

# **Town of Essex Other Postemployment Benefits Plan**

## **GASB 74 & GASB 75 Actuarial Valuation**

With a Valuation Date of July 1, 2020

As of the Measurement Date:  
June 30, 2022

For the Reporting Date:  
June 30, 2022

Delivered December 19, 2022



## TABLE OF CONTENTS

	<u>PAGE</u>
<u>EXECUTIVE SUMMARY</u>	I
<u>PRINCIPAL RESULTS OF THE VALUATION</u>	1
<u>EXHIBITS</u>	
A        FINANCIAL STATEMENT DISCLOSURES	4
B        REQUIRED SUPPLEMENTARY INFORMATION	16
<u>APPENDIX</u>	
I        LIABILITIES, ASSETS, & CASH FLOWS	22
II       PLAN PROVISIONS	27
III      ACTUARIAL METHODS & ASSUMPTIONS	30
IV      PLAN DEMOGRAPHICS	38
V       OVERVIEW OF GASB 74 & 75	41
VI      ASOP 41 DISCLOSURES	43
<u>GLOSSARY</u>	46



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

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

December 19, 2022

*Personal and Confidential*

Mr. Jeffrey Soulard  
Treasurer/Collector  
Town of Essex  
30 Martin Street  
Essex, MA 01929

Dear Mr. Soulard:

We have performed an actuarial valuation of the Town of Essex 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 July 1, 2020. The figures presented in this report reflect the adoption, by the Town of Essex, of Statement Nos. 74 and 75 of the Governmental Accounting Standards Board ("GASB 74/75").

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

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

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

Very truly yours,

A handwritten signature in black ink, appearing to read 'P. Elmore', written over a light blue rectangular background.

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

December 19, 2022

ACTUARIAL CERTIFICATION

This is to certify that Odyssey Advisors has conducted an actuarial valuation of certain benefit obligations of the Town of Essex other postemployment benefit programs with a Valuation Date of July 1, 2020 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.

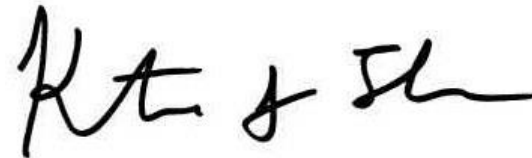
The actuarial data is based on the plan of benefits verified by the Town and on participant claims or premium data provided by the Town and/or vendors employed by the Town.

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', written over a horizontal line.

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

A handwritten signature in black ink, appearing to read 'K. Thompson', written over a horizontal line.

Kurtis J. Thompson, ASA, MAAA  
Consulting 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, there was no plan experience because this was an interim valuation.

#### Assumption Changes

One or more key assumptions have changed since the prior valuation. The total impact of these assumption changes increased disclosed liabilities by approximately \$450 thousand, as detailed below.

- ✓ Due to the GASB 75 standards the discount rate has been changed from 5.90% to 5.14% increasing the disclosed liability by approximately \$450 thousand.

It is important to remember that actuarial assumptions or changes in such do not impact the actual cost of the Plan. Rather, they impact the timing of the recognition of such costs.

#### Investment Experience

- ✓ During the period investments earned approximately \$380 thousand less than expected.

#### Changes in Benefit Terms

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

## EXECUTIVE SUMMARY

### Recognition Period

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

### Events Subsequent to the Measurement Date

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

### Key Drivers of Plan Liabilities

Several key drivers of plan costs and liabilities are:

- ✓ Premiums for Post 65 (Medicare supplement) plans – represent 63.52% of the total plan liabilities
- ✓ Age at which plan participants retire
- ✓ Percentage of plan participants who elect coverage for themselves and/or a spouse
- ✓ Medical care cost inflation rate – We currently assume medical costs increase according to the Getzen Model of Long-Run Medical Cost Trends for Active and Medicare supplement plans, which includes an assumed 4.50% increase in fiscal year 2022 and an ultimate trend rate of 3.60% in fiscal year 2061.
- ✓ Discount Rate (5.14%) – Higher discount rates yield lower liabilities and vice versa
- ✓ Cost Sharing – Under Massachusetts law you may charge retirees up to 50% of premiums for health insurance

### Discount Rate Determinants

- ✓ 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 \$1,842,143 of OPEB assets as of June 30, 2022.
- ✓ Future Funding Policy – The Town is expected to contribute \$200,000 annually beyond pay-as-you-go costs.
- ✓ Investment Policy – The Town is expected to earn 5.14% per year on assets based on its investment policy.

## EXECUTIVE SUMMARY

### Low Default Risk Obligation Measure (LDROM)

For purposes of this LDROM, we have used a discount rate of 4.09% which represents the 20-year municipal bond index while keeping all other assumptions unchanged from the GASB 74/75 disclosures. Based on this, the LDROM Total OPEB Liability is \$5.6 million vs. the \$4.9 million under the GASB 74/75 measure - the reflection of the Town's funding and OPEB Trust Investment policy reduced disclosed liabilities by approximately \$700 thousand. Please note that the ultimate cost of the plan is the actual benefits paid plus expenses and any changes in assumptions, including discount rate, do not impact the actual cost of the plan.

### Medicare Buy-In

The Town currently has 1 retiree or covered spouse who is over the age of 65 and is enrolled in an Active medical plan rather than a Medicare Supplement (Senior) plan. 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 retiree is 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.

## 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.

<b>Representative Plan Statistics</b>		
<b>Valuation Date</b>	<b>July 1, 2020</b>	<b>July 1, 2020</b>
<b>Measurement Date &amp; Period Ending</b>	<b>June 30, 2022</b>	<b>June 30, 2021</b>
<b>Reporting Date/Fiscal Year End</b>	<b>June 30, 2022</b>	<b>June 30, 2021</b>
Total OPEB Liability	4,927,791	4,348,946
Per Eligible Active Plan Participant	62,849	50,399
Per Retiree/Spouse Plan Participant	94,071	89,138
Total Annual Service Cost (Annual Benefit Accrual)	107,192	94,508
Per Eligible Active Plan Participant	3,063	2,700
Expected Employer Share of Retiree Costs	230,627	220,557
Per Retiree/Spouse Plan Participant	7,953	7,605
Net OPEB Liability as a % of Covered Payroll	119.04%	108.89%



## 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	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	36	4,927,791	4,784,263	230,627	223,910
June 30, 2027	37	5,580,405	4,673,501	280,346	234,785
June 30, 2032	35	6,448,377	4,658,445	279,399	201,844
June 30, 2037	33	7,571,876	4,718,543	325,646	202,932
June 30, 2042	31	8,906,247	4,787,547	408,041	219,342
June 30, 2047	29	10,052,475	4,661,280	590,663	273,887
June 30, 2052	28	11,171,526	4,468,467	576,984	230,786

## 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 (Projected)	234,163
June 30, 2022	230,627
June 30, 2021	220,557
June 30, 2020	177,604
June 30, 2019	171,471
June 30, 2018	164,087

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 \$3,085,648 assuming a discount rate of 5.14%. The Town has established an OPEB Trust and plans to fund this liability. The Town is expected to contribute \$200,000 annually beyond pay-as-you-go costs. The balance of this fund as of June 30, 2022 was \$1,842,143. See the Town's audit reports for additional information.

## PRINCIPAL RESULTS OF THE VALUATION

### **Town of Essex Assuming Funding - 5.14% discount rate Comparison of Plan Liabilities to Prior Valuation**

Valuation Date	July 1, 2020	July 1, 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	2,199,723	1,763,958
B. Retirees/Disabled	<u>2,728,068</u>	<u>2,584,988</u>
C. Total	4,927,791	4,348,946
II. Fiduciary Net Position [Plan Assets]	1,842,143	1,608,753
III. Net OPEB Liability (Asset) [I. - II.]	3,085,648	2,740,193
IV. Funded Ratio [II. / I.]	37.38%	36.99%
V. Number of Eligible Participants		
A. Actives	35	35
B. Retirees/Disabled & Dependents	<u>29</u>	<u>29</u>
C. Total	64	64
VI. Service Cost	107,192	94,508
VII. Financial Statement Expense/(Income)	127,446	(77,796)
VIII. Employer OPEB Trust (Contribution)/Withdrawal	(500,000)	(1,345,039)
IX. Deferred Inflow of Resources	(774,378)	(1,248,670)
X. Deferred Outflow of Resources	668,626	194,282
XI. Money Weighted Rate of Return	(15.14%)	23.64%
XII. 20-year Municipal Bond Rate (SAPIHG)	4.09%	2.18%
XIII. Expected Long Term Rate of Return (Net of Expense)	5.14%	5.90%
XIV. Crossover Year	N/A	N/A
XV. Discount Rate	5.14%	5.90%

## PRINCIPAL RESULTS OF THE VALUATION

### Town of Essex

#### Plan Liabilities as of the June 30, 2022 Measurement Date

	General Government Employees and Retirees	School Retirees	Public Safety Employees and Retirees	Culture & Recreation Employees and Retirees	Health & Human Services Employees and Retirees	Sewer Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Total
I. Total OPEB Liability								
A. Actives	623,821	0	955,036	75,409	88,934	196,498	260,025	2,199,723
B. Retirees/Disabled	<u>50,417</u>	<u>219,320</u>	<u>882,556</u>	<u>54,226</u>	<u>123,066</u>	<u>775,039</u>	<u>623,444</u>	<u>2,728,068</u>
C. Total	674,238	219,320	1,837,592	129,635	212,000	971,537	883,469	4,927,791
II. Fiduciary Net Position [Plan Assets]	252,049	81,988	686,942	48,461	79,251	363,187	330,265	1,842,143
III. Net OPEB Liability (Asset) [I. - II.]	422,189	137,332	1,150,650	81,174	132,749	608,350	553,204	3,085,648
<b>For the Reporting Date and Fiscal Year Ending June 30, 2022</b>								
IV. Service Cost	38,733	0	51,499	1,415	3,718	3,015	8,812	107,192
V. Financial Statement Expense/(Income)	36,837	601	62,921	2,124	5,009	7,048	12,906	127,446
VI. Employer Share of Costs	(14,697)	(23,649)	(75,385)	(3,540)	(4,120)	(58,008)	(51,228)	(230,627)
VII. Employer OPEB Trust (Contribution)/Withdrawal	(68,413)	(22,253)	(186,452)	(13,153)	(21,511)	(98,577)	(89,641)	(500,000)
VIII. Total Employer Contribution [VI. + VII.]	(83,110)	(45,902)	(261,837)	(16,693)	(25,631)	(156,585)	(140,869)	(730,627)

PRINCIPAL RESULTS OF THE VALUATION  
CURRENT FUNDING POLICY (OPEN GROUP)

**Funding - 5.14% 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 5.14% return	III. Net OPEB Liability (Asset) [I. - II.]	IV. Funded Ratio [III. / I.]	V. Service Cost	VI. Employer Share of Benefit Payments (With Implicit Cost)	VII. Trust Contributions Beyond Pay-as-you-go	VIII. Gross Trust Contributions [VI. + VII.]	IX. Benefit Payments Reimbursed from the Trust	X. Administrative & Investment Expenses Reimbursed from the Trust	XI. Total Employer Payments Less Reimbursements [VIII. - IX. - X.]
		Date										
2022	June 30, 2022	4,927,791	1,842,143	3,085,648	37.38%	107,192	230,627	500,000	730,627	230,627	0	500,000
2023	June 30, 2023	5,074,226	2,141,905	2,932,321	42.21%	134,580	234,163	200,000	434,163	234,163	0	200,000
2024	June 30, 2024	5,199,889	2,457,075	2,742,814	47.25%	134,942	262,858	200,000	462,858	262,858	0	200,000
2025	June 30, 2025	5,306,658	2,788,444	2,518,214	52.55%	142,401	296,890	200,000	496,890	296,890	0	200,000
2026	June 30, 2026	5,435,005	3,136,846	2,298,159	57.72%	147,482	285,460	200,000	485,460	285,460	0	200,000
2027	June 30, 2027	5,580,405	3,503,155	2,077,250	62.78%	153,110	280,346	200,000	480,346	280,346	0	200,000
2028	June 30, 2028	5,717,649	3,888,293	1,829,356	68.01%	157,573	300,718	200,000	500,718	300,718	0	200,000
2029	June 30, 2029	5,876,805	4,293,227	1,583,578	73.05%	163,389	291,214	200,000	491,214	291,214	0	200,000
2030	June 30, 2030	6,059,426	4,718,974	1,340,452	77.88%	166,324	277,778	200,000	477,778	277,778	0	200,000
2031	June 30, 2031	6,238,577	5,166,605	1,071,972	82.82%	173,776	294,261	200,000	494,261	294,261	0	200,000
2032	June 30, 2032	6,448,377	5,637,244	811,133	87.42%	177,414	279,399	200,000	479,399	279,399	0	200,000
2033	June 30, 2033	6,653,784	6,132,074	521,710	92.16%	184,852	302,333	200,000	502,333	302,333	0	200,000
2034	June 30, 2034	6,875,966	6,652,338	223,628	96.75%	189,686	300,167	200,000	500,167	300,167	0	200,000
2035	June 30, 2035	7,096,869	7,199,344	(102,475)	101.44%	196,785	320,064	200,000	520,064	320,064	0	200,000
2036	June 30, 2036	7,322,030	7,435,988	(113,958)	101.56%	202,663	332,764	(130,101)	202,663	332,764	0	(130,101)
2037	June 30, 2037	7,571,876	7,699,084	(127,208)	101.68%	209,480	325,646	(116,166)	209,480	325,646	0	(116,166)
2038	June 30, 2038	7,824,024	7,965,254	(141,230)	101.81%	215,355	341,711	(126,356)	215,355	341,711	0	(126,356)
2039	June 30, 2039	8,097,020	8,254,161	(157,141)	101.94%	221,468	338,993	(117,525)	221,468	338,993	0	(117,525)
2040	June 30, 2040	8,365,902	8,539,300	(173,398)	102.07%	228,947	364,629	(135,682)	228,947	364,629	0	(135,682)
2041	June 30, 2041	8,638,938	8,829,602	(190,664)	102.21%	235,428	380,368	(144,940)	235,428	380,368	0	(144,940)
2042	June 30, 2042	8,906,247	9,114,448	(208,201)	102.34%	243,228	408,041	(164,813)	243,228	408,041	0	(164,813)
2043	June 30, 2043	9,163,079	9,388,792	(225,713)	102.46%	251,038	440,372	(189,334)	251,038	440,372	0	(189,334)
2044	June 30, 2044	9,418,602	9,662,313	(243,711)	102.59%	258,841	462,730	(203,889)	258,841	462,730	0	(203,889)
2045	June 30, 2045	9,651,565	9,912,511	(260,946)	102.70%	266,643	506,988	(240,345)	266,643	506,988	0	(240,345)
2046	June 30, 2046	9,862,181	10,139,436	(277,255)	102.81%	274,767	550,351	(275,584)	274,767	550,351	0	(275,584)
2047	June 30, 2047	10,052,475	10,345,093	(292,618)	102.91%	282,962	590,663	(307,701)	282,962	590,663	0	(307,701)
2048	June 30, 2048	10,240,815	10,548,753	(307,938)	103.01%	291,551	611,509	(319,958)	291,551	611,509	0	(319,958)
2049	June 30, 2049	10,449,354	10,773,965	(324,611)	103.11%	299,622	608,770	(309,148)	299,622	608,770	0	(309,148)
2050	June 30, 2050	10,708,413	11,052,553	(344,140)	103.21%	310,387	578,770	(268,383)	310,387	578,770	0	(268,383)
2051	June 30, 2051	10,979,910	11,344,697	(364,787)	103.32%	319,992	589,119	(269,127)	319,992	589,119	0	(269,127)
2052	June 30, 2052	11,171,526	11,674,090	(502,564)	104.50%	329,539	576,984	(247,445)	329,539	576,984	0	(247,445)

## 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	107,192
II. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	256,206
III. Deferred (Inflows)/Outflows from Plan Experience*	(4,908)
IV. Deferred (Inflows)/Outflows from Changes of Assumptions*	(151,916)
V. Projected Earnings on OPEB Plan Investments	(109,411)
VI. Deferred (Inflows)/Outflows from Earnings on Plan Investments**	30,283
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.]	127,446
X. Expense Related to Change in Benefit Terms***	0
XI. Financial Statement Expense/(Income) [IX. + X.]	127,446

\* Amortized over 5.00 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
<b>I. Balances for the June 30, 2021 Reporting Date</b>	4,348,946	1,608,753	2,740,193
<b>II. Prior Period Adjustment</b>	0	0	0
<b>III. Balances for the June 30, 2021 Reporting Date with Adjustment [I. + II.]</b>	4,348,946	1,608,753	2,740,193
<b>Changes for the year:</b>			
IV. Service Cost	107,192	0	107,192
V. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	256,206	0	256,206
VI. Changes in Benefit Terms *	0	0	0
VII. Change in Assumptions **	446,074	0	446,074
VIII. Differences Between Actual and Expected Experience **	0	0	0
IX. Net Investment Income	0	(266,610)	266,610
X. Employer Contributions to Trust	0	730,627	(730,627)
XI. Benefit Payments Withdrawn from Trust	0	(230,627)	230,627
XII. Benefit Payments Excluding Implicit Cost	(167,163)	0	(167,163)
XIII. Implicit Cost Amount	(63,464)	0	(63,464)
XIV. Total Benefit Payments Including Implicit Cost [XII. + XIII.]	(230,627)	0	(230,627)
XV. Administrative Expense	0	0	0
XVI. Other Charges	0	0	0
<b>XVII. Net Changes [IV.+V.+VI.+VII.+VIII.+IX.+X.+XI.+XIV.+XV.+XVI.]</b>	578,845	233,390	345,455
<b>XVIII. Balances for the June 30, 2022 Reporting Date [III.+XVII.]</b>	4,927,791	1,842,143	3,085,648

\* Recognized Immediately

\*\* Amortized over 5.00 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	0	5.00	0	0					
2019	(267,394)	5.00	(53,478)	(53,479)	(53,478)				
2020	0	5.00	0	0	0	0			
2021	242,853	5.00	145,711	48,571	48,571	48,571	48,569		
2022	0	5.00	0	0	0	0	0	0	
2023									
2024									
2025									
2026									
Total Remaining Balance			92,233						
Net increase (decrease) in OPEB Expense				(4,908)	(4,907)	48,571	48,569	0	0

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	0	5.00	0	0					
2019	(6,220)	5.00	(1,244)	(1,244)	(1,244)				
2020	0	5.00	0	0	0	0			
2021	(1,199,428)	5.00	(719,656)	(239,886)	(239,886)	(239,886)	(239,884)		
2022	446,074	5.00	356,860	89,214	89,214	89,214	89,214	89,218	
2023									
2024									
2025									
2026									
Total Remaining Balance			(364,040)						
Net increase (decrease) in OPEB Expense				(151,916)	(151,916)	(150,672)	(150,670)	89,218	0



## 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	2022	2023	2024	2025	2026	2027
2017	0	5.00	0						
2018	0	5.00	0	0					
2019	0	5.00	0	0	0				
2020	0	5.00	0	0	0	0			
2021	(224,604)	5.00	(134,762)	(44,921)	(44,921)	(44,921)	(44,920)		
2022	376,021	5.00	300,817	75,204	75,204	75,204	75,204	75,205	
2023									
2024									
2025									
2026									
Total Remaining Balance			166,055						
Net increase (decrease) in OPEB Expense				30,283	30,283	30,283	30,284	75,205	0

EXHIBIT A

FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2022 Measurement Date)

3. Changes in Net OPEB Expense (Continued)

Statement of (Inflows) & Outflows Arising from Current & Prior Reporting Periods for the Measurement Period Ending on June 30, 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	145,711	(53,478)	92,233
III. Changes of Assumptions	356,860	(720,900)	(364,040)
IV. Net Difference Between Projected & Actual Earnings on OPEB Plan Investments	166,055	0	166,055
VI. Total [I. + II. + III. + IV.]	668,626	(774,378)	(105,752)

## 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 the Reporting Date of June 30, 2022 will be recognized in future years as shown below.		
	<b>Year ending June 30:</b>	
	2023	(126,540)
	2024	(71,818)
	2025	(71,817)
	2026	164,423
	2027	0
	Thereafter	0

#### 4. Discount Rate

The discount rate used to measure the Total OPEB liability was 5.14% as of June 30, 2022 and 5.90% 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 \$230,627. The Town also contributed \$500,000 to an OPEB Trust for a total contribution during the measurement period of \$730,627 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	22.25%	Domestic Equity - Large Cap	4.42%
Domestic Equity - Small/Mid Cap	11.00%	Domestic Equity - Small/Mid Cap	4.81%
International Equity - Developed Market	9.00%	International Equity - Developed Market	4.91%
International Equity - Emerging Market	6.00%	International Equity - Emerging Market	5.58%
Domestic Fixed Income	40.50%	Domestic Fixed Income	1.00%
International Fixed Income	9.00%	International Fixed Income	1.04%
Alternatives	1.75%	Alternatives	5.98%
Real Estate	0.00%	Real Estate	6.25%
Cash	0.50%	Cash	0.00%
Total	100.00%		
		I. Real Rate of Return	2.89%
		II. Inflation Assumption	2.50%
		III. Total Nominal Return [I. + II.]	5.39%
		IV. Investment Expense	0.25%
		V. Net Investment Return* [III.-IV.]	5.14%

\* 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	Actuarial Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
June 30, 2022	243,607	(730,627)	(487,020)	2,592,091	28.19%
June 30, 2021	227,260	(1,565,596)	(1,338,336)	2,516,593	62.21%
June 30, 2020	444,475	(177,604)	266,871	2,124,064	8.36%
June 30, 2019	416,800	(171,471)	245,329	2,124,064	8.07%
June 30, 2018	417,580	(164,087)	253,493	2,062,198	7.96%
June 30, 2017	407,671	(129,345)	278,326	2,779,588	4.65%

## 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>
Net OPEB Liability (Asset)	2,480,095	3,085,648	3,836,140

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>
Net OPEB Liability (Asset)	3,742,936	5.14%	2,541,433

## 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	1,608,753	12	1.0000
Monthly net external cash flows:			
July	0	11	0.9167
August	0	10	0.8333
September	0	9	0.7500
October	0	8	0.6667
November	62,500	7	0.5833
December	62,500	6	0.5000
January	62,500	5	0.4167
February	62,500	4	0.3333
March	62,500	3	0.2500
April	62,500	2	0.1667
May	62,500	1	0.0833
<u>June</u>	<u>62,500</u>	0	0.0000
II. Total net external cash flow	500,000		
III. Earnings and increase in fair value	(266,610)		
IV. Ending value - June 30, 2022 [I.+II.+III.]	1,842,143		
V. Receivable Contributions	0		
Plan Asset Value - June 30, 2022 [IV.+V.]	1,842,143		
Money Weighted Rate of Return	(15.14%)		

**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
	General Government Employees and Retirees	School Retirees	Public Safety Employees and Retirees	Culture & Recreation Employees and Retirees	Health & Human Services Employees and Retirees	Sewer Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	
I. Total OPEB Liability as of June 30, 2022	674,238	219,320	1,837,592	129,635	212,000	971,537	883,469	4,927,791
II. Fiduciary Net Position as of June 30, 2022	252,049	81,988	686,942	48,461	79,251	363,187	330,265	1,842,143
III. Net OPEB Liability (Asset) as of June 30, 2022 [I. - II.]	422,189	137,332	1,150,650	81,174	132,749	608,350	553,204	3,085,648
IV. Service Cost	38,733	0	51,499	1,415	3,718	3,015	8,812	107,192
V. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	30,292	11,088	99,503	6,921	11,455	50,546	46,401	256,206
VI. Projected Earnings on OPEB Plan Investments	(14,875)	(4,855)	(40,893)	(2,883)	(4,720)	(21,565)	(19,620)	(109,411)
VII. Net Recognition of Deferred (Inflows)/Outflows	(17,313)	(5,632)	(47,188)	(3,329)	(5,444)	(24,948)	(22,687)	(126,541)
VIII. OPEB Plan Administrative Expense	0	0	0	0	0	0	0	0
IX. Expense Related to Change in Benefit Terms	0	0	0	0	0	0	0	0
X. Financial Statement Expense/(Income) [IV. + V. + ... + VIII. + IX.]	36,837	601	62,921	2,124	5,009	7,048	12,906	127,446
XI. Employer Share of Costs	(14,697)	(23,649)	(75,385)	(3,540)	(4,120)	(58,008)	(51,228)	(230,627)
XII. Employer (Payments) Withdrawals to/from OPEB Trust	(68,413)	(22,253)	(186,452)	(13,153)	(21,511)	(98,577)	(89,641)	(500,000)
XIII. Total Employer Contribution [XI. + XII.]	(83,110)	(45,902)	(261,837)	(16,693)	(25,631)	(156,585)	(140,869)	(730,627)
XIV. Net OPEB Expense/(Income) [X. + XIII.]	(46,273)	(45,301)	(198,916)	(14,569)	(20,622)	(149,537)	(127,963)	(603,181)



## EXHIBIT A

### FINANCIAL STATEMENT DISCLOSURES

(As of the June 30, 2022 Measurement Date)

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

Valuation Date	July 1, 2020
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	92,233
II. Deferred (Inflow)/Outflow from Investment Experience	166,055
III. Deferred (Inflow)/Outflow from Changes in Assumptions	(364,040)

Change in Deferred Inflow/Outflow	
I. Deferred Outflow at the beginning of the period	194,282
II. Deferred Outflow created during the period	822,095
III. Deferred Outflow recognized during the period	212,989
IV. Change in Deferred Outflow (II. - III. )	609,106
V. Deferred Outflow at end of the period (I. + IV. )	803,388
VI. Deferred Inflow at the beginning of the period	(1,248,670)
VII. Deferred Inflow created during the period	0
VIII. Deferred Inflow recognized during the period	(339,530)
IX. Change in Deferred Inflow (VII. - VIII. )	339,530
X. Deferred Inflow at end of the period (VI. + IX. )	(909,140)

Net OPEB Liability	
I. Net OPEB Liability at beginning of period	2,740,193
II. Service Cost	107,192
III. Interest on Total OPEB Liability, Service Cost, and Payments	256,206
IV. Projected Investment Income	(109,411)
V. OPEB Plan Administrative Expense	0
VI. Total Employer Contributions	(730,627)
VII. Expense Related to Change in Benefit Terms	0
VIII. Net OPEB Expense/(Income) - Before Recognition of Deferred (Inflow)/Outflow (II. + III. + ... + VI. + VII.)	(476,640)
IX. Deferred Outflow created during the period	822,095
X. Deferred Inflow created during the period	0
XI. Net OPEB Liability at end of period (I. + VIII. + IX. + X. )	3,085,648

Net OPEB Expense	
I. Service Cost	107,192
II. Interest on Total OPEB Liability, Service Cost, and Payments	256,206
III. Projected Investment Income	(109,411)
IV. Recognition of Deferred (Inflow)/Outflow	(126,541)
V. OPEB Plan Administrative Expense	0
VI. Expense Related to Change in Benefit Terms	0
VII. Financial Statement Expense/(Income) (I. + II. + III. + IV. + V. + VI.)	127,446
VIII. Benefit Payments	(230,627)
IX. Contributions to Trust	(500,000)
X. Total Employer Payments (VIII. + IX.)	(730,627)
XI. Total Net OPEB Expense/(Income) under GASB 75 (IX. + X.)	(603,181)

**EXHIBIT A**  
**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	July 1, 2020	July 1, 2020	July 1, 2018	July 1, 2018	July 1, 2018	July 1, 2016
Measurement Date	June 30, 2022	June 30, 2021	June 30, 2020	July 1, 2019	July 1, 2018	July 1, 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
<b>Total OPEB Liability</b>	4,927,791	4,348,946	5,273,805	5,103,514	4,952,330	5,068,912
I. Service Cost	107,192	94,508	191,683	171,493	166,500	166,433
II. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	256,206	157,765	156,212	151,162	154,619	161,606
III. Changes in Benefit Terms	0	0	0	0	0	0
IV. Difference Between Expected & Actual Plan Experience	0	242,853	0	0	(267,394)	0
V. Changes of Assumptions	446,074	(1,199,428)	0	0	(6,220)	0
VI. Benefit Payments Excluding Implicit Cost	(167,163)	(162,766)	(142,589)	(137,665)	(131,737)	N/A
VII. Implicit Cost Amount	(63,464)	(57,791)	(35,015)	(33,806)	(32,350)	N/A
VIII. Total Benefit Payments	(230,627)	(220,557)	(177,604)	(171,471)	(164,087)	(129,345)
IX. Other	0	0	0	0	0	0
X. Net Change in OPEB Liability [I.+II.+III.+IV.+V.+VIII.+IX.]	578,845	(924,859)	170,291	151,184	(116,582)	198,694
XI. Total OPEB Liability - Beginning of Period	4,348,946	5,273,805	5,103,514	4,952,330	5,068,912	4,870,218
XII. Prior Period Adjustment	0	0	0	0	0	0
XIII. Total OPEB Liability - Beginning of Period with Adjustment [XI.+XII.]	4,348,946	5,273,805	5,103,514	4,952,330	5,068,912	4,870,218
XIV. Total OPEB Liability - End of Period [XIII.+X.]	4,927,791	4,348,946	5,273,805	5,103,514	4,952,330	5,068,912
<b>Plan Fiduciary Net Position</b>	1,842,143	1,608,753	0	0	0	0
XV. Earnings from Plan Investments	(266,610)	263,714	0	0	0	0
XVI. Employer Contribution to Trust	730,627	1,565,596	177,604	171,471	164,087	129,345
XVII. Benefit Payments from Trust, Including Refunds of Member Contributions	(230,627)	(220,557)	(177,604)	(171,471)	(164,087)	(129,345)
XVIII. Administrative Expense	0	0	0	0	0	0
XIX. Other	0	0	0	0	0	0
XX. Net Change in Plan Fiduciary Net Position [XV.+XVI.+XVII.+XVIII.+XIX.]	233,390	1,608,753	0	0	0	0
XXI. Plan Fiduciary Net Position - Beginning of Period	1,608,753	0	0	0	0	0
XXII. Prior Period Adjustment	0	0	0	0	0	0
XXIII. Plan Fiduciary Net Position - Beginning of Period with Adjustment [XXI.+XXII.]	1,608,753	0	0	0	0	0
XXIV. Plan Fiduciary Net Position - End of Period [XXIII.+XX.]	1,842,143	1,608,753	0	0	0	0
XXV. Net OPEB Liability [XIV.-XXIV.]	3,085,648	2,740,193	5,273,805	5,103,514	4,952,330	5,068,912
XXVI. Plan Fiduciary Net Position as % of Total OPEB Liability [XXIV./XIV.]	37.38%	36.99%	0.00%	0.00%	0.00%	0.00%
XXVII. Covered Employee Payroll	2,592,091	2,516,593	2,124,064	2,124,064	2,062,198	2,779,588
XXVIII. Plan NOL as % of Covered Employee Payroll [XXV./XXVII.]	119.04%	108.89%	248.29%	240.27%	240.15%	182.36%
Single Discount Rate to Calculate Plan Liabilities	5.14%	5.90%	3.00%	3.00%	3.00%	3.25%

## 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:

<b>Actuarially Determined Contribution - Deficiency / (Excess)</b>						
For the Fiscal Year Ending:	<u>June 30, 2022</u>	<u>June 30, 2021</u>	<u>June 30, 2020</u>	<u>June 30, 2019</u>	<u>June 30, 2018</u>	<u>June 30, 2017</u>
I. Service Cost	107,192	94,508	191,681	171,495	166,500	166,433
II. 30 Year Level Dollar Amortization of NOL	<u>136,415</u>	<u>132,752</u>	<u>252,794</u>	<u>245,305</u>	<u>251,080</u>	<u>241,238</u>
III. Actuarial Determined Contribution [I. + II.]	243,607	227,260	444,475	416,800	417,580	407,671
IV. Contributions in Relation to the Actuarially Determined Contribution	<u>(730,627)</u>	<u>(1,565,596)</u>	<u>(177,604)</u>	<u>(171,471)</u>	<u>(164,087)</u>	<u>(129,345)</u>
V. Contribution Deficiency / (Excess) [III. + IV.]	<u>(487,020)</u>	<u>(1,338,336)</u>	266,871	245,329	253,493	278,326
Covered Employee Payroll	2,592,091	2,516,593	2,124,064	2,124,064	2,062,198	2,779,588
Contributions as a % of Covered Employee Payroll	28.19%	62.21%	8.36%	8.07%	7.96%	4.65%
Discount Rate	5.14%	5.90%	3.00%	3.00%	3.00%	3.25%
Money Weighted Rate of Return	<u>(15.14%)</u>	23.64%	N/A	N/A	N/A	N/A

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 July 1, 2020.
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:	5.14%, 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:	5.14%, 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 B

### REQUIRED SUPPLEMENTARY INFORMATION

(As of the June 30, 2022 Measurement Date)

#### Plan Membership

At July 1, 2020, OPEB plan membership consisted of the following:

Retirees & Beneficiaries:	29
Actives:	<u>35</u>
Total:	64

#### 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 5.90% to 5.14%.

#### Contributions/Withdrawals:

The contribution requirements of plan members and the Town are established and may be amended through Town ordinances. The Town contributed \$500,000 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 \$230,627. \$63,464 of the \$230,627 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 July 1, 2020 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	2,592,091	0	2,592,091	0	230,627	0	230,627
June 30, 2023	2,424,701	245,153	2,669,854	0	234,163	0	234,163
June 30, 2024	2,281,082	468,868	2,749,950	0	262,858	0	262,858
June 30, 2025	2,034,341	798,108	2,832,449	0	296,890	0	296,890
June 30, 2026	1,892,219	1,025,203	2,917,422	0	285,460	0	285,460
June 30, 2027	1,777,908	1,227,037	3,004,945	0	280,346	0	280,346
June 30, 2028	1,703,113	1,391,980	3,095,093	0	300,718	0	300,718
June 30, 2029	1,611,495	1,576,451	3,187,946	0	291,214	0	291,214
June 30, 2030	1,552,002	1,731,582	3,283,584	0	277,778	0	277,778
June 30, 2031	1,439,481	1,942,611	3,382,092	0	294,261	0	294,261
June 30, 2032	1,389,236	2,094,319	3,483,555	0	277,017	2,382	279,399
June 30, 2033	1,302,560	2,285,502	3,588,062	0	297,192	5,141	302,333
June 30, 2034	1,255,777	2,439,927	3,695,704	0	291,374	8,793	300,167
June 30, 2035	1,180,263	2,626,312	3,806,575	0	305,647	14,417	320,064
June 30, 2036	1,142,109	2,778,663	3,920,772	0	311,839	20,925	332,764
June 30, 2037	1,092,575	2,945,820	4,038,395	0	302,726	22,920	325,646
June 30, 2038	1,064,321	3,095,226	4,159,547	0	313,968	27,743	341,711
June 30, 2039	1,031,552	3,252,781	4,284,333	0	305,842	33,151	338,993
June 30, 2040	987,629	3,425,234	4,412,863	0	330,287	34,342	364,629
June 30, 2041	969,200	3,576,049	4,545,249	0	342,374	37,994	380,368
June 30, 2042	935,185	3,746,421	4,681,606	0	362,274	45,767	408,041
June 30, 2043	919,030	3,903,024	4,822,054	0	385,309	55,063	440,372
June 30, 2044	902,165	4,064,551	4,966,716	0	396,284	66,446	462,730
June 30, 2045	881,947	4,233,770	5,115,717	0	424,714	82,274	506,988
June 30, 2046	848,768	4,420,421	5,269,189	0	450,367	99,984	550,351
June 30, 2047	809,201	4,618,064	5,427,265	0	481,838	108,825	590,663
June 30, 2048	765,763	4,824,320	5,590,083	0	488,322	123,187	611,509
June 30, 2049	719,122	5,038,663	5,757,785	0	469,860	138,910	608,770
June 30, 2050	640,648	5,289,871	5,930,519	0	433,033	145,737	578,770
June 30, 2051	598,213	5,510,222	6,108,435	0	431,574	157,545	589,119
June 30, 2052	551,363	5,740,325	6,291,688	0	402,225	174,759	576,984
June 30, 2053	510,157	5,970,282	6,480,439	0	317,290	191,848	509,138
June 30, 2054	457,513	6,217,339	6,674,852	0	333,000	211,238	544,238
June 30, 2055	391,439	6,483,659	6,875,098	0	343,117	234,641	577,758
June 30, 2056	330,358	6,750,993	7,081,351	0	286,128	259,313	545,441
June 30, 2057	307,330	6,986,462	7,293,792	0	270,322	279,252	549,574
June 30, 2058	277,906	7,234,700	7,512,606	0	276,909	302,088	578,997
June 30, 2059	220,478	7,517,506	7,737,984	0	262,164	326,557	588,721
June 30, 2060	196,849	7,773,275	7,970,124	0	229,641	347,162	576,803
June 30, 2061	176,923	8,032,305	8,209,228	0	219,161	369,903	589,064



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

### CONTRIBUTION PROJECTION DISCLOSURES (CONTINUED)

**Table 1: Projection of Contributions using a July 1, 2020 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	145,416	8,310,089	8,455,505	0	219,797	398,347	618,144
June 30, 2063	115,231	8,593,939	8,709,170	0	224,964	427,034	651,998
June 30, 2064	99,812	8,870,633	8,970,445	0	215,375	458,573	673,948
June 30, 2065	84,377	9,155,181	9,239,558	0	217,648	493,522	711,170
June 30, 2066	62,152	9,454,593	9,516,745	0	212,938	530,428	743,366
June 30, 2067	35,821	9,766,426	9,802,247	0	212,026	565,283	777,309
June 30, 2068	29,224	10,067,090	10,096,314	0	215,429	602,474	817,903
June 30, 2069	23,822	10,375,381	10,399,203	0	205,119	642,070	847,189
June 30, 2070	19,407	10,691,772	10,711,179	0	205,555	676,755	882,310
June 30, 2071	15,795	11,016,719	11,032,514	0	207,077	714,685	921,762
June 30, 2072	0	11,363,489	11,363,489	0	203,988	756,028	960,016
June 30, 2073	0	11,704,394	11,704,394	0	202,694	796,715	999,409
June 30, 2074	0	12,055,526	12,055,526	0	197,097	839,061	1,036,158
June 30, 2075	0	12,417,192	12,417,192	0	190,552	883,318	1,073,870
June 30, 2076	0	12,789,708	12,789,708	0	187,858	929,261	1,117,119
June 30, 2077	0	13,173,399	13,173,399	0	180,019	978,813	1,158,832
June 30, 2078	0	13,568,601	13,568,601	0	169,331	1,027,667	1,196,998
June 30, 2079	0	13,975,659	13,975,659	0	161,055	1,078,753	1,239,808
June 30, 2080	0	14,394,929	14,394,929	0	152,269	1,132,099	1,284,368
June 30, 2081	0	14,826,777	14,826,777	0	143,592	1,185,234	1,328,826
June 30, 2082	0	15,271,580	15,271,580	0	131,893	1,241,457	1,373,350
June 30, 2083	0	15,729,727	15,729,727	0	120,296	1,299,012	1,419,308
June 30, 2084	0	16,201,619	16,201,619	0	110,623	1,357,836	1,468,459
June 30, 2085	0	16,687,668	16,687,668	0	99,574	1,419,645	1,519,219
June 30, 2086	0	17,188,298	17,188,298	0	90,327	1,484,210	1,574,537
June 30, 2087	0	17,703,947	17,703,947	0	80,340	1,551,386	1,631,726
June 30, 2088	0	18,235,065	18,235,065	0	71,006	1,620,178	1,691,184
June 30, 2089	0	18,782,117	18,782,117	0	63,085	1,692,140	1,755,225
June 30, 2090	0	19,345,581	19,345,581	0	55,134	1,766,872	1,822,006
June 30, 2091	0	19,925,948	19,925,948	0	47,888	1,842,800	1,890,688
June 30, 2092	0	20,523,726	20,523,726	0	41,347	1,921,855	1,963,202
June 30, 2093	0	21,139,438	21,139,438	0	35,450	2,004,046	2,039,496
June 30, 2094	0	21,773,621	21,773,621	0	30,172	2,088,319	2,118,491
June 30, 2095	0	22,426,830	22,426,830	0	25,462	2,175,872	2,201,334
June 30, 2096	0	23,099,635	23,099,635	0	21,313	2,267,179	2,288,492

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

### FIDUCIARY NET POSITION PROJECTION DISCLOSURES

**Table 2: Projection of OPEB Plan's Fiduciary Net Position using a July 1 2020 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	1,608,753	230,627	500,000	730,627	0	230,627	230,627	(266,610)	1,842,143
June 30, 2023	1,842,143	234,163	181,635	415,798	0	234,163	234,163	90,602	2,114,380
June 30, 2024	2,114,380	262,858	165,900	428,758	0	262,858	262,858	112,889	2,393,169
June 30, 2025	2,393,169	296,890	143,645	440,535	0	296,890	296,890	126,654	2,663,468
June 30, 2026	2,663,468	285,460	129,719	415,179	0	285,460	285,460	140,194	2,933,381
June 30, 2027	2,933,381	280,346	118,332	398,678	0	280,346	280,346	153,779	3,205,492
June 30, 2028	3,205,492	300,718	110,052	410,770	0	300,718	300,718	167,555	3,483,099
June 30, 2029	3,483,099	291,214	101,099	392,313	0	291,214	291,214	181,597	3,765,795
June 30, 2030	3,765,795	277,778	94,531	372,309	0	277,778	277,778	195,961	4,056,287
June 30, 2031	4,056,287	294,261	85,124	379,385	0	294,261	294,261	210,653	4,352,064
June 30, 2032	4,352,064	277,017	79,760	356,777	0	279,399	279,399	225,720	4,655,162
June 30, 2033	4,655,162	297,192	72,605	369,797	0	302,333	302,333	241,118	4,963,744
June 30, 2034	4,963,744	291,374	67,959	359,333	0	300,167	300,167	256,861	5,279,771
June 30, 2035	5,279,771	305,647	62,012	367,659	0	320,064	320,064	272,954	5,600,320
June 30, 2036	5,600,320	311,839	58,259	370,098	0	332,764	332,764	289,335	5,926,989
June 30, 2037	5,926,989	302,726	54,109	356,835	0	325,646	325,646	306,020	6,264,198
June 30, 2038	6,264,198	313,968	51,175	365,143	0	341,711	341,711	323,278	6,610,908
June 30, 2039	6,610,908	305,842	48,155	353,997	0	338,993	338,993	341,023	6,966,935
June 30, 2040	6,966,935	330,287	44,761	375,048	0	364,629	364,629	359,236	7,336,590
June 30, 2041	7,336,590	342,374	42,647	385,021	0	380,368	380,368	378,183	7,719,426
June 30, 2042	7,719,426	362,274	39,951	402,225	0	408,041	408,041	397,792	8,111,402
June 30, 2043	8,111,402	385,309	38,118	423,427	0	440,372	440,372	417,893	8,512,350
June 30, 2044	8,512,350	396,284	36,328	432,612	0	462,730	462,730	438,457	8,920,689
June 30, 2045	8,920,689	424,714	34,480	459,194	0	506,988	506,988	459,398	9,332,293
June 30, 2046	9,332,293	450,367	32,216	482,583	0	550,351	550,351	480,497	9,745,022
June 30, 2047	9,745,022	481,838	29,820	511,658	0	590,663	590,663	501,651	10,167,668
June 30, 2048	10,167,668	488,322	27,397	515,719	0	611,509	611,509	523,313	10,595,191
June 30, 2049	10,595,191	469,860	24,979	494,839	0	608,770	608,770	545,227	11,026,487
June 30, 2050	11,026,487	433,033	21,605	454,638	0	578,770	578,770	567,310	11,469,665
June 30, 2051	11,469,665	431,574	19,586	451,160	0	589,119	589,119	590,038	11,921,744
June 30, 2052	11,921,744	402,225	17,527	419,752	0	576,984	576,984	613,222	12,377,734
June 30, 2053	12,377,734	317,290	15,745	333,035	0	509,138	509,138	636,615	12,838,246
June 30, 2054	12,838,246	333,000	13,709	346,709	0	544,238	544,238	660,234	13,300,951
June 30, 2055	13,300,951	343,117	11,387	354,504	0	577,758	577,758	683,958	13,761,655
June 30, 2056	13,761,655	286,128	9,330	295,458	0	545,441	545,441	707,586	14,219,258
June 30, 2057	14,219,258	270,322	8,427	278,749	0	549,574	549,574	731,084	14,679,517
June 30, 2058	14,679,517	276,909	7,398	284,307	0	578,997	578,997	754,715	15,139,542
June 30, 2059	15,139,542	262,164	5,699	267,863	0	588,721	588,721	778,317	15,597,001
June 30, 2060	15,597,001	229,641	4,940	234,581	0	576,803	576,803	801,811	16,056,590
June 30, 2061	16,056,590	219,161	4,310	223,471	0	589,064	589,064	825,418	16,516,415

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

### FIDUCIARY POSITION PROJECTION DISCLOSURES (CONTINUED)

**Table 2: Projection of OPEB Plan's Fiduciary Net Position using a July 1 2020 Valuation Date**

For the Period Ending on the Measurement Date	I. Beginning Fiduciary Net Position for Current Plan Members	II. Employer Share of Benefit Payments for Current Plan Members	III. Contributions to Trust for Current Plan Members beyond Pay-as-you- go	IV. Gross Contributions to Trust for Current Plan Members [III. + III.]	V. Administrative Expenses Withdrawn from the Trust for Current Plan Members	VI. Benefit Payments Withdrawn from the Trust	VII. Trust Withdrawals [V. + VI.]	VIII. Investment Earnings	IX. Ending Fiduciary Net Position for Current Plan Members
June 30, 2062	16,516,415	219,797	3,440	223,237	0	618,144	618,144	849,031	16,970,539
June 30, 2063	16,970,539	224,964	2,646	227,610	0	651,998	651,998	872,353	17,418,504
June 30, 2064	17,418,504	215,375	2,225	217,600	0	673,948	673,948	895,368	17,857,524
June 30, 2065	17,857,524	217,648	1,826	219,474	0	711,170	711,170	917,923	18,283,751
June 30, 2066	18,283,751	212,938	1,306	214,244	0	743,366	743,366	939,818	18,694,447
June 30, 2067	18,694,447	212,026	731	212,757	0	777,309	777,309	960,913	19,090,808
June 30, 2068	19,090,808	215,429	579	216,008	0	817,903	817,903	981,282	19,470,195
June 30, 2069	19,470,195	205,119	458	205,577	0	847,189	847,189	1,000,780	19,829,363
June 30, 2070	19,829,363	205,555	362	205,917	0	882,310	882,310	1,019,238	20,172,208
June 30, 2071	20,172,208	207,077	286	207,363	0	921,762	921,762	1,036,859	20,494,668
June 30, 2072	20,494,668	203,988	0	203,988	0	960,016	960,016	1,053,426	20,792,066
June 30, 2073	20,792,066	202,694	0	202,694	0	999,409	999,409	1,068,712	21,064,063
June 30, 2074	21,064,063	197,097	0	197,097	0	1,036,158	1,036,158	1,082,693	21,307,695
June 30, 2075	21,307,695	190,552	0	190,552	0	1,073,870	1,073,870	1,095,216	21,519,593
June 30, 2076	21,519,593	187,858	0	187,858	0	1,117,119	1,117,119	1,106,107	21,696,439
June 30, 2077	21,696,439	180,019	0	180,019	0	1,158,832	1,158,832	1,115,197	21,832,823
June 30, 2078	21,832,823	169,331	0	169,331	0	1,196,998	1,196,998	1,122,207	21,927,363
June 30, 2079	21,927,363	161,055	0	161,055	0	1,239,808	1,239,808	1,127,066	21,975,676
June 30, 2080	21,975,676	152,269	0	152,269	0	1,284,368	1,284,368	1,129,550	21,973,127
June 30, 2081	21,973,127	143,592	0	143,592	0	1,328,826	1,328,826	1,129,419	21,917,312
June 30, 2082	21,917,312	131,893	0	131,893	0	1,373,350	1,373,350	1,126,550	21,802,405
June 30, 2083	21,802,405	120,296	0	120,296	0	1,419,308	1,419,308	1,120,644	21,624,037
June 30, 2084	21,624,037	110,623	0	110,623	0	1,468,459	1,468,459	1,111,476	21,377,677
June 30, 2085	21,377,677	99,574	0	99,574	0	1,519,219	1,519,219	1,098,813	21,056,845
June 30, 2086	21,056,845	90,327	0	90,327	0	1,574,537	1,574,537	1,082,322	20,654,957
June 30, 2087	20,654,957	80,340	0	80,340	0	1,631,726	1,631,726	1,061,665	20,165,236
June 30, 2088	20,165,236	71,006	0	71,006	0	1,691,184	1,691,184	1,036,493	19,581,551
June 30, 2089	19,581,551	63,085	0	63,085	0	1,755,225	1,755,225	1,006,492	18,895,903
June 30, 2090	18,895,903	55,134	0	55,134	0	1,822,006	1,822,006	971,249	18,100,280
June 30, 2091	18,100,280	47,888	0	47,888	0	1,890,688	1,890,688	930,354	17,187,834
June 30, 2092	17,187,834	41,347	0	41,347	0	1,963,202	1,963,202	883,455	16,149,434
June 30, 2093	16,149,434	35,450	0	35,450	0	2,039,496	2,039,496	830,081	14,975,469
June 30, 2094	14,975,469	30,172	0	30,172	0	2,118,491	2,118,491	769,739	13,656,889
June 30, 2095	13,656,889	25,462	0	25,462	0	2,201,334	2,201,334	701,964	12,182,981
June 30, 2096	12,182,981	21,313	0	21,313	0	2,288,492	2,288,492	626,205	10,542,007

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

### BENEFIT PAYMENT PROJECTION DISCLOSURES

**Table 3: Actuarial Present Values of Projected Benefit Payments using a July 1, 2020 Valuation Date**

For the Period Ending on the Measurement Date	I. Beginning Fiduciary Net Position for Current Plan Members	II. Benefit Payments for Current Plan Members	III. Funded Portion of Benefit Payments	IV. Unfunded Portion of Benefit Payments [III. - III.]	V. Present Value of Funded Benefit Payments using the Long-Term Rate of Return [5.14%]	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 [5.14%]
June 30, 2022	1,608,753	230,627	230,627	0	230,627	0	230,627
June 30, 2023	1,842,143	234,163	234,163	0	222,715	0	222,715
June 30, 2024	2,114,380	262,858	262,858	0	237,785	0	237,785
June 30, 2025	2,393,169	296,890	296,890	0	255,442	0	255,442
June 30, 2026	2,663,468	285,460	285,460	0	233,600	0	233,600
June 30, 2027	2,933,381	280,346	280,346	0	218,200	0	218,200
June 30, 2028	3,205,492	300,718	300,718	0	222,614	0	222,614
June 30, 2029	3,483,099	291,214	291,214	0	205,039	0	205,039
June 30, 2030	3,765,795	277,778	277,778	0	186,018	0	186,018
June 30, 2031	4,056,287	294,261	294,261	0	187,422	0	187,422
June 30, 2032	4,352,064	277,017	277,017	0	167,813	0	167,813
June 30, 2033	4,655,162	297,192	297,192	0	171,234	0	171,234
June 30, 2034	4,963,744	291,374	291,374	0	159,674	0	159,674
June 30, 2035	5,279,771	305,647	305,647	0	159,308	0	159,308
June 30, 2036	5,600,320	311,839	311,839	0	154,589	0	154,589
June 30, 2037	5,926,989	302,726	302,726	0	142,735	0	142,735
June 30, 2038	6,264,198	313,968	313,968	0	140,798	0	140,798
June 30, 2039	6,610,908	305,842	305,842	0	130,449	0	130,449
June 30, 2040	6,966,935	330,287	330,287	0	133,989	0	133,989
June 30, 2041	7,336,590	342,374	342,374	0	132,102	0	132,102
June 30, 2042	7,719,426	362,274	362,274	0	132,947	0	132,947
June 30, 2043	8,111,402	385,309	385,309	0	134,487	0	134,487
June 30, 2044	8,512,350	396,284	396,284	0	131,556	0	131,556
June 30, 2045	8,920,689	424,714	424,714	0	134,101	0	134,101
June 30, 2046	9,332,293	450,367	450,367	0	135,249	0	135,249
June 30, 2047	9,745,022	481,838	481,838	0	137,626	0	137,626
June 30, 2048	10,167,668	488,322	488,322	0	132,660	0	132,660
June 30, 2049	10,595,191	469,860	469,860	0	121,404	0	121,404
June 30, 2050	11,026,487	433,033	433,033	0	106,419	0	106,419
June 30, 2051	11,469,665	431,574	431,574	0	100,875	0	100,875
June 30, 2052	11,921,744	402,225	402,225	0	89,419	0	89,419
June 30, 2053	12,377,734	317,290	317,290	0	67,089	0	67,089
June 30, 2054	12,838,246	333,000	333,000	0	66,968	0	66,968
June 30, 2055	13,300,951	343,117	343,117	0	65,630	0	65,630
June 30, 2056	13,761,655	286,128	286,128	0	52,053	0	52,053
June 30, 2057	14,219,258	270,322	270,322	0	46,774	0	46,774
June 30, 2058	14,679,517	276,909	276,909	0	45,571	0	45,571
June 30, 2059	15,139,542	262,164	262,164	0	41,035	0	41,035
June 30, 2060	15,597,001	229,641	229,641	0	34,187	0	34,187
June 30, 2061	16,056,590	219,161	219,161	0	31,032	0	31,032

Sum of Column V.

5,893,181

Sum of Column VI.

0

Sum of Column VII.

[V. + VI.]

5,893,181

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

### BENEFIT PAYMENT PROJECTION DISCLOSURES (CONTINUED)

**Table 3: Actuarial Present Values of Projected Benefit Payments using a July 1, 2020 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 [5.14%]	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 [5.14%]
June 30, 2062	16,516,415	219,797	219,797	0	29,601	0	29,601
June 30, 2063	16,970,539	224,964	224,964	0	28,815	0	28,815
June 30, 2064	17,418,504	215,375	215,375	0	26,239	0	26,239
June 30, 2065	17,857,524	217,648	217,648	0	25,219	0	25,219
June 30, 2066	18,283,751	212,938	212,938	0	23,467	0	23,467
June 30, 2067	18,694,447	212,026	212,026	0	22,224	0	22,224
June 30, 2068	19,090,808	215,429	215,429	0	21,477	0	21,477
June 30, 2069	19,470,195	205,119	205,119	0	19,450	0	19,450
June 30, 2070	19,829,363	205,555	205,555	0	18,538	0	18,538
June 30, 2071	20,172,208	207,077	207,077	0	17,762	0	17,762
June 30, 2072	20,494,668	203,988	203,988	0	16,642	0	16,642
June 30, 2073	20,792,066	202,694	202,694	0	15,728	0	15,728
June 30, 2074	21,064,063	197,097	197,097	0	14,546	0	14,546
June 30, 2075	21,307,695	190,552	190,552	0	13,376	0	13,376
June 30, 2076	21,519,593	187,858	187,858	0	12,542	0	12,542
June 30, 2077	21,696,439	180,019	180,019	0	11,431	0	11,431
June 30, 2078	21,832,823	169,331	169,331	0	10,227	0	10,227
June 30, 2079	21,927,363	161,055	161,055	0	9,251	0	9,251
June 30, 2080	21,975,676	152,269	152,269	0	8,319	0	8,319
June 30, 2081	21,973,127	143,592	143,592	0	7,461	0	7,461
June 30, 2082	21,917,312	131,893	131,893	0	6,518	0	6,518
June 30, 2083	21,802,405	120,296	120,296	0	5,655	0	5,655
June 30, 2084	21,624,037	110,623	110,623	0	4,946	0	4,946
June 30, 2085	21,377,677	99,574	99,574	0	4,234	0	4,234
June 30, 2086	21,056,845	90,327	90,327	0	3,653	0	3,653
June 30, 2087	20,654,957	80,340	80,340	0	3,090	0	3,090
June 30, 2088	20,165,236	71,006	71,006	0	2,598	0	2,598
June 30, 2089	19,581,551	63,085	63,085	0	2,195	0	2,195
June 30, 2090	18,895,903	55,134	55,134	0	1,825	0	1,825
June 30, 2091	18,100,280	47,888	47,888	0	1,507	0	1,507
June 30, 2092	17,187,834	41,347	41,347	0	1,238	0	1,238
June 30, 2093	16,149,434	35,450	35,450	0	1,009	0	1,009
June 30, 2094	14,975,469	30,172	30,172	0	817	0	817
June 30, 2095	13,656,889	25,462	25,462	0	656	0	656
June 30, 2096	12,182,981	21,313	21,313	0	522	0	522

## APPENDIX II – PLAN PROVISIONS

### Plan Year

July 1 through June 30.

### Premium Effective Date

**Medicare Supplement Plans:** effective January 1, 2021

**Active Plans:** effective July 1, 2020

**Dental Plans:** N/A

### Creditable Service

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

### Benefits Offered

Comprehensive Medical Insurance and \$2,000 of group term Life Insurance.

### Medicare Part A

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

### Medicare Part B

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

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

### Surviving Spouse Coverage

Surviving spouses pay 100% of premiums.

## APPENDIX II – PLAN PROVISIONS

### Eligibility

Hire Date	Eligibility
Before April 2, 2012	<ul style="list-style-type: none"> <li>• Age 55 with 10 years of creditable service</li> <li>• 20 years of service regardless of age</li> </ul>
On or after April 2, 2012	<ul style="list-style-type: none"> <li>• Age 60 with 10 years of creditable service</li> </ul>

### Participant Contributions

Group	Individual	Two-Person / Family
<b>Medical</b>	<ul style="list-style-type: none"> <li>• 25% of premiums for HMO plans</li> <li>• 40% of premiums for PPO/Indemnity plans</li> </ul>	<ul style="list-style-type: none"> <li>• 25% of premiums for HMO plans</li> <li>• 40% of premiums for PPO/Indemnity plans</li> </ul>
<b>Dental</b>	100%	100%
<b>Life</b>	50%	N/A

### APPENDIX III – ACTUARIAL METHODS & ASSUMPTIONS

#### Pre-Retirement Mortality

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

5.14% per annum (previously 5.90%)

#### Net Long Term Rate of Return

5.14% (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.

<b>Impact of Implicit Subsidy</b>		
	<b>As of the Measurement Date</b>	
<b>Impact on Liability</b>	<b><u>June 30, 2022</u></b>	<b><u>June 30, 2021</u></b>
I. Total OPEB Liability	4,927,791	4,348,946
II. Total OPEB Liability (Excluding Implicit Subsidy)	<u>3,649,423</u>	<u>3,197,424</u>
III. Liability from Implicit Subsidy [I. - II.]	1,278,368	1,151,522

	<b>For the Measurement Period Ending</b>	
<b>Impact on Payments</b>	<b><u>June 30, 2022</u></b>	<b><u>June 30, 2021</u></b>
IV. Employer Payments (Including Implicit Subsidy)	230,627	220,557
V. Actual Employer Payments	<u>167,163</u>	<u>162,766</u>
VI. Implicit Subsidy [IV. - V.]	63,464	57,791

### 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	5,180	3,265	44 & Under	10,182	6,672	65 to 69	3,278	3,366
25 to 29	7,642	3,398	45 to 49	11,184	8,424	70 to 74	3,867	4,034
30 to 34	9,657	4,265	50 to 54	13,156	11,094	75 to 79	4,486	4,763
35 to 39	9,948	5,355	55 to 59	15,209	14,424	80 to 84	5,145	5,475
40 to 44	10,182	6,672	60 to 64	18,099	18,509	85 to 89	5,752	6,099
45 to 49	11,184	8,424	65 to 69	21,695	23,087	90 & Over	5,752	6,099
50 to 54	13,156	11,094	70 to 74	25,584	27,667			
55 to 59	15,209	14,424	75 to 79	29,712	32,677			
60 to 64	18,099	18,509	80 to 84	34,067	37,559			
65 to 69	21,695	23,087	85 to 89	38,887	42,992			
70 & Over	25,584	27,667	90 & Over	38,887	42,992			

\*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	July 1, 2020
A. Average Age at Hire	38.37
B. Average Service	<u>11.41</u>
C. Average Current Age	49.78

### Retired Employees & Spouses

Valuation Date	July 1, 2020
A. Under Age 65	9
B. Age 65 & Over	<u>20</u>
C. Total	29

### 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	1									1
25-29	2	2								4
30-34		2								2
35-39	1	1	3							5
40-44	1			1						2
45-49	1									1
50-54	3		1			1				5
55-59			1	2	1		1			5
60-64	1				1					2
65-69		1	2	1						4
70+		1	1	1			1			4
<b>Total</b>	10	7	8	5	2	1	2			35



## APPENDIX IV – PLAN DEMOGRAPHICS

### Plan Offerings

	Number of Contracts			
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>	<u>Total</u>
HMO	16		18	34
Managed Blue	6			6
Medex II	4	5		9
Total	26	5	18	49

	Per Contract Costs (monthly)		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
HMO	936.30		2,528.00
Managed Blue	326.81	653.62	
Medex II	399.19	798.38	
Dental Plan	N/A		N/A

#### APPENDIX IV – PLAN DEMOGRAPHICS

	Active Plan Average Premium Calculation					
	Single	Two-Person	Family	Number of Participants	Total Premiums Paid	Claims Without Children
HMO	16		18	52	725,817.60	584,251.20
Total	16	0	18	52	725,817.60	584,251.20
Blended Average Monthly Rate:						\$ 936.30

	Medicare Supplement Plan Average Premium Calculation					
	Single	Two-Person	Family	Number of Participants	Total Premiums Paid	Claims Without Children
Managed Blue	6			6	23,530.32	23,530.32
Medex II	4	5		14	67,063.92	67,063.92
Total	10	5	0	20	90,594.24	90,594.24
Blended Average Monthly Rate:						\$ 377.48

## 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 organizations<sup>1</sup>, 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 Conduct<sup>2</sup>, 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 December 19, 2022 and its subject is the Town of Essex's GASB 75 OPEB liabilities.

---

<sup>1</sup> 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.

<sup>2</sup> 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 Essex 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.