

Town of Needham Other Postemployment Benefits Plan

GASB 74 & GASB 75 Actuarial Valuation

With a Valuation Date of June 30, 2021

As of the Measurement Date:
June 30, 2022

For the Reporting Date:
June 30, 2022

Delivered February 13, 2023



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February 13, 2023

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, 2022 with a Measurement Date of June 30, 2022 and a Valuation Date of June 30, 2021. 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") effective for the fiscal years ending June 30, 2021 and June 30, 2022 respectively.

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

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

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

Very truly yours,



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

February 13, 2023

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, 2021 with a Measurement Date of June 30, 2022 for the Reporting Date & fiscal year ending June 30, 2022 in accordance with Government Account Standards Board Statement No. 74 & 75 and Actuarial Standards of Practice as issued by the American Academy of Actuaries. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements Numbers 74 & 75 for the determination of the liability for postemployment benefits other than pensions.

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

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

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

A handwritten signature in black ink, appearing to read 'P. Elmore', with a long horizontal flourish extending to the right.

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

EXECUTIVE SUMMARY

How did plan liabilities change from FY 21 to FY 22?

Plan Experience

For the year ending on the Measurement Date of June 30, 2022, the Plan saw an experience gain of \$3,714,901 or 2.88% of the beginning Total OPEB Liability ("TOL"). This was mainly due to the average premium for Medicare Supplement plans increasing by 2% vs. the expected 5% as well as a reduction in retirees over the age of 65 in Active plans.

Assumption Changes

One or more key assumptions have changed since the prior valuation. The total impact of these assumption changes increased disclosed liabilities by \$4.0 million, as detailed below.

- ✓ Due to the GASB 75 standards the discount rate has been changed from 6.50% to 6.25% increasing the disclosed liability by \$4.0 million.

Investment Experience

- ✓ During the period there was an investment loss of \$6,349,536 due to asset performance below the expected rate of return.

Changes in Benefits Terms

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

Recognition Period

- ✓ Changes in assumptions & plan experience are amortized into the net OPEB expense over 6.85 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

EXECUTIVE SUMMARY

Events Subsequent to the Measurement Date

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

Discount Rate Determinants

- ✓ Employer Current and Future Benefit Payments
- ✓ Municipal Bond Rate – The S&P 20-year high grade municipal bond index was 4.09% as of June 30, 2022.
- ✓ Current Asset Level – The Town had \$61,383,657 of OPEB assets as of June 30, 2022.
- ✓ 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 6.41% per year on assets based on its investment policy.

Key Drivers of Plan Liabilities

Several key drivers of plan costs and liabilities are:

- ✓ Premiums for Post 65 (Medicare supplement) plans - represent 74.94% 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.
- ✓ 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

Medicare Buy-In

The Town currently has 41 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 41 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	41
II. Current Liability for Retirees and Spouses Over 65 in Active Plans	14,300,000
III. Potential Liability in Medicare Supplement Plan*	5,494,000
IV. Potential Reduction in Liability [II. - III.]	8,806,000

***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, 2021	June 30, 2020
Measurement Date & Period Ending	June 30, 2022	June 30, 2021
Reporting Date/Fiscal Year End	June 30, 2022	June 30, 2021
Total OPEB Liability	135,250,391	129,196,502
Per Eligible Active Plan Participant	48,115	46,935
Per Retiree/Spouse Plan Participant	71,045	70,964
Total Annual Service Cost (Annual Benefit Accrual)	3,030,646	3,085,624
Per Eligible Active Plan Participant	2,130	2,299
Expected Employer Share of Retiree Costs	5,626,770	5,034,735
Per Retiree/Spouse Plan Participant	5,986	5,396
Net OPEB Liability as a % of Covered Payroll	69.90%	67.20%

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, 2022	940	135,250,391	135,250,391	5,626,770	5,626,770
June 30, 2027	1,075	164,951,140	142,288,302	7,624,904	6,577,309
June 30, 2032	1,116	196,906,189	146,516,697	9,753,421	7,257,461
June 30, 2037	1,124	230,789,363	148,134,910	12,146,906	7,796,637
June 30, 2042	1,104	268,257,090	148,527,447	14,008,041	7,755,913
June 30, 2047	1,082	315,297,921	150,588,043	15,922,909	7,604,870
June 30, 2052	1,087	372,065,368	153,286,005	18,298,762	7,538,848

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, 2023 (budgeted)	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
June 30, 2018	4,463,145

The Town performs actuarial valuations of its non-pension post-employment benefits liability in accordance with GASB reporting requirements. As of the June 30, 2022 Measurement Date, the Net OPEB Liability ("NOL") was determined to be \$73,866,734 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, 2022 was \$61,383,657. 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, 2021	June 30, 2020
For the Measurement Period ending on the Measurement Date of:	June 30, 2022	June 30, 2021
For the Reporting Period & Fiscal Year ending on:	June 30, 2022	June 30, 2021
I. Total OPEB Liability		
A. Actives	68,468,081	62,987,372
B. Retirees/Disabled	<u>66,782,310</u>	<u>66,209,130</u>
C. Total	135,250,391	129,196,502
II. Fiduciary Net Position [Plan Assets]	61,383,657	60,176,478
III. Net OPEB Liability (Asset) [I. - II.]	73,866,734	69,020,024
IV. Funded Ratio [II. / I.]	45.39%	46.58%
V. Number of Eligible Participants		
A. Actives	1,423	1,342
B. Retirees/Disabled & Dependents	<u>940</u>	<u>933</u>
C. Total	2,363	2,275
VI. Service Cost	3,030,646	3,085,624
VII. Financial Statement Expense/(Income)	8,231,484	8,272,920
VIII. Employer Contribution to the OPEB Trust	(3,586,249)	(3,615,641)
IX. Deferred Inflow of Resources	(14,557,916)	(17,315,584)
X. Deferred Outflow of Resources	20,890,997	17,820,420
XI. Money Weighted Rate of Return	(6.25%)	28.97%
XII. 20-year Municipal Bond Rate (SAPIHG)	4.09%	2.18%
XIII. Expected Long Term Rate of Return (Net of Expense)	6.41%	6.41%
XIV. Crossover Year	N/A	N/A
XV. Discount Rate	6.25%	6.50%

PRINCIPAL RESULTS OF THE VALUATION

Town of Needham Plan Liabilities as of the June 30, 2022 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	8,556,283	47,400,856	4,641,656	6,127,725	859,505	882,056	68,468,081
B. Retirees/Disabled	<u>16,627,736</u>	<u>41,520,317</u>	<u>3,155,271</u>	<u>4,498,149</u>	<u>592,718</u>	<u>388,119</u>	<u>66,782,310</u>
C. Total	25,184,019	88,921,173	7,796,927	10,625,874	1,452,223	1,270,175	135,250,391
II. Fiduciary Net Position [Plan Assets]	11,429,817	40,357,050	3,538,651	4,822,574	659,094	576,471	61,383,657
III. Net OPEB Liability (Asset) [I. - II.]	13,754,202	48,564,123	4,258,276	5,803,300	793,129	693,704	73,866,734
For the Reporting Date and Fiscal Year Ending June 30, 2022							
IV. Service Cost	426,379	2,160,391	185,396	197,477	32,541	28,462	3,030,646
V. Financial Statement Expense/(Income)	1,372,571	5,603,637	486,892	604,989	87,054	76,341	8,231,484
VI. Employer Share of Costs	(1,370,546)	(3,336,728)	(339,263)	(466,974)	(60,416)	(52,843)	(5,626,770)
VII. Employer (Payments)/Withdrawals to/from OPEB Trust	(652,700)	(2,373,139)	(207,281)	(280,943)	(38,507)	(33,679)	(3,586,249)
VIII. Total Employer Contribution [VI. + VII.]	(2,023,246)	(5,709,867)	(546,544)	(747,917)	(98,923)	(86,522)	(9,213,019)

PRINCIPAL RESULTS OF THE VALUATION

Town of Needham

Assuming Funding - 6.25% discount rate

For the Period Ending on the June 30, 2022 Measurement Date

	Actives			Retirees/Disabled			Grand Total
	Under Age 65	Age 65+	Actives Total	Under Age 65	Age 65 +	Retirees Total	
Present Value of Future Benefits							
A. Participants	26,195,268	37,824,087	64,019,355	4,385,236	61,921,453	66,306,689	130,326,044
B. Spouses	<u>14,852,640</u>	<u>19,154,356</u>	<u>34,006,996</u>	<u>158,609</u>	<u>317,012</u>	<u>475,621</u>	<u>34,482,617</u>
C. Total	41,047,908	56,978,443	98,026,351	4,543,845	62,238,465	66,782,310	164,808,661
Total OPEB Liability							
A. Participants	18,687,350	26,061,969	44,749,319	4,385,236	61,921,453	66,306,689	111,056,008
B. Spouses	<u>10,663,449</u>	<u>13,055,313</u>	<u>23,718,762</u>	<u>158,609</u>	<u>317,012</u>	<u>475,621</u>	<u>24,194,383</u>
C. Total	29,350,799	39,117,282	68,468,081	4,543,845	62,238,465	66,782,310	135,250,391
Service Cost							
A. Participants	736,674	1,245,862	1,982,536	0	0	0	1,982,536
B. Spouses	<u>413,429</u>	<u>634,681</u>	<u>1,048,110</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,048,110</u>
C. Total	1,150,103	1,880,543	3,030,646	0	0	0	3,030,646

PRINCIPAL RESULTS OF THE VALUATION
CURRENT INVESTMENT 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 6.41% return	III. Net OPEB Liability (Asset) [I. - II.]	IV. Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Benefit Payments (With Implicit Cost)	VII. Trust Contributions Beyond Pay-as-you-go	VIII. Gross Trust Contributions [VI. + VII.]	IX. Benefit Payments Reimbursed from the Trust	X. Administrative & Investment Expenses Reimbursed from the Trust	XI. Total Employer Payments Less Reimbursements [VIII. - IX. - X.]
2022	June 30, 2022	135,250,391	61,383,657	73,866,734	45.39%	3,030,646	5,626,770	3,586,249	7,426,237	3,827,587	0	3,598,650
2023	June 30, 2023	141,577,387	68,525,645	73,051,742	48.40%	3,562,953	5,735,280	3,109,194	8,844,474	5,735,280	0	3,109,194
2024	June 30, 2024	146,957,189	74,446,994	72,510,195	50.66%	3,673,269	6,278,924	1,482,092	7,761,016	6,278,924	0	1,482,092
2025	June 30, 2025	152,879,329	80,697,312	72,182,017	52.78%	3,806,220	6,708,256	1,433,050	8,141,306	6,708,256	0	1,433,050
2026	June 30, 2026	158,896,047	87,344,448	71,551,599	54.97%	3,930,378	7,110,891	1,429,339	8,540,230	7,110,891	0	1,429,339
2027	June 30, 2027	164,951,140	94,319,108	70,632,032	57.18%	4,073,832	7,624,904	1,333,797	8,958,701	7,624,904	0	1,333,797
2028	June 30, 2028	171,094,676	101,749,542	69,345,134	59.47%	4,209,858	8,055,448	1,342,229	9,397,677	8,055,448	0	1,342,229
2029	June 30, 2029	177,327,114	109,650,664	67,676,450	61.84%	4,358,441	8,521,367	1,336,797	9,858,164	8,521,367	0	1,336,797
2030	June 30, 2030	183,725,200	118,177,917	65,547,283	64.32%	4,503,093	8,888,408	1,452,806	10,341,214	8,888,408	0	1,452,806
2031	June 30, 2031	190,299,023	127,405,175	62,893,848	66.95%	4,658,300	9,246,411	1,601,522	10,847,933	9,246,411	0	1,601,522
2032	June 30, 2032	196,906,189	137,249,214	59,656,975	69.70%	4,813,393	9,753,421	1,626,061	11,379,482	9,753,421	0	1,626,061
2033	June 30, 2033	203,656,430	147,954,716	55,701,714	72.65%	4,959,642	10,087,604	1,849,472	11,937,076	10,087,604	0	1,849,472
2034	June 30, 2034	210,408,416	159,406,142	51,002,274	75.76%	5,133,440	10,614,645	1,907,348	12,521,993	10,614,645	0	1,907,348
2035	June 30, 2035	217,249,976	171,728,739	45,521,237	79.05%	5,292,456	11,095,283	2,040,288	13,135,571	11,095,283	0	2,040,288
2036	June 30, 2036	224,082,804	184,924,053	39,158,751	82.52%	5,470,643	11,658,622	2,120,592	13,779,214	11,658,622	0	2,120,592
2037	June 30, 2037	230,789,363	199,157,980	31,631,383	86.29%	5,647,274	12,146,906	2,307,489	14,454,395	12,146,906	0	2,307,489
2038	June 30, 2038	237,954,263	214,631,114	23,323,149	90.20%	5,827,011	12,538,356	2,624,305	15,162,661	12,538,356	0	2,624,305
2039	June 30, 2039	245,037,551	231,346,429	13,691,122	94.41%	6,023,603	13,038,631	2,867,000	15,905,631	13,038,631	0	2,867,000
2040	June 30, 2040	252,274,763	249,453,838	2,820,925	98.88%	6,219,853	13,507,172	3,177,835	16,685,007	13,507,172	0	3,177,835
2041	June 30, 2041	260,152,176	269,389,765	(9,237,589)	103.55%	6,427,901	13,677,331	3,825,241	17,502,572	13,677,331	0	3,825,241
2042	June 30, 2042	268,257,090	281,676,561	(13,419,471)	105.00%	6,642,681	14,008,041	(4,828,731)	9,179,310	14,008,041	0	(4,828,731)
2043	June 30, 2043	276,926,612	294,667,089	(17,740,477)	106.41%	6,860,641	14,439,299	(4,910,018)	9,529,281	14,439,299	0	(4,910,018)
2044	June 30, 2044	286,075,956	308,815,697	(22,739,741)	107.95%	7,094,475	14,518,390	(4,594,583)	9,923,807	14,518,390	0	(4,594,583)
2045	June 30, 2045	295,350,703	323,698,855	(28,348,152)	109.60%	7,333,748	15,012,440	(4,761,686)	10,250,754	15,012,440	0	(4,761,686)
2046	June 30, 2046	305,044,520	339,387,057	(34,342,537)	111.26%	7,584,541	15,603,036	(4,906,096)	10,696,940	15,603,036	0	(4,906,096)
2047	June 30, 2047	315,297,921	356,170,861	(40,872,940)	112.96%	7,854,230	15,922,909	(4,818,861)	11,104,048	15,922,909	0	(4,818,861)
2048	June 30, 2048	325,602,017	374,053,347	(48,451,330)	114.88%	8,137,010	16,272,102	(4,796,719)	11,475,383	16,272,102	0	(4,796,719)
2049	June 30, 2049	336,363,857	392,861,844	(56,497,987)	116.80%	8,420,457	16,908,220	(5,010,238)	11,897,982	16,908,220	0	(5,010,238)
2050	June 30, 2050	347,671,303	412,697,485	(65,026,182)	118.70%	8,733,881	17,528,121	(5,183,260)	12,344,861	17,528,121	0	(5,183,260)
2051	June 30, 2051	359,436,469	433,968,759	(74,532,290)	120.74%	9,054,394	17,877,220	(5,024,113)	12,853,107	17,877,220	0	(5,024,113)
2052	June 30, 2052	372,065,368	461,786,156	(89,720,788)	124.11%	9,387,869	18,298,762	0	18,298,762	18,298,762	0	0
2053	June 30, 2053	385,150,132	491,386,649	(106,236,517)	127.58%	9,735,098	19,000,014	0	19,000,014	19,000,014	0	0

PRINCIPAL RESULTS OF THE VALUATION
ALTERNATE INVESTMENT POLICY (OPEN GROUP)

Funding - 6.50% discount rate

For the Fiscal Year	Period Ending on the Measurement Date of:	I. Total OPEB Liability ("TOL") as of Measurement Date	II. Fiduciary Net Position as of Measurement Date with an expected 6.41% return	III. Net OPEB Liability (Asset) [I. - II.]	IV. Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Benefit Payments (With Implicit Cost)	VII. Trust Contributions Beyond Pay-as-you-go	VIII. Gross Trust Contributions [VI. + VII.]	IX. Benefit Payments Reimbursed from the Trust	X. Administrative & Investment Expenses Reimbursed from the Trust	XI. Total Employer Payments Less Reimbursements [VIII. - IX. - X.]
2022	June 30, 2022	131,300,222	62,769,695	68,530,527	47.81%	3,030,646	5,626,770	1,799,467	7,426,237	5,626,770	0	1,799,467
2023	June 30, 2023	137,494,410	70,000,528	67,493,882	50.91%	3,360,015	5,735,280	3,109,194	8,844,474	5,735,280	0	3,109,194
2024	June 30, 2024	142,665,109	76,016,417	66,648,692	53.28%	3,464,048	6,278,924	1,482,092	7,761,016	6,278,924	0	1,482,092
2025	June 30, 2025	148,414,286	82,367,335	66,046,951	55.50%	3,589,426	6,708,256	1,433,050	8,141,306	6,708,256	0	1,433,050
2026	June 30, 2026	154,255,279	89,121,519	65,133,760	57.78%	3,706,512	7,110,891	1,429,339	8,540,230	7,110,891	0	1,429,339
2027	June 30, 2027	160,133,526	96,210,090	63,923,436	60.08%	3,841,796	7,624,904	1,333,797	8,958,701	7,624,904	0	1,333,797
2028	June 30, 2028	166,097,634	103,761,736	62,335,898	62.47%	3,970,073	8,055,448	1,342,229	9,397,677	8,055,448	0	1,342,229
2029	June 30, 2029	172,148,046	111,791,839	60,356,207	64.94%	4,110,194	8,521,367	1,336,797	9,858,164	8,521,367	0	1,336,797
2030	June 30, 2030	178,359,269	120,456,341	57,902,928	67.54%	4,246,607	8,888,408	1,452,806	10,341,214	8,888,408	0	1,452,806
2031	June 30, 2031	184,741,096	129,829,646	54,911,450	70.28%	4,392,973	9,246,411	1,601,522	10,847,933	9,246,411	0	1,601,522
2032	June 30, 2032	191,155,291	139,829,093	51,326,198	73.15%	4,539,233	9,753,421	1,626,061	11,379,482	9,753,421	0	1,626,061
2033	June 30, 2033	197,708,383	150,699,965	47,008,418	76.22%	4,677,151	10,087,604	1,849,472	11,937,076	10,087,604	0	1,849,472
2034	June 30, 2034	204,263,170	162,327,362	41,935,808	79.47%	4,841,049	10,614,645	1,907,348	12,521,993	10,614,645	0	1,907,348
2035	June 30, 2035	210,904,914	174,837,210	36,067,704	82.90%	4,991,009	11,095,283	2,040,288	13,135,571	11,095,283	0	2,040,288
2036	June 30, 2036	217,538,182	188,231,777	29,306,405	86.53%	5,159,046	11,658,622	2,120,592	13,779,214	11,658,622	0	2,120,592
2037	June 30, 2037	224,048,868	202,677,729	21,371,139	90.46%	5,325,618	12,146,906	2,307,489	14,454,395	12,146,906	0	2,307,489
2038	June 30, 2038	231,004,510	218,376,479	12,628,031	94.53%	5,495,117	12,538,356	2,624,305	15,162,661	12,538,356	0	2,624,305
2039	June 30, 2039	237,880,922	235,331,872	2,549,050	98.93%	5,680,512	13,038,631	2,867,000	15,905,631	13,038,631	0	2,867,000
2040	June 30, 2040	244,906,763	253,694,748	(8,787,985)	103.59%	5,865,583	13,507,172	3,177,835	16,685,007	13,507,172	0	3,177,835
2041	June 30, 2041	252,554,108	273,902,517	(21,348,409)	108.45%	6,061,783	13,677,331	3,825,241	17,502,572	13,677,331	0	3,825,241
2042	June 30, 2042	260,422,309	286,478,580	(26,056,271)	110.01%	6,264,329	14,008,041	(4,828,731)	9,179,310	14,008,041	0	(4,828,731)
2043	June 30, 2043	268,838,627	299,776,917	(30,938,290)	111.51%	6,469,873	14,439,299	(4,910,018)	9,529,281	14,439,299	0	(4,910,018)
2044	June 30, 2044	277,720,754	314,253,065	(36,532,311)	113.15%	6,690,389	14,518,390	(4,594,583)	9,923,807	14,518,390	0	(4,594,583)
2045	June 30, 2045	286,724,622	329,484,759	(42,760,137)	114.91%	6,916,034	15,012,440	(4,761,686)	10,250,754	15,012,440	0	(4,761,686)
2046	June 30, 2046	296,135,320	345,543,838	(49,408,518)	116.68%	7,152,541	15,603,036	(4,906,096)	10,696,940	15,603,036	0	(4,906,096)
2047	June 30, 2047	306,089,259	362,722,291	(56,633,032)	118.50%	7,406,871	15,922,909	(4,818,861)	11,104,048	15,922,909	0	(4,818,861)
2048	June 30, 2048	316,092,411	381,024,724	(64,932,313)	120.54%	7,673,544	16,272,102	(4,796,719)	11,475,383	16,272,102	0	(4,796,719)
2049	June 30, 2049	326,539,939	400,280,087	(73,740,148)	122.58%	7,940,846	16,908,220	(5,010,238)	11,897,982	16,908,220	0	(5,010,238)
2050	June 30, 2050	337,517,138	420,591,237	(83,074,099)	124.61%	8,236,418	17,528,121	(5,183,260)	12,344,861	17,528,121	0	(5,183,260)
2051	June 30, 2051	348,938,690	442,368,500	(93,429,810)	126.78%	8,538,675	17,877,220	(5,024,113)	12,853,107	17,877,220	0	(5,024,113)
2052	June 30, 2052	361,198,747	470,724,321	(109,525,574)	130.32%	8,853,157	18,298,762	0	18,298,762	18,298,762	0	0
2053	June 30, 2053	373,901,355	500,897,750	(126,996,395)	133.97%	9,180,608	19,000,014	0	19,000,014	19,000,014	0	0

PRINCIPAL RESULTS OF THE VALUATION
ALTERNATE INVESTMENT POLICY (OPEN GROUP)

Funding - 6.00% discount rate

For the Fiscal Year	Period Ending on the Measurement Date of:	I. Total OPEB Liability ("TOL") as of Measurement Date	II. Fiduciary Net Position as of Measurement Date with an expected 6.41% return	III. Net OPEB Liability (Asset) [I. - II.]	IV. Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Benefit Payments (With Implicit Cost)	VII. Trust Contributions Beyond Pay-as-you-go	VIII. Gross Trust Contributions [VI. + VII.]	IX. Benefit Payments Reimbursed from the Trust	X. Administrative & Investment Expenses Reimbursed from the Trust	XI. Total Employer Payments Less Reimbursements [VIII. - IX. - X.]
2022	June 30, 2022	139,200,466	62,769,695	76,430,771	45.09%	3,030,646	5,626,770	1,799,467	7,426,237	5,626,770	0	1,799,467
2023	June 30, 2023	145,639,506	70,000,528	75,638,978	48.06%	3,765,891	5,735,280	3,109,194	8,844,474	5,735,280	0	3,109,194
2024	June 30, 2024	151,249,172	76,016,417	75,232,755	50.26%	3,882,491	6,278,924	1,482,092	7,761,016	6,278,924	0	1,482,092
2025	June 30, 2025	157,344,275	82,367,335	74,976,940	52.35%	4,023,014	6,708,256	1,433,050	8,141,306	6,708,256	0	1,433,050
2026	June 30, 2026	163,536,718	89,121,519	74,415,199	54.50%	4,154,244	7,110,891	1,429,339	8,540,230	7,110,891	0	1,429,339
2027	June 30, 2027	169,768,656	96,210,090	73,558,566	56.67%	4,305,869	7,624,904	1,333,797	8,958,701	7,624,904	0	1,333,797
2028	June 30, 2028	176,091,621	103,761,736	72,329,885	58.92%	4,449,641	8,055,448	1,342,229	9,397,677	8,055,448	0	1,342,229
2029	June 30, 2029	182,506,083	111,791,839	70,714,244	61.25%	4,606,689	8,521,367	1,336,797	9,858,164	8,521,367	0	1,336,797
2030	June 30, 2030	189,091,032	120,456,341	68,634,691	63.70%	4,759,579	8,888,408	1,452,806	10,341,214	8,888,408	0	1,452,806
2031	June 30, 2031	195,856,850	129,829,646	66,027,204	66.29%	4,923,627	9,246,411	1,601,522	10,847,933	9,246,411	0	1,601,522
2032	June 30, 2032	202,656,984	139,829,093	62,827,891	69.00%	5,087,554	9,753,421	1,626,061	11,379,482	9,753,421	0	1,626,061
2033	June 30, 2033	209,604,372	150,699,965	58,904,407	71.90%	5,242,131	10,087,604	1,849,472	11,937,076	10,087,604	0	1,849,472
2034	June 30, 2034	216,553,557	162,327,362	54,226,195	74.96%	5,425,829	10,614,645	1,907,348	12,521,993	10,614,645	0	1,907,348
2035	June 30, 2035	223,594,931	174,837,210	48,757,721	78.19%	5,593,903	11,095,283	2,040,288	13,135,571	11,095,283	0	2,040,288
2036	June 30, 2036	230,627,319	188,231,777	42,395,542	81.62%	5,782,238	11,658,622	2,120,592	13,779,214	11,658,622	0	2,120,592
2037	June 30, 2037	237,529,750	202,677,729	34,852,021	85.33%	5,968,930	12,146,906	2,307,489	14,454,395	12,146,906	0	2,307,489
2038	June 30, 2038	244,903,909	218,376,479	26,527,430	89.17%	6,158,905	12,538,356	2,624,305	15,162,661	12,538,356	0	2,624,305
2039	June 30, 2039	252,194,071	235,331,872	16,862,199	93.31%	6,366,695	13,038,631	2,867,000	15,905,631	13,038,631	0	2,867,000
2040	June 30, 2040	259,642,653	253,694,748	5,947,905	97.71%	6,574,122	13,507,172	3,177,835	16,685,007	13,507,172	0	3,177,835
2041	June 30, 2041	267,750,134	273,902,517	(6,152,383)	102.30%	6,794,021	13,677,331	3,825,241	17,502,572	13,677,331	0	3,825,241
2042	June 30, 2042	276,091,760	286,478,580	(10,386,820)	103.76%	7,021,034	14,008,041	(4,828,731)	9,179,310	14,008,041	0	(4,828,731)
2043	June 30, 2043	285,014,483	299,776,917	(14,762,434)	105.18%	7,251,407	14,439,299	(4,910,018)	9,529,281	14,439,299	0	(4,910,018)
2044	June 30, 2044	294,431,044	314,253,065	(19,822,021)	106.73%	7,498,561	14,518,390	(4,594,583)	9,923,807	14,518,390	0	(4,594,583)
2045	June 30, 2045	303,976,670	329,484,759	(25,508,089)	108.39%	7,751,463	15,012,440	(4,761,686)	10,250,754	15,012,440	0	(4,761,686)
2046	June 30, 2046	313,953,605	345,543,838	(31,590,233)	110.06%	8,016,540	15,603,036	(4,906,096)	10,696,940	15,603,036	0	(4,906,096)
2047	June 30, 2047	324,506,467	362,722,291	(38,215,824)	111.78%	8,301,591	15,922,909	(4,818,861)	11,104,048	15,922,909	0	(4,818,861)
2048	June 30, 2048	335,111,505	381,024,724	(45,913,219)	113.70%	8,600,476	16,272,102	(4,796,719)	11,475,383	16,272,102	0	(4,796,719)
2049	June 30, 2049	346,187,656	400,280,087	(54,092,431)	115.63%	8,900,068	16,908,220	(5,010,238)	11,897,982	16,908,220	0	(5,010,238)
2050	June 30, 2050	357,825,348	420,591,237	(62,765,889)	117.54%	9,231,343	17,528,121	(5,183,260)	12,344,861	17,528,121	0	(5,183,260)
2051	June 30, 2051	369,934,129	442,368,500	(72,434,371)	119.58%	9,570,113	17,877,220	(5,024,113)	12,853,107	17,877,220	0	(5,024,113)
2052	June 30, 2052	382,931,868	470,724,321	(87,792,453)	122.93%	9,922,581	18,298,762	0	18,298,762	18,298,762	0	0
2053	June 30, 2053	396,398,787	500,897,750	(104,498,963)	126.36%	10,289,588	19,000,014	0	19,000,014	19,000,014	0	0

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2022 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, 2022	
Description	Amount
I. Service Cost	3,030,646
II. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	8,414,773
III. Deferred (Inflows)/Outflows from Plan Experience*	(1,982,792)
IV. Deferred (Inflows)/Outflows from Changes of Assumptions*	4,341,340
V. Projected Earnings on OPEB Plan Investments	(3,970,466)
VI. Deferred (Inflows)/Outflows from Earnings on Plan Investments**	(1,602,017)
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.]	8,231,484
X. Expense Related to Change in Benefit Terms***	0
XI. Financial Statement Expense/(Income) [IX. + X.]	8,231,484

* Amortized over 6.85 years

** Amortized over 5.00 years

*** Recognized Immediately

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2022 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, 2021 Reporting Date	129,196,503	60,176,478	69,020,025
II. Prior Period Adjustment	0	0	0
III. Balances for the June 30, 2021 Reporting Date with Adjustment [I. + II.]	129,196,503	60,176,478	69,020,025
Changes for the year:			
IV. Service Cost	3,030,646	0	3,030,646
V. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	8,414,773	0	8,414,773
VI. Changes in Benefit Terms *	0	0	0
VII. Change in Assumptions **	3,950,140	0	3,950,140
VIII. Differences Between Actual and Expected Experience **	(3,714,901)	0	(3,714,901)
IX. Net Investment Income	0	(2,379,070)	2,379,070
X. Employer Contributions to Trust Plus Implicit Cost	0	9,213,019	(9,213,019)
XI. Benefit Payments Withdrawn from Trust	0	(5,626,770)	5,626,770
XII. Benefit Payments Excluding Implicit Cost	(3,839,988)	0	(3,839,988)
XIII. Implicit Cost Amount	(1,786,782)	0	(1,786,782)
XIV. Total Benefit Payments Including Implicit Cost [XII. + XIII.]	(5,626,770)	0	(5,626,770)
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.]	<u>6,053,888</u>	<u>1,207,179</u>	<u>4,846,709</u>
XVIII. Balances for the June 30, 2022 Reporting Date [III.+XVII.]	135,250,391	61,383,657	73,866,734

* Recognized Immediately

** Amortized over 6.85 years

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2022 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	2022	2023	2024	2025	2026	2027
2017									
2018	1,468,270	5.00	0	293,654					
2019	(9,997,742)	5.99	(3,321,454)	(1,669,072)	(1,669,072)	(1,652,382)			
2020	(123,044)	5.99	(61,421)	(20,541)	(20,541)	(20,541)	(20,339)		
2021	(293,339)	6.59	(204,315)	(44,512)	(44,512)	(44,512)	(44,512)	(44,512)	(26,267)
2022	(3,714,901)	6.85	(3,172,580)	(542,321)	(542,321)	(542,321)	(542,321)	(542,321)	(542,321)
2023									
2024									
2025									
2026									
Total Remaining Balance			(6,759,770)						
Net increase (decrease) in OPEB Expense				(1,982,792)	(2,276,446)	(2,259,756)	(607,172)	(586,833)	(568,588)

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	2022	2023	2024	2025	2026	2027
2017									
2018	(5,893,578)	5.00	0	(1,178,714)					
2019	21,438,486	5.99	7,122,302	3,579,046	3,579,046	3,543,256			
2020	4,633,778	5.99	2,313,023	773,585	773,585	773,585	765,853		
2021	3,893,113	6.59	2,711,593	590,760	590,760	590,760	590,760	590,760	348,553
2022	3,950,140	6.85	3,373,478	576,662	576,662	576,662	576,662	576,662	576,662
2023									
2024									
2025									
2026									
Total Remaining Balance			15,520,396						
Net increase (decrease) in OPEB Expense				4,341,340	5,520,053	5,484,263	1,933,275	1,167,422	925,215

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES (As of the June 30, 2022 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	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>
2017									
2018	(1,343,885)	5.00	0	(268,777)					
2019	(1,119,369)	5.00	(223,873)	(223,874)	(223,873)				
2020	727,427	5.00	290,972	145,485	145,485	145,487			
2021	(12,623,789)	5.00	(7,574,273)	(2,524,758)	(2,524,758)	(2,524,758)	(2,524,757)		
2022	6,349,536	5.00	5,079,629	1,269,907	1,269,907	1,269,907	1,269,907	1,269,908	
2023									
2024									
2025									
2026									
Total Remaining Balance			(2,427,545)						
Net increase (decrease) in OPEB Expense				(1,602,017)	(1,333,239)	(1,109,364)	(1,254,850)	1,269,908	0

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2022 Measurement Date)

3. Changes in Net OPEB Expense (Continued)

Statement of Outflows & Inflows Arising from Current & Prior Reporting Periods for the Measurement Period Ending on June 30, 2022 to be Reported for the Fiscal Year Ending June 30, 2022			
	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	(6,759,770)	(6,759,770)
III. Changes of Assumptions	15,520,396	0	15,520,396
IV. Net Difference Between Projected & Actual Earnings on OPEB Plan Investments	<u>5,370,601</u>	<u>(7,798,146)</u>	<u>(2,427,545)</u>
V. Total [I.+II.+III.+IV.]	20,890,997	(14,557,916)	6,333,081

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2022 Measurement Date)

3. Changes in Net OPEB Expense (Continued)

Annual Amortization of Deferred (Inflows)/Outflows

The balance of deferred (inflows)/outflows as of June 30, 2022 will be recognized in future years as shown below.

Year ending June 30:

2023	1,910,368
2024	2,115,143
2025	71,253
2026	1,850,497
2027	356,627
Thereafter	29,193

4. Discount Rate

The discount rate used to measure the Total OPEB liability was 6.25% as of June 30, 2022 and 6.50% as of June 30, 2021. 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 sufficient to make all projected benefit payments to current plan members. Therefore, the long-term expected rate of return on the OPEB Plan assets was applied to all projected future benefits payments.

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2022 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, 2022 Measurement Date, total Town premiums plus implicit costs for the retiree medical program were \$5,626,770. The Town also contributed \$3,586,249 to an OPEB Trust for a total contribution during the measurement period of \$9,213,019 to be reported on the financial statement for the fiscal year ending June 30, 2022.

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	4.42%
Domestic Equity - Small/Mid Cap	3.50%	Domestic Equity - Small/Mid Cap	4.81%
International Equity - Developed Market	16.00%	International Equity - Developed Market	4.91%
International Equity-Emerging Market	6.00%	International Equity-Emerging Market	5.58%
Domestic Fixed Income	20.00%	Domestic Fixed Income	1.00%
International Fixed Income	3.00%	International Fixed Income	1.04%
Alternatives	23.00%	Alternatives	5.98%
Real Estate	14.00%	Real Estate	6.25%
Cash & Cash Equivalents	0.00%	Cash & Cash Equivalents	0.00%
Total	100.00%		
		I. Real Rate of Return	4.41%
		II. Inflation Assumption	2.50%
		III. Total Nominal Return [I. + II.]	6.91%
		IV. Investment Expense	0.50%
		V. Net Investment Return* [III.-IV.]	6.41%

* Mean Geometric Returns based on 2021 Horizon Survey of Capital Market Assumptions

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES
(As of the June 30, 2022 Measurement Date)

7. Schedule of The Town's Contributions

For the Fiscal Year Ending	Actuarially 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, 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, 2022 Measurement Date)

8. Effect of 1% Change in Healthcare Trend

<u>Impact of a 1% Change in the Healthcare Trend Rate as of the June 30, 2022 Measurement Date</u>			
	<u>1% Decrease</u>	<u>Current Trend Rate</u>	<u>1% Increase</u>
I. Total OPEB Liability	118,248,195	135,250,391	156,326,684
II. Fiduciary Net Position	<u>61,383,657</u>	<u>61,383,657</u>	<u>61,383,657</u>
III. Net OPEB Liability (Asset) [I.-II.]	56,864,538	73,866,734	94,943,027
IV. Service Cost	2,386,322	3,030,646	3,909,749

9. Effect of 1% Change in Discount Rates

<u>Impact of a 1% Change in the Discount Rate as of the June 30, 2022 Measurement Date</u>			
	<u>1% Decrease</u>	<u>Current Discount Rate</u>	<u>1% Increase</u>
I. Total OPEB Liability	153,793,259	135,250,391	120,114,263
II. Fiduciary Net Position	<u>61,383,657</u>	<u>61,383,657</u>	<u>61,383,657</u>
III. Net OPEB Liability (Asset) [I.-II.]	92,409,602	73,866,734	58,730,606
IV. Service Cost	3,898,377	3,030,646	2,381,714

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2022 Measurement Date)

10. Money Weighted Rate of Return

	Plan Investments / Net External Cash Flows	Periods Invested	Period Weight
I. Beginning value - June 30, 2021	60,176,478	12	1.0000
Monthly net external cash flows:			
July	8,910,029	11	0.9167
August	(315,341)	10	0.8333
September	(313,353)	9	0.7500
October	(317,440)	8	0.6667
November	(336,827)	7	0.5833
December	(328,526)	6	0.5000
January	(336,580)	5	0.4167
February	(312,176)	4	0.3333
March	(316,476)	3	0.2500
April	(316,004)	2	0.1667
May	(314,415)	1	0.0833
<u>June</u>	<u>(317,459)</u>	0	0.0000
II. Total net external cash flow	5,385,432		
III. Earnings and increase in fair value	(4,178,253)		
IV. Ending value - June 30, 2022 [I.+II.+III.]	61,383,657		
Money Weighted Rate of Return	(6.25%)		
Asset Value - June 30, 2022	61,383,657		

EXHIBIT A
FINANCIAL STATEMENT DISCLOSURES
(As of the June 30, 2022 Measurement Date)

11. OPEB Liability, OPEB Expense

	Fiscal Year Ending June 30, 2022						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, 2022	25,184,019	88,921,173	7,796,927	10,625,874	1,452,223	1,270,175	135,250,391
II. Fiduciary Net Position as of June 30, 2022	11,429,817	40,357,050	3,538,651	4,822,574	659,094	576,471	61,383,657
III. Net OPEB Liability (Asset) as of June 30, 2022 [I. - II.]	13,754,202	48,564,123	4,258,276	5,803,300	793,129	693,704	73,866,734
IV. Service Cost	426,379	2,160,391	185,396	197,477	32,541	28,462	3,030,646
V. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	1,544,256	5,556,681	486,788	659,992	89,006	78,050	8,414,773
VI. Projected Earnings on OPEB Plan Investments	(738,933)	(2,610,820)	(228,905)	(311,916)	(42,616)	(37,276)	(3,970,466)
VII. Net Recognition of Deferred (Inflows)/Outflows	140,869	497,385	43,613	59,436	8,123	7,105	756,531
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.]	1,372,571	5,603,637	486,892	604,989	87,054	76,341	8,231,484
XI. Employer Share of Costs	(1,370,546)	(3,336,728)	(339,263)	(466,974)	(60,416)	(52,843)	(5,626,770)
XII. Employer (Payments) Withdrawals to/from OPEB Trust	(652,700)	(2,373,139)	(207,281)	(280,943)	(38,507)	(33,679)	(3,586,249)
XIII. Total Employer Contribution [XI. + XII.]	(2,023,246)	(5,709,867)	(546,544)	(747,917)	(98,923)	(86,522)	(9,213,019)
XIV. Net OPEB Expense/(Income) [X. + XIII.]	(650,676)	(106,230)	(59,652)	(142,928)	(11,869)	(10,181)	(981,536)

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2022 Measurement Date)

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

Valuation Date	June 30, 2021
For the Measurement Period ending on the Measurement Date of:	June 30, 2022
For the Reporting Period & Fiscal Year ending on:	June 30, 2022
Source of Deferred Inflow/Outflow	
I. Deferred (Inflow)/Outflow from Actual vs. Expected Experience	(6,759,770)
II. Deferred (Inflow)/Outflow from Investment Experience	(2,427,545)
III. Deferred (Inflow)/Outflow from Changes in Assumptions	15,520,396
Change in Deferred Inflow/Outflow	
I. Deferred Outflow at the beginning of the period	17,820,420
II. Deferred Outflow created during the period	10,299,676
III. Deferred Outflow recognized during the period	7,229,099
IV. Change in Deferred Outflow (II. - III.)	3,070,577
V. Deferred Outflow at end of the period (I. + IV.)	20,890,997
VI. Deferred Inflow at the beginning of the period	(17,315,584)
VII. Deferred Inflow created during the period	(3,714,901)
VIII. Deferred Inflow recognized during the period	(6,472,569)
IX. Change in Deferred Inflow (VII. - VIII.)	2,757,668
X. Deferred Inflow at end of the period (VI. + IX.)	(14,557,916)
Net OPEB Liability	
I. Net OPEB Liability at beginning of period	69,020,025
II. Service Cost	3,030,646
III. Interest on Total OPEB Liability, Service Cost, and Payments	8,414,773
IV. Projected Investment Income	(3,970,466)
V. OPEB Plan Administrative Expense	0
VI. Total Employer Contributions	(9,213,019)
VII. Expense Related to Change in Benefit Terms	0
VIII. Net OPEB Expense/(Income) - Before Recognition of Deferred (Inflow)/Outflow (II. + III. + ... + VI. + VII.)	(1,738,066)
IX. Deferred Outflow created during the period	10,299,676
X. Deferred Inflow created during the period	(3,714,901)
XI. Net OPEB Liability at end of period (I. + VIII. + IX. + X.)	73,866,734
Net OPEB Expense	
I. Service Cost	3,030,646
II. Interest on Total OPEB Liability, Service Cost, and Payments	8,414,773
III. Projected Investment Income	(3,970,466)
IV. Recognition of Deferred (Inflow)/Outflow	756,531
V. Expense Related to Change in Benefit Terms	0
VI. Financial Statement Expense/(Income) (I. + II. + III. + IV. + V.)	8,231,484
VII. Benefit Payments	(5,626,770)
VIII. Contributions to Trust	(3,586,249)
IX. Total Employer Payments (VII. + VIII.)	(9,213,019)
X. Total Net OPEB Expense/(Income) under GASB 75 (VI. + IX.)	(981,536)

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2022 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 2022 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)						
	<u>June 30, 2022</u>	<u>June 30, 2021</u>	<u>June 30, 2020</u>	<u>June 30, 2019</u>	<u>For the Fiscal Year Ending: June 30, 2018</u>	<u>June 30, 2017</u>
I. Service Cost	3,030,646	3,085,624	2,915,612	2,797,907	2,573,887	2,486,847
II. Amortization of NOL	<u>4,395,591</u>	<u>4,112,089</u>	<u>3,991,093</u>	<u>4,108,798</u>	<u>3,498,396</u>	<u>3,082,076</u>
III. Actuarially Determined Contribution [I. + II.]	7,426,237	7,197,713	6,906,705	6,906,705	6,072,283	5,568,923
IV. Contributions in Relation to the Actuarially Determined Contribution	<u>(7,426,237)</u>	<u>(7,197,713)</u>	<u>(6,906,705)</u>	<u>(6,906,705)</u>	<u>(6,115,455)</u>	<u>(5,568,923)</u>
V. Contribution Deficiency / (Excess) [III. + IV.]	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(43,172)</u>	<u>0</u>
Covered Employee Payroll	105,734,622	102,654,973	99,665,022	93,645,807	94,042,382	89,329,181
Contributions as a % of Covered Employee Payroll	7.02%	7.01%	6.93%	7.38%	6.50%	6.23%
Discount Rate	6.25%	6.50%	6.75%	7.00%	7.25%	7.50%
Money Weighted Rate of Return	(6.25%)	28.97%	4.65%	4.93%	11.62%	14.25%

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2022 Measurement Date)

Schedule of Changes in the Town's Net OPEB Liability and Related Ratios						
Valuation Date	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	July 1, 2015	July 1, 2015
GASB 75 Measurement Date	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017
For the Reporting Period & Fiscal Year Ending on:	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017
Total OPEB Liability	135,250,391	129,196,503	119,161,758	104,767,867	89,935,820	91,793,035
I. Service Cost	3,030,646	3,085,625	2,915,612	2,797,907	2,573,887	2,486,847
II. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	8,414,773	8,384,081	7,382,923	6,347,733	6,913,177	6,544,745
III. Changes in Benefit Terms	0	0	0	0	(4,090,587)	0
IV. Difference Between Expected & Actual Plan Experience	(3,714,901)	(293,339)	159,645	(21,193,711)	1,798,808	0
V. Changes of Assumptions	3,950,140	3,893,113	8,438,164	31,054,380	(4,589,355)	0
VI. Benefit Payments Excluding Implicit Cost	(3,839,988)	(3,675,838)	(3,376,906)	(3,280,000)	N/A	N/A
VII. Implicit Cost Amount	(1,786,782)	(1,358,897)	(1,125,547)	(894,262)	N/A	N/A
VIII. Total Benefit Payments Including Implicit Cost [VI.+VII.]	(5,626,770)	(5,034,735)	(4,502,453)	(4,174,262)	(4,463,145)	(3,958,395)
IX. Net Change in OPEB Liability [I.+II.+III.+IV.+V.+VIII.]	6,053,888	10,034,745	14,393,891	14,832,047	(1,857,215)	5,073,197
X. Total OPEB Liability - Beginning of Period	129,196,503	119,161,758	104,767,867	89,935,820	91,793,035	86,719,838
XI. Prior Period Adjustment	0	0	0	0	0	0
XII. Total OPEB Liability - Beginning of Period with Adjustment	129,196,503	119,161,758	104,767,867	89,935,820	91,793,035	86,719,838
XIII. Total OPEB Liability - End of Period [IX.+XII.]	135,250,391	129,196,503	119,161,758	104,767,867	89,935,820	91,793,035
Plan Fiduciary Net Position	61,383,657	60,176,478	42,740,645	38,337,121	32,878,807	26,835,171
XIV. Earning from Plan Investments	(2,379,070)	13,820,192	873,725	1,831,609	3,117,203	3,020,230
XV. Employer Contribution to Trust	9,213,019	8,650,376	8,032,252	7,800,967	7,389,578	6,317,042
XVI. Benefit Payments from Trust, Including Refunds of Member Contributions	(5,626,770)	(5,034,735)	(4,502,453)	(4,174,262)	(4,463,145)	(3,958,395)
XVII. Administrative Expense	0	0	0	0	0	0
XVIII. Other	0	0	0	0	0	257,093
XIX. Net Change in Plan Fiduciary Net Position [XIV.+XV.+XVI.+XVII.+XVIII.]	1,207,179	17,435,833	4,403,524	5,458,314	6,043,636	5,635,970
XX. Plan Fiduciary Net Position - Beginning of Period	60,176,478	42,740,645	38,337,121	32,878,807	26,835,171	21,199,201
XXI. Prior Period Adjustment	0	0	0	0	0	0
XXII. Plan Fiduciary Net Position - Beginning of Period with Adjustment	60,176,478	42,740,645	38,337,121	32,878,807	26,835,171	21,199,201
XXIII. Plan Fiduciary Net Position - End of Period [XIX.+XXII.]	61,383,657	60,176,478	42,740,645	38,337,121	32,878,807	26,835,171
XXIV. Net OPEB Liability [XIII.-XXIII.]	73,866,734	69,020,025	76,421,113	66,430,746	57,057,013	64,957,864
XXV. Plan Fiduciary Net Position as % of Total OPEB Liability [XXIII. / XIII.]	45.39%	46.58%	37.02%	36.59%	36.56%	29.23%
XXVI. Covered Employee Payroll	105,734,622	102,654,973	99,665,022	93,645,807	94,042,382	89,329,181
XXVII. Plan NOL as % of Covered Employee Payroll [XXIV. / XXVI.]	69.86%	67.23%	72.97%	70.94%	60.67%	72.72%
Single Discount Rate to calculate Plan Liabilities	6.25%	6.50%	6.75%	7.00%	7.25%	7.50%

EXHIBIT BREQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2022 Measurement Date)

Notes to Required Supplementary Information:

Valuation Date:	Actuarially Determined Contribution was calculated as of June 30, 2021.
Actuarial Cost Method:	Individual Entry Age Normal
Asset-Valuation Method:	Market Value of Assets as of the Measurement Date, June 30, 2022.

Actuarial Assumptions:

Investment Rate of Return:	6.41%, net of OPEB plan investment expense, including inflation.
Municipal Bond Rate	4.09% as of June 30, 2022 (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, 2022 and for future periods
Salary Increases:	3.00% annually as of June 30, 2022 and for future periods
Cost of Living Adjustment:	Not Applicable

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2022 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, 2022 Measurement Date)

Plan Membership

At June 30, 2021, OPEB plan membership consisted of the following:

Inactive employees or beneficiaries currently receiving benefits:	940
Active Employees:	<u>1,423</u>
Total:	2,363

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, 2021 to June 30, 2022

- ✓ Due to the GASB 75 standards the discount rate has been changed from 6.50% to 6.25%

Contributions/Withdrawals:

The contribution requirements of plan members and the Town are established and may be amended through Town ordinances. The Town contributed \$3,586,249 beyond the pay-as-you-go cost for the period ending on the June 30, 2022 Measurement Date. For the year ending on the June 30, 2022 Measurement Date total Town premiums plus implicit costs for the retiree medical program were \$5,626,770. \$1,786,782 of the \$5,626,770 represents implicit cost.

EXHIBIT B

REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2022 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, 2021 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, 2022	105,734,622	0	105,734,622	0	5,626,770	0	5,626,770
June 30, 2023	99,260,126	9,646,535	108,906,661	0	5,735,280	0	5,735,280
June 30, 2024	93,419,594	18,754,267	112,173,861	0	6,278,924	0	6,278,924
June 30, 2025	88,634,331	26,904,746	115,539,077	0	6,708,256	0	6,708,256
June 30, 2026	84,180,774	34,824,475	119,005,249	0	7,110,891	0	7,110,891
June 30, 2027	80,260,435	42,314,971	122,575,406	0	7,624,904	0	7,624,904
June 30, 2028	76,427,679	49,824,989	126,252,668	0	8,055,448	0	8,055,448
June 30, 2029	72,917,086	57,123,162	130,040,248	0	8,521,367	0	8,521,367
June 30, 2030	69,432,652	64,508,803	133,941,455	0	8,888,408	0	8,888,408
June 30, 2031	66,249,175	71,710,524	137,959,699	0	9,246,411	0	9,246,411
June 30, 2032	63,212,928	78,885,562	142,098,490	0	9,753,421	0	9,753,421
June 30, 2033	60,228,540	86,132,905	146,361,445	0	10,040,682	46,922	10,087,604
June 30, 2034	57,696,832	93,055,456	150,752,288	0	10,494,204	120,441	10,614,645
June 30, 2035	55,081,469	100,193,388	155,274,857	0	10,868,689	226,594	11,095,283
June 30, 2036	52,796,187	107,136,916	159,933,103	0	11,281,126	377,496	11,658,622
June 30, 2037	50,589,072	114,142,024	164,731,096	0	11,578,753	568,153	12,146,906
June 30, 2038	48,261,947	121,411,082	169,673,029	0	11,847,052	691,304	12,538,356
June 30, 2039	46,142,303	128,620,917	174,763,220	0	12,194,969	843,662	13,038,631
June 30, 2040	44,007,593	135,998,524	180,006,117	0	12,488,901	1,018,271	13,507,172
June 30, 2041	41,999,591	143,406,710	185,406,301	0	12,535,300	1,142,031	13,677,331
June 30, 2042	39,992,906	150,975,584	190,968,490	0	12,727,523	1,280,518	14,008,041
June 30, 2043	38,217,911	158,479,634	196,697,545	0	12,931,436	1,507,863	14,439,299
June 30, 2044	36,497,650	166,100,821	202,598,471	0	12,710,900	1,807,490	14,518,390
June 30, 2045	34,685,517	173,990,908	208,676,425	0	12,830,734	2,181,706	15,012,440
June 30, 2046	32,850,227	182,086,491	214,936,718	0	12,942,443	2,660,593	15,603,036
June 30, 2047	31,156,404	190,228,416	221,384,820	0	12,696,079	3,226,830	15,922,909
June 30, 2048	29,533,486	198,492,879	228,026,365	0	12,606,884	3,665,218	16,272,102
June 30, 2049	27,664,008	207,203,148	234,867,156	0	12,743,172	4,165,048	16,908,220
June 30, 2050	26,027,808	215,885,363	241,913,171	0	12,805,778	4,722,343	17,528,121
June 30, 2051	24,289,907	224,880,659	249,170,566	0	12,704,016	5,173,204	17,877,220
June 30, 2052	22,378,789	234,266,894	256,645,683	0	12,642,715	5,656,047	18,298,762
June 30, 2053	20,548,053	243,797,000	264,345,053	0	12,739,170	6,260,844	19,000,014
June 30, 2054	18,805,652	253,469,753	272,275,405	0	12,559,194	6,926,133	19,485,327
June 30, 2055	16,912,324	263,531,343	280,443,667	0	12,531,595	7,661,836	20,193,431
June 30, 2056	15,041,988	273,814,989	288,856,977	0	12,605,772	8,487,477	21,093,249
June 30, 2057	13,107,067	284,415,619	297,522,686	0	12,293,656	9,382,897	21,676,553
June 30, 2058	11,379,958	295,068,409	306,448,367	0	12,164,254	10,220,697	22,384,951
June 30, 2059	9,501,705	306,140,113	315,641,818	0	12,100,607	11,099,431	23,200,038
June 30, 2060	7,845,366	317,265,707	325,111,073	0	11,848,944	12,037,354	23,886,298
June 30, 2061	6,423,202	328,441,203	334,864,405	0	11,551,759	12,948,814	24,500,573

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

CONTRIBUTION PROJECTION DISCLOSURES (CONTINUED)

Table 1: Projection of Contributions using a June 30, 2021 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, 2062	4,875,728	340,034,609	344,910,337	0	11,294,038	13,893,839	25,187,877
June 30, 2063	3,726,946	351,530,701	355,257,647	0	11,011,208	14,973,635	25,984,843
June 30, 2064	2,739,008	363,176,368	365,915,376	0	10,838,984	16,116,638	26,955,622
June 30, 2065	1,948,377	374,944,460	376,892,837	0	10,514,083	17,350,156	27,864,239
June 30, 2066	1,252,861	386,946,761	388,199,622	0	10,331,742	18,686,934	29,018,676
June 30, 2067	763,600	399,082,011	399,845,611	0	10,226,672	20,106,664	30,333,336
June 30, 2068	348,608	411,492,371	411,840,979	0	10,060,105	21,534,382	31,594,487
June 30, 2069	156,788	424,039,420	424,196,208	0	9,814,707	23,023,263	32,837,970
June 30, 2070	38,877	436,883,217	436,922,094	0	9,634,439	24,591,807	34,226,246
June 30, 2071	31,690	449,998,067	450,029,757	0	9,409,727	26,120,935	35,530,662
June 30, 2072	25,813	463,504,837	463,530,650	0	9,204,089	27,696,562	36,900,651
June 30, 2073	11,687	477,424,883	477,436,570	0	8,938,478	29,367,295	38,305,773
June 30, 2074	0	491,759,667	491,759,667	0	8,687,537	31,084,661	39,772,198
June 30, 2075	0	506,512,457	506,512,457	0	8,396,531	32,855,781	41,252,312
June 30, 2076	0	521,707,831	521,707,831	0	8,065,470	34,695,092	42,760,562
June 30, 2077	0	537,359,066	537,359,066	0	7,757,932	36,593,143	44,351,075
June 30, 2078	0	553,479,838	553,479,838	0	7,406,615	38,587,589	45,994,204
June 30, 2079	0	570,084,233	570,084,233	0	7,038,500	40,632,133	47,670,633
June 30, 2080	0	587,186,760	587,186,760	0	6,666,707	42,752,633	49,419,340
June 30, 2081	0	604,802,363	604,802,363	0	6,274,540	44,941,751	51,216,291
June 30, 2082	0	622,946,434	622,946,434	0	5,872,133	47,181,476	53,053,609
June 30, 2083	0	641,634,827	641,634,827	0	5,466,099	49,508,894	54,974,993
June 30, 2084	0	660,883,872	660,883,872	0	5,057,481	51,907,039	56,964,520
June 30, 2085	0	680,710,388	680,710,388	0	4,651,832	54,373,979	59,025,811
June 30, 2086	0	701,131,700	701,131,700	0	4,238,765	56,930,033	61,168,798
June 30, 2087	0	722,165,651	722,165,651	0	3,837,056	59,574,666	63,411,722
June 30, 2088	0	743,830,621	743,830,621	0	3,450,424	62,322,241	65,772,665
June 30, 2089	0	766,145,540	766,145,540	0	3,088,138	65,156,064	68,244,202
June 30, 2090	0	789,129,906	789,129,906	0	2,736,067	68,092,499	70,828,566
June 30, 2091	0	812,803,803	812,803,803	0	2,406,015	71,131,239	73,537,254
June 30, 2092	0	837,187,917	837,187,917	0	2,098,485	74,261,341	76,359,826
June 30, 2093	0	862,303,555	862,303,555	0	1,813,746	77,498,469	79,312,215
June 30, 2094	0	888,172,662	888,172,662	0	1,552,966	80,849,695	82,402,661
June 30, 2095	0	914,817,842	914,817,842	0	1,316,368	84,309,374	85,625,742
June 30, 2096	0	942,262,377	942,262,377	0	1,103,864	87,894,759	88,998,623

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, 2021 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, 2022	60,176,478	5,626,770	3,586,249	9,213,019	0	3,827,587	3,827,587	(4,178,253)	61,383,657
June 30, 2023	61,383,657	5,735,280	2,833,794	8,569,074	0	5,735,280	5,735,280	3,675,585	67,893,036
June 30, 2024	67,893,036	6,278,924	1,234,302	7,513,226	0	6,278,924	6,278,924	4,390,889	73,518,227
June 30, 2025	73,518,227	6,708,256	1,099,346	7,807,602	0	6,708,256	6,708,256	4,747,205	79,364,778
June 30, 2026	79,364,778	7,110,891	1,011,072	8,121,963	0	7,110,891	7,110,891	5,119,184	85,495,034
June 30, 2027	85,495,034	7,624,904	873,349	8,498,253	0	7,624,904	7,624,904	5,507,788	91,876,171
June 30, 2028	91,876,171	8,055,448	812,525	8,867,973	0	8,055,448	8,055,448	5,914,900	98,603,596
June 30, 2029	98,603,596	8,521,367	749,578	9,270,945	0	8,521,367	8,521,367	6,344,141	105,697,315
June 30, 2030	105,697,315	8,888,408	753,106	9,641,514	0	8,888,408	8,888,408	6,798,960	113,249,381
June 30, 2031	113,249,381	9,246,411	769,062	10,015,473	0	9,246,411	9,246,411	7,283,551	121,301,994
June 30, 2032	121,301,994	9,753,421	723,358	10,476,779	0	9,753,421	9,753,421	7,798,281	129,823,633
June 30, 2033	129,823,633	10,040,682	761,068	10,801,750	0	10,087,604	10,087,604	8,345,708	138,883,487
June 30, 2034	138,883,487	10,494,204	729,992	11,224,196	0	10,614,645	10,614,645	8,925,464	148,418,502
June 30, 2035	148,418,502	10,868,689	723,762	11,095,451	0	11,095,283	11,095,283	9,536,462	158,452,132
June 30, 2036	158,452,132	11,281,126	700,038	11,981,164	0	11,658,622	11,658,622	10,178,869	168,953,543
June 30, 2037	168,953,543	11,578,753	708,632	12,287,385	0	12,146,906	12,146,906	10,852,281	179,946,303
June 30, 2038	179,946,303	11,847,052	746,460	12,593,512	0	12,538,356	12,538,356	11,558,110	191,559,569
June 30, 2039	191,559,569	12,194,969	756,967	12,951,936	0	13,038,631	13,038,631	12,302,852	203,775,726
June 30, 2040	203,775,726	12,488,901	776,912	13,265,813	0	13,507,172	13,507,172	13,086,537	216,620,904
June 30, 2041	216,620,904	12,535,300	866,522	13,401,822	0	13,677,331	13,677,331	13,912,741	230,258,136
June 30, 2042	230,258,136	12,727,523	(1,011,240)	11,716,283	0	14,008,041	14,008,041	14,727,640	242,694,018
June 30, 2043	242,694,018	12,931,436	(954,006)	11,977,430	0	14,439,299	14,439,299	15,526,586	255,758,735
June 30, 2044	255,758,735	12,710,900	(827,704)	11,883,196	0	14,518,390	14,518,390	16,368,019	269,491,560
June 30, 2045	269,491,560	12,830,734	(791,472)	12,039,262	0	15,012,440	15,012,440	17,249,436	283,767,818
June 30, 2046	283,767,818	12,942,443	(749,832)	12,192,611	0	15,603,036	15,603,036	18,165,858	298,523,251
June 30, 2047	298,523,251	12,696,079	(678,178)	12,017,901	0	15,922,909	15,922,909	19,113,942	313,732,185
June 30, 2048	313,732,185	12,606,884	(621,261)	11,985,623	0	16,272,102	16,272,102	20,090,631	329,536,337
June 30, 2049	329,536,337	12,743,172	(590,135)	12,153,037	0	16,908,220	16,908,220	21,104,659	345,885,813
June 30, 2050	345,885,813	12,805,778	(557,675)	12,248,103	0	17,528,121	17,528,121	22,153,685	362,759,480
June 30, 2051	362,759,480	12,704,016	(489,766)	12,214,250	0	17,877,220	17,877,220	23,237,429	380,333,939
June 30, 2052	380,333,939	12,642,715	0	12,642,715	0	18,298,762	18,298,762	24,379,405	399,057,297
June 30, 2053	399,057,297	12,739,170	0	12,739,170	0	19,000,014	19,000,014	25,579,573	418,376,026
June 30, 2054	418,376,026	12,559,194	0	12,559,194	0	19,485,327	19,485,327	26,817,903	438,267,796
June 30, 2055	438,267,796	12,531,595	0	12,531,595	0	20,193,431	20,193,431	28,092,966	458,698,926
June 30, 2056	458,698,926	12,605,772	0	12,605,772	0	21,093,249	21,093,249	29,402,601	479,614,050
June 30, 2057	479,614,050	12,293,656	0	12,293,656	0	21,676,553	21,676,553	30,743,261	500,974,414
June 30, 2058	500,974,414	12,164,254	0	12,164,254	0	22,384,951	22,384,951	32,112,460	522,866,177
June 30, 2059	522,866,177	12,100,607	0	12,100,607	0	23,200,038	23,200,038	33,515,722	545,282,468
June 30, 2060	545,282,468	11,848,944	0	11,848,944	0	23,886,298	23,886,298	34,952,606	568,197,720
June 30, 2061	568,197,720	11,551,759	0	11,551,759	0	24,500,573	24,500,573	36,421,474	591,670,380

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, 2021 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 Position for C Plan Mem
June 30, 2062	591,670,380	11,294,038	0	11,294,038	0	25,187,877	25,187,877	37,926,071	615,7
June 30, 2063	615,702,612	11,011,208	0	11,011,208	0	25,984,843	25,984,843	39,466,537	640,1
June 30, 2064	640,195,514	10,838,984	0	10,838,984	0	26,955,622	26,955,622	41,036,532	665,1
June 30, 2065	665,115,408	10,514,083	0	10,514,083	0	27,864,239	27,864,239	42,633,898	690,3
June 30, 2066	690,399,150	10,331,742	0	10,331,742	0	29,018,676	29,018,676	44,254,586	715,9
June 30, 2067	715,966,802	10,226,672	0	10,226,672	0	30,333,336	30,333,336	45,893,472	741,7
June 30, 2068	741,753,610	10,060,105	0	10,060,105	0	31,594,487	31,594,487	47,546,406	767,7
June 30, 2069	767,765,634	9,814,707	0	9,814,707	0	32,837,970	32,837,970	49,213,777	793,9
June 30, 2070	793,956,148	9,634,439	0	9,634,439	0	34,226,246	34,226,246	50,892,589	820,2
June 30, 2071	820,256,930	9,409,727	0	9,409,727	0	35,530,662	35,530,662	52,578,469	846,7
June 30, 2072	846,714,464	9,204,089	0	9,204,089	0	36,900,651	36,900,651	54,274,397	873,2
June 30, 2073	873,292,299	8,938,478	0	8,938,478	0	38,305,773	38,305,773	55,978,036	899,9
June 30, 2074	899,903,040	8,687,537	0	8,687,537	0	39,772,198	39,772,198	57,683,785	926,5
June 30, 2075	926,502,164	8,396,531	0	8,396,531	0	41,252,312	41,252,312	59,388,789	953,0
June 30, 2076	953,035,172	8,065,470	0	8,065,470	0	42,760,562	42,760,562	61,089,555	979,4
June 30, 2077	979,429,635	7,757,932	0	7,757,932	0	44,351,075	44,351,075	62,781,440	1,005,6
June 30, 2078	1,005,617,932	7,406,615	0	7,406,615	0	45,994,204	45,994,204	64,460,109	1,031,4
June 30, 2079	1,031,490,452	7,038,500	0	7,038,500	0	47,670,633	47,670,633	66,118,538	1,056,9
June 30, 2080	1,056,976,857	6,666,707	0	6,666,707	0	49,419,340	49,419,340	67,752,217	1,081,9
June 30, 2081	1,081,976,441	6,274,540	0	6,274,540	0	51,216,291	51,216,291	69,354,690	1,106,3
June 30, 2082	1,106,389,380	5,872,133	0	5,872,133	0	53,053,609	53,053,609	70,919,559	1,130,1
June 30, 2083	1,130,127,463	5,466,099	0	5,466,099	0	54,974,993	54,974,993	72,441,170	1,153,0
June 30, 2084	1,153,059,739	5,057,481	0	5,057,481	0	56,964,520	56,964,520	73,911,129	1,175,0
June 30, 2085	1,175,063,829	4,651,832	0	4,651,832	0	59,025,811	59,025,811	75,321,591	1,196,0
June 30, 2086	1,196,011,441	4,238,765	0	4,238,765	0	61,168,798	61,168,798	76,664,333	1,215,7
June 30, 2087	1,215,745,741	3,837,056	0	3,837,056	0	63,411,722	63,411,722	77,929,302	1,234,1
June 30, 2088	1,234,100,377	3,450,424	0	3,450,424	0	65,772,665	65,772,665	79,105,834	1,250,8
June 30, 2089	1,250,883,970	3,088,138	0	3,088,138	0	68,244,202	68,244,202	80,181,662	1,265,9
June 30, 2090	1,265,909,568	2,736,067	0	2,736,067	0	70,828,566	70,828,566	81,144,803	1,278,9
June 30, 2091	1,278,961,872	2,406,015	0	2,406,015	0	73,537,254	73,537,254	81,981,456	1,289,8
June 30, 2092	1,289,812,089	2,098,485	0	2,098,485	0	76,359,826	76,359,826	82,676,955	1,298,2
June 30, 2093	1,298,227,703	1,813,746	0	1,813,746	0	79,312,215	79,312,215	83,216,396	1,303,9
June 30, 2094	1,303,945,630	1,552,966	0	1,552,966	0	82,402,661	82,402,661	83,582,915	1,306,6
June 30, 2095	1,306,678,850	1,316,368	0	1,316,368	0	85,625,742	85,625,742	83,758,114	1,306,1
June 30, 2096	1,306,127,590	1,103,864	0	1,103,864	0	88,998,623	88,998,623	83,722,779	1,301,9

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

BENEFIT PAYMENT PROJECTION DISCLOSURES

Table 3: Actuarial Present Values of Projected Benefit Payments using a June 30, 2021 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 [6.41%]	VI. Present Value of Unfunded Benefit Payments using the Municipal Bond Rate [4.09%]	VII. Present Value of Benefit Payments using the Single Equivalent Discount Rate [6.41%]	
June 30, 2022	60,176,478	5,626,770	5,626,770	0	5,626,770	0	5,626,770	Sum of Column V.
June 30, 2023	61,383,657	5,735,280	5,735,280	0	5,389,794	0	5,389,794	154,385,126
June 30, 2024	67,893,036	6,278,924	6,278,924	0	5,545,240	0	5,545,240	
June 30, 2025	73,518,227	6,708,256	6,708,256	0	5,567,527	0	5,567,527	Sum of Column VI.
June 30, 2026	79,364,778	7,110,891	7,110,891	0	5,546,184	0	5,546,184	0
June 30, 2027	85,495,034	7,624,904	7,624,904	0	5,588,846	0	5,588,846	
June 30, 2028	91,876,171	8,055,448	8,055,448	0	5,548,748	0	5,548,748	Sum of Column VII.
June 30, 2029	98,603,596	8,521,367	8,521,367	0	5,516,100	0	5,516,100	[V. + VI.]
June 30, 2030	105,697,315	8,888,408	8,888,408	0	5,407,100	0	5,407,100	154,385,126
June 30, 2031	113,249,381	9,246,411	9,246,411	0	5,286,049	0	5,286,049	
June 30, 2032	121,301,994	9,753,421	9,753,421	0	5,240,015	0	5,240,015	
June 30, 2033	129,823,633	10,040,682	10,040,682	0	5,069,397	0	5,069,397	
June 30, 2034	138,883,487	10,494,204	10,494,204	0	4,979,207	0	4,979,207	
June 30, 2035	148,418,502	10,868,689	10,868,689	0	4,846,245	0	4,846,245	
June 30, 2036	158,452,132	11,281,126	11,281,126	0	4,727,138	0	4,727,138	
June 30, 2037	168,953,543	11,578,753	11,578,753	0	4,559,583	0	4,559,583	
June 30, 2038	179,946,303	11,847,052	11,847,052	0	4,384,209	0	4,384,209	
June 30, 2039	191,559,569	12,194,969	12,194,969	0	4,241,106	0	4,241,106	
June 30, 2040	203,775,726	12,488,901	12,488,901	0	4,081,692	0	4,081,692	
June 30, 2041	216,620,904	12,535,300	12,535,300	0	3,850,067	0	3,850,067	
June 30, 2042	230,258,136	12,727,523	12,727,523	0	3,673,627	0	3,673,627	
June 30, 2043	242,694,018	12,931,436	12,931,436	0	3,507,644	0	3,507,644	
June 30, 2044	255,758,735	12,710,900	12,710,900	0	3,240,131	0	3,240,131	
June 30, 2045	269,491,560	12,830,734	12,830,734	0	3,073,656	0	3,073,656	
June 30, 2046	283,767,818	12,942,443	12,942,443	0	2,913,652	0	2,913,652	
June 30, 2047	298,523,251	12,696,079	12,696,079	0	2,686,016	0	2,686,016	
June 30, 2048	313,732,185	12,606,884	12,606,884	0	2,506,480	0	2,506,480	
June 30, 2049	329,536,337	12,743,172	12,743,172	0	2,380,957	0	2,380,957	
June 30, 2050	345,885,813	12,805,778	12,805,778	0	2,248,524	0	2,248,524	
June 30, 2051	362,759,480	12,704,016	12,704,016	0	2,096,284	0	2,096,284	
June 30, 2052	380,333,939	12,642,715	12,642,715	0	1,960,501	0	1,960,501	
June 30, 2053	399,057,297	12,739,170	12,739,170	0	1,856,459	0	1,856,459	
June 30, 2054	418,376,026	12,559,194	12,559,194	0	1,719,981	0	1,719,981	
June 30, 2055	438,267,796	12,531,595	12,531,595	0	1,612,819	0	1,612,819	
June 30, 2056	458,698,926	12,605,772	12,605,772	0	1,524,637	0	1,524,637	
June 30, 2057	479,614,050	12,293,656	12,293,656	0	1,397,319	0	1,397,319	
June 30, 2058	500,974,414	12,164,254	12,164,254	0	1,299,324	0	1,299,324	
June 30, 2059	522,866,177	12,100,607	12,100,607	0	1,214,666	0	1,214,666	
June 30, 2060	545,282,468	11,848,944	11,848,944	0	1,117,755	0	1,117,755	
June 30, 2061	568,197,720	11,551,759	11,551,759	0	1,024,078	0	1,024,078	

APPENDIX I – LIABILITIES, ASSETS, & CASH FLOWS

BENEFIT PAYMENT PROJECTION DISCLOSURES (CONTINUED)

Table 3: Actuarial Present Values of Projected Benefit Payments using a June 30, 2021 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 [6.41%]	VI. Present Value of Unfunded Benefit Payments using the Municipal Bond Rate [4.09%]	VII. Present Value of Benefit Payments using the Single Equivalent Discount Rate [6.41%]
June 30, 2062	591,670,380	11,294,038	11,294,038	0	940,917	0	940,917
June 30, 2063	615,702,612	11,011,208	11,011,208	0	862,094	0	862,094
June 30, 2064	640,195,514	10,838,984	10,838,984	0	797,491	0	797,491
June 30, 2065	665,115,408	10,514,083	10,514,083	0	726,986	0	726,986
June 30, 2066	690,399,150	10,331,742	10,331,742	0	671,345	0	671,345
June 30, 2067	715,966,802	10,226,672	10,226,672	0	624,488	0	624,488
June 30, 2068	741,753,610	10,060,105	10,060,105	0	577,311	0	577,311
June 30, 2069	767,765,634	9,814,707	9,814,707	0	529,301	0	529,301
June 30, 2070	793,956,148	9,634,439	9,634,439	0	488,280	0	488,280
June 30, 2071	820,256,930	9,409,727	9,409,727	0	448,164	0	448,164
June 30, 2072	846,714,464	9,204,089	9,204,089	0	411,963	0	411,963
June 30, 2073	873,292,299	8,938,478	8,938,478	0	375,975	0	375,975
June 30, 2074	899,903,040	8,687,537	8,687,537	0	343,407	0	343,407
June 30, 2075	926,502,164	8,396,531	8,396,531	0	311,911	0	311,911
June 30, 2076	953,035,172	8,065,470	8,065,470	0	281,564	0	281,564
June 30, 2077	979,429,635	7,757,932	7,757,932	0	254,514	0	254,514
June 30, 2078	1,005,617,932	7,406,615	7,406,615	0	228,351	0	228,351
June 30, 2079	1,031,490,452	7,038,500	7,038,500	0	203,930	0	203,930
June 30, 2080	1,056,976,857	6,666,707	6,666,707	0	181,522	0	181,522
June 30, 2081	1,081,976,441	6,274,540	6,274,540	0	160,553	0	160,553
June 30, 2082	1,106,389,380	5,872,133	5,872,133	0	141,205	0	141,205
June 30, 2083	1,130,127,463	5,466,099	5,466,099	0	123,523	0	123,523
June 30, 2084	1,153,059,739	5,057,481	5,057,481	0	107,405	0	107,405
June 30, 2085	1,175,063,829	4,651,832	4,651,832	0	92,839	0	92,839
June 30, 2086	1,196,011,441	4,238,765	4,238,765	0	79,499	0	79,499
June 30, 2087	1,215,745,741	3,837,056	3,837,056	0	67,630	0	67,630
June 30, 2088	1,234,100,377	3,450,424	3,450,424	0	57,152	0	57,152
June 30, 2089	1,250,883,970	3,088,138	3,088,138	0	48,070	0	48,070
June 30, 2090	1,265,909,568	2,736,067	2,736,067	0	40,024	0	40,024
June 30, 2091	1,278,961,872	2,406,015	2,406,015	0	33,076	0	33,076
June 30, 2092	1,289,812,089	2,098,485	2,098,485	0	27,110	0	27,110
June 30, 2093	1,298,227,703	1,813,746	1,813,746	0	22,020	0	22,020
June 30, 2094	1,303,945,630	1,552,966	1,552,966	0	17,718	0	17,718
June 30, 2095	1,306,678,850	1,316,368	1,316,368	0	14,114	0	14,114
June 30, 2096	1,306,127,590	1,103,864	1,103,864	0	11,123	0	11,123

APPENDIX II – PLAN PROVISIONS

<u>Plan Year</u>	July 1 through June 30.
<u>Premium Effective Date</u>	Medicare Supplement Plans: effective January 1, 2022 Active Plans: effective June 30, 2021 Dental Plans: N/A
<u>Creditable Service</u>	Elapsed time from date of hire to termination of service date.
<u>Benefits Offered</u>	Comprehensive Medical & Dental Insurance as well as \$5,000 of Group Term Life Insurance.
<u>Medicare Part A</u>	To the best of our knowledge the Town does not pay any Medicare Part A premiums or penalties.
<u>Medicare Part B</u>	Medicare Part B Premium reimbursements by the Town were not reflected in this valuation. Medicare Part B Penalty reimbursements by the Town were not reflected in this valuation.
<u>Surviving Spouse Coverage</u>	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 6.50%)

Net Long Term Rate of Return

6.41% (based on investment policy)

Municipal Bond Rate

4.09% as of June 30, 2022 (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, 2022

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 2029:	20%
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
2020 - 2023	4.50%
2024	4.54%
2025	4.59%
2026	4.63%
2027	4.68%
2028	4.72%
2029 - 2040	4.77%
2045	4.53%
2050	4.43%
2055	4.00%
2060	3.63%
2061+	3.60%

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, 2022</u>	<u>June 30, 2021</u>
I. Total OPEB Liability	135,250,391	129,196,502
II. Total OPEB Liability (Excluding Implicit Subsidy)	<u>98,833,110</u>	<u>92,111,869</u>
III. Liability from Implicit Subsidy [I. - II.]	36,417,281	37,084,633

	For the Measurement Period Ending	
Impact on Payments	<u>June 30, 2022</u>	<u>June 30, 2021</u>
IV. Employer Payments (Including Implicit Subsidy)	5,626,770	5,034,735
V. Actual Employer Payments	<u>3,839,988</u>	<u>3,675,838</u>
VI. Implicit Subsidy [IV. - V.]	1,786,782	1,358,897

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	5,106	3,219	44 & Under	10,036	6,576	65 to 69	3,383	3,474
25 to 29	7,533	3,349	45 to 49	11,023	8,303	70 to 74	3,991	4,163
30 to 34	9,519	4,204	50 to 54	12,967	10,935	75 to 79	4,630	4,916
35 to 39	9,805	5,278	55 to 59	14,991	14,217	80 to 84	5,311	5,651
40 to 44	10,036	6,576	60 to 64	17,839	18,243	85 to 89	5,936	6,294
45 to 49	11,023	8,303	65 to 69	21,384	22,756	90 & Over	5,936	6,294
50 to 54	12,967	10,935	70 to 74	25,217	27,270			
55 to 59	14,991	14,217	75 to 79	29,285	32,207			
60 to 64	17,839	18,243	80 to 84	33,578	37,020			
65 to 69	21,384	22,756	85 to 89	38,328	42,375			
70 & Over	25,217	27,270	90 & Over	38,328	42,375			

*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, 2022 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, 2021	June 30, 2020
A. Average Age at Hire	34.92	35.01
B. Average Service	<u>9.79</u>	<u>10.26</u>
C. Average Current Age	44.71	45.27

Retired Employees & Spouses

Valuation Date	June 30, 2021	June 30, 2020
A. Under Age 65	79	87
B. Age 65 & Over	<u>861</u>	<u>846</u>
C. Total	940	933

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	60	1								61
25-29	134	20	1							155
30-34	83	69	9							161
35-39	83	46	32	10						171
40-44	52	32	39	43	3					169
45-49	44	48	32	23	36	3				186
50-54	42	41	26	20	35	16	3			183
55-59	25	26	32	25	22	20	9			159
60-64	21	22	18	26	19	17	6		2	131
65-69	2	9	6	5	1	3	1			27
70+	1	4		3	3	3	3		3	20
Total	547	318	195	155	119	62	22		5	1,423

APPENDIX IV – PLAN DEMOGRAPHICS

<u>Plan Offerings</u>	<u>Number of Contracts</u>			
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>	<u>Total</u>
Fallon Select HDHP	34		31	65
Fallon Direct HDHP	7			7
Harvard Pilgrim HDHP	218		136	354
BCBS Network Blue HDHP	32		27	59
Tufts HDHP	30		17	47
Fallon Select Benchmark	37		13	50
Fallon Direct Benchmark	10		2	12
Harvard Pilgrim Benchmark	183		99	282
BCBS Network Blue Benchmark	81		17	98
Tufts Navigator Benchmark	56		12	68
Harvard Pilgrim PPO	3		1	4
BCBS Managed Blue	109			109
BCBS Medex Enhanced	174			174
Harvard Pilgrim Medicare Enhanced	34			34
Tufts Medicare Preferred HMO	34			34
Tufts Medicare Supplement PDP Plus	476			476
Total	1,518	0	355	1,873

	<u>Per Contract Costs (monthly)</u>		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
Fallon Select HDHP	688.00		1,855.00
Fallon Direct HDHP	641.00		1,730.00
Harvard Pilgrim HDHP	829.00		2,163.00
BCBS Network Blue HDHP	868.00		2,331.00
Tufts HDHP	877.00		2,297.00
Fallon Select Benchmark	817.00		2,200.00
Fallon Direct Benchmark	761.00		2,047.00
Harvard Pilgrim Benchmark	1,071.00		2,790.00
BCBS Network Blue Benchmark	1,075.00		2,883.00
Tufts Navigator Benchmark	1,133.00		2,966.00
Harvard Pilgrim PPO	2,658.00		5,902.00
BCBS Managed Blue	386.79	773.58	
BCBS Medex Enhanced	405.00	810.00	
Harvard Pilgrim Medicare Enhanced	389.00	778.00	
Tufts Medicare Preferred HMO	356.00	712.00	
Tufts Medicare Supplement PDP Plus	387.00	774.00	

APPENDIX IV – PLAN DEMOGRAPHICS

	Active Plan Average Premium Calculation					
	Single	Two-Person	Family	Number of Participants	Total Premiums Paid	Claims Without Children
Fallon Select HDHP	34		31	96	970,764.00	792,576.00
Fallon Direct HDHP	7			7	53,844.00	53,844.00
Harvard Pilgrim HDHP	218		136	490	5,698,680.00	4,874,520.00
BCBS Network Blue HDHP	32		27	86	1,088,556.00	895,776.00
Tufts HDHP	30		17	64	784,308.00	673,536.00
Fallon Select Benchmark	37		13	63	705,948.00	617,652.00
Fallon Direct Benchmark	10		2	14	140,448.00	127,848.00
Harvard Pilgrim Benchmark	183		99	381	5,666,436.00	4,896,612.00
BCBS Network Blue Benchmark	81		17	115	1,633,032.00	1,483,500.00
Tufts Navigator Benchmark	56		12	80	1,188,480.00	1,087,680.00
Harvard Pilgrim PPO	3		1	5	166,512.00	159,480.00
Total	691	0	355	1,401	18,097,008.00	15,663,024.00
Blended Average Monthly Rate:						\$ 931.66

	Medicare Supplement Plan Average Premium Calculation					
	Single	Two-Person	Family	Number of Participants	Total Premiums Paid	Claims Without Children
BCBS Managed Blue	109			109	505,921.32	505,921.32
BCBS Medex Enhanced	174			174	845,640.00	845,640.00
Harvard Pilgrim Medicare Enhanced	34			34	158,712.00	158,712.00
Tufts Medicare Preferred HMO	34			34	145,248.00	145,248.00
Tufts Medicare Supplement PDP Plus	476			476	2,210,544.00	2,210,544.00
Total	827	0	0	827	3,866,065.32	3,866,065.32
Blended Average Monthly Rate:						\$ 389.58

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 13, 2023 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, 2022.
- ✓ 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.