



## **TOWN OF WEST TISBURY**

**Participant in the Dukes County Pooled OPEB Trust**

**OTHER POSTEMPLOYMENT BENEFITS PROGRAM**

**FINANCIAL REPORTING AND DISCLOSURES**

**Governmental Accounting Standards Board**

**Statements 74 and 75**

**Disclosures as of  
June 30, 2023**

KMS Actuarial, LLC  
52 Hunt Road  
Kingston, NH 03848

November, 2023





November 8, 2023

Ms. Kathy Logue  
Treasurer/Collector  
Town of West Tisbury  
PO Box 278  
West Tisbury, MA 02575

Dear Kathy:

We are pleased to present the enclosed report of the July 1, 2022 actuarial valuation of the retiree health care benefits for the Town of West Tisbury, a Participant in the Dukes County Pooled OPEB Trust. The valuation was prepared in accordance with and for the purpose of financial reporting and disclosures as of June 30, 2023 under the following Governmental Accounting Standards Board (GASB) Statements:

- ◆ GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans (GASB 74)
- ◆ GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (GASB 75)

Results are based on liabilities developed in an actuarial valuation performed as of July 1, 2022 and rolled forward to the plan's measurement date of June 30, 2023.

The Principal Valuation Results, including assets, liabilities and the development of future contributions, are provided in Section 1. The Notes to the Financial Statements and the Required Supplementary Information are provided in Sections 2 and 3, respectively. Employer Reporting Amounts under GASB 75 are provided in Section 4. The Summary of Plan Provisions and Actuarial Assumptions and Methods are shown in Sections 5 and 6, respectively. Section 7 summarizes the demographic profile of active members and retired members, covered spouses and survivors. Finally, a Glossary of Terms is provided in Section 8.

Our calculations are based on member census data and other information provided by the Town of West Tisbury as well as health plan rates provided by the Trustees of the Dukes County Pooled OPEB Trust. Although we did not audit the data used in the valuation and disclosure calculations, we believe that the information is complete and reliable.

Liabilities presented in this report are based on a discount rate of 6.5%, the rate that reflects the long-term expected rate of return on OPEB plan assets. The long-term expected rate of return is based on the target allocations provided in the Dukes County Pooled OPEB Trust's investment policy statement and long-term expected rates of return by asset class obtained from recent surveys of capital market expectations and other reliable sources.

This report was completed in accordance with generally accepted actuarial standards and procedures, and conforms to the Code of Professional Conduct of the American Academy of Actuaries. The actuarial assumptions other than those explicitly applicable to the postemployment benefit plans are consistent with those used by the Dukes County Retirement System's actuaries for the Retirement System pension valuations.

Future actuarial valuation results may differ significantly from the current results presented in this report. Examples of potential sources of volatility include plan experience differing from that anticipated by the economic or demographic assumptions, the effect of new entrants, changes in economic or demographic assumptions, the effect of law changes and the delayed effect of smoothing techniques. The potential range of future measurements was not assessed as it was outside the scope of the project.

Our valuation follows generally accepted actuarial methods and we perform such tests as we consider necessary to assure the accuracy of the results. The amounts presented in this report have been appropriately determined according to the actuarial assumptions and methods stated herein.

This valuation report is intended for the sole use of the Town of West Tisbury and may only be provided to other parties in its entirety, unless expressly authorized by KMS Actuaries. Further, it is intended to provide information to comply with the stated purpose of the report. It may not be appropriate for other purposes.

KMS Actuaries is completely independent of the Town of West Tisbury and any of its officers or key personnel. None of the actuaries signing this report or anyone closely associated with them has a relationship with the Town of West Tisbury, other than as consulting actuary for this assignment, that would impair our independence.

The expected claims, cost trend rates, and analysis of regulatory changes have been developed based on the expertise of the undersigned health and welfare actuary, Christopher E. Bean, ASA, MAAA. All other assumptions and methods have been selected based on the expertise of the undersigned pension actuaries, Linda L. Bournival, FSA, EA and Amanda J. Makarevich, FSA.

The undersigned credentialed actuaries agree that the analysis, assumptions and results are overall reasonable. They are Members of the American Academy of Actuaries and together meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinion contained herein. They are available to answer any questions with regard to this report.

Respectfully submitted,



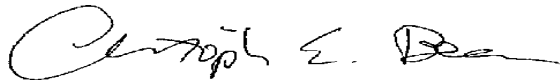
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## EXECUTIVE SUMMARY

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### Purpose of Report

This report presents the results of the actuarial valuation of the Town of West Tisbury's retiree health care benefits as of July 1, 2022. The valuation was prepared in accordance with and for the purpose of financial reporting and disclosures as of June 30, 2023 under the following Governmental Accounting Standards Board (GASB) Statements:

- ◆ GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans (GASB 74)
- ◆ GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (GASB 75)

The results as of the measurement date are based on a roll forward of the liabilities developed in the most recent actuarial valuation.

### GASB Accounting Standards

In June 2015, the GASB approved two related Statements that significantly changed the way other postemployment benefits (OPEB) plans and governments account and report OPEB liabilities. GASB Statement No. 74 (GASB 74), *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, replaced the requirements of Statement No. 43 and GASB Statement No. 75 (GASB 75), *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, replaced the requirements of Statement No. 45.

The effective date for GASB 74 is for plan years beginning after June 15, 2016, which is the plan year ending June 30, 2017 for the Town of West Tisbury. The effective date for GASB 75 is for fiscal years beginning after June 15, 2017, which is the fiscal year ending June 30, 2018 for the Town of West Tisbury.

GASB 74 requires OPEB plans to present a statement of fiduciary net position (OPEB plan assets) and a statement of changes in fiduciary net position. Further, the statement requires that notes to financial statements include descriptive information such as the types of benefits provided, the classes of plan members covered and the authority under which benefit terms are established or may be amended. Finally, GASB 74 requires OPEB plans to present in required supplementary information the sources of the changes in the net OPEB liability and information about the actuarially determined contributions compared with the actual contributions made to the plan and related ratios.

GASB 74 and GASB 75 require projected benefit payments be discounted to their actuarial present value using the single rate that reflects (1) a long-term expected rate of return on OPEB plan investments to the extent that the OPEB plan's assets are sufficient to pay benefits and OPEB plan assets are expected to be invested using a strategy to achieve that return and (2) a tax-exempt, high-quality municipal bond rate to the extent that the conditions for use of the long-term expected rate of return are not met.

GASB 75 establishes standards for measuring and recognizing liabilities, deferred outflows of resources, deferred inflows of resources and OPEB expense by state and local governments.

## EXECUTIVE SUMMARY

### Town of West Tisbury Other Postemployment Benefits Program

The Town of West Tisbury administers the retiree health care benefits program - a single-employer defined benefit plan that is used to provide postemployment benefits other than pensions (OPEB) for all permanent full-time employees. The Town provides health care benefits for retirees and their dependents. Benefits are provided through the Cape Cod Municipal Health Group, and the full cost of benefits is shared between the Town and retirees.

### Summary of Principal Results

A summary of principal results from the current and prior measurement dates follows:

Disclosure Date	June 30, 2023	June 30, 2022	% Change
Valuation Date	July 1, 2022	July 1, 2020	
<b>Membership Data</b>			
Active Plan Members	39	39	0.0%
Inactive Plan Members (excludes covered spouses)	23	19	21.1%
Total Plan Members	62	58	6.9%
Covered Spouses	13	10	30.0%
Covered Payroll	\$3,290,071	\$3,196,779	2.9%
<b>Net OPEB Liability</b>			
Discount Rate	6.50%	6.60%	
Total OPEB Liability (TOL)	\$5,084,390	\$5,789,422	(12.2%)
Fiduciary Net Position (FNP)	\$3,950,281	\$3,378,012	16.9%
Net OPEB Liability	\$1,134,109	\$2,411,410	(53.0%)
FNP as % of TOL	77.7%	58.3%	
<b>OPEB Expense</b>			
OPEB Expense	\$328,885	\$486,635	(32.4%)
Deferred Outflows	\$710,516	\$972,207	
Deferred Inflows	\$1,301,019	\$397,882	
Recognition Period	6.60	6.34	



## EXECUTIVE SUMMARY

### Experience Gain and Loss

In developing the Total OPEB Liability, various assumptions are made regarding future premium rates, mortality, retirement, disability and turnover rates. A comparison of the results of the current and prior measurements is made to determine how closely actual experience relates to expected. For the current measurement period, the difference between expected and actual experience resulted in an actuarial gain of approximately \$1,172,000. This gain is primarily attributable to the following:

- ◆ a gain due to a lower than expected increase in medical premiums since the prior valuation
- ◆ a gain due to more terminations of active employees than expected and two vacant full-time positions within the Town
- ◆ a gain due to a surviving spouse who had their Medicare eligibility status corrected from the prior valuation
- ◆ a loss due to two new retirees with young covered spouses

### Changes of Assumptions

The discount rate changed from 6.6% as of June 30, 2022 to 6.5% as of June 30, 2023. In addition, many other assumptions were updated in this valuation, including the inflation rate, healthcare trend rates, and mortality improvement rates. A summary of the impact on the Total OPEB Liability (TOL) of each assumption change is provided below:

◆ Decrease due to change in Inflation Assumption	(7,000)
◆ Increase due to change in Trend Assumption	168,000
◆ Decrease due to change in Mortality Improvement Rates	(81,000)
◆ Increase due to change in Discount Rate	63,000
Total	\$ 143,000

All of the assumptions used in this valuation are shown in Section 6, Actuarial Assumptions and Methods.

### Changes of Benefit Terms

All benefit terms are the same as those used in the prior measurement. A Summary of the Principal Plan Provisions is provided in Section 5.

### Total OPEB Liability

The Total OPEB Liability as of the current measurement date, June 30, 2023, is \$5,084,390. The Total OPEB Liability as of the prior measurement date, June 30, 2022, was \$5,789,422. During the current measurement period ending June 30, 2023, the Total OPEB Liability decreased by \$705,032, or -12.2%. The development of the Total OPEB Liability for the current measurement period is shown in Section 1, Exhibit 1.2.

### Fiduciary Net Position

The Fiduciary Net Position is equal to the market value of assets and as of the current measurement date, June 30, 2023, is \$3,950,281. The Fiduciary Net Position as of the prior measurement date, June 30, 2022, was \$3,378,012. During the plan years ended June 30, 2023 and June 30, 2022, the actual rates of return were 10.61% and -9.99%, respectively. The expected long-term rate of return is 6.50%. The Fiduciary Net Position is shown in Section 1, Exhibit 1.1.

## EXECUTIVE SUMMARY

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### Employer Future Period Contributions

The Town has adopted a formal funding policy to make annual contributions to the OPEB trust, gradually increasing contributions until they reach the normal cost and fund the actuarially determined employer contribution (ADEC) at such time when the Dukes County Retirement System is fully funded (currently projected to be fully funded in 2032.)

### Discount Rate

As of the June 30, 2023 measurement date, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability. Projected benefit payments are discounted to their actuarial present value using a single discount rate of 6.5%.

### OPEB Expense

The OPEB Expense for the current measurement period ending June 30, 2023, is \$328,885. Benefit changes are recognized immediately, and experience gains and losses and assumption changes developed in this valuation are recognized over 6.6 years. Investment gains and losses are recognized over 5 years. The OPEB Expense for the prior measurement period was \$486,635. The development of the OPEB expense for the current measurement period is shown in Section 4, Exhibit 4.2.

### COVID-19 Pandemic

The assumptions in this report, other than medical trend rates in the short term, do not reflect the potential impact of the COVID-19 pandemic on the OPEB program. Especially in the short range, it is very likely that the pandemic materially affected the economic, demographic and healthcare-specific experience in a way not anticipated by the assumptions on which the projections are based.

## SECTION 1 - PRINCIPAL VALUATION RESULTS

### Exhibit 1.1 - OPEB Trust Assets

The Dukes County Pooled OPEB Trust has established an irrevocable trust pursuant to Chapter 149 of the Acts of 2010 for the purpose of accumulating assets to prefund the OPEB liabilities. Plan assets segregated and restricted in an OPEB trust must be dedicated to providing plan benefits to retirees and beneficiaries in accordance with the terms of the plan and must be legally protected from creditors of the employer. Further, contributions from employers to the OPEB trust and earnings on those contributions must be irrevocable. Asset information for the current and prior fiscal years was provided by the Trustees and is presented below:

Fiscal Year Ended June 30	2023	2022
<b>Trust Fund Composition at Fiscal Year-End</b>		
Fixed Income	\$680,558	\$682,109
Cash & Equivalents	2,112	2,855
Large Cap Equity	1,437,740	1,112,009
Mid Cap Equity	388,907	304,824
Small Cap Equity	387,692	300,623
International Equity	587,865	453,668
Real Estate	465,407	521,924
Total Market Value of Assets	\$3,950,281	\$3,378,012
<b>Asset Activity</b>		
Market value, beginning of year	\$3,378,012	\$3,545,561
Employer Premiums	241,358	228,867
OPEB Trust Contributions	200,000	200,000
Benefit Payments	(241,358)	(228,867)
Administrative Expenses	-	-
Investment Return	372,269	(367,549)
Market value, end of year	\$3,950,281	\$3,378,012
<b>Money-Weighted Rate of Return</b>	10.61%	-9.99%
<b>(Gain) / Loss on OPEB Plan Investments</b>		
Projected earnings	\$231,682	\$242,740
Actual earnings	372,269	(367,549)
(Gain) / Loss on OPEB plan investments	(\$140,587)	\$610,289

## SECTION 1 - PRINCIPAL VALUATION RESULTS

### Exhibit 1.2 - Total OPEB Liability

The Total OPEB Liability, developed using the Entry Age Normal funding method, is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service. The total OPEB liability as of the June 30, 2023 measurement date was developed from an actuarial valuation as of July 1, 2022 and rolled forward to the OPEB plan's fiscal year-end.

The Service Cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year. Only active employees who have not reached the age at which the probability of retirement is 100% incur a service cost.

Actuarial experience gains and losses arise from the difference between expected and actual experience, excluding amounts related to benefit changes and changes in assumptions or other inputs.

The development of the Total OPEB Liability from the beginning of the measurement period, June 30, 2022 to the end of the measurement period, June 30, 2023 is shown below:

Measurement Date	June 30, 2023
------------------	---------------

1. Total OPEB Liability, beginning of year:		
a. Actives	\$2,891,041	
b. Retirees, Covered Spouses and Survivors	2,898,381	
c. Total OPEB Liability at 6.6% (a. + b.)		\$5,789,422
2. Service Cost		
		\$179,006
3. Expected Benefit Payments		
a. Current retirees	(\$223,316)	
b. Future retirees	(18,042)	
c. Total (a. + b.)		(\$241,358)
4. Interest [6.6% x (1.c. + 2. + .5 x 3.c)]		
		\$385,951
5. Changes of benefit terms		
		\$0
6. Differences between expected and actual experience		
		(\$1,171,758)
7. Changes of assumptions or other inputs		
		\$143,127
8. Total OPEB Liability, end of year (1.c. + 2. + 3.c. + 4. + 5. + 6. + 7.)		
a. Actives	\$2,073,077	
b. Retirees, Covered Spouses and Survivors	3,011,313	
c. Total OPEB Liability at 6.5% (a. + b.)		\$5,084,390

## SECTION 1 - PRINCIPAL VALUATION RESULTS

### Exhibit 1.3 - Development of Actuarially Determined Employer Contributions

The Town has adopted a formal funding policy to make annual contributions to the OPEB trust, gradually increasing contributions until they reach the normal cost and fund the actuarially determined employer contribution (ADEC) at such time when the Dukes County Retirement System is fully funded (currently projected to be fully funded in 2032.)

The Actuarially Determined Employer Contribution (ADEC) equals the Normal Cost plus a provision for amortizing the Unfunded Actuarial Accrued Liability. We have assumed increasing dollar amortization over an amortization period of 30 years.

Fiscal Year Ending	June 30, 2023	June 30, 2024
<b>Discount Rate</b>	<b>6.60%</b>	<b>6.50%</b>
1. Normal Cost	\$179,006	\$209,282
2. Unfunded Actuarial Accrued Liability		
a. Actuarial Accrued Liability	\$5,789,422	\$5,084,390
b. Actuarial Value of Plan Assets	\$3,378,012	\$3,950,281
c. Unfunded Actuarial Accrued Liability (a. - b.)	\$2,411,410	\$1,134,109
3. Amortization of Unfunded Actuarial Accrued Liability		
a. Unfunded Actuarial Accrued Liability	\$2,411,410	\$1,134,109
b. Amortization Period in years	30	30
c. Payroll Growth Rate	3.5%	3.5%
d. Amortization Factor	20.20	20.44
e. Amortization Amount (3.a. / 3.d.)	\$119,377	\$55,485
4. Interest on 1. and 3.e.	\$19,693	\$17,210
5. Actuarially Determined Employer Contribution (1. + 3.e. + 4.)	\$318,076	\$281,977
6. Actual Employer Contribution to OPEB Trust	\$200,000	TBD
7. Expected Benefit Payments	\$241,358	
8. Total Contribution (6. + 7.)	\$441,358	

## SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

### Exhibit 2.1 - Plan Description

#### Plan Administration

The Town of West Tisbury administers the retiree health care benefits program - a single-employer defined benefit plan that is used to provide postemployment benefits other than pensions (OPEB) for all permanent full-time employees.

#### Plan Membership

At June 30, 2023, OPEB plan membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefit payments <sup>1</sup>	23
Inactive plan members entitled to but not yet receiving benefit payments	0
Active plan members	39
	<u>62</u>

<sup>1</sup>Per paragraph 34a of GASB 74 and further clarified by Question 4.67 of the 2017-2 GASB 74 Implementation Guide, the total shown for inactive plan members or beneficiaries currently receiving benefit payments does not include covered spouses or other dependents.

#### Benefits Provided

The Town provides health care benefits for retirees and their dependents. Benefits are provided through the Cape Cod Municipal Health Group, and the full cost of benefits is shared between the Town and retirees.

#### Employer Future Period Contributions

The Town has adopted a formal funding policy to make annual contributions to the OPEB trust, gradually increasing contributions until they reach the normal cost and fund the actuarially determined employer contribution (ADEC) at such time when the Dukes County Retirement System is fully funded (currently projected to be fully funded in 2032.)

## SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

### Exhibit 2.2 - Net OPEB Liability

The components of the net OPEB liability at June 30, 2023, were as follows:

Total OPEB liability	\$ 5,084,390
Fiduciary net position	(3,950,281)
Net OPEB liability	\$ 1,134,109

Fiduciary net position as a percentage of the total OPEB liability 77.69%

#### Actuarial Assumptions

The total OPEB liability was determined by an actuarial valuation as of July 1, 2022, rolled forward to the measurement date and using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.5% per year, based on current economic data, analyses from economists and other experts, and professional judgment.
Discount rate	6.5%, net of investment expenses, including inflation.
Healthcare cost trend rate	8% for 2022, decreasing 0.5% per year to 6%, then grading down to an ultimate trend rate of 4.1%, utilizing the Society of Actuaries Getzen Medical Trend Model. The ultimate medical trend rate is reached in 2075.
Pre-Retirement Mortality	RP-2014 Blue Collar Mortality Table, projected with generational mortality improvement using scale MP-2020.
Healthy Retiree Mortality	RP-2014 Blue Collar Mortality Table, projected with generational mortality improvement using scale MP-2020.
Disabled Retiree Mortality	RP-2014 Blue Collar Mortality Table set forward one year with full generational mortality improvement using Scale MP-2020.

## SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

### Exhibit 2.2 - Net OPEB Liability

#### Long-Term Expected Rate of Return

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage provided in the investment policy statement and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation as of June 30, 2023 are summarized in the following table:

Asset Class	Target Allocation <sup>1</sup>	Long-Term Expected Real Rates of Return <sup>2</sup>
Large Cap Equity	35%	4.44%
Mid Cap Equity	10%	4.56%
Small Cap Equity	10%	4.56%
International Equity	15%	5.12%
Real Estate	10%	2.98%
Fixed Income	20%	1.93%
Total	100%	

<sup>1</sup> provided in the Dukes County Pooled OPEB Trust's investment policy statement.

<sup>2</sup>Obtained from recent surveys of capital market expectations and other reliable sources.

#### Discount Rate

The discount rate used to measure the total OPEB liability was 6.5%. The projection of cash flows used to determine the discount rate assumed that contributions from the Town will be made in accordance with the plan's funding policy. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.



## SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

### Exhibit 2.2 - Net OPEB Liability

#### Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability calculated using the current discount rate of 6.5 percent, as well as what the net OPEB liability would be if it were calculated using a discount rate 1-percentage point lower (5.5 percent) or 1-percentage point higher (7.5 percent) than the current rate:

	1% Decrease (5.5%)	Assumed Discount Rate (6.5%)	1% Increase (7.5%)
Total OPEB Liability	\$ 5,788,876	\$ 5,084,390	\$ 4,507,720
Fiduciary Net Position	(3,950,281)	(3,950,281)	(3,950,281)
Net OPEB Liability	\$ 1,838,595	\$ 1,134,109	\$ 557,439
% Change in Net OPEB Liability	62.1%		-50.8%

#### Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates

The following presents the net OPEB liability calculated using the current healthcare cost trend rates as well as what the net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage point lower (7% year 1 decreasing to 3.1%) or 1-percentage point higher (9% year 1 decreasing to 5.1%) than the current healthcare cost trend rates:

	1% Decrease 7% Year 1 Decreasing to 3.1%	Assumed Healthcare Cost Trend Rates 8% Year 1 Decreasing to 4.1%	1% Increase 9% Year 1 Decreasing to 5.1%
Total OPEB Liability	\$ 4,425,871	\$ 5,084,390	\$ 5,901,894
Fiduciary Net Position	(3,950,281)	(3,950,281)	(3,950,281)
Net OPEB Liability	\$ 475,590	\$ 1,134,109	\$ 1,951,613
% Change in Net OPEB Liability	-58.1%		72.1%

## SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

### Exhibit 3.1 - Changes in Net OPEB Liability and Related Ratios

Fiscal Year Ended June 30	2023	2022	2021	2020	2019
<b>Total OPEB Liability</b>					
Service cost	\$ 179,006	\$ 172,525	\$ 176,453	\$ 162,583	\$ 135,312
Interest	385,951	366,546	375,634	365,269	285,500
Changes of benefit terms	-	-	-	(167,800)	-
Differences between expected and actual experience	(1,171,758)	-	(561,044)	-	367,715
Changes of assumptions	143,127	(16,413)	421,787	351,349	480,479
Benefit payments	(241,358)	(228,867)	(213,898)	(244,751)	(220,618)
<b>Net change in total OPEB liability</b>	<b>\$ (705,032)</b>	<b>\$ 293,791</b>	<b>\$ 198,932</b>	<b>\$ 466,650</b>	<b>\$ 1,048,388</b>
<b>Total OPEB liability—beginning</b>	<b>\$ 5,789,422</b>	<b>\$ 5,495,631</b>	<b>\$ 5,296,699</b>	<b>\$ 4,830,049</b>	<b>\$ 3,781,661</b>
<b>Total OPEB liability—ending (a)</b>	<b>\$ 5,084,390</b>	<b>\$ 5,789,422</b>	<b>\$ 5,495,631</b>	<b>\$ 5,296,699</b>	<b>\$ 4,830,049</b>
<b>Plan Fiduciary Net Position</b>					
Contributions—employer	\$ 441,358	\$ 428,867	\$ 313,898	\$ 544,751	\$ 420,618
Net investment income	372,269	(367,549)	805,718	101,801	108,269
Benefit payments	(241,358)	(228,867)	(213,898)	(244,751)	(220,618)
Administrative expenses	-	-	-	-	-
Other	-	-	-	-	-
<b>Net change in plan fiduciary net position</b>	<b>\$ 572,269</b>	<b>\$ (167,549)</b>	<b>\$ 905,718</b>	<b>\$ 401,801</b>	<b>\$ 308,269</b>
<b>Plan fiduciary net position—beginning</b>	<b>\$ 3,378,012</b>	<b>\$ 3,545,561</b>	<b>\$ 2,639,843</b>	<b>\$ 2,238,042</b>	<b>\$ 1,929,773</b>
<b>Plan fiduciary net position—ending (b)</b>	<b>\$ 3,950,281</b>	<b>\$ 3,378,012</b>	<b>\$ 3,545,561</b>	<b>\$ 2,639,843</b>	<b>\$ 2,238,042</b>
<b>Net OPEB liability—ending (a) – (b)</b>	<b>\$ 1,134,109</b>	<b>\$ 2,411,410</b>	<b>\$ 1,950,070</b>	<b>\$ 2,656,856</b>	<b>\$ 2,592,007</b>
Plan fiduciary net position as a percentage of the total OPEB liability	77.69%	58.35%	64.52%	49.84%	46.34%
Covered payroll	\$ 3,290,071	\$ 3,196,779	\$ 3,106,308	\$ 2,797,279	\$ 2,785,901
Net OPEB liability as a percentage of covered payroll	34.47%	75.43%	62.78%	94.98%	93.04%
<b>Discount Rate</b>	<b>6.50%</b>	<b>6.60%</b>	<b>6.60%</b>	<b>7.00%</b>	<b>7.50%</b>

## SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

### Exhibit 3.1 - Changes in Net OPEB Liability and Related Ratios, continued

Fiscal Year Ended June 30	2018	2017			
<b>Total OPEB Liability</b>					
Service cost	\$ 130,312	\$ 125,300			
Interest	270,883	254,847			
Changes of benefit terms	(11,317)	-			
Differences between expected and actual experience	-	-			
Changes of assumptions	-	-			
Benefit payments	(179,359)	(163,342)			
<b>Net change in total OPEB liability</b>	<b>\$ 210,519</b>	<b>\$ 216,805</b>			
<b>Total OPEB liability—beginning</b>	<b>\$ 3,571,142</b>	<b>\$ 3,354,337</b>			
<b>Total OPEB liability—ending (a)</b>	<b>\$ 3,781,661</b>	<b>\$ 3,571,142</b>			
<b>Plan Fiduciary Net Position</b>					
Contributions—employer	\$ 379,359	\$ 313,342			
Net investment income	77,783	66,660			
Benefit payments	(179,359)	(163,342)			
Administrative expenses	-	-			
Other	-	-			
<b>Net change in plan fiduciary net position</b>	<b>\$ 277,783</b>	<b>\$ 216,660</b>			
<b>Plan fiduciary net position—beginning</b>	<b>\$ 1,651,990</b>	<b>\$ 1,435,330</b>			
<b>Plan fiduciary net position—ending (b)</b>	<b>\$ 1,929,773</b>	<b>\$ 1,651,990</b>			
<b>Net OPEB liability—ending (a) – (b)</b>	<b>\$ 1,851,888</b>	<b>\$ 1,919,152</b>			
Plan fiduciary net position as a percentage of the total OPEB liability	51.03%	46.26%			
Covered payroll	\$ 2,673,765	\$ 2,453,455			
Net OPEB liability as a percentage of covered payroll	69.26%	78.22%			
<b>Discount Rate</b>	<b>7.50%</b>	<b>7.50%</b>			

Note: Only 7 years are presented here and on the previous page, beginning with the year of implementation; 10 years of information will be required.

## SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

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### Exhibit 3.1 - Changes in Net OPEB Liability and Related Ratios, continued

#### Notes to Schedule

##### Changes of Benefit Terms

All benefit terms are the same as those used in the prior measurement.

##### Changes of Assumptions

The discount rate changed from 6.6% as of June 30, 2022 to 6.5% as of June 30, 2023. In addition, many other assumptions were updated in this valuation, including the inflation rate, healthcare trend rates, and mortality improvement rates.

## SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

### Exhibit 3.2 - Investment Returns

Fiscal Year Ended June 30	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expenses	10.61%	-9.99%	30.08%	4.31%	5.27%	4.40%	4.36%			

The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of OPEB plan investments by the proportion of time they are available to earn a return during that period. The rate of return is then calculated by solving, through an iterative process, for the rate that equates the sum of the weighted external cash flows into and out of the OPEB plan investments to the ending fair value of OPEB plan investments.

Note: Only 7 years are presented here, beginning with the year of implementation; 10 years of information will be required.

## SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

### Exhibit 3.2 - Investment Returns

#### Calculation of Money-Weighted Rate of Return

	Plan Investments/ Net External Cash Flows (a)	Periods Invested (b)	Period Weight (c)=(b)÷12	(d)=(a) x (1+r <sub>mw</sub> ) <sup>(c)</sup>
Beginning value - July 1, 2022	\$ 3,378,012	12	1.00	\$ 3,736,309
Monthly net external cash flows:				
July	100,000	11	0.92	109,681
August	-	10	0.83	-
September	-	9	0.75	-
October	-	8	0.67	-
November	-	7	0.58	-
December	-	6	0.50	-
January	100,000	5	0.42	104,290
February	-	4	0.33	-
March	-	3	0.25	-
April	-	2	0.17	-
May	-	1	0.08	-
June	-	0	0.00	-
Ending value - June 30, 2023				\$ 3,950,281
Money-weighted rate of return:				10.61%

## SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

### Exhibit 3.3 - Schedule of Employer Contributions

Fiscal Year Ended June 30	2023	2022	2021	2020	2019
Actuarially determined contribution	\$ 318,076	\$ 286,821	\$ 336,102	\$ 327,373	\$ 254,485
Contributions in relation to the actuarially determined contribution	441,358	428,867	313,898	544,751	420,618
Contribution deficiency (excess)	<u>\$ (123,282)</u>	<u>\$ (142,046)</u>	<u>\$ 22,204</u>	<u>\$ (217,378)</u>	<u>\$ (166,133)</u>
Covered payroll	\$ 3,290,071	\$ 3,196,779	\$ 3,106,308	\$ 2,797,279	\$ 2,785,901
Contributions as a percentage of covered payroll	13.41%	13.42%	10.11%	19.47%	15.10%
Discount rate	6.60%	6.60%	7.00%	7.50%	7.50%
Inflation	2.50%	2.40%	2.20%	2.40%	2.60%

## SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

### Exhibit 3.3 - Schedule of Employer Contributions, continued

Fiscal Year Ended June 30	2018	2017			
Actuarially determined contribution	\$ 246,760	\$ 235,328			
Contributions in relation to the actuarially determined contribution	379,359	313,342			
Contribution deficiency (excess)	\$ (132,599)	\$ (78,014)			
Covered payroll	\$ 2,673,765	\$ 2,453,455			
Contributions as a percentage of covered payroll	14.19%	12.77%			
Discount rate	7.50%	7.50%			
Inflation	3.00%	3.00%			

Note: Only 7 years are presented here and on the previous page, beginning with the year of implementation; 10 years of information will be required.

#### Notes to Schedule

#### Valuation Date

Actuarially determined contributions are determined as of July 1, one year prior to the end of the fiscal year in which contributions are reported.

#### Methods and Assumptions as of Current Measurement Date

Actuarial cost method	Entry Age Normal.
Amortization method	Increasing at 3.5% over 30 years on an open amortization period for partial pre-funding.
Amortization period	30 years.
Asset valuation method	Market value.
Healthcare cost trend rates	8% for 2022, decreasing 0.5% per year to 6%, then grading down to an ultimate trend rate of 4.1%, utilizing the Society of Actuaries Getzen Medical Trend Model. The ultimate medical trend rate is reached in 2075.



## SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 75

### Exhibit 4.1 - Deferred Outflows and Deferred Inflows of Resources

Deferred Outflows of Resources and Deferred Inflows of Resources arising from differences between expected and actual experience are recognized in OPEB Expense over the average expected remaining service life of all active and inactive participants.

					Balances at June 30, 2023
	Experience Losses	Experience Gains	Amounts Recognized in OPEB Expense through June 30, 2023	Deferred Outflows of Resources	Deferred Inflows of Resources
Year	(a)	(b)	(c)	(a) - (c)	(b) + (c)
2018	\$ -	\$ -	\$ -	\$ -	\$ -
2019	367,715	-	278,150	89,565	-
2020	-	-	-	-	-
2021	-	561,044	(265,479)	-	295,565
2022	-	-	-	-	-
2023	-	1,171,758	(177,539)	-	994,219
Total				<u>\$ 89,565</u>	<u>\$ 1,289,784</u>

Deferred Outflows of Resources and Deferred Inflows of Resources arising from changes of assumptions are recognized in OPEB Expense over the average expected remaining service life of all active and inactive participants.

					Balances at June 30, 2023
	Increases in the Total OPEB Liability	Decreases in the Total OPEB Liability	Amounts Recognized in OPEB Expense through June 30, 2023	Deferred Outflows of Resources	Deferred Inflows of Resources
Year	(a)	(b)	(c)	(a) - (c)	(b) + (c)
2018	\$ -	\$ -	\$ -	\$ -	\$ -
2019	480,479	-	363,450	117,029	-
2020	351,349	-	212,616	138,733	-
2021	421,787	-	199,584	222,203	-
2022	-	16,413	(5,178)	-	11,235
2023	143,127	-	21,686	121,441	-
Total				<u>\$ 599,406</u>	<u>\$ 11,235</u>

## SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 75

### Exhibit 4.1 - Deferred Outflows and Deferred Inflows of Resources

Deferred Outflows of Resources and Deferred Inflows of Resources arising from differences between projected and actual earnings on OPEB Plan investments are recognized in OPEB Expense over five years.

					Balances at June 30, 2023	
	Investment Earnings Less Than Projected	Investment Earnings Greater Than Projected	Amounts Recognized in OPEB Expense through June 30, 2023	Deferred Outflows of Resources	Deferred Inflows of Resources	
Year	(a)	(b)	(c)	(a) - (c)	(b) + (c)	
2018	\$ 53,616	\$ -	\$ 53,616	\$ -	\$ -	
2019	45,735	-	45,735	-	-	
2020	75,346	-	60,276	15,070	-	
2021	-	618,070	(370,842)	-	247,228	
2022	610,289	-	244,116	366,173	-	
2023	-	140,587	(28,117)	-	112,470	
Subtotal				\$ 381,243	\$ 359,698	
Net				\$ 21,545	\$ -	

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources will be recognized in OPEB expense as follows:

#### Year ended June 30

2024	\$	(13,536)
2025	\$	(78,652)
2026	\$	(54,043)
2027	\$	(194,027)
2028	\$	(156,732)
Thereafter		(93,513)
<b>Deferred Outflows</b>	<b>\$</b>	<b>710,516</b>
<b>Deferred Inflows</b>	<b>\$</b>	<b>1,301,019</b>

## SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 75

### Exhibit 4.2 - OPEB Expense

The OPEB Expense and deferred outflows and inflows of resources primarily result from changes in the components of the net OPEB liability (NOL). Most changes in the NOL are included in the OPEB Expense in the period of the change, including service cost, interest on total OPEB liability, changes in benefit terms and projected earnings on the OPEB plan's investments. Other changes in the net OPEB liability are included in OPEB Expense over the current and future periods. These include the effects on the total OPEB liability of changes of economic and demographic assumptions and differences between expected and actual experience. In addition, the effect on the net OPEB liability of differences between the projected earnings on OPEB plan investments and actual experience with regard to those earnings are included in OPEB expense over the current and future periods. The OPEB Expense for the reporting period ending June 30, 2023 is presented below:

#### Fiscal Year Ended June 30, 2023

Measurement Date	6/30/2023
1. Service cost	\$ 179,006
2. Interest on the total OPEB liability	
a. Total OPEB liability, beginning of year	5,789,422
b. Service cost, beginning of year	179,006
c. Benefit payments	(241,358)
d. Interest on total OPEB liability = 6.6% times a. + b. + .5 times c.)	385,951
3. Differences between expected and actual experience	(210,402)
4. Changes of benefit terms	-
5. Changes of assumptions	211,469
6. Projected earnings on OPEB plan investments	
a. Plan fiduciary net position, beginning of year	3,378,012
b. Contributions - Employer	441,358
c. Benefit payments	(241,358)
d. Administrative expenses and other	-
e. Total projected earnings	(231,682)
7. Differences between projected and actual earnings on OPEB plan investments	(5,457)
8. OPEB plan administrative expenses	-
9. Other changes in fiduciary net position	-
10. Total OPEB Expense	\$ 328,885

## SECTION 5 - SUMMARY OF PLAN PROVISIONS

**Eligibility for Postemployment Benefits** Employees of the Town and their dependents are eligible for postemployment medical, dental and life insurance based on the eligibility requirements under the Dukes County Retirement System.

**Retirement Eligibility** General employees hired before April 2, 2012: retire after attaining age 55 with 10 or more years of service or any age with 20 or more years of service.

General employees hired after April 1, 2012: retire after attaining age 60 with 10 or more years of service.

Public Safety employees hired before April 2, 2012: retire after attaining age 55 or any age with 20 or more years of service.

Public Safety employees hired after April 1, 2012: retire after attaining age 55.

**Ordinary Disability Eligibility** Any member who is unable to perform his or her duties due to a non-occupational disability and has ten or more years of creditable service.

**Accidental Disability Eligibility** Any member who is unable to perform his or her duties due to a job-related disability.

**Medical Premiums** The total monthly premiums by plan are shown below:

<b>Non-Medicare Plans - July 1, 2023</b>	<b>Individual</b>	<b>Family</b>
Blue Care Elect Preferred PPO	\$1,238.00	\$3,098.00
Network Blue NE HMO	\$947.00	\$2,541.00
Harvard Pilgrim PPO	\$1,022.00	\$2,703.00
Harvard Pilgrim HMO	\$931.00	\$2,491.00
Blue Care Elect Preferred PPO (PPO "Saver")	\$1,012.00	\$2,537.00
Master Health Plus	\$1,827.00	\$4,566.00
Network Blue NE HMO (HMO "Saver")	\$777.00	\$2,086.00
Harvard Pilgrim HSAQ PPO	\$794.00	\$2,134.00
Harvard Pilgrim HSAQ HMO	\$720.00	\$1,939.00

<b>Medicare Plans - January 1, 2023</b>	
BCBS Medex	\$380.00
HPHC Medicare Enhance	\$380.00
Tufts Medicare Supplement with PDP Plus	\$460.00
Medicare HMO Blue	\$410.03
Managed Blue for Seniors	\$377.64
Tufts Medicare Preferred HMO	\$371.00

## SECTION 5 - SUMMARY OF PLAN PROVISIONS

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<b>Participant Contributions</b>	Retired employees contribute 25% of the health plan premium.
<b>Continuation of Coverage to Spouse After Death of Retiree</b>	Surviving spouse may continue coverage for lifetime by paying the required medical premium.
<b>Dental Coverage</b>	Dental coverage is provided. The total monthly costs are \$42.00 and \$109.00 for individual and family plans, respectively. Retirees contribute 100% of the monthly premiums.
<b>Life Insurance Coverage</b>	Retirees are eligible for a \$7,500 life insurance benefit. The total monthly cost is \$3.60. Retirees contribute \$0.90 towards the monthly premiums.

## SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

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<b>Valuation Date</b>	July 1, 2022
<b>Disclosure Date</b>	June 30, 2023
<b>GASB 75 Reporting Date</b>	June 30, 2023
<b>Long-Term Expected Rate of Return</b>	<p>6.5%, net of investment expenses and including inflation at 2.5%. Previously, 6.6%.</p> <p>A long-term assumption based on capital market expectations by asset class, historical returns and professional judgment. A building block approach was used that considered the target asset allocation, expected returns by asset class and risk analysis to determine a long-term expected average annual rate of return.</p>
<b>Municipal Bond Rate</b>	3.65%, based on the Bond Buyer 20-Bond GO Index published on June 30, 2023.
<b>Discount Rate (GASB)</b>	<p>6.5%, compounded annually, for the measurement as of June 30, 2023.</p> <p>6.6%, compounded annually, for the measurement as of June 30, 2022.</p> <p>The single rate that reflects the long-term expected rate of return on OPEB plan investments to the extent that the OPEB plan's assets, which are expected to be invested using a strategy to achieve that return, are sufficient to pay benefits, and a tax-exempt, high-quality municipal bond rate to the extent that the conditions for use of the long-term expected rate of return are not met.</p>
<b>Discount Rate (ADEC)</b>	6.6%, compounded annually, for development of the Actuarially Determined Contribution (ADEC) as of June 30, 2023.
<b>Amortization Method</b>	Increasing at 3.5% over 30 years on an open amortization period for partial pre-funding.

## SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

### Medical Trend Rates

Year	Trend
1	8.00%
2	7.50%
3	7.00%
4	6.50%
5	6.00%
Ultimate	4.10%

Trend rates after year 5 grade down to the ultimate rate of 4.1 percent utilizing the Society of Actuaries Getzen Medical Trend Model. The ultimate trend rate is reached in 2075.

Health care trend assumptions begin at current levels and grade down over a period of years to a lower level equal to some real rate plus inflation. The principal components of health trend are medical inflation, deductible erosion, cost shifting, utilization, technology and catastrophic claims. The overall effect of these components are expected to decline year by year.

### Dental Trend Rates

Not applicable as retirees pay 100% of the dental premium.

### Inflation

2.5% per year, based on current economic data, analyses from economists and other experts, and professional judgment.

### Payroll Growth

3.5% per year.

### Participation Rates

Medical - 85% of eligible retired employees will elect to participate.

Dental - Not applicable as retirees pay 100% of dental premium.

Life - 70% of eligible retirees will elect to participate.

Medicare - all retired employees are assumed to enroll in Medicare at age 65.

### Dependent Status

Male spouses are assumed to be three years older and female spouses are assumed to be three years younger than the retired employee.

60% of employees are assumed to retire with a covered spouse.

For current retirees, the actual census information is used.

## SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

### Medical Per Capita Costs

The following annual per capita costs are for the fiscal year beginning July 1, 2022 and are applicable to retirees, survivors and spouses. Annual costs for current and future retirees are based on the blended curves shown below, developed using the plan coverages elected by current retirees and survivors and premium rates currently in effect. Future years' costs are based on the first year cost adjusted with trend.

Age	Medicare-Eligible		Medicare-Ineligible	
	Male	Female	Male	Female
Under 20	\$5,216	\$6,124	\$5,216	\$6,124
20-24	4,110	6,520	4,110	6,520
25-29	4,277	9,619	4,277	9,619
30-34	5,373	12,154	5,373	12,154
35-39	6,739	12,519	6,739	12,519
40-44	8,398	12,822	8,398	12,822
45-49	10,600	14,074	10,600	14,074
50-54	13,969	16,557	13,969	16,557
55-59	18,153	19,144	18,153	19,144
60-64	23,296	22,785	23,296	22,785
65-69	3,611	3,517	29,065	27,313
70-74	4,327	4,148	34,824	32,206
75-79	5,110	4,813	41,136	37,401
80-84	5,874	5,520	47,281	42,878
85-89	6,543	6,171	54,114	48,950
90-94	7,123	6,585	54,114	48,950
95+	7,571	6,369	54,114	48,950

### Retiree Contributions

Annual per capita participant contributions for the fiscal year beginning July 1, 2022 are as follows:

Plan	Contribution
Non-Medicare	\$ 3,985
Medicare	1,097

### Actuarial Cost Method

Entry Age Normal. The costs of each employee's postemployment benefits are allocated as a level basis over the earnings of the employee between the employee's date of hire and the assumed exit ages.

### Actuarial Value of Assets

Market value of assets as of the disclosure date.

### Census Data

Employee and retiree data were compiled and submitted by the Town as of May 31, 2023. We made reasonable adjustments for missing or invalid data.



## SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

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### Use of ProVal®

KMS Actuaries has used ProVal® to develop the liabilities, normal costs and projected benefit payments in this report. We have a lease agreement with WinTech, the developer of ProVal®, and have relied on their system to perform these calculations. The actuaries signing this report and the KMS staff members who were involved in preparing it have a clear understanding of ProVal® and have used it only for its intended purpose. We have reviewed the output produced by ProVal® for reasonableness and we are not aware of any material inconsistencies, limitations or known weaknesses that would affect this report.

## SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

### General and Public Safety Employees

#### Pre-Retirement Mortality

Pre-retirement mortality rates for General and Public Safety employees are based on the RP-2014 Blue Collar Mortality Table, projected with generational mortality improvement using scale MP-2020.

#### Healthy Retiree Mortality

Healthy retiree mortality rates for General and Public Safety employees are based on the RP-2014 Blue Collar Mortality Table, projected with generational mortality improvement using scale MP-2020.

#### Disabled Retiree Mortality

Disabled retiree mortality rates for General and Public Safety employees are based on the RP-2014 Blue Collar Mortality Table set forward one year with full generational mortality improvement using Scale MP-2020.

#### Turnover Rates

Turnover rates for General and Public Safety employees are as follows:

General Employees		Public Safety	
Service	Rate	Service	Rate
0	15.00%	0	1.50%
1	12.00%	1	1.50%
2	10.00%	2	1.50%
3	9.00%	3	1.50%
4	8.00%	4	1.50%
5	7.60%	5	1.50%
10	5.40%	10	1.50%
15	3.30%	15	0.00%
20	2.00%	20	0.00%
25	1.00%	25	0.00%
30	0.00%	30	0.00%

#### Disability Rates

Disability rates for General and Public Safety employees are as follows:

General Employees		Public Safety	
Age	Rate	Age	Rate
25	0.02%	25	0.20%
30	0.03%	30	0.30%
35	0.06%	35	0.30%
40	0.10%	40	0.30%
45	0.15%	45	1.00%
50	0.19%	50	1.25%
55	0.24%	55	1.20%
60	0.28%	60	0.85%

55% of the General employee disabilities are job-related.

90% of the Public Safety employee disabilities are job-related.

## SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

### General and Public Safety Employees

#### Retirement Rates

Retirement rates for General and Public Safety employees are as follows:

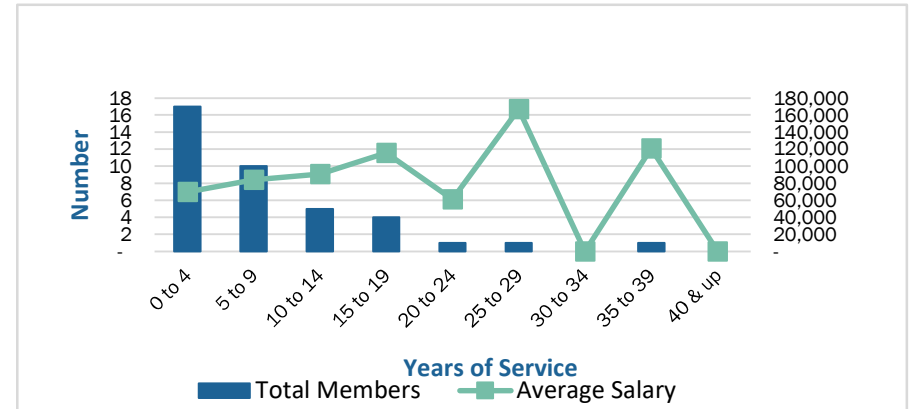
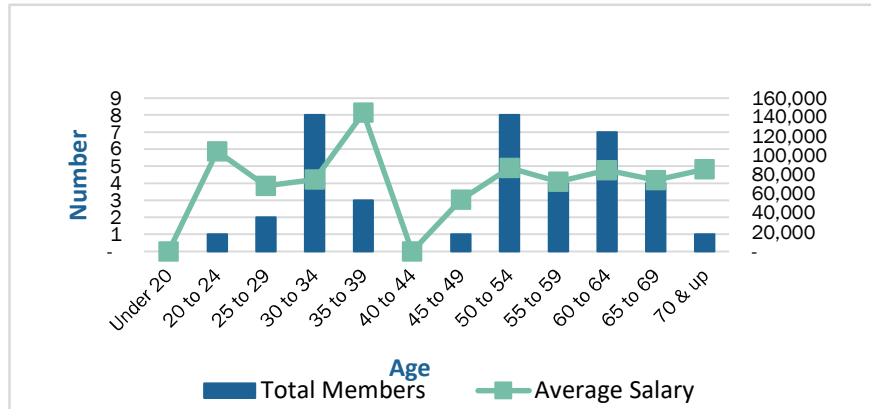
General Employees			Public Safety	
Age	Male	Female	Age	All
45	0.00%	0.00%	45	1.00%
50	1.00%	1.50%	50	2.00%
55	2.00%	5.50%	55	15.00%
60	12.00%	5.00%	60	20.00%
62	30.00%	15.00%	62	25.00%
65	40.00%	15.00%	65	100.00%
69	30.00%	20.00%		
70	100.00%	100.00%		

## SECTION 7 - PLAN MEMBER INFORMATION

Exhibit 7.1 - Active Members by Age and Years of Service as of July 1, 2022

Age	Years of Service									Total	Total Salary	Average Salary
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up			
Under 20	-	-	-	-	-	-	-	-	-	-	-	-
20 to 24	1	-	-	-	-	-	-	-	-	1	104,211	104,211
25 to 29	2	-	-	-	-	-	-	-	-	2	136,721	68,360
30 to 34	4	4	-	-	-	-	-	-	-	8	599,034	74,879
35 to 39	-	1	2	-	-	-	-	-	-	3	433,941	144,647
40 to 44	-	-	-	-	-	-	-	-	-	-	-	-
45 to 49	1	-	-	-	-	-	-	-	-	1	54,024	54,024
50 to 54	4	2	1	-	-	1	-	-	-	8	695,146	86,893
55 to 59	2	-	1	1	-	-	-	-	-	4	290,634	72,659
60 to 64	1	2	1	2	1	-	-	-	-	7	593,186	84,741
65 to 69	2	-	-	1	-	-	-	1	-	4	297,570	74,392
70 & up	-	1	-	-	-	-	-	-	-	1	85,604	85,604
<b>Total</b>	<b>17</b>	<b>10</b>	<b>5</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>39</b>	<b>3,290,071</b>	<b>84,361</b>
<b>Total Salary</b>	<b>1,184,760</b>	<b>840,356</b>	<b>454,051</b>	<b>462,097</b>	<b>61,194</b>	<b>166,979</b>	<b>-</b>	<b>120,634</b>	<b>-</b>			
<b>Average Salary</b>	<b>69,692</b>	<b>84,036</b>	<b>90,810</b>	<b>115,524</b>	<b>61,194</b>	<b>166,979</b>	<b>-</b>	<b>120,634</b>	<b>-</b>			

Average Age: 49.2      Average Service: 7.8



## SECTION 7 - PLAN MEMBER INFORMATION

Exhibit 7.2 - Retired Members, Covered Spouses and Survivors as of July 1, 2022

Non-Medicare Plans						Medicare Plans		Total
Age	Blue Care Elect Preferred PPO	Network Blue NE HMO	Harvard Pilgrim PPO	Harvard Pilgrim HMO	Blue Care Elect Preferred PPO (PPO "Saver")	BCBS Medex	HPHC Medicare Enhance	
Under 40	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	0
45 to 49	0	0	0	0	0	0	0	0
50 to 54	0	0	0	0	0	0	0	0
55 to 59	2	0	0	0	0	0	0	2
60 to 64	0	0	0	1	0	1	0	2
65 to 69	0	0	0	0	0	6	3	9
70 to 74	0	0	0	0	0	5	0	5
75 to 79	0	0	0	0	0	2	1	3
80 to 84	0	0	0	0	0	0	0	0
85 to 89	0	0	0	0	0	1	0	1
90+	0	0	0	0	0	0	0	0
Total	2	0	0	1	0	15	4	22
Covered Spouses	2	1	0	0	0	7	3	13

Average Age: 69.4

In addition, there is 1 retiree who is not covered under any medical plan but is covered under a life insurance policy which the Town contributes to.

## SECTION 8 - GLOSSARY OF TERMS

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**Actuarial Assumptions** – Assumptions as to the occurrence of future events affecting OPEB costs, such as mortality, withdrawal, disability and retirement; changes in compensation and OPEB benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.

**Actuarial Cost Method (or Funding Method)** – A procedure for allocating the Actuarial Present Value of projected benefit payments to the current year (Service Cost) and the past (Total OPEB Liability).

**Actuarial Gain or Loss (or Experience Gain or Loss)** – A measure of the difference between actual experience and that expected based upon the set of Actuarial Assumptions during the period between the valuation date and the most recent immediately preceding valuation date.

**Actuarial Present Value of Projected Benefit Payments** – The dollar value on the valuation date of all benefits expected to be paid to current members based upon the Actuarial Assumptions and the terms of the Plan.

**Actuarially Determined Contribution** – A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

**Actuarial Valuation Date** – The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

**Deferred Inflow of Resources** – Acquisition of resources by a governmental entity that is applicable to future reporting periods. Under GASB 75, deferred inflows of resources are made up of experience gains, assumption changes reducing the Total OPEB Liability and investment gains that are recognized in future reporting periods.

**Deferred Outflow of Resources** – Consumption of resources by a governmental entity that is applicable to future reporting periods. Under GASB 75, deferred outflows of resources are made up of experience losses, assumption changes increasing the Total OPEB Liability and investment losses that are recognized in future reporting periods.

**Discount Rate** – Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of:

- (1) a long-term expected rate of return on OPEB plan investments *to the extent that the OPEB plan's assets are sufficient to pay benefits and OPEB plan assets are expected to be invested using a strategy to achieve that return* and
- (2) a tax-exempt, high-quality municipal bond rate *to the extent that the conditions for use of the long-term expected rate of return are not met.*

**Employer Future Period Contributions** – Contributions made by the employer, generally to an outside trust fund, to pay for future OPEB costs. These are costs in addition to the employer contributions made during the year to pay for ongoing premiums.

## SECTION 8 - GLOSSARY OF TERMS

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**Entry Age Normal Actuarial Cost Method** – A method under which the actuarial present value of the projected benefits of each individual in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age.

**Explicit Subsidy** – The difference between (a) the blended rates based on combined active and retired member experience and (b) actual cash contributions made by the employer.

**Fiduciary Net Position** – The fair market value of assets as of the measurement date.

**Funded Ratio** – The Actuarial Value of Assets expressed as a percentage of the Actuarial Accrued Liability.

**GASB** – Governmental Accounting Standards Board.

**Health Cost Trend Rate** – The rate of change in per capita health claims cost over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.

**Implicit Subsidy** – In an experience-rated healthcare plan that includes both active employees and retirees with blended premium rates for all plan members, the difference between (a) the age-adjusted premiums approximating claim costs for retirees in the group and (b) the blended rates based on combined active and retired member experience.

**Long-Term Expected Rate of Return** – Long-term expected rate of return on OPEB plan investments expected to be used to finance the payment of benefits, net of investment expenses.

**Measurement Date** – The date as of which the Total OPEB Liability and Fiduciary Net Position are measured.

**Municipal Bond Rate** – Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.

**Net OPEB Liability** – The liability of the employer for benefits provided through an OPEB plan. It is calculated as the Total OPEB Liability less the Fiduciary Net Position.

**OPEB** – Other Postemployment Benefits including medical, dental, vision, hearing and life insurance benefits.

**Pay-As-You-Go** – A method of financing an OPEB plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.

**Present Value of Future Benefits** – The actuarial present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value of money and the probabilities of payment.

**Reporting Date** – The last day of the Plan or employer's fiscal year.

## SECTION 8 - GLOSSARY OF TERMS

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**Service Cost** – The portion of the actuarial present value of projected benefit amounts that is attributed to a valuation year.

**Substantive Plan** – The terms of an OPEB plan as understood by the employer and plan members.

**Total OPEB Liability** – The portion of the actuarial present value of projected benefit amounts that is attributed to past periods of employee service.

**Unfunded Actuarial Accrued Liability** – The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.



## SECTION 9 - BREAKOUT OF RESULTS BY DEPARTMENT

Department	Town	Council on Aging	Total
<b>Summary of Member Data Used in Valuation</b>			
Active Members	35	4	39
Average Age	48.4	56.5	49.2
Average Service	7.4	11.3	7.8
Covered Payroll	3,020,833	269,238	3,290,071
Retired Members and Survivors	22	1	23
Average Age	69.5	66.3	69.4
Covered Spouses	12	1	13
Expected Benefit Payments	234,726	6,632	241,358
OPEB Trust contributions	189,451	10,549	200,000
Total Employer Contributions	424,177	17,181	441,358
<b>Beginning Net OPEB Liability - June 30, 2022</b>			
Total OPEB Liability	5,464,620	324,802	5,789,422
Fiduciary Net Position	3,333,150	44,862	3,378,012
Net OPEB Liability	2,131,470	279,940	2,411,410
Total OPEB Liability, beginning of year	5,464,620	324,802	5,789,422
Service cost	167,793	11,213	179,006
Interest	363,993	21,958	385,951
Changes of benefit terms	0	0	0
Differences between expected and actual experience	(1,087,102)	(84,656)	(1,171,758)
Changes of assumptions	135,942	7,185	143,127
Benefit payments	(234,726)	(6,632)	(241,358)
Net change in total OPEB liability	(654,100)	(50,932)	(705,032)
Total OPEB Liability, end of year	4,810,520	273,870	5,084,390
<b>Ending Net OPEB Liability - June 30, 2023</b>			
Total OPEB Liability	4,810,520	273,870	5,084,390
Fiduciary Net Position	3,889,375	60,906	3,950,281
Net OPEB Liability	921,145	212,964	1,134,109

## SECTION 9 - BREAKOUT OF RESULTS BY DEPARTMENT

Department	Town	Council on Aging	Total
<b>Total Deferred Outflows of Resources</b>			
Differences between Expected and Actual Experience	84,540	5,025	89,565
Changes in Assumptions	565,778	33,628	599,406
Actual Earnings on OPEB Plan Investments	21,259	286	21,545
<b>Total Deferred Outflows of Resources</b>	<b>671,577</b>	<b>38,939</b>	<b>710,516</b>
<b>Total Deferred Inflows of Resources</b>			
Differences between Expected and Actual Experience	1,217,424	72,360	1,289,784
Changes in Assumptions	10,605	630	11,235
Actual Earnings on OPEB Plan Investments	0	0	0
<b>Total Deferred Inflows of Resources</b>	<b>1,228,028</b>	<b>72,991</b>	<b>1,301,019</b>
<b>Total OPEB Expense</b>	<b>319,730</b>	<b>9,155</b>	<b>328,885</b>
<b>Sensitivity of the Net OPEB Liability to Changes in the Discount Rate</b>			
Current Discount Rate: 6.5%	921,145	212,964	1,134,109
1% Decrease in the Discount Rate: 5.5%	1,587,684	250,911	1,838,595
1% Increase in the Discount Rate: 7.5%	375,537	181,902	557,439
<b>Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates</b>			
Current Trend Rates	921,145	212,964	1,134,109
1% Decrease in Trend Rates	298,097	177,493	475,590
1% Increase in Trend Rates	1,694,614	256,999	1,951,613
<b>Deferred Outflows of Resources and Deferred Inflows of Resources recognized in OPEB Expense</b>			
2024	(12,755)	(781)	(13,536)
2025	(74,117)	(4,535)	(78,652)
2026	(50,927)	(3,116)	(54,043)
2027	(182,838)	(11,189)	(194,027)
2028	(147,694)	(9,038)	(156,732)
Thereafter	(88,121)	(5,392)	(93,513)

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

Under GASB 74 and GASB 75, a series of projections and calculations are used to determine the discount rate for the purpose of the measurement of the Total OPEB Liability. The discount rate is the single rate that reflects (1) the long-term expected rate of return on OPEB plan investments that are expected to be used to finance the payment of benefits, to the extent that the OPEB plan's fiduciary net position is projected to be sufficient to make projected benefit payments and OPEB plan assets are expected to be invested using a strategy to achieve that return, and (2) a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher, to the extent that the conditions for use of the long-term expected rate of return are not met.

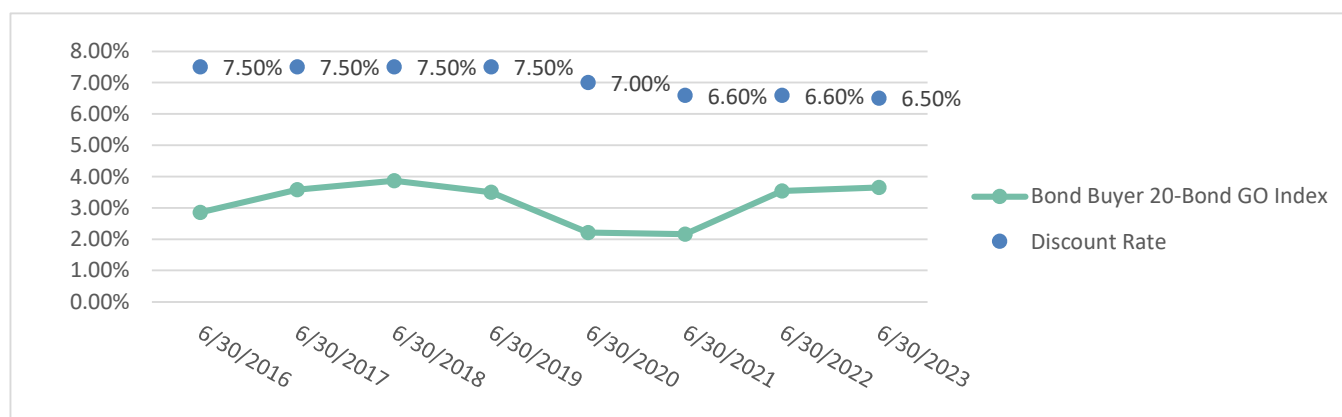
Projected cash flows into and out of the OPEB plan are assumed to be contributions to the OPEB plan, benefit payments, OPEB plan administrative expenses and OPEB plan investment earnings. These projected cash flows are used to project the OPEB plan's fiduciary net position at the beginning of each period. The OPEB plan's projected fiduciary net position at the beginning of each period is compared to the amount of benefit payments projected to occur in that period.

It is assumed that the OPEB plan's fiduciary net position is expected to always be invested using a strategy to achieve the long-term expected rate of return on OPEB plan investments.

The benefit payments that are projected to occur in a period are discounted using the long-term expected rate of return on OPEB plan investments if the amount of the OPEB plan's beginning fiduciary net position is projected to be sufficient to make the benefit payments in that period. In periods in which benefit payments are projected to be greater than the amount of the OPEB plan's fiduciary net position, they are discounted using a municipal bond rate as required by GASB 74.

For purposes of this valuation, liabilities are based on a discount rate of 6.5%, a long-term investment return rate of 6.5% and a municipal bond rate of 3.65%, based on the Bond Buyer 20-Bond GO Index published on June 30, 2023. The OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability. Projected benefit payments are discounted to their actuarial present value using a single discount rate of 6.5%.

Below are the historical Bond Buyer 20-Bond GO Indices and the Town's discount rate used in disclosures since the implementation of GASB 74 and GASB 75:



## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

Table 1: Projection of Contributions

Year	Projected Payroll			Projected Contributions			
	Payroll for Current Plan Members (a)	Payroll for Future Plan Members (b)	Total Payroll (c) = (a) + (b)	Employer Contributions (Benefit Payments) (d)	Employer Contributions (OPEB Trust) (e)	Employer Contributions Related to Payroll of Future Employees (f) = (b) * 6.10%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2023	3,313,969	-	3,313,969	241,358	200,000	-	441,358
2024	3,059,685	370,273	3,429,958	248,819	200,000	22,593	426,226
2025	2,807,588	742,419	3,550,007	291,868	200,000	45,299	446,569
2026	2,587,660	1,086,597	3,674,257	300,960	200,000	66,300	434,660
2027	2,431,720	1,371,136	3,802,856	310,055	200,000	83,661	426,394
2028	2,330,990	1,604,966	3,935,956	278,315	200,000	97,929	380,386
2029	2,151,915	1,921,799	4,073,714	263,669	200,000	117,260	346,409
2030	2,067,964	2,148,330	4,216,294	295,536	200,000	131,082	364,454
2031	1,946,565	2,417,299	4,363,864	338,993	200,000	147,494	391,499
2032	1,840,486	2,676,113	4,516,599	369,576	200,000	163,286	406,290
2033	1,762,874	2,911,806	4,674,680	409,292	200,000	177,667	431,625
2034	1,627,117	3,211,177	4,838,294	448,197	200,000	195,933	452,264
2035	1,563,166	3,444,468	5,007,634	474,317	200,000	210,168	464,149
2036	1,498,587	3,684,314	5,182,901	460,091	200,000	224,802	435,289
2037	1,427,386	3,936,917	5,364,303	452,517	200,000	240,215	412,302
2038	1,368,382	4,183,672	5,552,054	469,949	200,000	255,271	414,678
2039	1,320,588	4,425,788	5,746,376	472,562	200,000	270,044	402,518
2040	1,292,192	4,655,307	5,947,499	479,444	200,000	284,048	395,396
2041	1,244,758	4,910,903	6,155,661	510,961	200,000	299,643	411,318
2042	1,209,138	5,161,971	6,371,109	531,988	200,000	314,963	417,025
2043	1,171,517	5,422,581	6,594,098	564,270	200,000	330,864	433,406
2044	1,144,415	5,680,476	6,824,891	585,357	200,000	346,600	438,757
2045	1,111,410	5,952,352	7,063,762	626,438	200,000	363,188	463,250
2046	1,064,462	6,246,532	7,310,994	609,642	200,000	381,138	428,504
2047	1,025,131	6,541,748	7,566,879	643,575	200,000	399,151	444,424
2048	959,340	6,872,380	7,831,720	695,740	200,000	419,325	476,415
2049	895,515	7,210,315	8,105,830	735,927	200,000	439,944	495,983
2050	837,283	7,552,251	8,389,534	676,956	200,000	460,808	416,148
2051	750,908	7,932,260	8,683,168	679,102	200,000	483,994	395,108
2052	675,393	8,311,686	8,987,079	723,403	200,000	507,146	416,257
2053	624,837	8,676,790	9,301,627	694,640	200,000	529,423	365,217
2054	560,763	9,066,421	9,627,184	684,438	200,000	553,196	331,242

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

Table 1: Projection of Contributions

Year	Projected Payroll			Projected Contributions			
	Payroll for Current Plan Members (a)	Payroll for Future Plan Members (b)	Total Payroll (c) = (a) + (b)	Employer Contributions (Benefit Payments) (d)	Employer Contributions (OPEB Trust) (e)	Employer Contributions Related to Payroll of Future Employees (f) = (b) * 6.10%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2055	502,081	9,462,054	9,964,135	714,713	200,000	577,336	337,377
2056	450,244	9,862,636	10,312,880	702,046	200,000	601,778	300,268
2057	366,576	10,307,255	10,673,831	672,885	200,000	628,907	243,978
2058	297,571	10,749,844	11,047,415	643,674	200,000	655,912	187,762
2059	239,290	11,194,785	11,434,075	628,541	200,000	683,061	145,480
2060	197,026	11,637,242	11,834,268	606,483	200,000	710,057	96,426
2061	156,813	12,091,654	12,248,467	608,669	200,000	737,784	70,885
2062	117,144	12,560,019	12,677,163	563,480	200,000	766,362	-
2063	78,340	13,042,524	13,120,864	563,903	200,000	795,802	-
2064	61,546	13,518,548	13,580,094	583,132	200,000	824,847	-
2065	47,597	14,007,800	14,055,397	550,958	200,000	854,699	-
2066	35,184	14,512,152	14,547,336	489,112	200,000	885,473	-
2067	9,202	15,047,291	15,056,493	494,837	200,000	918,125	-
2068	7,484	15,575,986	15,583,470	504,095	200,000	950,384	-
2069	-	16,128,891	16,128,891	445,906	200,000	984,120	-
2070	-	16,693,402	16,693,402	454,970	200,000	1,018,564	-
2071	-	17,277,671	17,277,671	468,793	200,000	1,054,214	-
2072	-	17,882,389	17,882,389	474,216	200,000	1,091,111	-
2073	-	18,508,273	18,508,273	481,208	200,000	1,129,300	-
2074	-	19,156,063	19,156,063	484,548	200,000	1,168,826	-
2075	-	19,826,525	19,826,525	491,209	200,000	1,209,734	-
2076	-	20,520,453	20,520,453	498,282	200,000	1,252,075	-
2077	-	21,238,669	21,238,669	497,601	200,000	1,295,898	-
2078	-	21,982,022	21,982,022	494,469	200,000	1,341,254	-
2079	-	22,751,393	22,751,393	487,938	200,000	1,388,198	-
2080	-	23,547,692	23,547,692	482,293	200,000	1,436,785	-
2081	-	24,371,861	24,371,861	477,042	200,000	1,487,072	-
2082	-	25,224,876	25,224,876	463,814	200,000	1,539,120	-
2083	-	26,107,747	26,107,747	443,614	200,000	1,592,989	-
2084	-	27,021,518	27,021,518	422,923	200,000	1,648,744	-
2085	-	27,967,271	27,967,271	402,310	200,000	1,706,450	-
2086	-	28,946,125	28,946,125	382,805	200,000	1,766,176	-

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

Table 1: Projection of Contributions

Year	Projected Payroll			Projected Contributions			
	Payroll for Current Plan Members (a)	Payroll for Future Plan Members (b)	Total Payroll (c) = (a) + (b)	Employer Contributions (Benefit Payments) (d)	Employer Contributions (OPEB Trust) (e)	Employer Contributions Related to Payroll of Future Employees (f) = (b) * 6.10%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2087	-	29,959,239	29,959,239	359,460	200,000	1,827,992	-
2088	-	31,007,812	31,007,812	332,598	200,000	1,891,971	-
2089	-	32,093,085	32,093,085	306,655	200,000	1,958,190	-
2090	-	33,216,343	33,216,343	279,226	200,000	2,026,727	-
2091	-	34,378,915	34,378,915	254,383	200,000	2,097,663	-
2092	-	35,582,177	35,582,177	228,521	200,000	2,171,081	-
2093	-	36,827,553	36,827,553	201,551	200,000	2,247,069	-
2094	-	38,116,517	38,116,517	179,030	200,000	2,325,716	-
2095	-	39,450,595	39,450,595	154,676	200,000	2,407,116	-
2096	-	40,831,366	40,831,366	135,036	200,000	2,491,365	-
2097	-	42,260,464	42,260,464	114,886	200,000	2,578,563	-
2098	-	43,739,580	43,739,580	96,683	200,000	2,668,812	-
2099	-	45,270,465	45,270,465	79,430	200,000	2,762,221	-
2100	-	46,854,931	46,854,931	65,149	200,000	2,858,899	-
2101	-	48,494,854	48,494,854	52,749	200,000	2,958,960	-
2102	-	50,192,174	50,192,174	42,121	200,000	3,062,524	-
2103	-	51,948,900	51,948,900	33,125	200,000	3,169,712	-
2104	-	53,767,112	53,767,112	25,624	200,000	3,280,652	-
2105	-	55,648,961	55,648,961	19,474	200,000	3,395,475	-
2106	-	57,596,675	57,596,675	14,521	200,000	3,514,316	-
2107	-	59,612,559	59,612,559	10,609	200,000	3,637,318	-
2108	-	61,698,999	61,698,999	7,586	200,000	3,764,624	-
2109	-	63,858,464	63,858,464	5,299	200,000	3,896,385	-
2110	-	66,093,510	66,093,510	3,612	200,000	4,032,759	-
2111	-	68,406,783	68,406,783	2,398	200,000	4,173,906	-
2112	-	70,801,020	70,801,020	1,549	200,000	4,319,992	-
2113	-	73,279,056	73,279,056	972	200,000	4,471,192	-
2114	-	75,843,823	75,843,823	593	200,000	4,627,684	-
2115	-	78,498,357	78,498,357	350	200,000	4,789,653	-
2116	-	81,245,799	81,245,799	200	200,000	4,957,290	-
2117	-	84,089,402	84,089,402	110	200,000	5,130,796	-
2118	-	87,032,531	87,032,531	59	200,000	5,310,373	-

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

Table 1: Projection of Contributions

Year	Projected Payroll			Projected Contributions			
	Payroll for Current Plan Members (a)	Payroll for Future Plan Members (b)	Total Payroll (c) = (a) + (b)	Employer Contributions (Benefit Payments) (d)	Employer Contributions (OPEB Trust) (e)	Employer Contributions Related to Payroll of Future Employees (f) = (b) * 6.10%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2119	-	90,078,670	90,078,670	31	200,000	5,496,237	-
2120	-	93,231,423	93,231,423	16	200,000	5,688,605	-
2121	-	96,494,523	96,494,523	8	200,000	5,887,706	-
2122	-	99,871,831	99,871,831	4	200,000	6,093,776	-
2123	-	103,367,345	103,367,345	2	200,000	6,307,058	-
2124	-	106,985,202	106,985,202	1	200,000	6,527,805	-
2125	-	110,729,684	110,729,684	-	200,000	6,756,278	-

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

Table 2: Projection of the OPEB Plan's Fiduciary Net Position

Year	Projected Beginning Fiduciary Net Position (a)	Employer Contributions for Current Plan Members (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2023	3,378,012	441,358	241,358	-	372,269	3,950,281
2024	3,950,281	426,226	248,819	-	262,534	4,390,222
2025	4,390,222	446,569	291,868	-	290,392	4,835,315
2026	4,835,315	434,660	300,960	-	318,641	5,287,656
2027	5,287,656	426,394	310,055	-	347,479	5,751,474
2028	5,751,474	380,386	278,315	-	377,163	6,230,708
2029	6,230,708	346,409	263,669	-	407,685	6,721,133
2030	6,721,133	364,454	295,536	-	439,113	7,229,164
2031	7,229,164	391,499	338,993	-	471,602	7,753,272
2032	7,753,272	406,290	369,576	-	505,156	8,295,142
2033	8,295,142	431,625	409,292	-	539,910	8,857,385
2034	8,857,385	452,264	448,197	-	575,862	9,437,314
2035	9,437,314	464,149	474,317	-	613,095	10,040,241
2036	10,040,241	435,289	460,091	-	651,810	10,667,249
2037	10,667,249	412,302	452,517	-	692,064	11,319,098
2038	11,319,098	414,678	469,949	-	733,945	11,997,772
2039	11,997,772	402,518	472,562	-	777,579	12,705,307
2040	12,705,307	395,396	479,444	-	823,113	13,444,372
2041	13,444,372	411,318	510,961	-	870,646	14,215,375
2042	14,215,375	417,025	531,988	-	920,263	15,020,675
2043	15,020,675	433,406	564,270	-	972,091	15,861,902
2044	15,861,902	438,757	585,357	-	1,026,259	16,741,561
2045	16,741,561	463,250	626,438	-	1,082,898	17,661,271
2046	17,661,271	428,504	609,642	-	1,142,096	18,622,229
2047	18,622,229	444,424	643,575	-	1,203,972	19,627,050
2048	19,627,050	476,415	695,740	-	1,268,630	20,676,355
2049	20,676,355	495,983	735,927	-	1,336,165	21,772,576
2050	21,772,576	416,148	676,956	-	1,406,741	22,918,509
2051	22,918,509	395,108	679,102	-	1,480,473	24,114,988
2052	24,114,988	416,257	723,403	-	1,557,492	25,365,334
2053	25,365,334	365,217	694,640	-	1,638,040	26,673,951
2054	26,673,951	331,242	684,438	-	1,722,328	28,043,083
2055	28,043,083	337,377	714,713	-	1,810,537	29,476,284
2056	29,476,284	300,268	702,046	-	1,902,901	30,977,407



## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

Table 2: Projection of the OPEB Plan's Fiduciary Net Position

Year	Projected Beginning Fiduciary Net Position (a)	Employer Contributions for Current Plan Members (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2057	30,977,407	243,978	672,885	-	1,999,592	32,548,092
2058	32,548,092	187,762	643,674	-	2,100,809	34,192,989
2059	34,192,989	145,480	628,541	-	2,206,845	35,916,773
2060	35,916,773	96,426	606,483	-	2,318,013	37,724,729
2061	37,724,729	70,885	608,669	-	2,434,629	39,621,574
2062	39,621,574	-	563,480	-	2,557,089	41,615,183
2063	41,615,183	-	563,903	-	2,686,660	43,737,940
2064	43,737,940	-	583,132	-	2,824,014	45,978,822
2065	45,978,822	-	550,958	-	2,970,717	48,398,581
2066	48,398,581	-	489,112	-	3,130,012	51,039,481
2067	51,039,481	-	494,837	-	3,301,484	53,846,128
2068	53,846,128	-	504,095	-	3,483,615	56,825,648
2069	56,825,648	-	445,906	-	3,679,175	60,058,917
2070	60,058,917	-	454,970	-	3,889,043	63,492,990
2071	63,492,990	-	468,793	-	4,111,809	67,136,006
2072	67,136,006	-	474,216	-	4,348,428	71,010,218
2073	71,010,218	-	481,208	-	4,600,025	75,129,035
2074	75,129,035	-	484,548	-	4,867,639	79,512,126
2075	79,512,126	-	491,209	-	5,152,324	84,173,241
2076	84,173,241	-	498,282	-	5,455,067	89,130,026
2077	89,130,026	-	497,601	-	5,777,280	94,409,705
2078	94,409,705	-	494,469	-	6,120,561	100,035,797
2079	100,035,797	-	487,938	-	6,486,469	106,034,328
2080	106,034,328	-	482,293	-	6,876,557	112,428,592
2081	112,428,592	-	477,042	-	7,292,355	119,243,905
2082	119,243,905	-	463,814	-	7,735,780	126,515,871
2083	126,515,871	-	443,614	-	8,209,114	134,281,371
2084	134,281,371	-	422,923	-	8,714,544	142,572,992
2085	142,572,992	-	402,310	-	9,254,169	151,424,851
2086	151,424,851	-	382,805	-	9,830,174	160,872,220
2087	160,872,220	-	359,460	-	10,445,012	170,957,772
2088	170,957,772	-	332,598	-	11,101,446	181,726,620
2089	181,726,620	-	306,655	-	11,802,264	193,222,229
2090	193,222,229	-	279,226	-	12,550,370	205,493,373

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

Table 2: Projection of the OPEB Plan's Fiduciary Net Position

Year	Projected Beginning Fiduciary Net Position (a)	Employer Contributions for Current Plan Members (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2091	205,493,373	-	254,383	-	13,348,802	218,587,792
2092	218,587,792	-	228,521	-	14,200,780	232,560,051
2093	232,560,051	-	201,551	-	15,109,853	247,468,353
2094	247,468,353	-	179,030	-	16,079,624	263,368,947
2095	263,368,947	-	154,676	-	17,113,955	280,328,226
2096	280,328,226	-	135,036	-	18,216,946	298,410,136
2097	298,410,136	-	114,886	-	19,392,925	317,688,175
2098	317,688,175	-	96,683	-	20,646,589	338,238,081
2099	338,238,081	-	79,430	-	21,982,894	360,141,545
2100	360,141,545	-	65,149	-	23,407,083	383,483,479
2101	383,483,479	-	52,749	-	24,924,712	408,355,442
2102	408,355,442	-	42,121	-	26,541,735	434,855,056
2103	434,855,056	-	33,125	-	28,264,502	463,086,433
2104	463,086,433	-	25,624	-	30,099,785	493,160,594
2105	493,160,594	-	19,474	-	32,054,806	525,195,926
2106	525,195,926	-	14,521	-	34,137,263	559,318,668
2107	559,318,668	-	10,609	-	36,355,369	595,663,428
2108	595,663,428	-	7,586	-	38,717,876	634,373,718
2109	634,373,718	-	5,299	-	41,234,119	675,602,538
2110	675,602,538	-	3,612	-	43,914,048	719,512,974
2111	719,512,974	-	2,398	-	46,768,265	766,278,841
2112	766,278,841	-	1,549	-	49,808,074	816,085,366
2113	816,085,366	-	972	-	53,045,517	869,129,911
2114	869,129,911	-	593	-	56,493,425	925,622,743
2115	925,622,743	-	350	-	60,165,467	985,787,860
2116	985,787,860	-	200	-	64,076,204	1,049,863,864
2117	1,049,863,864	-	110	-	68,241,148	1,118,104,902
2118	1,118,104,902	-	59	-	72,676,817	1,190,781,660
2119	1,190,781,660	-	31	-	77,400,807	1,268,182,436
2120	1,268,182,436	-	16	-	82,431,858	1,350,614,278
2121	1,350,614,278	-	8	-	87,789,928	1,438,404,198
2122	1,438,404,198	-	4	-	93,496,273	1,531,900,467
2123	1,531,900,467	-	2	-	99,573,530	1,631,473,995
2124	1,631,473,995	-	1	-	106,045,810	1,737,519,804
2125	1,737,519,804	-	-	-	112,938,787	1,850,458,591

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

**Table 3: Actuarial Present Value of Projected Benefit Payments - End of Measurement Period**

Year	Projected Beginning Fiduciary Net Position (a)	Projected Benefit Payments (b)	Projected Benefit Payments		Actuarial Present Value of Projected Benefit Payments		
			"Funded" Portion of Benefit Payments (c)	"Unfunded" Portion of Benefit Payments (d)	Present Value of "Funded" Benefit Payments (e)	Present Value of "Unfunded" Benefit Payments (f)	Present Value of Benefit Payments Using the Single Discount Rate (g) = 6.5%
2024	3,950,281	248,819	248,819	-	241,106	-	241,106
2025	4,390,222	291,868	291,868	-	265,560	-	265,560
2026	4,835,315	300,960	300,960	-	257,119	-	257,119
2027	5,287,656	310,055	310,055	-	248,723	-	248,723
2028	5,751,474	278,315	278,315	-	209,635	-	209,635
2029	6,230,708	263,669	263,669	-	186,482	-	186,482
2030	6,721,133	295,536	295,536	-	196,263	-	196,263
2031	7,229,164	338,993	338,993	-	211,382	-	211,382
2032	7,753,272	369,576	369,576	-	216,387	-	216,387
2033	8,295,142	409,292	409,292	-	225,015	-	225,015
2034	8,857,385	448,197	448,197	-	231,365	-	231,365
2035	9,437,314	474,317	474,317	-	229,905	-	229,905
2036	10,040,241	460,091	460,091	-	209,399	-	209,399
2037	10,667,249	452,517	452,517	-	193,382	-	193,382
2038	11,319,098	469,949	469,949	-	188,574	-	188,574
2039	11,997,772	472,562	472,562	-	178,049	-	178,049
2040	12,705,307	479,444	479,444	-	169,617	-	169,617
2041	13,444,372	510,961	510,961	-	169,734	-	169,734
2042	14,215,375	531,988	531,988	-	165,934	-	165,934
2043	15,020,675	564,270	564,270	-	165,261	-	165,261
2044	15,861,902	585,357	585,357	-	160,973	-	160,973
2045	16,741,561	626,438	626,438	-	161,756	-	161,756
2046	17,661,271	609,642	609,642	-	147,812	-	147,812
2047	18,622,229	643,575	643,575	-	146,515	-	146,515
2048	19,627,050	695,740	695,740	-	148,724	-	148,724
2049	20,676,355	735,927	735,927	-	147,713	-	147,713
2050	21,772,576	676,956	676,956	-	127,584	-	127,584
2051	22,918,509	679,102	679,102	-	120,177	-	120,177
2052	24,114,988	723,403	723,403	-	120,203	-	120,203
2053	25,365,334	694,640	694,640	-	108,379	-	108,379
2054	26,673,951	684,438	684,438	-	100,270	-	100,270
2055	28,043,083	714,713	714,713	-	98,315	-	98,315

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

**Table 3: Actuarial Present Value of Projected Benefit Payments - End of Measurement Period**

Year	Projected Beginning Fiduciary Net Position (a)	Projected Benefit Payments (b)	Projected Benefit Payments		Actuarial Present Value of Projected Benefit Payments		
			"Funded" Portion of Benefit Payments (c)	"Unfunded" Portion of Benefit Payments (d)	Present Value of "Funded" Benefit Payments (e)	Present Value of "Unfunded" Benefit Payments (f)	Present Value of Benefit Payments Using the Single Discount Rate (g) = 6.5%
2056	29,476,284	702,046	702,046	-	90,678	-	90,678
2057	30,977,407	672,885	672,885	-	81,607	-	81,607
2058	32,548,092	643,674	643,674	-	73,300	-	73,300
2059	34,192,989	628,541	628,541	-	67,208	-	67,208
2060	35,916,773	606,483	606,483	-	60,892	-	60,892
2061	37,724,729	608,669	608,669	-	57,381	-	57,381
2062	39,621,574	563,480	563,480	-	49,879	-	49,879
2063	41,615,183	563,903	563,903	-	46,870	-	46,870
2064	43,737,940	583,132	583,132	-	45,510	-	45,510
2065	45,978,822	550,958	550,958	-	40,375	-	40,375
2066	48,398,581	489,112	489,112	-	33,655	-	33,655
2067	51,039,481	494,837	494,837	-	31,971	-	31,971
2068	53,846,128	504,095	504,095	-	30,581	-	30,581
2069	56,825,648	445,906	445,906	-	25,400	-	25,400
2070	60,058,917	454,970	454,970	-	24,335	-	24,335
2071	63,492,990	468,793	468,793	-	23,544	-	23,544
2072	67,136,006	474,216	474,216	-	22,362	-	22,362
2073	71,010,218	481,208	481,208	-	21,307	-	21,307
2074	75,129,035	484,548	484,548	-	20,146	-	20,146
2075	79,512,126	491,209	491,209	-	19,176	-	19,176
2076	84,173,241	498,282	498,282	-	18,265	-	18,265
2077	89,130,026	497,601	497,601	-	17,127	-	17,127
2078	94,409,705	494,469	494,469	-	15,980	-	15,980
2079	100,035,797	487,938	487,938	-	14,807	-	14,807
2080	106,034,328	482,293	482,293	-	13,742	-	13,742
2081	112,428,592	477,042	477,042	-	12,763	-	12,763
2082	119,243,905	463,814	463,814	-	11,652	-	11,652
2083	126,515,871	443,614	443,614	-	10,464	-	10,464
2084	134,281,371	422,923	422,923	-	9,367	-	9,367
2085	142,572,992	402,310	402,310	-	8,367	-	8,367
2086	151,424,851	382,805	382,805	-	7,475	-	7,475
2087	160,872,220	359,460	359,460	-	6,591	-	6,591

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

**Table 3: Actuarial Present Value of Projected Benefit Payments - End of Measurement Period**

Year	Projected Beginning Fiduciary Net Position (a)	Projected Benefit Payments (b)	Projected Benefit Payments		Actuarial Present Value of Projected Benefit Payments		
			"Funded" Portion of Benefit Payments (c)	"Unfunded" Portion of Benefit Payments (d)	Present Value of "Funded" Benefit Payments (e)	Present Value of "Unfunded" Benefit Payments (f)	Present Value of Benefit Payments Using the Single Discount Rate (g) = 6.5%
2088	170,957,772	332,598	332,598	-	5,726	-	5,726
2089	181,726,620	306,655	306,655	-	4,957	-	4,957
2090	193,222,229	279,226	279,226	-	4,238	-	4,238
2091	205,493,373	254,383	254,383	-	3,626	-	3,626
2092	218,587,792	228,521	228,521	-	3,058	-	3,058
2093	232,560,051	201,551	201,551	-	2,533	-	2,533
2094	247,468,353	179,030	179,030	-	2,112	-	2,112
2095	263,368,947	154,676	154,676	-	1,714	-	1,714
2096	280,328,226	135,036	135,036	-	1,405	-	1,405
2097	298,410,136	114,886	114,886	-	1,122	-	1,122
2098	317,688,175	96,683	96,683	-	887	-	887
2099	338,238,081	79,430	79,430	-	684	-	684
2100	360,141,545	65,149	65,149	-	527	-	527
2101	383,483,479	52,749	52,749	-	401	-	401
2102	408,355,442	42,121	42,121	-	300	-	300
2103	434,855,056	33,125	33,125	-	222	-	222
2104	463,086,433	25,624	25,624	-	161	-	161
2105	493,160,594	19,474	19,474	-	115	-	115
2106	525,195,926	14,521	14,521	-	80	-	80
2107	559,318,668	10,609	10,609	-	55	-	55
2108	595,663,428	7,586	7,586	-	37	-	37
2109	634,373,718	5,299	5,299	-	24	-	24
2110	675,602,538	3,612	3,612	-	16	-	16
2111	719,512,974	2,398	2,398	-	10	-	10
2112	766,278,841	1,549	1,549	-	6	-	6
2113	816,085,366	972	972	-	3	-	3
2114	869,129,911	593	593	-	2	-	2
2115	925,622,743	350	350	-	1	-	1
2116	985,787,860	200	200	-	1	-	1
2117	1,049,863,864	110	110	-	-	-	-
2118	1,118,104,902	59	59	-	-	-	-
2119	1,190,781,660	31	31	-	-	-	-

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

**Table 3: Actuarial Present Value of Projected Benefit Payments - End of Measurement Period**

Year	Projected Beginning Fiduciary Net Position (a)	Projected Benefit Payments (b)	Projected Benefit Payments		Actuarial Present Value of Projected Benefit Payments		
			"Funded" Portion of Benefit Payments (c)	"Unfunded" Portion of Benefit Payments (d)	Present Value of "Funded" Benefit Payments (e)	Present Value of "Unfunded" Benefit Payments (f)	Present Value of Benefit Payments Using the Single Discount Rate (g) = 6.5%
2120	1,268,182,436	16	16	-	-	-	-
2121	1,350,614,278	8	8	-	-	-	-
2122	1,438,404,198	4	4	-	-	-	-
2123	1,531,900,467	2	2	-	-	-	-
2124	1,631,473,995	1	1	-	-	-	-
2125	1,737,519,804	-	-	-	-	-	-

## APPENDIX B - SCHEDULE OF DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES

Year	Differences between Expected and Actual Experience	Recognition Period (Years)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
2018	-	6.58	-	-	-	-	-	-	-	-	-	-
2019	367,715	6.61	55,630	55,630	33,935	-	-	-	-	-	-	-
2020	-	6.61	-	-	-	-	-	-	-	-	-	-
2021	(561,044)	6.34	(88,493)	(88,493)	(88,493)	(88,493)	(30,086)	-	-	-	-	-
2022	-	6.34	-	-	-	-	-	-	-	-	-	-
2023	(1,171,758)	6.60	(177,539)	(177,539)	(177,539)	(177,539)	(177,539)	(177,539)	(106,524)	-	-	-
Net Increase (Decrease) in OPEB Expense			(210,402)	(210,402)	(232,097)	(266,032)	(207,625)	(177,539)	(106,524)	-	-	-

Year	Changes of Assumptions	Recognition Period (Years)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
2018	-	6.58	-	-	-	-	-	-	-	-	-	-
2019	480,479	6.61	72,690	72,690	44,339	-	-	-	-	-	-	-
2020	351,349	6.61	53,154	53,154	53,154	32,425	-	-	-	-	-	-
2021	421,787	6.34	66,528	66,528	66,528	66,528	22,619	-	-	-	-	-
2022	(16,413)	6.34	(2,589)	(2,589)	(2,589)	(2,589)	(2,589)	(879)	-	-	-	-
2023	143,127	6.60	21,686	21,686	21,686	21,686	21,686	21,686	13,011	-	-	-
Net Increase (Decrease) in OPEB Expense			211,469	211,469	183,118	118,050	41,716	20,807	13,011	-	-	-

## APPENDIX B - SCHEDULE OF DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES

Year	Differences between Projected and Actual Earnings on OPEB Plan Investments	Recognition Period (Years)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
2018	53,616	5	-	-	-	-	-	-	-	-	-	-
2019	45,735	5	9,147	-	-	-	-	-	-	-	-	-
2020	75,346	5	15,069	15,070	-	-	-	-	-	-	-	-
2021	(618,070)	5	(123,614)	(123,614)	(123,614)	-	-	-	-	-	-	-
2022	610,289	5	122,058	122,058	122,058	122,057	-	-	-	-	-	-
2023	(140,587)	5	(28,117)	(28,117)	(28,117)	(28,118)	(28,118)	-	-	-	-	-
Net Increase (Decrease) in OPEB Expense			(5,457)	(14,603)	(29,673)	93,939	(28,118)	-	-	-	-	-