

Town of Needham Other Postemployment Benefits Plan

GASB 74 & GASB 75 Actuarial Valuation

With a Valuation Date of June 30, 2022

As of the Measurement Date:
June 30, 2023

For the Reporting Date:
June 30, 2023

Delivered February 27, 2024



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February 27, 2024

Personal and Confidential

Mr. David Davison
Asst Town Manager & Director of Finance
Town of Needham
1471 Highland Avenue
Needham, MA 02492

Dear Mr. Davison:

We have performed an actuarial valuation of the Town of Needham Other Postemployment Benefits Plan for the Reporting Date & Fiscal Year Ending June 30, 2023 with a Measurement Date of June 30, 2023 and a Valuation Date of June 30, 2022. The figures presented in this report reflect the adoption, by the Town of Needham, of Statement Nos. 74 and 75 of the Governmental Accounting Standards Board ("GASB 74/75").

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 circular background.

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

February 27, 2024

ACTUARIAL CERTIFICATION

This is to certify that Odyssey Advisors has conducted an actuarial valuation of certain benefit obligations of the Town of Needham other postemployment benefit programs with a Valuation Date of June 30, 2022 with a Measurement Date of June 30, 2023 for the Reporting Date & Fiscal Year Ending June 30, 2023 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.

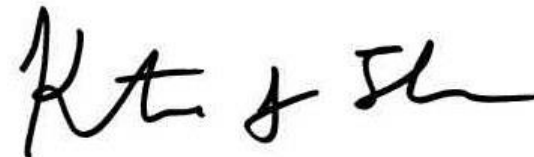
The actuarial data is based on the plan benefits verified by the Town and on participant claims or premium data provided by the Town and/or vendors employed by the Town.

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

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



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



Kurtis J. Thompson, ASA, MAAA
Consulting Actuary

EXECUTIVE SUMMARY

How did plan liabilities change from FY 22 to FY 23?

Plan Experience

For the year ending on the Measurement Date of June 30, 2023, experience was largely in line with expectation, with an experience gain of \$1,166,068 or 0.86% of the beginning Total OPEB Liability ("TOL"). This was mainly due average Medicare Supplement premiums remaining flat vs the expected 4.5% increase which was somewhat offset by several retirees beyond age 65 who remain on Active health plans.

Assumption Changes

One key assumption has changed since the prior valuation. The impact of this assumption change increased disclosed liabilities by approximately \$2.7 million, as detailed below.

- ✓ Based on ongoing actuarial research, we have modified our assumption for future increases in healthcare costs using the Getzen model to reflect higher costs in the near-term increasing the disclosed liability by approximately \$2.7 million.

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 investments earned approximately \$520 thousand less than expected.

Changes in Benefit 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 6.68 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.

Key Drivers of Plan Liabilities

Several key drivers of plan costs and liabilities are:

- ✓ Premiums for Post 65 (Medicare supplement) plans – represent 75.59% 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 according to the Getzen Model of Long-Run Medical Cost Trends for Active and Medicare supplement plans, which includes an assumed 9.00% increase in fiscal year 2023 and an ultimate trend rate of 3.63% in fiscal year 2060.
- ✓ 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

EXECUTIVE SUMMARY

Discount Rate Determinants

- ✓ Employer Current and Future Benefit Payments
- ✓ Municipal Bond Rate – The S&P 20-year high grade municipal bond index was 4.13% as of June 30, 2023.
- ✓ Current Asset Level – The Town had \$70,134,455 of OPEB assets as of June 30, 2023.
- ✓ Future Funding Policy – The Town is expected to make annual contributions to the trust with the goal to be fully funded by FY 2041.
- ✓ Investment Policy – The Town is expected to earn 6.30% per year on assets based on its investment policy.

Low Default Risk Obligation Measure (LDROM)

For purposes of this LDROM, we have used a discount rate of 4.13% which represents the 20-year municipal bond index while keeping all other assumptions unchanged from the GASB 74/75 disclosures. Based on this, the LDROM Total OPEB Liability is \$190.3 million vs. the \$143.1 million under the GASB 74/75 measure - the reflection of the Town's funding and OPEB Trust Investment policy reduced disclosed liabilities by approximately \$47 million. Please note that the ultimate cost of the plan is the actual benefits paid plus expenses and any changes in assumptions, including discount rate, do not impact the actual cost of the plan.

EXECUTIVE SUMMARY

Medicare Buy-In

The Town currently has 52 retirees or covered spouses who are over the age of 65 and are enrolled in Active medical plans rather than Medicare Supplement (Senior) plans. Under Actuarial Standards of Practice for OPEB, we are required to reflect the projected higher healthcare costs that occur as retirees age.

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. 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.

Below is an estimate of the liability associated with the 52 retirees who are potential candidates for a Medicare “buy-in” and the potential cost savings associated with such a “buy-in”. Please keep in mind that this is meant as an estimate for informational purposes only.

I. Number of Retirees and Spouses Over 65 in Active Plans	52
II. Current Liability for Retirees and Spouses Over 65 in Active Plans	20,624,000
III. Potential Liability in Medicare Supplement Plan*	8,203,000
IV. Potential Reduction in Liability [II. - III.]	12,421,000

***Reflects estimated Medicare Part A premiums & Medicare Part A & Part B penalties**

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	June 30, 2022	June 30, 2021
Measurement Date & Period Ending	June 30, 2023	June 30, 2022
Reporting Date/Fiscal Year End	June 30, 2023	June 30, 2022
Total OPEB Liability	143,077,747	135,250,391
Per Eligible Active Plan Participant	53,394	48,115
Per Retiree/Spouse Plan Participant	71,191	71,045
Total Annual Service Cost (Annual Benefit Accrual)	3,562,953	3,030,646
Per Eligible Active Plan Participant	2,573	2,130
Expected Employer Share of Retiree Costs	5,735,280	5,626,770
Per Retiree/Spouse Plan Participant	5,907	5,986
Net OPEB Liability as a % of Covered Payroll	61.52%	69.86%

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, 2023	971	143,077,747	143,077,747	5,735,280	5,735,280
June 30, 2028	1,086	172,838,644	149,092,133	8,089,054	6,977,689
June 30, 2033	1,115	203,998,393	151,793,963	10,183,796	7,577,701
June 30, 2038	1,121	237,102,994	152,187,389	12,568,281	8,067,101
June 30, 2043	1,090	273,619,898	151,496,703	14,534,272	8,047,274
June 30, 2048	1,065	319,791,219	152,734,067	16,135,879	7,706,586
June 30, 2053	1,069	376,888,628	155,273,125	18,612,689	7,668,181

EXECUTIVE SUMMARY

Continuing OPEB Disclosures

In addition to pension benefits, municipal entities may provide retired employees with healthcare and life insurance benefits. The portion of the cost of such benefit paid by these entities is generally provided on a pay-as-you-go basis.

The pay-as-you-go costs to the Town for such benefits for the most recent years is as follows:

<u>Fiscal Year Ending</u>	<u>Cost</u>
June 30, 2024 (Projected)	6,055,016
June 30, 2023	5,735,280
June 30, 2022	5,626,770
June 30, 2021	5,034,735
June 30, 2020	4,502,453
June 30, 2019	4,174,262

The Town performs actuarial valuations of its non-pension post-employment benefits liability in accordance with GASB reporting requirements. As of the June 30, 2023 Measurement Date the Net OPEB Liability ("NOL") was determined to be \$72,943,292 assuming a discount rate of 6.25%. The Town has established an OPEB Trust and plans to fund this liability. The Town is expected to make annual contributions to the trust with the goal to be fully funded by FY 2041. The balance of this fund as of June 30, 2023 was \$70,134,455. See the Town's audit reports for additional information.

PRINCIPAL RESULTS OF THE VALUATION

Town of Needham

Assuming Funding - 6.25% discount rate

Comparison of Plan Liabilities to Prior Valuation

Valuation Date	June 30, 2022	June 30, 2021
For the Measurement Period ending on the Measurement Date of:	June 30, 2023	June 30, 2022
For the Reporting Period & Fiscal Year ending on:	June 30, 2023	June 30, 2022
I. Total OPEB Liability		
A. Actives	73,951,148	68,468,081
B. Retirees/Disabled	<u>69,126,599</u>	<u>66,782,310</u>
C. Total	143,077,747	135,250,391
II. Fiduciary Net Position [Plan Assets]	70,134,455	61,383,657
III. Net OPEB Liability (Asset) [I. - II.]	72,943,292	73,866,734
IV. Funded Ratio [II. / I.]	49.02%	45.39%
V. Number of Eligible Participants		
A. Actives	1,385	1,423
B. Retirees/Disabled & Dependents	<u>971</u>	<u>940</u>
C. Total	2,356	2,363
VI. Service Cost	3,562,953	3,030,646
VII. Financial Statement Expense/(Income)	10,202,898	8,272,920
VIII. Employer OPEB Trust (Contribution)/Withdrawal	(5,174,313)	(3,586,249)
IX. Deferred Inflow of Resources	(6,151,272)	(9,187,315)
X. Deferred Outflow of Resources	12,267,606	15,520,396
XI. Money Weighted Rate of Return	5.28%	(6.25%)
XII. 20-year Municipal Bond Rate (SAPIHG)	4.13%	4.09%
XIII. Expected Long Term Rate of Return (Net of Expense)	6.30%	6.41%
XIV. Crossover Year	N/A	N/A
XV. Discount Rate	6.25%	6.25%

PRINCIPAL RESULTS OF THE VALUATION

Town of Needham Plan Liabilities as of the June 30, 2023 Measurement Date

	Town Employees and Retirees	School Employees and Retirees	Police Employees and Retirees	Fire Employees and Retirees	Sewer Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Total
I. Total OPEB Liability							
A. Actives	9,274,174	51,702,958	5,309,491	6,269,688	713,361	681,476	73,951,148
B. Retirees/Disabled	<u>17,981,082</u>	<u>42,346,417</u>	<u>3,263,536</u>	<u>4,897,946</u>	<u>383,336</u>	<u>254,282</u>	<u>69,126,599</u>
C. Total	27,255,256	94,049,375	8,573,027	11,167,634	1,096,697	935,758	143,077,747
II. Fiduciary Net Position [Plan Assets]	13,360,096	46,101,520	4,202,363	5,474,198	537,584	458,694	70,134,455
III. Net OPEB Liability (Asset) [I. - II.]	13,895,160	47,947,855	4,370,664	5,693,436	559,113	477,064	72,943,292
For the Reporting Date and Fiscal Year Ending June 30, 2023							
IV. Service Cost	460,257	2,553,804	240,220	274,484	16,500	17,688	3,562,953
V. Financial Statement Expense/(Income)	1,701,353	6,939,959	641,942	792,825	65,944	60,875	10,202,898
VI. Employer Share of Costs	(1,396,977)	(3,401,075)	(345,806)	(475,979)	(61,581)	(53,862)	(5,735,280)
VII. Employer OPEB Trust (Contribution)/Withdrawal	(985,669)	(3,401,234)	(310,038)	(403,870)	(39,661)	(33,841)	(5,174,313)
VIII. Total Employer Contribution [VI. + VII.]	(2,382,646)	(6,802,309)	(655,844)	(879,849)	(101,242)	(87,703)	(10,909,593)

PRINCIPAL RESULTS OF THE VALUATION
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 6.30% return	III. Net OPEB Liability (Asset) [I. - II.]	IV. Funded Ratio [III. / 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.]
		Date										
2023	June 30, 2023	143,077,747	70,134,455	72,943,292	49.02%	3,562,953	5,735,280	5,174,313	8,844,474	3,670,161	0	5,174,313
2024	June 30, 2024	149,465,549	76,311,844	73,153,705	51.06%	3,469,939	6,055,016	1,706,000	7,761,016	6,055,016	0	1,706,000
2025	June 30, 2025	155,235,898	82,624,721	72,611,177	53.23%	3,594,175	6,681,361	1,459,945	8,141,306	6,681,361	0	1,459,945
2026	June 30, 2026	161,060,349	89,281,690	71,778,659	55.43%	3,719,782	7,132,291	1,407,939	8,540,230	7,132,291	0	1,407,939
2027	June 30, 2027	166,919,019	96,270,786	70,648,233	57.68%	3,859,906	7,635,399	1,323,302	8,958,701	7,635,399	0	1,323,302
2028	June 30, 2028	172,838,644	103,685,061	69,153,583	59.99%	3,988,007	8,089,054	1,308,623	9,397,677	8,089,054	0	1,308,623
2029	June 30, 2029	178,821,386	111,546,091	67,275,295	62.38%	4,132,982	8,569,273	1,288,891	9,858,164	8,569,273	0	1,288,891
2030	June 30, 2030	184,952,574	120,027,994	64,924,580	64.90%	4,271,808	8,930,474	1,410,740	10,341,214	8,930,474	0	1,410,740
2031	June 30, 2031	191,195,320	129,156,354	62,038,966	67.55%	4,423,587	9,328,469	1,519,464	10,847,933	9,328,469	0	1,519,464
2032	June 30, 2032	197,525,388	138,919,615	58,605,773	70.33%	4,578,176	9,802,003	1,577,479	11,379,482	9,802,003	0	1,577,479
2033	June 30, 2033	203,998,393	149,479,216	54,519,177	73.27%	4,724,097	10,183,796	1,753,280	11,937,076	10,183,796	0	1,753,280
2034	June 30, 2034	210,547,130	160,852,336	49,694,794	76.40%	4,890,255	10,624,909	1,897,084	12,521,993	10,624,909	0	1,897,084
2035	June 30, 2035	217,097,524	173,073,583	44,023,941	79.72%	5,047,033	11,110,827	2,024,744	13,135,571	11,110,827	0	2,024,744
2036	June 30, 2036	223,793,230	186,215,520	37,577,710	83.21%	5,223,079	11,608,254	2,170,960	13,779,214	11,608,254	0	2,170,960
2037	June 30, 2037	230,298,289	200,409,474	29,888,815	87.02%	5,395,069	12,066,101	2,388,294	14,454,395	12,066,101	0	2,388,294
2038	June 30, 2038	237,102,994	215,710,126	21,392,868	90.98%	5,571,576	12,568,281	2,594,380	15,162,661	12,568,281	0	2,594,380
2039	June 30, 2039	243,796,160	232,168,459	11,627,701	95.23%	5,760,519	13,123,340	2,782,291	15,905,631	13,123,340	0	2,782,291
2040	June 30, 2040	250,559,217	249,938,766	620,451	99.75%	5,950,740	13,635,893	3,049,114	16,685,007	13,635,893	0	3,049,114
2041	June 30, 2041	257,912,863	269,447,423	(11,534,560)	104.47%	6,153,597	13,853,255	3,649,317	17,502,572	13,853,255	0	3,649,317
2042	June 30, 2042	265,453,335	278,352,309	(12,898,974)	104.86%	6,360,629	14,188,130	(7,827,501)	6,360,629	14,188,130	0	(7,827,501)
2043	June 30, 2043	273,619,898	287,690,019	(14,070,121)	105.14%	6,582,444	14,534,272	(7,951,828)	6,582,444	14,534,272	0	(7,951,828)
2044	June 30, 2044	282,238,111	297,777,377	(15,539,266)	105.51%	6,799,131	14,594,442	(7,795,311)	6,799,131	14,594,442	0	(7,795,311)
2045	June 30, 2045	290,990,481	308,296,589	(17,306,108)	105.95%	7,026,537	15,019,371	(7,992,834)	7,026,537	15,019,371	0	(7,992,834)
2046	June 30, 2046	300,204,665	319,284,617	(19,079,952)	106.36%	7,266,451	15,447,346	(8,180,895)	7,266,451	15,447,346	0	(8,180,895)
2047	June 30, 2047	310,012,024	330,984,752	(20,972,728)	106.77%	7,524,867	15,686,498	(8,161,631)	7,524,867	15,686,498	0	(8,161,631)
2048	June 30, 2048	319,791,219	343,238,572	(23,447,353)	107.33%	7,796,343	16,135,879	(8,339,536)	7,796,343	16,135,879	0	(8,339,536)
2049	June 30, 2049	330,090,109	356,009,455	(25,919,346)	107.85%	8,068,809	16,655,603	(8,586,794)	8,068,809	16,655,603	0	(8,586,794)
2050	June 30, 2050	340,962,148	369,328,076	(28,365,928)	108.32%	8,369,389	17,205,284	(8,835,895)	8,369,389	17,205,284	0	(8,835,895)
2051	June 30, 2051	352,150,136	383,285,175	(31,135,039)	108.84%	8,678,938	17,709,393	(9,030,455)	8,678,938	17,709,393	0	(9,030,455)
2052	June 30, 2052	364,305,964	398,112,321	(33,806,357)	109.28%	8,999,182	18,038,609	(9,039,427)	8,999,182	18,038,609	0	(9,039,427)
2053	June 30, 2053	376,888,628	413,637,995	(36,749,367)	109.75%	9,344,768	18,612,689	(9,267,921)	9,344,768	18,612,689	0	(9,267,921)

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2023 Measurement Date)

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

1. OPEB Expense Development

Components of the Town's OPEB Expenses for the Fiscal Year Ending June 30, 2023	
Description	Amount
I. Service Cost	3,562,953
II. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	8,499,323
III. Deferred (Inflows)/Outflows from Plan Experience*	(2,451,007)
IV. Deferred (Inflows)/Outflows from Changes of Assumptions*	5,919,218
V. Projected Earnings on OPEB Plan Investments	(4,098,816)
VI. Deferred (Inflows)/Outflows from Earnings on Plan Investments**	(1,228,773)
VII. OPEB Plan Administrative Expense	0
VIII. Other Changes in Fiduciary Net Position	0
IX. Financial Statement Expense/(Income) Prior to Plan Design Changes [I. + II.+ ... + VII. + VIII.]	10,202,898
X. Expense Related to Change in Benefit Terms***	0
XI. Financial Statement Expense/(Income) [IX. + X.]	10,202,898

* Amortized over 6.68 years

** Amortized over 5.00 years

*** Recognized Immediately

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2023 Measurement Date)

2. Changes in Net OPEB Liability

Changes in Net OPEB Liability			
		Increase (Decrease)	
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
I. Balances for the June 30, 2022 Reporting Date	135,250,391	61,383,657	73,866,734
II. Prior Period Adjustment	0	0	0
III. Balances for the June 30, 2022 Reporting Date with Adjustment [I. + II.]	135,250,391	61,383,657	73,866,734
Changes for the year:			
IV. Service Cost	3,562,953	0	3,562,953
V. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	8,499,323	0	8,499,323
VI. Changes in Benefit Terms *	0	0	0
VII. Change in Assumptions **	2,666,428	0	2,666,428
VIII. Differences Between Actual and Expected Experience **	(1,166,068)	0	(1,166,068)
IX. Net Investment Income	0	3,576,485	(3,576,485)
X. Employer Contributions to Trust	0	10,909,593	(10,909,593)
XI. Benefit Payments Withdrawn from Trust	0	(5,735,280)	5,735,280
XII. Benefit Payments Excluding Implicit Cost	(3,670,161)	0	(3,670,161)
XIII. Implicit Cost Amount	(2,065,119)	0	(2,065,119)
XIV. Total Benefit Payments Including Implicit Cost [XII. + XIII.]	(5,735,280)	0	(5,735,280)
XV. Administrative Expense	0	0	0
XVI. Other Charges	0	0	0
XVII. Net Changes [IV.+V.+VI.+VII.+VIII.+IX.+X.+XI.+XIV.+XV.+XVI.]	7,827,356	8,750,798	(923,442)
XVIII. Balances for the June 30, 2023 Reporting Date [III.+XVII.]	143,077,747	70,134,455	72,943,292

* Recognized Immediately

** Amortized over 6.68 years

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2023 Measurement Date)

3. Changes in Net OPEB Expense

Deferred (Inflows)/Outflows in OPEB Expense Arising from the Recognition of the Effects of Differences Between Expected & Actual Experience									
Fiscal Year	Differences Between Actual & Expected Experience	Recognition Period (Years)	Remaining Balance	2023	2024	2025	2026	2027	2028
2017									
2018	1,468,270	5.00	0						
2019	(9,997,742)	5.99	(1,652,382)	(1,669,072)	(1,652,382)				
2020	(123,044)	5.99	(40,880)	(20,541)	(20,541)	(20,339)			
2021	(293,339)	6.59	(159,803)	(44,512)	(44,512)	(44,512)	(44,512)	(26,267)	
2022	(3,714,901)	6.85	(2,630,259)	(542,321)	(542,321)	(542,321)	(542,321)	(542,321)	(460,975)
2023	(1,166,068)	6.68	(991,507)	(174,561)	(174,561)	(174,561)	(174,561)	(174,561)	(174,561)
2024									
2025									
2026									
Total Remaining Balance			(5,474,831)						
Net increase (decrease) in OPEB Expense				(2,451,007)	(2,434,317)	(781,733)	(761,394)	(743,149)	(635,536)

Deferred (Inflows)/Outflows in OPEB Expense Arising from the Recognition of the Effects of Changes in Assumptions									
Fiscal Year	Differences from Changes in Actuarial Assumptions	Recognition Period (years)	Remaining Balance	2023	2024	2025	2026	2027	2028
2017									
2018	(5,893,578)	5.00	0						
2019	21,438,486	5.99	3,543,256	3,579,046	3,543,256				
2020	4,633,778	5.99	1,539,438	773,585	773,585	765,853			
2021	3,893,113	6.59	2,120,833	590,760	590,760	590,760	590,760	348,553	
2022	3,950,140	6.85	2,796,816	576,662	576,662	576,662	576,662	576,662	490,168
2023	2,666,428	6.68	2,267,263	399,165	399,165	399,165	399,165	399,165	399,165
2024									
2025									
2026									
Total Remaining Balance			12,267,606						
Net increase (decrease) in OPEB Expense				5,919,218	5,883,428	2,332,440	1,566,587	1,324,380	889,333

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2023 Measurement Date)

3. Changes in Net OPEB Expense (Continued)

Deferred (Inflows)/Outflows in OPEB Expense Arising from the Recognition of Differences Between Projected & Actual Earnings on OPEB Plan Investments									
Fiscal Year	Differences Between Actual & Expected Earnings	Recognition Period (years)	Remaining Balance	2023	2024	2025	2026	2027	2028
2017									
2018	(1,343,885)	5.00	0						
2019	(1,119,369)	5.00	0	(223,873)					
2020	727,427	5.00	145,487	145,485	145,487				
2021	(12,623,789)	5.00	(5,049,515)	(2,524,758)	(2,524,758)	(2,524,757)			
2022	6,349,536	5.00	3,809,722	1,269,907	1,269,907	1,269,907	1,269,908		
2023	522,331	5.00	417,865	104,466	104,466	104,466	104,466	104,467	
2024									
2025									
2026									
Total Remaining Balance			(676,441)						
Net increase (decrease) in OPEB Expense				(1,228,773)	(1,004,898)	(1,150,384)	1,374,374	104,467	0

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES
(As of the June 30, 2023 Measurement Date)

3. Changes in Net OPEB Expense (Continued)

Statement of (Inflows) & Outflows Arising from Current & Prior Reporting Periods for the Measurement Period Ending on June 30, 2023 to be Reported for the Fiscal Year Ending June 30, 2023			
	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	(5,474,831)	(5,474,831)
III. Changes of Assumptions	12,267,606	0	12,267,606
IV. Net Difference Between Projected & Actual Earnings on OPEB Plan Investments	0	(676,441)	(676,441)
VI. Total [I. + II. + III. + IV.]	12,267,606	(6,151,272)	6,116,334

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2023 Measurement Date)

3. Changes in Net OPEB Expense (Continued)

Annual Amortization of Deferred (Inflows) & Outflows	
The balance of deferred (inflows) & outflows as of the Reporting Date of June 30, 2023 will be recognized in future years as shown below.	
	Year ending June 30:
	2024 2,444,213
	2025 400,323
	2026 2,179,567
	2027 685,698
	2028 253,797
	Thereafter 152,736

4. Discount Rate

The discount rate used to measure the Total OPEB liability was 6.25% as of June 30, 2023 and 6.25% as of June 30, 2022. 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 until Fiscal Year N/A 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 4.13% as of June 30, 2023. 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, 2023 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, 2023 Measurement Date, total Town premiums plus implicit costs for the retiree medical program were \$5,735,280. The Town also contributed \$5,174,313 to an OPEB Trust for a total contribution during the measurement period of \$10,909,593 to be reported on the financial statement for the fiscal year ending June 30, 2023.

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	14.50%	Domestic Equity - Large Cap	4.10%
Domestic Equity - Small/Mid Cap	3.50%	Domestic Equity - Small/Mid Cap	4.55%
International Equity - Developed Market	16.00%	International Equity - Developed Market	4.64%
International Equity - Emerging Market	6.00%	International Equity - Emerging Market	5.45%
Domestic Fixed Income	20.00%	Domestic Fixed Income	1.05%
International Fixed Income	3.00%	International Fixed Income	0.96%
Alternatives	23.00%	Alternatives	5.95%
Real Estate	14.00%	Real Estate	6.25%
Cash	0.00%	Cash	0.00%
Total	100.00%		
		I. Real Rate of Return	4.30%
		II. Inflation Assumption	2.50%
		III. Total Nominal Return [I. + II.]	6.80%
		IV. Investment Expense	0.50%
		V. Net Investment Return* [III.-IV.]	6.30%

* Mean Geometric Returns based on 2022 Horizon Survey of Capital Market Assumptions

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2023 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, 2023	8,844,474	(8,844,474)	0	118,576,875	7.46%
June 30, 2022	7,426,237	(7,426,237)	0	105,734,622	7.02%
June 30, 2021	7,197,713	(7,197,713)	0	102,654,973	7.01%
June 30, 2020	6,906,705	(6,906,705)	0	99,665,022	6.93%
June 30, 2019	6,906,705	(6,906,705)	0	93,645,807	7.38%
June 30, 2018	6,072,283	(6,115,455)	(43,172)	94,042,382	6.50%
June 30, 2017	5,568,923	(5,568,923)	0	89,329,181	6.23%

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES
(As of the June 30, 2023 Measurement Date)

8. Effect of 1% Change in Healthcare Trend

<u>Impact of a 1% Change in the Healthcare Trend Rate on NOL as of the June 30, 2023 Measurement Date</u>			
	<u>1% Decrease</u>	<u>Current Trend Rate</u>	<u>1% Increase</u>
Net OPEB Liability (Asset)	55,044,418	72,943,292	95,102,489

9. Effect of 1% Change in Discount Rates

<u>Impact of a 1% Change in the Discount Rate on NOL as of the June 30, 2023 Measurement Date</u>			
		<u>Current Discount Rate</u>	
	<u>1% Decrease</u>	<u>6.25%</u>	<u>1% Increase</u>
Net OPEB Liability (Asset)	92,633,072	72,943,292	56,870,715

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2023 Measurement Date)

10. Money Weighted Rate of Return

	Plan Investments / Net External Cash Flows	Periods Invested	Period Weight
I. Beginning value - June 30, 2022	61,383,657	12	1.0000
Monthly net external cash flows:			
July	8,529,083	11	0.9167
August	(307,644)	10	0.8333
September	(337,304)	9	0.7500
October	(331,685)	8	0.6667
November	(301,214)	7	0.5833
December	(298,806)	6	0.5000
January	(298,408)	5	0.4167
February	(297,654)	4	0.3333
March	(295,330)	3	0.2500
April	(288,994)	2	0.1667
May	(288,982)	1	0.0833
<u>June</u>	<u>(308,749)</u>	0	0.0000
II. Total net external cash flow	5,174,313		
III. Earnings and increase in fair value	3,576,485		
IV. Ending value - June 30, 2023 [I.+II.+III.]	70,134,455		
V. Receivable Contributions	0		
Plan Asset Value - June 30, 2023 [IV.+V.]	70,134,455		
Money Weighted Rate of Return	5.28%		

EXHIBIT A
FINANCIAL STATEMENT DISCLOSURES
(As of the June 30, 2023 Measurement Date)

11. OPEB Liability, OPEB Expense

	Fiscal Year Ending June 30, 2023						Total
	Town Employees and Retirees	School Employees and Retirees	Police Employees and Retirees	Fire Employees and Retirees	Sewer Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	
I. Total OPEB Liability as of June 30, 2023	27,255,256	94,049,375	8,573,027	11,167,634	1,096,697	935,758	143,077,747
II. Fiduciary Net Position as of June 30, 2023	13,360,096	46,101,520	4,202,363	5,474,198	537,584	458,694	70,134,455
III. Net OPEB Liability (Asset) as of June 30, 2023 [I. - II.]	13,895,160	47,947,855	4,370,664	5,693,436	559,113	477,064	72,943,292
IV. Service Cost	460,257	2,553,804	240,220	274,484	16,500	17,688	3,562,953
V. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	1,595,061	5,608,592	513,168	663,472	63,682	55,348	8,499,323
VI. Projected Earnings on OPEB Plan Investments	(780,562)	(2,694,488)	(245,630)	(319,926)	(31,403)	(26,807)	(4,098,816)
VII. Net Recognition of Deferred (Inflows)/Outflows	426,597	1,472,051	134,184	174,795	17,165	14,646	2,239,438
VIII. OPEB Plan Administrative Expense	0	0	0	0	0	0	0
IX. Expense Related to Change in Benefit Terms	0	0	0	0	0	0	0
X. Financial Statement Expense/(Income) [IV. + V. + ... + VIII. + IX.]	1,701,353	6,939,959	641,942	792,825	65,944	60,875	10,202,898
XI. Employer Share of Costs	(1,396,977)	(3,401,075)	(345,806)	(475,979)	(61,581)	(53,862)	(5,735,280)
XII. Employer (Payments) Withdrawals to/from OPEB Trust	(985,669)	(3,401,234)	(310,038)	(403,870)	(39,661)	(33,841)	(5,174,313)
XIII. Total Employer Contribution [XI. + XII.]	(2,382,646)	(6,802,309)	(655,844)	(879,849)	(101,242)	(87,703)	(10,909,593)
XIV. Net OPEB Expense/(Income) [X. + XIII.]	(681,293)	137,650	(13,902)	(87,024)	(35,298)	(26,828)	(706,695)

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2023 Measurement Date)

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

Valuation Date	June 30, 2022
For the Measurement Period ending on the Measurement Date of:	June 30, 2023
For the Reporting Period & Fiscal Year ending on:	June 30, 2023

Source of Deferred Inflow/Outflow	
I. Deferred (Inflow)/Outflow from Actual vs. Expected Experience	(5,474,831)
II. Deferred (Inflow)/Outflow from Investment Experience	(676,441)
III. Deferred (Inflow)/Outflow from Changes in Assumptions	12,267,606

Change in Deferred Inflow/Outflow	
I. Deferred Outflow at the beginning of the period	20,890,997
II. Deferred Outflow created during the period	3,188,759
III. Deferred Outflow recognized during the period	7,439,076
IV. Change in Deferred Outflow (II. - III.)	(4,250,317)
V. Deferred Outflow at end of the period (I. + IV.)	16,640,680
VI. Deferred Inflow at the beginning of the period	(14,557,916)
VII. Deferred Inflow created during the period	(1,166,068)
VIII. Deferred Inflow recognized during the period	(5,199,638)
IX. Change in Deferred Inflow (VII. - VIII.)	4,033,570
X. Deferred Inflow at end of the period (VI. + IX.)	(10,524,346)

Net OPEB Liability	
I. Net OPEB Liability at beginning of period	73,866,734
II. Service Cost	3,562,953
III. Interest on Total OPEB Liability, Service Cost, and Payments	8,499,323
IV. Projected Investment Income	(4,098,816)
V. OPEB Plan Administrative Expense	0
VI. Total Employer Contributions	(10,909,593)
VII. Expense Related to Change in Benefit Terms	0
VIII. Net OPEB Expense/(Income) - Before Recognition of Deferred (Inflow)/Outflow (II. + III. + ... + VI. + VII.)	(2,946,133)
IX. Deferred Outflow created during the period	3,188,759
X. Deferred Inflow created during the period	(1,166,068)
XI. Net OPEB Liability at end of period (I. + VIII. + IX. + X.)	72,943,292

Net OPEB Expense	
I. Service Cost	3,562,953
II. Interest on Total OPEB Liability, Service Cost, and Payments	8,499,323
III. Projected Investment Income	(4,098,816)
IV. Recognition of Deferred (Inflow)/Outflow	2,239,438
V. OPEB Plan Administrative Expense	0
VI. Expense Related to Change in Benefit Terms	0
VII. Financial Statement Expense/(Income) (I. + II. + III. + IV. + V. + VI.)	10,202,898
VIII. Benefit Payments	(5,735,280)
IX. Contributions to Trust	(5,174,313)
X. Total Employer Payments (VIII. + IX.)	(10,909,593)
XI. Total Net OPEB Expense/(Income) under GASB 75 (IX. + X.)	(706,695)

EXHIBIT A
REQUIRED SUPPLEMENTARY INFORMATION
(As of the June 30, 2023 Measurement Date)

Schedule of Changes in the Town's Net OPEB Liability and Related Ratios					
Valuation Date	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018
Measurement Date	June 30, 2023	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019
For the Reporting Period & Fiscal Year Ending on:	June 30, 2023	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019
Total OPEB Liability	143,077,747	135,250,391	129,196,503	119,161,758	104,767,867
I. Service Cost	3,562,953	3,030,646	3,085,625	2,915,612	2,797,907
II. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	8,499,323	8,414,773	8,384,081	7,382,923	6,347,733
III. Changes in Benefit Terms	0	0	0	0	0
IV. Difference Between Expected & Actual Plan Experience	(1,166,068)	(3,714,901)	(293,339)	159,645	(21,193,711)
V. Changes of Assumptions	2,666,428	3,950,140	3,893,113	8,438,164	31,054,380
VI. Benefit Payments Excluding Implicit Cost	(3,670,161)	(3,839,988)	(3,675,838)	(3,376,906)	(3,280,000)
VII. Implicit Cost Amount	(2,065,119)	(1,786,782)	(1,358,897)	(1,125,547)	(894,262)
VIII. Total Benefit Payments	(5,735,280)	(5,626,770)	(5,034,735)	(4,502,453)	(4,174,262)
IX. Other	0	0	0	0	0
X. Net Change in OPEB Liability [I.+II.+III.+IV.+V.+VIII.+IX.]	7,827,356	6,053,888	10,034,745	14,393,891	14,832,047
XI. Total OPEB Liability - Beginning of Period	135,250,391	129,196,503	119,161,758	104,767,867	89,935,820
XII. Prior Period Adjustment	0	0	0	0	0
XIII. Total OPEB Liability - Beginning of Period with Adjustment [XI.+XII.]	135,250,391	129,196,503	119,161,758	104,767,867	89,935,820
XIV. Total OPEB Liability - End of Period [XIII.+XIV.]	143,077,747	135,250,391	129,196,503	119,161,758	104,767,867
Plan Fiduciary Net Position	70,134,455	61,383,657	60,176,478	42,740,645	38,337,121
XV. Earnings from Plan Investments	3,576,485	(2,379,070)	13,820,192	873,725	1,831,609
XVI. Employer Contribution to Trust	10,909,593	9,213,019	8,650,376	8,032,252	7,800,967
XVII. Benefit Payments from Trust, Including Refunds of Member Contributions	(5,735,280)	(5,626,770)	(5,034,735)	(4,502,453)	(4,174,262)
XVIII. Administrative Expense	0	0	0	0	0
XIX. Other	0	0	0	0	0
XX. Net Change in Plan Fiduciary Net Position [XV.+XVI.+XVII.+XVIII.+XIX.]	8,750,798	1,207,179	17,435,833	4,403,524	5,458,314
XXI. Plan Fiduciary Net Position - Beginning of Period	61,383,657	60,176,478	42,740,645	38,337,121	32,878,807
XXII. Prior Period Adjustment	0	0	0	0	0
XXIII. Plan Fiduciary Net Position - Beginning of Period with Adjustment [XXI.+XXII.]	61,383,657	60,176,478	42,740,645	38,337,121	32,878,807
XXIV. Plan Fiduciary Net Position - End of Period [XXIII.+XXIV.]	70,134,455	61,383,657	60,176,478	42,740,645	38,337,121
XXV. Net OPEB Liability [XIV.-XXIV.]	72,943,292	73,866,734	69,020,025	76,421,113	66,430,746
XXVI. Plan Fiduciary Net Position as % of Total OPEB Liability [XXIV./XIV.]	49.02%	45.39%	46.58%	37.02%	36.59%
XXVII. Covered Employee Payroll	118,576,875	105,734,622	102,654,973	99,665,022	93,645,807
XXVIII. Plan NOL as % of Covered Employee Payroll [XXV./XXVII.]	61.52%	69.86%	67.23%	72.97%	70.94%
Single Discount Rate to Calculate Plan Liabilities	6.25%	6.25%	6.50%	6.75%	7.00%

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION (As of the June 30, 2023 Measurement Date)

Schedule of Changes in the Town's Net OPEB Liability and Related Ratios		
Valuation Date	July 1, 2015	July 1, 2015
Measurement Date	June 30, 2018	June 30, 2017
For the Reporting Period & Fiscal Year Ending on:	June 30, 2018	June 30, 2017
Total OPEB Liability	89,935,820	91,793,035
I. Service Cost	2,573,887	2,486,847
II. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	6,913,177	6,544,745
III. Changes in Benefit Terms	(4,090,587)	0
IV. Difference Between Expected & Actual Plan Experience	1,798,808	0
V. Changes of Assumptions	(4,589,355)	0
VI. Benefit Payments Excluding Implicit Cost	N/A	N/A
VII. Implicit Cost Amount	N/A	N/A
VIII. Total Benefit Payments	(4,463,145)	(3,958,395)
IX. Other	0	0
X. Net Change in OPEB Liability [I.+II.+III.+IV.+V.+VIII.+IX.]	(1,857,215)	5,073,197
XI. Total OPEB Liability - Beginning of Period	91,793,035	86,719,838
XII. Prior Period Adjustment	0	0
XIII. Total OPEB Liability - Beginning of Period with Adjustment [XI.+XII.]	91,793,035	86,719,838
XIV. Total OPEB Liability - End of Period [XII.+XIII.]	89,935,820	91,793,035
Plan Fiduciary Net Position	32,878,807	26,835,171
XV. Earnings from Plan Investments	3,117,203	3,020,230
XVI. Employer Contribution to Trust	7,389,578	6,317,042
XVII. Benefit Payments from Trust, Including Refunds of Member Contributions	(4,463,145)	(3,958,395)
XVIII. Administrative Expense	0	0
XIX. Other	0	257,093
XX. Net Change in Plan Fiduciary Net Position [XV.+XVI.+XVII.+XVIII.+XIX.]	6,043,636	5,635,970
XXI. Plan Fiduciary Net Position - Beginning of Period	26,835,171	21,199,201
XXII. Prior Period Adjustment	0	0
XXIII. Plan Fiduciary Net Position - Beginning of Period with Adjustment [XXI.+XXII.]	26,835,171	21,199,201
XXIV. Plan Fiduciary Net Position - End of Period [XXII.+XXIII.]	32,878,807	26,835,171
XXV. Net OPEB Liability [XIV.-XXIV.]	57,057,013	64,957,864
XXVI. Plan Fiduciary Net Position as % of Total OPEB Liability [XXIV./XIV.]	36.56%	29.23%
XXVII. Covered Employee Payroll	94,042,382	89,329,181
XXVIII. Plan NOL as % of Covered Employee Payroll [XXV./XXVII.]	60.67%	72.72%
Single Discount Rate to Calculate Plan Liabilities	7.25%	7.50%

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2023 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. For FY 2023 and future years we have used a 30-year amortization increasing by 3.00% per year of the Town's unfunded liability for the purpose of calculating ADC. The following table shows the components of the Town's annual ADC and the amount actually contributed to the plan:

Actuarially Determined Contribution - Deficiency / (Excess)					
For the Fiscal Year Ending:	<u>June 30, 2023</u>	<u>June 30, 2022</u>	<u>June 30, 2021</u>	<u>June 30, 2020</u>	<u>June 30, 2019</u>
I. Service Cost	3,562,953	3,030,646	3,085,624	2,915,612	2,797,907
II. 30 Year Amortization of NOL Increasing by 3.00% per year	<u>5,281,521</u>	<u>4,395,591</u>	<u>4,112,089</u>	<u>3,991,093</u>	<u>4,108,798</u>
III. Actuarial Determined Contribution [I. + II.]	8,844,474	7,426,237	7,197,713	6,906,705	6,906,705
IV. Contributions in Relation to the Actuarially Determined Contribution	<u>(8,844,474)</u>	<u>(7,426,237)</u>	<u>(7,197,713)</u>	<u>(6,906,705)</u>	<u>(6,906,705)</u>
V. Contribution Deficiency / (Excess) [III. + IV.]	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Covered Employee Payroll	118,576,875	105,734,622	102,654,973	99,665,022	93,645,807
Contributions as a % of Covered Employee Payroll	7.46%	7.02%	7.01%	6.93%	7.38%
Discount Rate	6.25%	6.25%	6.50%	6.75%	7.00%
Money Weighted Rate of Return	5.28%	(6.25%)	28.97%	4.65%	4.93%

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2023 Measurement Date)

Actuarially Determined Contribution - Deficiency / (Excess) (Continued)		
<u>For the Fiscal Year Ending:</u>	<u>June 30, 2018</u>	<u>June 30, 2017</u>
I. Service Cost	2,573,887	2,486,847
II. 30 Year Amortization of NOL Increasing by 3.00% per year	<u>3,498,396</u>	<u>3,082,076</u>
III. Actuarial Determined Contribution [I. + II.]	6,072,283	5,568,923
IV. Contributions in Relation to the Actuarially Determined Contribution	<u>(6,115,455)</u>	<u>(5,568,923)</u>
V. Contribution Deficiency / (Excess) [III. + IV.]	<u>(43,172)</u>	0
Covered Employee Payroll	94,042,382	89,329,181
Contributions as a % of Covered Employee Payroll	6.50%	6.23%
Discount Rate	7.25%	7.50%
Money Weighted Rate of Return	11.62%	14.25%

EXHIBIT BREQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2023 Measurement Date)

Notes to Required Supplementary Information:

Valuation Date:	Actuarially Determined Contribution was calculated as of June 30, 2022.
Actuarial Cost Method:	Individual Entry Age Normal
Asset-Valuation Method:	Market Value of Assets as of the Measurement Date, June 30, 2023.

Actuarial Assumptions:

Investment Rate of Return:	6.30%, net of OPEB plan investment expense, including inflation.
Municipal Bond Rate	4.13% as of June 30, 2023 (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, 2023 and for future periods
Salary Increases:	3.00% annually as of June 30, 2023 and for future periods
Cost of Living Adjustment:	Not Applicable

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2023 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, 2023 Measurement Date)

Plan Membership

At June 30, 2022, OPEB plan membership consisted of the following:

Retirees & Beneficiaries:	971
Actives:	<u>1,385</u>
Total:	2,356

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, 2022 to June 30, 2023

- ✓ Based on ongoing actuarial research, we have modified our assumption for future increases in healthcare costs using the Getzen model to reflect higher costs in the near-term.

Contributions/Withdrawals:

The contribution requirements of plan members and the Town are established and may be amended through Town ordinances. The Town contributed \$5,174,313 beyond the pay-as-you-go cost for the period ending on the June 30, 2023 Measurement Date. For the year ending on the June 30, 2023 Measurement Date total Town premiums plus implicit costs for the retiree medical program were \$5,735,280. \$1,603,094 of the \$5,735,280 represents implicit cost.

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2023 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

CONTRIBUTION PROJECTION DISCLOSURES

Table 1: Projection of Contributions using a June 30, 2022 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, 2023	118,576,875	0	118,576,875	0	5,735,280	0	5,735,280
June 30, 2024	110,790,822	11,343,359	122,134,181	0	6,055,016	0	6,055,016
June 30, 2025	104,392,368	21,405,838	125,798,206	0	6,681,361	0	6,681,361
June 30, 2026	98,836,260	30,735,892	129,572,152	0	7,132,291	0	7,132,291
June 30, 2027	94,170,921	39,288,396	133,459,317	0	7,635,399	0	7,635,399
June 30, 2028	89,588,828	47,874,269	137,463,097	0	8,089,054	0	8,089,054
June 30, 2029	85,554,321	56,032,669	141,586,990	0	8,569,273	0	8,569,273
June 30, 2030	81,500,460	64,334,140	145,834,600	0	8,930,474	0	8,930,474
June 30, 2031	77,703,020	72,506,618	150,209,638	0	9,328,469	0	9,328,469
June 30, 2032	74,196,047	80,519,880	154,715,927	0	9,802,003	0	9,802,003
June 30, 2033	70,397,130	88,960,275	159,357,405	0	10,183,796	0	10,183,796
June 30, 2034	67,198,871	96,939,256	164,138,127	0	10,579,254	45,655	10,624,909
June 30, 2035	63,928,904	105,133,367	169,062,271	0	10,992,611	118,216	11,110,827
June 30, 2036	61,157,505	112,976,634	174,134,139	0	11,387,131	221,123	11,608,254
June 30, 2037	58,481,009	120,877,154	179,358,163	0	11,698,274	367,827	12,066,101
June 30, 2038	55,749,199	128,989,709	184,738,908	0	12,016,664	551,617	12,568,281
June 30, 2039	53,199,450	137,081,625	190,281,075	0	12,448,575	674,765	13,123,340
June 30, 2040	50,656,240	145,333,267	195,989,507	0	12,815,652	820,241	13,635,893
June 30, 2041	48,308,279	153,560,913	201,869,192	0	12,862,410	990,845	13,853,255
June 30, 2042	45,953,721	161,971,547	207,925,268	0	13,075,741	1,112,389	14,188,130
June 30, 2043	43,892,720	170,270,306	214,163,026	0	13,285,268	1,249,004	14,534,272
June 30, 2044	41,965,202	178,622,715	220,587,917	0	13,121,733	1,472,709	14,594,442
June 30, 2045	39,870,900	187,334,655	227,205,555	0	13,251,532	1,767,839	15,019,371
June 30, 2046	37,738,701	196,283,021	234,021,722	0	13,312,449	2,134,897	15,447,346
June 30, 2047	35,759,063	205,283,311	241,042,374	0	13,084,817	2,601,681	15,686,498
June 30, 2048	33,897,476	214,376,169	248,273,645	0	12,982,726	3,153,153	16,135,879
June 30, 2049	31,788,042	223,933,812	255,721,854	0	13,070,840	3,584,763	16,655,603
June 30, 2050	29,897,721	233,495,789	263,393,510	0	13,133,639	4,071,645	17,205,284
June 30, 2051	27,953,933	243,341,382	271,295,315	0	13,091,257	4,618,136	17,709,393
June 30, 2052	25,781,609	253,652,565	279,434,174	0	12,972,726	5,065,883	18,038,609
June 30, 2053	23,667,970	264,149,229	287,817,199	0	13,065,866	5,546,823	18,612,689
June 30, 2054	21,665,506	274,786,209	296,451,715	0	12,952,139	6,145,381	19,097,520
June 30, 2055	19,602,545	285,742,721	305,345,266	0	12,901,664	6,810,945	19,712,609
June 30, 2056	17,491,704	297,013,920	314,505,624	0	12,943,881	7,542,193	20,486,074
June 30, 2057	15,297,781	308,643,012	323,940,793	0	12,692,757	8,362,368	21,055,125
June 30, 2058	13,346,186	320,312,831	333,659,017	0	12,550,840	9,252,404	21,803,244
June 30, 2059	11,351,667	332,317,121	343,668,788	0	12,489,412	10,087,468	22,576,880
June 30, 2060	9,521,369	344,457,483	353,978,852	0	12,250,680	10,969,173	23,219,853
June 30, 2061	7,909,803	356,688,415	364,598,218	0	11,958,191	11,904,937	23,863,128
June 30, 2062	6,214,957	369,321,208	375,536,165	0	11,685,920	12,819,566	24,505,486

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

CONTRIBUTION PROJECTION DISCLOSURES (CONTINUED)

Table 1: Projection of Contributions using a June 30, 2022 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, 2063	4,839,612	381,962,638	386,802,250	0	11,355,855	13,772,809	25,128,664
June 30, 2064	3,737,901	394,668,417	398,406,318	0	11,134,082	14,853,267	25,987,349
June 30, 2065	2,769,198	407,589,310	410,358,508	0	10,836,746	16,001,729	26,838,475
June 30, 2066	1,942,493	420,726,770	422,669,263	0	10,598,344	17,237,485	27,835,829
June 30, 2067	1,283,342	434,065,999	435,349,341	0	10,497,483	18,575,120	29,072,603
June 30, 2068	809,121	447,600,700	448,409,821	0	10,326,215	19,990,439	30,316,654
June 30, 2069	472,200	461,389,916	461,862,116	0	10,057,923	21,422,230	31,480,153
June 30, 2070	228,992	475,488,987	475,717,979	0	9,854,676	22,915,503	32,770,179
June 30, 2071	116,461	489,873,057	489,989,518	0	9,640,278	24,480,158	34,120,436
June 30, 2072	71,716	504,617,488	504,689,204	0	9,421,247	26,015,760	35,437,007
June 30, 2073	58,580	519,771,300	519,829,880	0	9,156,835	27,599,543	36,756,378
June 30, 2074	0	535,424,776	535,424,776	0	8,895,057	29,278,523	38,173,580
June 30, 2075	0	551,487,519	551,487,519	0	8,597,083	30,997,333	39,594,416
June 30, 2076	0	568,032,145	568,032,145	0	8,271,522	32,783,943	41,055,465
June 30, 2077	0	585,073,109	585,073,109	0	7,955,289	34,634,844	42,590,133
June 30, 2078	0	602,625,302	602,625,302	0	7,605,297	36,534,267	44,139,564
June 30, 2079	0	620,704,061	620,704,061	0	7,237,709	38,540,432	45,778,141
June 30, 2080	0	639,325,183	639,325,183	0	6,860,080	40,600,218	47,460,298
June 30, 2081	0	658,504,938	658,504,938	0	6,472,666	42,721,796	49,194,462
June 30, 2082	0	678,260,086	678,260,086	0	6,071,998	44,914,004	50,986,002
June 30, 2083	0	698,607,889	698,607,889	0	5,664,026	47,162,602	52,826,628
June 30, 2084	0	719,566,126	719,566,126	0	5,260,459	49,496,007	54,756,466
June 30, 2085	0	741,153,110	741,153,110	0	4,850,577	51,893,979	56,744,556
June 30, 2086	0	763,387,703	763,387,703	0	4,440,830	54,369,587	58,810,417
June 30, 2087	0	786,289,334	786,289,334	0	4,035,796	56,934,280	60,970,076
June 30, 2088	0	809,878,014	809,878,014	0	3,642,497	59,575,977	63,218,474
June 30, 2089	0	834,174,354	834,174,354	0	3,278,042	62,334,690	65,612,732
June 30, 2090	0	859,199,585	859,199,585	0	2,919,428	65,179,043	68,098,471
June 30, 2091	0	884,975,573	884,975,573	0	2,580,783	68,114,570	70,695,353
June 30, 2092	0	911,524,840	911,524,840	0	2,265,393	71,157,420	73,422,813
June 30, 2093	0	938,870,585	938,870,585	0	1,971,142	74,295,657	76,266,799
June 30, 2094	0	967,036,703	967,036,703	0	1,700,237	77,537,939	79,238,176
June 30, 2095	0	996,047,804	996,047,804	0	1,452,950	80,888,630	82,341,580
June 30, 2096	0	1,025,929,238	1,025,929,238	0	1,229,352	84,355,481	85,584,833
June 30, 2097	0	1,056,707,115	1,056,707,115	0	1,029,243	87,946,243	88,975,486

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

FIDUCIARY NET POSITION PROJECTION DISCLOSURES

Table 2: Projection of OPEB Plan's Fiduciary Net Position using a June 30 2022 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	VII. Trust Withdrawals [V. + VI.]	VIII. Investment Earnings	IX. Ending Fiduciary Net Position for Current Plan Members
June 30, 2023	61,383,657	5,735,280	5,174,313	10,909,593	0	5,735,280	5,735,280	3,576,485	70,134,455
June 30, 2024	70,134,455	6,055,016	1,547,553	7,602,569	0	6,055,016	6,055,016	4,056,103	75,738,111
June 30, 2025	75,738,111	6,681,361	8,527,050	15,208,411	0	6,681,361	6,681,361	5,036,001	89,301,162
June 30, 2026	89,301,162	7,132,291	8,277,846	15,410,137	0	7,132,291	7,132,291	5,882,743	103,461,751
June 30, 2027	103,461,751	7,635,399	8,111,262	15,746,661	0	7,635,399	7,635,399	6,769,693	118,342,706
June 30, 2028	118,342,706	8,089,054	7,870,983	15,960,037	0	8,089,054	8,089,054	7,699,740	133,913,429
June 30, 2029	133,913,429	8,569,273	7,675,372	16,244,645	0	8,569,273	8,569,273	8,674,628	150,263,429
June 30, 2030	150,263,429	8,930,474	7,378,167	16,308,641	0	8,930,474	8,930,474	9,695,459	167,337,055
June 30, 2031	167,337,055	9,328,469	7,113,900	16,442,369	0	9,328,469	9,328,469	10,762,900	185,213,855
June 30, 2032	185,213,855	9,802,003	6,896,203	16,698,206	0	9,802,003	9,802,003	11,882,386	203,992,444
June 30, 2033	203,992,444	10,183,796	6,585,655	16,769,451	0	10,183,796	10,183,796	13,055,804	223,633,903
June 30, 2034	223,633,903	10,579,254	6,351,976	16,931,230	0	10,624,909	10,624,909	14,285,967	244,226,191
June 30, 2035	244,226,191	10,992,611	6,109,904	17,102,515	0	11,110,827	11,110,827	15,575,773	265,793,652
June 30, 2036	265,793,652	11,387,131	5,911,318	17,298,449	0	11,608,254	11,608,254	16,928,363	288,412,210
June 30, 2037	288,412,210	11,698,274	5,693,339	17,391,613	0	12,066,101	12,066,101	18,346,570	312,084,292
June 30, 2038	312,084,292	12,016,664	5,474,118	17,490,782	0	12,568,281	12,568,281	19,831,112	336,837,905
June 30, 2039	336,837,905	12,448,575	5,279,615	17,728,190	0	13,123,340	13,123,340	21,384,556	362,827,311
June 30, 2040	362,827,311	12,815,652	5,062,440	17,878,092	0	13,635,893	13,635,893	23,015,152	390,084,662
June 30, 2041	390,084,662	12,862,410	4,787,737	17,650,147	0	13,853,255	13,853,255	24,723,844	418,605,398
June 30, 2042	418,605,398	13,075,741	4,541,497	17,617,238	0	14,188,130	14,188,130	26,513,012	448,547,518
June 30, 2043	448,547,518	13,285,268	4,327,872	17,613,140	0	14,534,272	14,534,272	28,392,740	480,019,126
June 30, 2044	480,019,126	13,121,733	4,069,967	17,191,700	0	14,594,442	14,594,442	30,367,451	512,983,835
June 30, 2045	512,983,835	13,251,532	3,868,700	17,120,232	0	15,019,371	15,019,371	32,437,984	547,522,680
June 30, 2046	547,522,680	13,312,449	3,662,862	16,975,311	0	15,447,346	15,447,346	34,607,547	583,658,192
June 30, 2047	583,658,192	13,084,817	3,443,447	16,528,264	0	15,686,498	15,686,498	36,877,278	621,377,236
June 30, 2048	621,377,236	12,982,726	3,267,531	16,250,257	0	16,135,879	16,135,879	39,248,121	660,739,735
June 30, 2049	660,739,735	13,070,840	3,073,420	16,144,260	0	16,655,603	16,655,603	41,721,937	701,950,329
June 30, 2050	701,950,329	13,133,639	2,902,974	16,036,613	0	17,205,284	17,205,284	44,312,918	745,094,576
June 30, 2051	745,094,576	13,091,257	2,719,021	15,810,278	0	17,709,393	17,709,393	47,025,299	790,220,760
June 30, 2052	790,220,760	12,972,726	2,494,605	15,467,331	0	18,038,609	18,038,609	49,861,288	837,510,770
June 30, 2053	837,510,770	13,065,866	2,299,016	15,364,882	0	18,612,689	18,612,689	52,834,491	887,097,454
June 30, 2054	887,097,454	12,952,139	2,104,337	15,056,476	0	19,097,520	19,097,520	55,952,414	939,008,824
June 30, 2055	939,008,824	12,901,664	1,912,385	14,814,049	0	19,712,609	19,712,609	59,216,876	993,327,140
June 30, 2056	993,327,140	12,943,881	1,721,762	14,665,643	0	20,486,074	20,486,074	62,633,017	1,050,139,726
June 30, 2057	1,050,139,726	12,692,757	1,508,281	14,201,038	0	21,055,125	21,055,125	66,205,588	1,109,491,227
June 30, 2058	1,109,491,227	12,550,840	1,325,120	13,875,960	0	21,803,244	21,803,244	69,939,051	1,171,502,994
June 30, 2059	1,171,502,994	12,489,412	1,134,656	13,624,068	0	22,576,880	22,576,880	73,839,884	1,236,390,066
June 30, 2060	1,236,390,066	12,250,680	954,072	13,204,752	0	23,219,853	23,219,853	77,922,168	1,304,297,133
June 30, 2061	1,304,297,133	11,958,191	794,191	12,752,382	0	23,863,128	23,863,128	82,195,354	1,375,381,741
June 30, 2062	1,375,381,741	11,685,920	624,820	12,310,740	0	24,505,486	24,505,486	86,668,431	1,449,855,426

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

FIDUCIARY POSITION PROJECTION DISCLOSURES (CONTINUED)

Table 2: Projection of OPEB Plan's Fiduciary Net Position using a June 30 2022 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	VII. Trust Withdrawals [V. + VI.]	VIII. Investment Earnings	IX. Ending Fiduciary Net Position for Current Plan Members
June 30, 2063	1,449,855,426	11,355,855	486,838	11,842,693	0	25,128,664	25,128,664	91,355,993	1,527,925,448
June 30, 2064	1,527,925,448	11,134,082	378,193	11,512,275	0	25,987,349	25,987,349	96,271,034	1,609,721,408
June 30, 2065	1,609,721,408	10,836,746	281,594	11,118,340	0	26,838,475	26,838,475	101,421,183	1,695,422,456
June 30, 2066	1,695,422,456	10,598,344	199,063	10,797,407	0	27,835,829	27,835,829	106,817,789	1,785,201,823
June 30, 2067	1,785,201,823	10,497,483	133,135	10,630,618	0	29,072,603	29,072,603	112,471,845	1,879,231,683
June 30, 2068	1,879,231,683	10,326,215	84,885	10,411,100	0	30,316,654	30,316,654	118,394,229	1,977,720,358
June 30, 2069	1,977,720,358	10,057,923	49,959	10,107,882	0	31,480,153	31,480,153	124,597,932	2,080,946,019
June 30, 2070	2,080,946,019	9,854,676	24,472	9,879,148	0	32,770,179	32,770,179	131,100,358	2,189,155,346
June 30, 2071	2,189,155,346	9,640,278	12,573	9,652,851	0	34,120,436	34,120,436	137,917,177	2,302,604,938
June 30, 2072	2,302,604,938	9,421,247	7,809	9,429,056	0	35,437,007	35,437,007	145,064,353	2,421,661,340
June 30, 2073	2,421,661,340	9,156,835	6,428	9,163,263	0	36,756,378	36,756,378	152,564,864	2,546,633,089
June 30, 2074	2,546,633,089	8,895,057	0	8,895,057	0	38,173,580	38,173,580	160,437,885	2,677,792,451
June 30, 2075	2,677,792,451	8,597,083	0	8,597,083	0	39,594,416	39,594,416	168,700,924	2,815,496,042
June 30, 2076	2,815,496,042	8,271,522	0	8,271,522	0	41,055,465	41,055,465	177,376,251	2,960,088,350
June 30, 2077	2,960,088,350	7,955,289	0	7,955,289	0	42,590,133	42,590,133	186,485,566	3,111,939,072
June 30, 2078	3,111,939,072	7,605,297	0	7,605,297	0	44,139,564	44,139,564	196,052,162	3,271,456,967
June 30, 2079	3,271,456,967	7,237,709	0	7,237,709	0	45,778,141	45,778,141	206,101,789	3,439,018,324
June 30, 2080	3,439,018,324	6,860,080	0	6,860,080	0	47,460,298	47,460,298	216,658,154	3,615,076,260
June 30, 2081	3,615,076,260	6,472,666	0	6,472,666	0	49,194,462	49,194,462	227,749,804	3,800,104,268
June 30, 2082	3,800,104,268	6,071,998	0	6,071,998	0	50,986,002	50,986,002	239,406,569	3,994,596,833
June 30, 2083	3,994,596,833	5,664,026	0	5,664,026	0	52,826,628	52,826,628	251,659,600	4,199,093,831
June 30, 2084	4,199,093,831	5,260,459	0	5,260,459	0	54,756,466	54,756,466	264,542,911	4,414,140,735
June 30, 2085	4,414,140,735	4,850,577	0	4,850,577	0	56,744,556	56,744,556	278,090,866	4,640,337,622
June 30, 2086	4,640,337,622	4,440,830	0	4,440,830	0	58,810,417	58,810,417	292,341,270	4,878,309,305
June 30, 2087	4,878,309,305	4,035,796	0	4,035,796	0	60,970,076	60,970,076	307,333,486	5,128,708,511
June 30, 2088	5,128,708,511	3,642,497	0	3,642,497	0	63,218,474	63,218,474	323,108,636	5,392,241,170
June 30, 2089	5,392,241,170	3,278,042	0	3,278,042	0	65,612,732	65,612,732	339,711,194	5,669,617,674
June 30, 2090	5,669,617,674	2,919,428	0	2,919,428	0	68,098,471	68,098,471	357,185,913	5,961,624,544
June 30, 2091	5,961,624,544	2,580,783	0	2,580,783	0	70,695,353	70,695,353	375,582,346	6,269,092,320
June 30, 2092	6,269,092,320	2,265,393	0	2,265,393	0	73,422,813	73,422,813	394,952,816	6,592,887,716
June 30, 2093	6,592,887,716	1,971,142	0	1,971,142	0	76,266,799	76,266,799	415,351,926	6,933,943,985
June 30, 2094	6,933,943,985	1,700,237	0	1,700,237	0	79,238,176	79,238,176	436,838,471	7,293,244,517
June 30, 2095	7,293,244,517	1,452,950	0	1,452,950	0	82,341,580	82,341,580	459,474,405	7,671,830,292
June 30, 2096	7,671,830,292	1,229,352	0	1,229,352	0	85,584,833	85,584,833	483,325,308	8,070,800,119
June 30, 2097	8,070,800,119	1,029,243	0	1,029,243	0	88,975,486	88,975,486	508,460,407	8,491,314,283

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

BENEFIT PAYMENT PROJECTION DISCLOSURES

Table 3: Actuarial Present Values of Projected Benefit Payments using a June 30, 2022 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 [III. - III.]	V. Present Value of Funded Benefit Payments using the Long-Term Rate of Return [6.30%]	VI. Present Value of Unfunded Benefit Payments using the Municipal Bond Rate [4.13%]	VII. Present Value of Benefit Payments using the Single Equivalent Discount Rate [6.25%]
June 30, 2023	61,383,657	5,735,280	5,735,280	0	5,735,280	0	5,735,280
June 30, 2024	70,134,455	6,055,016	6,055,016	0	5,696,158	0	5,696,158
June 30, 2025	75,738,111	6,681,361	6,681,361	0	5,912,871	0	5,912,871
June 30, 2026	89,301,162	7,132,291	7,132,291	0	5,937,851	0	5,937,851
June 30, 2027	103,461,751	7,635,399	7,635,399	0	5,979,966	0	5,979,966
June 30, 2028	118,342,706	8,089,054	8,089,054	0	5,959,796	0	5,959,796
June 30, 2029	133,913,429	8,569,273	8,569,273	0	5,939,425	0	5,939,425
June 30, 2030	150,263,429	8,930,474	8,930,474	0	5,822,931	0	5,822,931
June 30, 2031	167,337,055	9,328,469	9,328,469	0	5,721,953	0	5,721,953
June 30, 2032	185,213,855	9,802,003	9,802,003	0	5,656,079	0	5,656,079
June 30, 2033	203,992,444	10,183,796	10,183,796	0	5,528,115	0	5,528,115
June 30, 2034	223,633,903	10,579,254	10,579,254	0	5,402,430	0	5,402,430
June 30, 2035	244,226,191	10,992,611	10,992,611	0	5,280,824	0	5,280,824
June 30, 2036	265,793,652	11,387,131	11,387,131	0	5,146,143	0	5,146,143
June 30, 2037	288,412,210	11,698,274	11,698,274	0	4,973,431	0	4,973,431
June 30, 2038	312,084,292	12,016,664	12,016,664	0	4,806,013	0	4,806,013
June 30, 2039	336,837,905	12,448,575	12,448,575	0	4,683,682	0	4,683,682
June 30, 2040	362,827,311	12,815,652	12,815,652	0	4,536,023	0	4,536,023
June 30, 2041	390,084,662	12,862,410	12,862,410	0	4,282,759	0	4,282,759
June 30, 2042	418,605,398	13,075,741	13,075,741	0	4,095,758	0	4,095,758
June 30, 2043	448,547,518	13,285,268	13,285,268	0	3,914,759	0	3,914,759
June 30, 2044	480,019,126	13,121,733	13,121,733	0	3,637,413	0	3,637,413
June 30, 2045	512,983,835	13,251,532	13,251,532	0	3,455,686	0	3,455,686
June 30, 2046	547,522,680	13,312,449	13,312,449	0	3,265,825	0	3,265,825
June 30, 2047	583,658,192	13,084,817	13,084,817	0	3,019,738	0	3,019,738
June 30, 2048	621,377,236	12,982,726	12,982,726	0	2,818,605	0	2,818,605
June 30, 2049	660,739,735	13,070,840	13,070,840	0	2,669,553	0	2,669,553
June 30, 2050	701,950,329	13,133,639	13,133,639	0	2,523,405	0	2,523,405
June 30, 2051	745,094,576	13,091,257	13,091,257	0	2,366,192	0	2,366,192
June 30, 2052	790,220,760	12,972,726	12,972,726	0	2,205,802	0	2,205,802
June 30, 2053	837,510,770	13,065,866	13,065,866	0	2,089,971	0	2,089,971
June 30, 2054	887,097,454	12,952,139	12,952,139	0	1,948,993	0	1,948,993
June 30, 2055	939,008,824	12,901,664	12,901,664	0	1,826,338	0	1,826,338
June 30, 2056	993,327,140	12,943,881	12,943,881	0	1,723,720	0	1,723,720
June 30, 2057	1,050,139,726	12,692,757	12,692,757	0	1,590,102	0	1,590,102
June 30, 2058	1,109,491,227	12,550,840	12,550,840	0	1,479,137	0	1,479,137
June 30, 2059	1,171,502,994	12,489,412	12,489,412	0	1,384,664	0	1,384,664
June 30, 2060	1,236,390,066	12,250,680	12,250,680	0	1,277,702	0	1,277,702
June 30, 2061	1,304,297,133	11,958,191	11,958,191	0	1,173,279	0	1,173,279
June 30, 2062	1,375,381,741	11,685,920	11,685,920	0	1,078,613	0	1,078,613

Sum of Column V.
163,357,475

Sum of Column VI.
0

Sum of Column VII.
[V. + VI.]
163,357,475

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

BENEFIT PAYMENT PROJECTION DISCLOSURES (CONTINUED)

Table 3: Actuarial Present Values of Projected Benefit Payments using a June 30, 2022 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 [6.30%]	VI. Present Value of Unfunded Benefit Payments using the Municipal Bond Rate [4.13%]	VII. Present Value of Benefit Payments using the Single Equivalent Discount Rate [6.25%]
June 30, 2063	1,449,855,426	11,355,855	11,355,855	0	986,028	0	986,028
June 30, 2064	1,527,925,448	11,134,082	11,134,082	0	909,475	0	909,475
June 30, 2065	1,609,721,408	10,836,746	10,836,746	0	832,725	0	832,725
June 30, 2066	1,695,422,456	10,598,344	10,598,344	0	766,139	0	766,139
June 30, 2067	1,785,201,823	10,497,483	10,497,483	0	713,874	0	713,874
June 30, 2068	1,879,231,683	10,326,215	10,326,215	0	660,609	0	660,609
June 30, 2069	1,977,720,358	10,057,923	10,057,923	0	605,310	0	605,310
June 30, 2070	2,080,946,019	9,854,676	9,854,676	0	557,929	0	557,929
June 30, 2071	2,189,155,346	9,640,278	9,640,278	0	513,444	0	513,444
June 30, 2072	2,302,604,938	9,421,247	9,421,247	0	472,040	0	472,040
June 30, 2073	2,421,661,340	9,156,835	9,156,835	0	431,601	0	431,601
June 30, 2074	2,546,633,089	8,895,057	8,895,057	0	394,414	0	394,414
June 30, 2075	2,677,792,451	8,597,083	8,597,083	0	358,609	0	358,609
June 30, 2076	2,815,496,042	8,271,522	8,271,522	0	324,580	0	324,580
June 30, 2077	2,960,088,350	7,955,289	7,955,289	0	293,670	0	293,670
June 30, 2078	3,111,939,072	7,605,297	7,605,297	0	264,111	0	264,111
June 30, 2079	3,271,456,967	7,237,709	7,237,709	0	236,449	0	236,449
June 30, 2080	3,439,018,324	6,860,080	6,860,080	0	210,830	0	210,830
June 30, 2081	3,615,076,260	6,472,666	6,472,666	0	187,134	0	187,134
June 30, 2082	3,800,104,268	6,071,998	6,071,998	0	165,146	0	165,146
June 30, 2083	3,994,596,833	5,664,026	5,664,026	0	144,920	0	144,920
June 30, 2084	4,199,093,831	5,260,459	5,260,459	0	126,618	0	126,618
June 30, 2085	4,414,140,735	4,850,577	4,850,577	0	109,833	0	109,833
June 30, 2086	4,640,337,622	4,440,830	4,440,830	0	94,595	0	94,595
June 30, 2087	4,878,309,305	4,035,796	4,035,796	0	80,872	0	80,872
June 30, 2088	5,128,708,511	3,642,497	3,642,497	0	68,665	0	68,665
June 30, 2089	5,392,241,170	3,278,042	3,278,042	0	58,133	0	58,133
June 30, 2090	5,669,617,674	2,919,428	2,919,428	0	48,704	0	48,704
June 30, 2091	5,961,624,544	2,580,783	2,580,783	0	40,503	0	40,503
June 30, 2092	6,269,092,320	2,265,393	2,265,393	0	33,446	0	33,446
June 30, 2093	6,592,887,716	1,971,142	1,971,142	0	27,377	0	27,377
June 30, 2094	6,933,943,985	1,700,237	1,700,237	0	22,215	0	22,215
June 30, 2095	7,293,244,517	1,452,950	1,452,950	0	17,859	0	17,859
June 30, 2096	7,671,830,292	1,229,352	1,229,352	0	14,215	0	14,215
June 30, 2097	8,070,800,119	1,029,243	1,029,243	0	11,196	0	11,196

APPENDIX II – PLAN PROVISIONS

Plan Year

July 1 through June 30.

Premium Effective Date

Medicare Supplement Plans: effective January 1, 2023

Active Plans: effective July 1, 2023

Dental Plans: N/A

Creditable Service

Elapsed time from date of hire to termination of service date.

Benefits Offered

Comprehensive Medical & Dental Insurance as well as \$5,000 of Group Term Life Insurance.

Medicare Part A

To the best of our knowledge the Town does not pay any Medicare Part A premiums or penalties.

Medicare Part B

Medicare Part B Premium reimbursements by the Town were not reflected in this valuation.

Medicare Part B Penalty reimbursements by the Town were not reflected in this valuation.

Surviving Spouse Coverage

Surviving spouses pay 100% of premiums.

APPENDIX II – PLAN PROVISIONS

Eligibility

Hire Date	Eligibility
Before April 2, 2012	• Age 55 with 10 years of creditable service • 20 years of service regardless of age
On or after April 2, 2012	• Age 60 with 10 years of creditable service

Participant Contributions

Group	Individual	Two-Person / Family
Medical	Varies by plan elected and coverage level	Varies by plan elected and coverage level
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 6.25%)

Net Long Term Rate of Return

6.30% (based on investment policy)

Municipal Bond Rate

4.13% as of June 30, 2023 (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, 2023

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 Safety
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 Part A & B Premiums & Penalties: N/A

Medical Plans: Rates were developed using the SOA Getzen Model of Long-Run Medical Cost Trends with the following model input variables:

Inflation (CPI):	2.50%
Real GDP (per capita):	1.10%
Excess Medical Cost Growth:	1.10%
Expected Health Share of GDP in 2030:	21%
Health Share of GDP Resistance Point:	22.5%
Year for Limiting Cost Growth to GDP Growth:	2060

See below for a table of trend rates for select years:

Year	Rate
2021	9.00%
2022	8.00%
2023	6.50%
2024	5.00%
2025	4.96%
2026	4.92%
2027	4.88%
2028	4.84%
2029	4.81%
2030 - 2037	4.77%
2050	4.38%
2060+	3.63%

APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

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.

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.

Compensation Increases

3.00% per year.

Inflation Rate

2.50% per year.

COVID-19

We recognize that COVID-19 may impact plan experience. We have reviewed the assumptions used in this report. Based on the data that is currently available, we have not made any adjustments to these assumptions to reflect the impact of COVID-19. We will continue to monitor the impact of COVID-19 to determine if adjustments to valuation assumptions are warranted.

APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

Implicit Subsidy

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

Impact of Implicit Subsidy		
	As of the Measurement Date	
Impact on Liability	<u>June 30, 2023</u>	<u>June 30, 2022</u>
I. Total OPEB Liability	143,077,747	135,250,391
II. Total OPEB Liability (Excluding Implicit Subsidy)	<u>101,599,060</u>	<u>98,833,110</u>
III. Liability from Implicit Subsidy [I. - II.]	41,478,687	36,417,281

	For the Measurement Period Ending	
Impact on Payments	<u>June 30, 2023</u>	<u>June 30, 2022</u>
IV. Employer Payments (Including Implicit Subsidy)	5,735,280	5,626,770
V. Actual Employer Payments	<u>4,132,186</u>	<u>3,839,988</u>
VI. Implicit Subsidy [IV. - V.]	1,603,094	1,786,782

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	4,739	2,987	44 & Under	9,314	6,103	65 to 69	3,338	3,428
25 to 29	6,991	3,108	45 to 49	10,231	7,706	70 to 74	3,938	4,108
30 to 34	8,834	3,902	50 to 54	12,035	10,148	75 to 79	4,569	4,851
35 to 39	9,100	4,898	55 to 59	13,913	13,194	80 to 84	5,239	5,575
40 to 44	9,314	6,103	60 to 64	16,556	16,931	85 to 89	5,857	6,210
45 to 49	10,231	7,706	65 to 69	19,846	21,119	90 & Over	5,857	6,210
50 to 54	12,035	10,148	70 to 74	23,404	25,308			
55 to 59	13,913	13,194	75 to 79	27,180	29,891			
60 to 64	16,556	16,931	80 to 84	31,163	34,357			
65 to 69	19,846	21,119	85 to 89	35,571	39,327			
70 & Over	23,404	25,308	90 & Over	35,571	39,327			

*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, 2023 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	June 30, 2022	June 30, 2021
A. Average Age at Hire	35.38	34.92
B. Average Service	<u>9.67</u>	<u>9.79</u>
C. Average Current Age	45.05	44.71

Retired Employees & Spouses

Valuation Date	June 30, 2022	June 30, 2021
A. Under Age 65	94	79
B. Age 65 & Over	<u>877</u>	<u>861</u>
C. Total	971	940

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	51	2								53
25-29	121	9	3							133
30-34	87	65	5	1						158
35-39	74	47	40	4						165
40-44	54	38	36	47	5					180
45-49	54	37	20	30	26	3				170
50-54	43	35	34	22	41	18	2			195
55-59	33	22	31	23	19	24	7	1		160
60-64	19	22	16	25	13	16	4		1	116
65-69	6	5	8	10	6		1		1	37
70+	3	4	1	2	2	1	2		3	18
Total	545	286	194	164	112	62	16	1	5	1,385

APPENDIX IV – PLAN DEMOGRAPHICS

Plan Offerings

	Number of Contracts			
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>	<u>Total</u>
Blue Cross HDHP	75		91	166
Blue Cross Benchmark	146		65	211
Harvard Pilgrim Benchmark	137		118	255
Harvard Pilgrim HDHP	128		170	298
Harvard Pilgrim PPO	2			2
Tufts Benchmark	55		15	70
Tufts HDHP	21		17	38
Tufts Medicare Supplement	496			496
Tufts Medicare Preferred	31			31
Harvard Pilgrim Medicare Enhanced	45			45
Managed Blue for Seniors	103			103
Medex	161			161
Total	1,400	0	476	1,876

Per Contract Costs (monthly)

	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
Blue Cross HDHP	748.00		2,016.00
Blue Cross Benchmark	888.00		2,391.00
Harvard Pilgrim Benchmark	1,108.00		2,888.00
Harvard Pilgrim HDHP	858.00		2,239.00
Harvard Pilgrim PPO	2,751.00		6,109.00
Tufts Benchmark	1,173.00		3,070.00
Tufts HDHP	908.00		2,377.00
Tufts Medicare Supplement	387.00	774.00	
Tufts Medicare Preferred	371.00	742.00	
Harvard Pilgrim Medicare Enhanced	401.00	802.00	
Managed Blue for Seniors	387.00	774.00	
Medex	405.00	810.00	
Dental Plan	N/A		N/A

APPENDIX IV – PLAN DEMOGRAPHICS

	Active Plan Average Premium Calculation					
	Single	Two-Person	Family	Number of Participants	Total Premiums Paid	Claims Without Children
Blue Cross HDHP	75		91	257	2,874,672.00	2,306,832.00
Blue Cross Benchmark	146		65	276	3,420,756.00	2,941,056.00
Harvard Pilgrim Benchmark	137		118	373	5,910,960.00	4,959,408.00
Harvard Pilgrim HDHP	128		170	468	5,885,448.00	4,818,528.00
Harvard Pilgrim PPO	2			2	66,024.00	66,024.00
Tufts Benchmark	55		15	85	1,326,780.00	1,196,460.00
Tufts HDHP	21		17	55	713,724.00	599,280.00
Total	564	0	476	1,516	20,198,364.00	16,887,588.00
Blended Average Monthly Rate:						\$ 928.30

	Medicare Supplement Plan Average Premium Calculation					
	Single	Two-Person	Family	Number of Participants	Total Premiums Paid	Claims Without Children
Tufts Medicare Supplement	496			496	2,303,424.00	2,303,424.00
Tufts Medicare Preferred	31			31	138,012.00	138,012.00
Harvard Pilgrim Medicare Enhanced	45			45	216,540.00	216,540.00
Managed Blue for Seniors	103			103	478,332.00	478,332.00
Medex	161			161	782,460.00	782,460.00
Total	836	0	0	836	3,918,768.00	3,918,768.00
Blended Average Monthly Rate:						\$ 390.63

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.

APPENDIX VI – ASOP 41 DISCLOSURES

The Actuarial Standards Board (the “ASB”), vested by the U.S.-based actuarial organizations¹, promulgates actuarial standards of practice (“ASOPs”) for use by actuaries when providing professional services in the United States. Each of these organizations requires its members, through its Code of Professional Conduct², to observe the ASOPs of the ASB when practicing in the United States.

The ASOPs are not narrowly prescriptive and neither dictate a single approach nor mandate a particular outcome. ASOPs are intended to provide actuaries with a framework for performing professional assignments and to offer guidance on relevant issues, recommended practices, documentation, and disclosure. Each ASOP articulates a process of analysis, documentation, and disclosure that, in the ASB’s judgment, constitutes appropriate practice within the scope and purpose of the ASOP.

ASOP 41 provides guidance to actuaries with respect to actuarial communications and requires certain disclosures which are contained in this Appendix.

Identification of the Responsible Actuary

The responsible actuary is Parker Elmore, ASA, EA, FCA, MAAA of Odyssey Advisors. This actuary is available to provide supplementary information and explanation.

Identification of Actuarial Documents

The date of this document is February 27, 2024 and its subject is the Town of Needham's GASB 75 OPEB liabilities.

¹ The American Academy of Actuaries (the “Academy”), the American Society of Pension Professionals and Actuaries, the Casualty Actuarial Society, the Conference of Consulting Actuaries, and the Society of Actuaries.

² These organizations adopted identical *Codes of Professional Conduct* effective January 1, 2001

APPENDIX VI – ASOP 41 DISCLOSURES

Disclosures in Actuarial Reports

- ✓ The contents of this report are intended for the use of the officers, employees, and elected officials of the Town and the Town's appointed auditor. The Town may distribute this report to those parties that have a legal right to require the Town to provide it, in which case it will be provided in its entirety including all assumptions, caveats, and limitations. In addition, we request that the Town notify Odyssey Advisors to whom it was distributed.
- ✓ The purpose of this engagement was to provide the Town with analysis of the GASB 75 OPEB liabilities.
- ✓ The responsible actuary identified above is qualified as specified in the Qualification Standards of the American Academy of Actuaries.
- ✓ Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. Actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.
- ✓ Actuarial computations under GASB 75 are for purposes of fulfilling financial accounting requirements of the Town. Determinations for purposes other than meeting these financial accounting requirements may be significantly different from the results contained in this report. These communications should not be relied upon for any other purpose.
- ✓ The Town of Needham has agreed to pay Odyssey Advisors a fee for preparing this report. Other than with regard to that contract, we are financially and organizationally independent from the Town and any entity or individual related to the Town. There is nothing in our relationship with the Town that would impair or seem to impair the objectivity of our work.
- ✓ The Town provided the employee/retiree data, premium rates and other information used to prepare our report. We have reviewed the data for reasonableness but have not audited it. To the extent that there are material inaccuracies in the data, our results may be accordingly affected.
- ✓ The date through which data or other information has been considered in developing the findings included in this report is June 30, 2023.
- ✓ The various documents comprising the actuarial report are contained within the document to which these disclosures are attached.

APPENDIX VI – ASOP 41 DISCLOSURES

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.

Actuarial Findings

The actuarial findings of the report can be found in the report to which these disclosures are attached.

Methods, Procedures, Assumptions, and Data

The methods, procedures, assumptions and data used by the actuary can be found in the report to which these disclosures are attached.

Assumptions or Methods Prescribed by Law

While not legally binding, our determinations were made in accordance with our understanding of Statement No. 75 of the Governmental Accounting Standards Board. Actuarial computations under GASB 75 are for purposes of fulfilling employer accounting requirements. Determinations for purposes other than meeting such requirements may be significantly different from these results. Accordingly, additional determinations may be needed for other purposes.

Responsibility for Assumptions and Methods

The actuary does not disclaim responsibility for any material assumption(s) or method(s).

Deviation from the Guidance of an ASOP

The actuary has not deviated materially from the guidance set forth in an applicable ASOP.

Rounding

Results in this report are shown to the nearest dollar. Due to the predictive nature of these results, no implication is made as to the degree of precision in these unrounded figures. Clients should work with their auditors to decide if it would be prudent to round these results when applying them to the financial statements.

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.