936	33,005			
65 to 69	19,065	20,288	85 to 89	34,171	37,779			
70 & Over	22,482	24,312	90 & Over	34,171	37,779			

\*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, 2020 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, 2019	July 1, 2018
A. Average Age at Hire	34.99	N/A
B. Average Service	<u>11.03</u>	<u>N/A</u>
C. Average Current Age	46.02	N/A

### Retired Employees & Spouses

Valuation Date	July 1, 2019	July 1, 2018
A. Under Age 65	95	N/A
B. Age 65 & Over	<u>449</u>	<u>N/A</u>
C. Total	544	547

### 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	8	1								9
25-29	35	5	2							42
30-34	35	29	12							76
35-39	29	19	23	8	5					84
40-44	22	13	21	15	6					77
45-49	24	10	17	11	16	1	2			81
50-54	18	15	21	5	8	4	3			74
55-59	11	9	16	20	13	6	5	1		81
60-64	4	6	16	19	8	4	2		1	60
65-69		1	3	4	5	2	1			16
70+		1		1	1	1	1		1	6
<b>Total</b>	186	109	131	83	62	18	14	1	2	606

## APPENDIX IV – PLAN DEMOGRAPHICS

### Plan Offerings

	Number of Contracts			
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>	<u>Total</u>
Blue Care Elect PPO	54		106	160
Network Blue NE HMO	117		224	341
Medex	176	142		318
Total	347	142	330	819

	Per Contract Costs (monthly)		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
Blue Care Elect PPO	965.61		2,416.20
Network Blue NE HMO	797.40		1,995.66
Medex	334.40	668.80	
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.