



MARTHA'S VINEYARD REGIONAL SCHOOL DISTRICT

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. Suzanne Cioffi
Finance Manager
Martha's Vineyard Regional School District
PO Box 1385
Oak Bluffs, MA 02557

Dear Suzanne:

We are pleased to present the enclosed report of the July 1, 2022 actuarial valuation of the retiree health care benefits for the Martha's Vineyard Regional School District, 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 Martha's Vineyard Regional School District 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 did review the data and determine that several judgmental enhancements for missing or incomplete data were required in order to perform the analysis.

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 and Massachusetts Teachers Retirement Systems' 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 Martha's Vineyard Regional School District 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 Martha's Vineyard Regional School District 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 Martha's Vineyard Regional School District, 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.

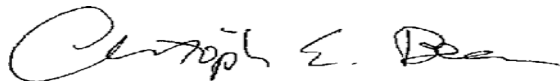
Respectfully submitted,



Linda L. Bournival, FSA, EA
Member, American Academy of Actuaries
(603) 792-9494



Amanda J. Makarevich, FSA
Member, American Academy of Actuaries
(603) 792-9494



Christopher E. Bean, ASA
Member, American Academy of Actuaries
(508) 628-9022

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
SECTION 1 PRINCIPAL VALUATION RESULTS	5
Exhibit 1.1 - OPEB Trust Assets	
Exhibit 1.2 - Total OPEB Liability	
Exhibit 1.3 - Development of Actuarially Determined Employer Contributions	
SECTION 2 NOTES TO THE FINANCIAL STATEMENTS	8
Exhibit 2.1 - Plan Description	
Exhibit 2.2 - Net OPEB Liability	
SECTION 3 SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION	12
Exhibit 3.1 - Changes in Net OPEB Liability and Related Ratios	
Exhibit 3.2 - Investment Returns	
Exhibit 3.3 - Schedule of Employer Contributions	
SECTION 4 EMPLOYER REPORTING AMOUNTS UNDER GASB 75	19
Exhibit 4.1 - Deferred Outflows and Deferred Inflows of Resources	
Exhibit 4.2 - OPEB Expense	
SECTION 5 SUMMARY OF PLAN PROVISIONS	22
SECTION 6 ACTUARIAL ASSUMPTIONS AND METHODS	24
SECTION 7 PLAN MEMBER INFORMATION	33
Exhibit 7.1 - Active Members by Age and Years of Service	
Exhibit 7.2 - Retired Members, Covered Spouses and Survivors	
SECTION 8 GLOSSARY OF TERMS	36
SECTION 9 BREAKOUT OF RESULTS BY DEPARTMENT	39
 Appendix A CALCULATION OF SINGLE DISCOUNT RATE	
 Appendix B SCHEDULE OF DEFERRED OUTFLOWS OF RESOURCES and DEFERRED INFLOWS OF RESOURCES	

EXECUTIVE SUMMARY

Purpose of Report

This report presents the results of the actuarial valuation of the Martha's Vineyard Regional School District'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 Martha's Vineyard Regional School District. 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 Martha's Vineyard Regional School District.

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

Martha's Vineyard Regional School District Other Postemployment Benefits Program

The Martha's Vineyard Regional School District 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 District provides health care benefits for retirees and their dependents. Benefits are provided through the Cape Cod Municipal Health Group and the Group Insurance Commission (GIC), and the full cost of benefits is shared between the District 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	
Membership Data			
Active Plan Members	221	214	3.3%
Inactive Plan Members (excludes covered spouses)	134	129	3.9%
Total Plan Members	355	343	3.5%
Covered Spouses	44	39	12.8%
Covered Payroll	\$17,587,350	\$17,138,223	2.6%
Net OPEB Liability			
Discount Rate	6.50%	4.33%	
Total OPEB Liability (TOL)	\$29,250,376	\$44,255,775	(33.9%)
Fiduciary Net Position (FNP)	\$7,995,632	\$6,296,011	27.0%
Net OPEB Liability	\$21,254,744	\$37,959,764	(44.0%)
FNP as % of TOL	27.3%	14.2%	
OPEB Expense			
OPEB Expense	\$44,535	\$3,649,039	(98.8%)
Deferred Outflows	\$7,820,181	\$11,662,295	
Deferred Inflows	\$28,502,236	\$17,861,680	
Recognition Period	6.18	6.12	

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 \$8,443,000. 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 active employee turnover replaced by lower service employees
- ♦ a gain due to corrections to Medicare eligibility for several retirees from the prior valuation

Changes of Assumptions

The discount rate changed from 4.33% 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	(70,000)
♦ Increase due to change in Trend Assumption	1,084,000
♦ Decrease due to change in Mortality Improvement Rates	(245,000)
♦ Decrease due to change in Discount Rate	(9,786,000)
Total	\$ (9,017,000)

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

Changes of Benefit Terms

Effective July 1, 2023, the UniCare State Indemnity Plan Basic plans with CIC is no longer offered to retired teachers and will be replaced by the UniCare State Indemnity Total Choice plan for teachers who live in New England and the Harvard Pilgrim Health Care Access America plan for teachers who live outside of New England. Additionally, the AllWays Health Partners Complete HMO plan will be replaced by the Mass General Brigham Complete HMO plan for teachers who live in Massachusetts and the Harvard Pilgrim Independence Plan will be replaced by the Harvard Pilgrim Health Care Explorer POS for teachers who live in New England. All other 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 \$29,250,376. The Total OPEB Liability as of the prior measurement date, June 30, 2022, was \$44,255,775. During the current measurement period ending June 30, 2023, the Total OPEB Liability decreased by \$15,005,399, or -33.9%. The development of the Total OPEB Liability for the current measurement period is shown in Section 1, Exhibit 1.2.

EXECUTIVE SUMMARY

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 \$7,995,632. The Fiduciary Net Position as of the prior measurement date, June 30, 2022, was \$6,296,011. During the plan years ended June 30, 2023 and June 30, 2022, the actual rates of return were 10.74% and -11.25%, respectively. The expected long-term rate of return is 6.50%. The Fiduciary Net Position is shown in Section 1, Exhibit 1.1.

Employer Future Period Contributions

The District does not have a formal funding policy, but has contributed an average of approximately \$900,000 to the OPEB trust over the last several years.

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 \$44,535. Benefit changes are recognized immediately, and experience gains and losses and assumption changes developed in this valuation are recognized over 6.18 years. Investment gains and losses are recognized over 5 years. The OPEB Expense for the prior measurement period was \$3,649,039. 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

Trust Fund Composition at Fiscal Year-End		
Fixed Income	\$1,377,495	\$1,271,330
Cash & Equivalents	4,275	5,320
Large Cap Equity	2,910,081	2,072,586
Mid Cap Equity	787,173	568,138
Small Cap Equity	784,715	560,307
International Equity	1,189,878	845,556
Real Estate	942,015	972,774
Total Market Value of Assets	\$7,995,632	\$6,296,011
Asset Activity		
Market value, beginning of year	\$6,296,011	\$6,035,062
Employer Premiums	1,243,171	1,302,079
OPEB Trust Contributions	1,023,714	987,714
Benefit Payments	(1,243,171)	(1,302,079)
Administrative Expenses	-	-
Investment Return	675,907	(726,765)
Market value, end of year	\$7,995,632	\$6,296,011
Money-Weighted Rate of Return	10.74%	-11.25%
(Gain) / Loss on OPEB Plan Investments		
Projected earnings	\$415,537	\$424,971
Actual earnings	675,907	(726,765)
(Gain) / Loss on OPEB plan investments	(\$260,370)	\$1,151,736

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	\$20,706,641	
b. Retirees, Covered Spouses and Survivors	23,549,134	
c. Total OPEB Liability at 4.33% (a. + b.)		\$44,255,775
2. Service Cost		
		\$1,798,761
3. Expected Benefit Payments		
a. Current retirees	(\$1,182,806)	
b. Future retirees	(60,365)	
c. Total (a. + b.)		(\$1,243,171)
4. Interest [4.33% x (1.c. + 2. + .5 x 3.c)]		
		\$1,967,247
5. Changes of benefit terms		
		(\$69,104)
6. Differences between expected and actual experience		
		(\$8,442,594)
7. Changes of assumptions or other inputs		
		(\$9,016,538)
8. Total OPEB Liability, end of year (1.c. + 2. + 3.c. + 4. + 5. + 6. + 7.)		
a. Actives	\$12,298,297	
b. Retirees, Covered Spouses and Survivors	16,952,079	
c. Total OPEB Liability at 6.5% (a. + b.)		\$29,250,376

SECTION 1 - PRINCIPAL VALUATION RESULTS

Exhibit 1.3 - Development of Actuarially Determined Employer Contributions

The District does not have a formal funding policy, but has contributed an average of approximately \$900,000 to the OPEB trust over the last several years.

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
Discount Rate	4.33%	6.50%
1. Normal Cost	\$1,798,761	\$1,053,124
2. Unfunded Actuarial Accrued Liability		
a. Actuarial Accrued Liability	\$44,255,775	\$29,250,376
b. Actuarial Value of Plan Assets	\$6,296,011	\$7,995,632
c. Unfunded Actuarial Accrued Liability (a. - b.)	\$37,959,764	\$21,254,744
3. Amortization of Unfunded Actuarial Accrued Liability		
a. Unfunded Actuarial Accrued Liability	\$37,959,764	\$21,254,744
b. Amortization Period in years	30	30
c. Payroll Growth Rate	3.5%	3.5%
d. Amortization Factor	26.78	20.44
e. Amortization Amount (3.a. / 3.d.)	\$1,417,467	\$1,039,860
4. Interest on 1. and 3.e.	\$139,263	\$136,044
5. Actuarially Determined Employer Contribution (1. + 3.e. + 4.)	\$3,355,491	\$2,229,028
6. Actual Employer Contribution to OPEB Trust	\$1,023,714	TBD
7. Expected Benefit Payments	\$1,243,171	
8. Total Contribution (6. + 7.)	\$2,266,885	

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.1 - Plan Description

Plan Administration

The Martha's Vineyard Regional School District 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 ¹	134
Inactive plan members entitled to but not yet receiving benefit payments	0
Active plan members	221
	<u>355</u>

¹Per 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 District provides health care benefits for retirees and their dependents. Benefits are provided through the Cape Cod Municipal Health Group and the Group Insurance Commission (GIC), and the full cost of benefits is shared between the District and retirees.

Employer Future Period Contributions

The District does not have a formal funding policy, but has contributed an average of approximately \$900,000 to the OPEB trust over the last several years.

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	\$	29,250,376
Fiduciary net position		(7,995,632)
Net OPEB liability	\$	21,254,744

Fiduciary net position as a percentage of the total OPEB liability 27.34%

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 - General employees	RP-2014 Blue Collar Mortality Table, projected with generational mortality improvement using scale MP-2020.
Healthy Retiree Mortality - General employees	RP-2014 Blue Collar Mortality Table, projected with generational mortality improvement using scale MP-2020.
Disabled Retiree Mortality - General employees	RP-2014 Blue Collar Mortality Table set forward one year with full generational mortality improvement using Scale MP-2020.
Pre-Retirement Mortality - Teachers	PUB-2010 Teachers Headcount-Weighted Employee Mortality Table, base year 2010, projected with generational mortality improvement using Scale MP-2020.
Healthy Retiree Mortality - Teachers	PUB-2010 Teachers Headcount-Weighted Retiree Mortality Table, base year 2010, projected with generational mortality improvement using Scale MP-2020.
Disabled Retiree Mortality - Teachers	PUB-2010 Teachers Headcount-Weighted Disabled Mortality Table, base year 2010, projected with 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 ¹	Long-Term Expected Real Rates of Return ²
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%	

¹ provided in the Dukes County Pooled OPEB Trust's investment policy statement.

² 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 District 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	\$ 33,216,984	\$ 29,250,376	\$ 25,991,498
Fiduciary Net Position	(7,995,632)	(7,995,632)	(7,995,632)
Net OPEB Liability	\$ 25,221,352	\$ 21,254,744	\$ 17,995,866
% Change in Net OPEB Liability	18.7%		-15.3%

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	\$ 25,536,957	\$ 29,250,376	\$ 33,837,337
Fiduciary Net Position	(7,995,632)	(7,995,632)	(7,995,632)
Net OPEB Liability	\$ 17,541,325	\$ 21,254,744	\$ 25,841,705
% Change in Net OPEB Liability	-17.5%		21.6%

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
Total OPEB Liability					
Service cost	\$ 1,798,761	\$ 3,004,055	\$ 3,147,372	\$ 2,214,229	\$ 1,804,094
Interest	1,967,247	1,422,415	1,331,270	1,584,599	1,409,617
Changes of benefit terms	(69,104)	-	-	(1,423,089)	-
Differences between expected and actual experience	(8,442,594)	-	2,697,295	-	(2,099,980)
Changes of assumptions	(9,016,538)	(17,302,560)	(3,138,323)	11,780,889	8,262,365
Benefit payments	(1,243,171)	(1,302,079)	(1,180,698)	(1,009,261)	(942,186)
Net change in total OPEB liability	\$ (15,005,399)	\$ (14,178,169)	\$ 2,856,916	\$ 13,147,367	\$ 8,433,910
Total OPEB liability—beginning	\$ 44,255,775	\$ 58,433,944	\$ 55,577,028	\$ 42,429,661	\$ 33,995,751
Total OPEB liability—ending (a)	\$ 29,250,376	\$ 44,255,775	\$ 58,433,944	\$ 55,577,028	\$ 42,429,661
Plan Fiduciary Net Position					
Contributions—employer	\$ 2,266,885	\$ 2,289,793	\$ 2,139,012	\$ 2,100,575	\$ 1,780,969
Net investment income	675,907	(726,765)	1,217,245	125,684	121,356
Benefit payments	(1,243,171)	(1,302,079)	(1,180,698)	(1,009,261)	(942,186)
Administrative expenses	-	-	-	-	-
Other	-	-	-	-	-
Net change in plan fiduciary net position	\$ 1,699,621	\$ 260,949	\$ 2,175,559	\$ 1,216,998	\$ 960,139
Plan fiduciary net position—beginning	\$ 6,296,011	\$ 6,035,062	\$ 3,859,503	\$ 2,642,505	\$ 1,682,366
Plan fiduciary net position—ending (b)	\$ 7,995,632	\$ 6,296,011	\$ 6,035,062	\$ 3,859,503	\$ 2,642,505
Net OPEB liability—ending (a) – (b)	\$ 21,254,744	\$ 37,959,764	\$ 52,398,882	\$ 51,717,525	\$ 39,787,156
Plan fiduciary net position as a percentage of the total OPEB liability	27.34%	14.23%	10.33%	6.94%	6.23%
Covered payroll	\$ 17,587,350	\$ 17,138,223	\$ 16,138,874	\$ 15,324,689	\$ 14,974,590
Net OPEB liability as a percentage of covered payroll	120.85%	221.49%	324.67%	337.48%	265.70%
Discount Rate	6.50%	4.33%	2.34%	2.29%	3.59%

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

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

Fiscal Year Ended June 30	2018	2017			
Total OPEB Liability					
Service cost	\$ 1,913,080	\$ 2,253,080			
Interest	1,281,217	1,093,838			
Changes of benefit terms	(34,086)	-			
Differences between expected and actual experience	-	-			
Changes of assumptions	(2,114,840)	(4,596,293)			
Benefit payments	(863,534)	(804,370)			
Net change in total OPEB liability	\$ 181,837	\$ (2,053,745)			
Total OPEB liability—beginning	\$ 33,813,914	\$ 35,867,659			
Total OPEB liability—ending (a)	\$ 33,995,751	\$ 33,813,914			
Plan Fiduciary Net Position					
Contributions—employer	\$ 1,352,317	\$ 1,004,370			
Net investment income	66,859	44,749			
Benefit payments	(863,534)	(804,370)			
Administrative expenses	-	-			
Other	-	-			
Net change in plan fiduciary net position	\$ 555,642	\$ 244,749			
Plan fiduciary net position—beginning	\$ 1,126,724	\$ 881,975			
Plan fiduciary net position—ending (b)	\$ 1,682,366	\$ 1,126,724			
Net OPEB liability—ending (a) – (b)	\$ 32,313,385	\$ 32,687,190			
Plan fiduciary net position as a percentage of the total OPEB liability	4.95%	3.33%			
Covered payroll	\$ 14,798,028	\$ 14,217,121			
Net OPEB liability as a percentage of covered payroll	218.36%	229.91%			
Discount Rate	3.99%	3.63%			

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

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

Notes to Schedule

Changes of Benefit Terms

Effective July 1, 2023, the UniCare State Indemnity Plan Basic plans with CIC is no longer offered to retired teachers and will be replaced by the UniCare State Indemnity Total Choice plan for teachers who live in New England and the Harvard Pilgrim Health Care Access America plan for teachers who live outside of New England. Additionally, the AllWays Health Partners Complete HMO plan will be replaced by the Mass General Brigham Complete HMO plan for teachers who live in Massachusetts and the Harvard Pilgrim Independence Plan will be replaced by the Harvard Pilgrim Health Care Explorer POS for teachers who live in New England. All other benefit terms are the same as those used in the prior measurement.

Changes of Assumptions

The discount rate changed from 4.33% 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	10.74%	-11.25%	30.10%	3.78%	4.95%	4.36%	4.20%			

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 _{mw}) ^(c)
Beginning value - July 1, 2022	\$ 6,296,011	12	1.00	\$ 6,971,918
Monthly net external cash flows:				
July	-	11	0.92	-
August	-	10	0.83	-
September	-	9	0.75	-
October	-	8	0.67	-
November	-	7	0.58	-
December	-	6	0.50	-
January	-	5	0.42	-
February	-	4	0.33	-
March	-	3	0.25	-
April	-	2	0.17	-
May	-	1	0.08	-
June	1,023,714	0	0.00	1,023,714
Ending value - June 30, 2023				\$ 7,995,632
Money-weighted rate of return:				10.74%

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	\$ 3,355,491	\$ 4,585,340	\$ 4,698,806	\$ 3,684,726	\$ 3,074,461
Contributions in relation to the actuarially determined contribution	<u>2,266,885</u>	<u>2,289,793</u>	<u>2,139,012</u>	<u>2,100,575</u>	<u>1,780,969</u>
Contribution deficiency (excess)	<u>\$ 1,088,606</u>	<u>\$ 2,295,547</u>	<u>\$ 2,559,794</u>	<u>\$ 1,584,151</u>	<u>\$ 1,293,492</u>
Covered payroll	\$ 17,587,350	\$ 17,138,223	\$ 16,138,874	\$ 15,324,689	\$ 14,974,590
Contributions as a percentage of covered payroll	12.89%	13.36%	13.25%	13.71%	11.89%
Discount rate	4.33%	2.34%	2.29%	3.59%	3.99%
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	\$ 3,054,140	\$ 2,332,089			
Contributions in relation to the actuarially determined contribution	1,352,317	1,004,370			
Contribution deficiency (excess)	\$ 1,701,823	\$ 1,327,719			
Covered payroll	\$ 14,798,028	\$ 14,217,121			
Contributions as a percentage of covered payroll	9.14%	7.06%			
Discount rate	3.63%	4.80%			
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	-	2,099,980	(1,630,420)	-	469,560
2020	-	-	-	-	-
2021	2,697,295	-	1,322,202	1,375,093	-
2022	-	-	-	-	-
2023	-	8,442,594	(1,366,116)	-	7,076,478
Total				<u>\$ 1,375,093</u>	<u>\$ 7,546,038</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	\$ -	\$ 2,114,840	\$ (1,964,250)	\$ -	\$ 150,590
2019	8,262,365	-	6,414,880	1,847,485	-
2020	11,780,889	-	7,317,324	4,463,565	-
2021	-	3,138,323	(1,538,394)	-	1,599,929
2022	-	17,302,560	(5,654,432)	-	11,648,128
2023	-	9,016,538	(1,458,987)	-	7,557,551
Total				<u>\$ 6,311,050</u>	<u>\$ 20,956,198</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	\$ 35,975	\$ -	\$ 35,975	\$ -	\$ -	
2019	62,312	-	62,312	-	-	
2020	123,218	-	98,574	24,644	-	
2021	-	933,380	(560,028)	-	373,352	
2022	1,151,736	-	460,694	691,042	-	
2023	-	260,370	(52,074)	-	208,296	
Subtotal				<u>\$ 715,686</u>	<u>\$ 581,648</u>	
Net				<u>\$ 134,038</u>	<u>\$ -</u>	

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	\$	(3,072,509)
2025	\$	(3,482,422)
2026	\$	(4,741,206)
2027	\$	(5,713,037)
2028	\$	(3,164,367)
Thereafter		(508,514)
Deferred Outflows	\$	7,820,181
Deferred Inflows	\$	28,502,236

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	\$ 1,798,761
2. Interest on the total OPEB liability	
a. Total OPEB liability, beginning of year	44,255,775
b. Service cost, beginning of year	1,798,761
c. Benefit payments	(1,243,171)
d. Interest on total OPEB liability = 4.33% times (a. + b. + .5 times c.)	1,967,247
3. Differences between expected and actual experience	(1,251,466)
4. Changes of benefit terms	(69,104)
5. Changes of assumptions	(2,014,069)
6. Projected earnings on OPEB plan investments	
a. Plan fiduciary net position, beginning of year	6,296,011
b. Contributions - Employer	2,266,885
c. Benefit payments	(1,243,171)
d. Administrative expenses and other	-
e. Total projected earnings	(415,537)
7. Differences between projected and actual earnings on OPEB plan investments	28,703
8. OPEB plan administrative expenses	-
9. Other changes in fiduciary net position	-
10. Total OPEB Expense	\$ 44,535

SECTION 5 - SUMMARY OF PLAN PROVISIONS

Eligibility for Postemployment Benefits Employees of the District and their dependents are eligible for postemployment medical and life insurance based on the eligibility requirements under the Dukes County and Massachusetts Teachers Retirement Systems.

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.

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:

Non-Medicare Plans - July 1, 2023	Individual	Family
<u>Cape Cod Municipal Health Group Plans:</u>		
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
<u>GIC Plans</u>		
UniCare Total Choice	\$1,348.43	\$2,983.18
Harvard Pilgrim Access America	\$1,180.40	\$2,629.04
Mass General Brigham Health Plan	\$892.50	\$2,352.42
Harvard Pilgrim Health Care Explorer POS	\$976.42	\$2,412.86

SECTION 5 - SUMMARY OF PLAN PROVISIONS

Medical Premiums (continued)

Medicare Plans - January 1, 2023

Cape Cod Municipal Health Group Plans:

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
Preferred HMO	\$371.00

GIC Plans

Unicare Medicare Extension	\$425.11
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Participant Contributions

Retired employees contribute 25% of the total medical premium and retired teachers contribute 15% of the total medical premium.

Continuation of Coverage to Spouse After Death of Retiree

Surviving spouse may continue coverage for lifetime by paying the required medical premium.

Dental Coverage

Dental coverage is not offered to retirees.

Life Insurance Coverage

Retirees are eligible for a \$2,000 life insurance benefit. The total monthly cost for retired employees is \$1.18 and the total monthly cost for retired teachers is \$3.92. Retired employees contribute \$0.30 toward the monthly premiums and retired teachers contribute \$0.76 toward the monthly premiums.

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Valuation Date	July 1, 2022
Disclosure Date	June 30, 2023
GASB 75 Reporting Date	June 30, 2023
Long-Term Expected Rate of Return	<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>
Municipal Bond Rate	3.65%, based on the Bond Buyer 20-Bond GO Index published on June 30, 2023.
Discount Rate (GASB)	<p>6.5%, compounded annually, for the measurement as of June 30, 2023. 4.33%, 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>
Discount Rate (ADEC)	4.33%, compounded annually, for development of the Actuarially Determined Contribution (ADEC) as of June 30, 2023.
Amortization Method	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

Dental coverage is not offered to retirees.

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 offered to retired employees.

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	Non-Teachers			
	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

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Medical Per Capita Costs (continued)

Age	<u>Teachers</u>			
	<u>Medicare-Eligible</u>		<u>Medicare-Ineligible</u>	
	Male	Female	Male	Female
Under 20	\$5,221	\$6,130	\$5,221	\$6,130
20-24	4,114	6,526	4,114	6,526
25-29	4,281	9,628	4,281	9,628
30-34	5,378	12,165	5,378	12,165
35-39	6,746	12,531	6,746	12,531
40-44	8,406	12,833	8,406	12,833
45-49	10,609	14,086	10,609	14,086
50-54	13,982	16,572	13,982	16,572
55-59	18,169	19,161	18,169	19,161
60-64	23,317	22,806	23,317	22,806
65-69	3,837	3,736	29,092	27,337
70-74	4,598	4,408	34,856	32,235
75-79	5,429	5,114	41,173	37,435
80-84	6,241	5,865	47,324	42,917
85-89	6,952	6,556	54,163	48,994
90-94	7,568	6,997	54,163	48,994
95+	8,044	6,767	54,163	48,994

Retiree Contributions

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

Plan	<u>Non-Teachers</u>		<u>Teachers</u>	
	25%		15%	
Non-Medicare	\$	3,985	\$	2,391
Medicare		1,097		658

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 District as of May 31, 2023. Although we obtained additional or corrected data from the District, the data required several enhancements before our analysis could be performed. Judgmental adjustments were applied to the enhanced data that allowed us to perform the analysis.

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

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 Employees

Pre-Retirement Mortality Pre-retirement mortality rates for General 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 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 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 employees are as follows:

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

Disability Rates Disability rates for General employees are as follows:

General Employees	
Age	Rate
25	0.02%
30	0.03%
35	0.06%
40	0.10%
45	0.15%
50	0.19%
55	0.24%
60	0.28%

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

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

General Employees

Retirement Rates

Retirement rates for General employees are as follows:

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

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Teachers

Pre-Retirement Mortality Pre-retirement mortality rates for Teachers are based on the PUB-2010 Teachers Headcount-Weighted Employee Mortality Table, base year 2010, projected with generational mortality improvement using Scale MP-2020.

Healthy Retiree Mortality Healthy retiree mortality rates for Teachers are based on the PUB-2010 Teachers Headcount-Weighted Retiree Mortality Table, base year 2010, projected with generational mortality improvement using Scale MP-2020.

Disabled Retiree Mortality Disabled retiree mortality rates for Teachers are based on the PUB-2010 Teachers Headcount-Weighted Disabled Mortality Table, base year 2010, projected with generational mortality improvement using Scale MP-2020.

Turnover Rates

Turnover rates for Teachers are as follows:

Service						
0			5		10+	
Age	Male	Female	Male	Female	Male	Female
20	13.0%	10.0%	5.5%	7.0%	1.5%	5.0%
30	15.0%	15.0%	5.4%	8.8%	1.5%	4.5%
40	13.3%	10.5%	5.2%	5.0%	1.7%	2.2%
50	16.2%	9.8%	7.0%	5.0%	2.3%	2.0%

Disability Rates

Disability rates for Teachers are as follows:

Age	Rate
20	0.004%
30	0.006%
40	0.010%
50	0.050%
60	0.070%

35% of the disabilities are job-related.

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Teachers

Retirement Rates

Retirement rates for Teachers are as follows:

Age	Years of Service					
	Less than 20		20-29		30+	
	Male	Female	Male	Female	Male	Female
50	0.0%	0.0%	1.0%	1.0%	2.0%	1.5%
51	0.0%	0.0%	1.0%	1.0%	2.0%	1.5%
52	0.0%	0.0%	1.0%	1.0%	2.0%	1.5%
53	0.0%	0.0%	1.5%	1.0%	2.0%	1.5%
54	0.0%	0.0%	2.5%	1.0%	2.0%	2.0%
55	5.0%	3.0%	3.0%	3.0%	6.0%	5.0%
56	5.0%	3.0%	6.0%	5.0%	20.0%	15.0%
57	5.0%	4.0%	10.0%	8.0%	40.0%	35.0%
58	5.0%	8.0%	15.0%	10.0%	50.0%	35.0%
59	10.0%	8.0%	20.0%	15.0%	50.0%	35.0%
60	10.0%	10.0%	25.0%	20.0%	40.0%	35.0%
61	20.0%	12.0%	30.0%	25.0%	40.0%	35.0%
62	20.0%	12.0%	35.0%	30.0%	35.0%	35.0%
63	25.0%	15.0%	40.0%	30.0%	35.0%	35.0%
64	25.0%	20.0%	40.0%	30.0%	35.0%	35.0%
65	25.0%	25.0%	40.0%	40.0%	35.0%	35.0%
66	30.0%	25.0%	30.0%	30.0%	40.0%	35.0%
67	30.0%	30.0%	30.0%	30.0%	40.0%	30.0%
68	30.0%	30.0%	30.0%	30.0%	40.0%	30.0%
69	30.0%	30.0%	30.0%	30.0%	40.0%	30.0%
70	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

SECTION 7 - PLAN MEMBER INFORMATION

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

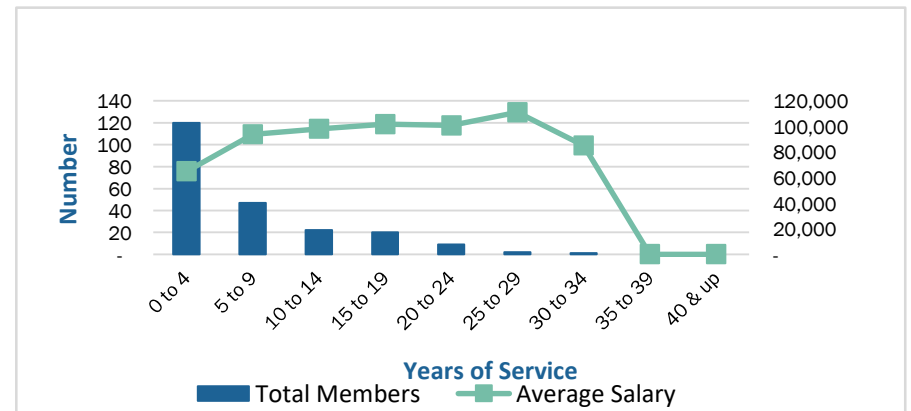
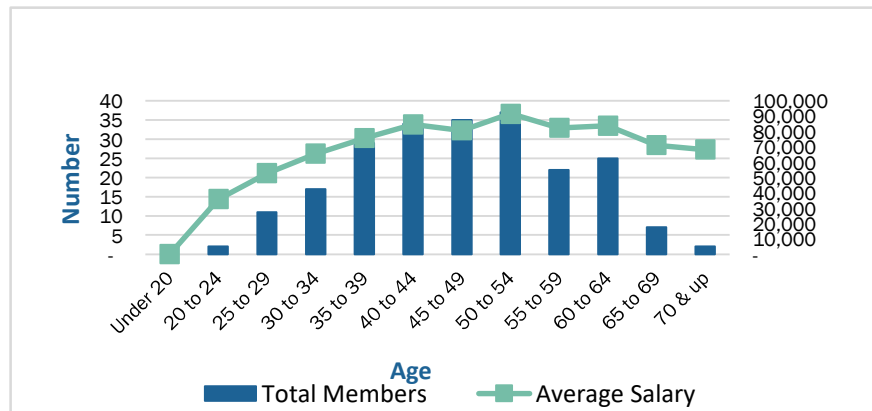
Age	Years of Service									Total	Total Salary	Average Salary
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up			
Under 20	-	-	-	-	-	-	-	-	-	-	-	-
20 to 24	2	-	-	-	-	-	-	-	-	2	71,915	35,958
25 to 29	11	-	-	-	-	-	-	-	-	11	580,323	52,757
30 to 34	15	1	1	-	-	-	-	-	-	17	1,113,320	65,489
35 to 39	16	9	3	1	-	-	-	-	-	29	2,194,177	75,661
40 to 44	25	6	1	2	-	-	-	-	-	34	2,876,611	84,606
45 to 49	14	11	5	5	-	-	-	-	-	35	2,821,501	80,614
50 to 54	18	4	3	3	6	2	1	-	-	37	3,389,222	91,601
55 to 59	8	6	2	5	1	-	-	-	-	22	1,811,071	82,321
60 to 64	8	9	4	3	1	-	-	-	-	25	2,094,782	83,791
65 to 69	2	1	2	1	1	-	-	-	-	7	498,024	71,146
70 & up	1	-	1	-	-	-	-	-	-	2	136,404	68,202
Total	120	47	22	20	9	2	1	-	-	221	17,587,350	79,581
Total Salary	7,767,821	4,412,055	2,155,710	2,036,248	908,301	222,240	84,975	-	-			
Average Salary	64,732	93,874	97,987	101,812	100,922	111,120	84,975	-	-			

Average Age:

47.5

Average Service:

6.6



SECTION 7 - PLAN MEMBER INFORMATION

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

Non-Medicare Plans											
Cape Cod Municipal Health Group							GIC				
Age	Blue Care Elect Preferred PPO	Network Blue NE HMO	Harvard Pilgrim PPO	Harvard Pilgrim HMO	Blue Care Elect Preferred PPO ("Saver")	UniCare Total Choice	Harvard Pilgrim Access America	Mass General Brigham Health Plan	Harvard Pilgrim Health Care Explorer POS	Total	
Under 40	0	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	0	0	0	0
45 to 49	0	0	0	0	0	0	0	0	0	0	0
50 to 54	0	0	0	0	0	1	0	0	0	0	1
55 to 59	2	0	1	0	0	3	0	0	0	0	6
60 to 64	1	0	2	0	0	5	1	1	1	1	11
65 to 69	0	0	0	0	0	1	0	0	0	0	1
70 to 74	0	0	0	0	0	2	0	0	0	0	2
75 to 79	0	0	0	0	0	2	0	0	0	0	2
80 to 84	0	0	0	0	0	0	0	0	0	0	0
85 to 89	0	0	0	0	0	0	0	0	0	0	0
90+	0	0	0	0	0	0	0	0	0	0	0
Total	3	0	3	0	0	14	1	1	1	1	23
Covered Spouses	4	0	1	0	0	2	0	0	0	0	7

Average Age: 71.5

In addition, there are 11 retirees that are not covered under any medical plan but are covered under a life insurance policy which the District contributes to.

SECTION 7 - PLAN MEMBER INFORMATION

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

Medicare Plans				
Cape Cod Municipal Health Group		GIC		
Age	BCBS Medex	HPHC Medicare Enhance	Unicare Medicare Extension	Total
Under 40	0	0	0	0
40 to 44	0	0	0	0
45 to 49	0	0	0	0
50 to 54	0	0	0	0
55 to 59	0	0	0	0
60 to 64	2	0	0	2
65 to 69	7	0	18	25
70 to 74	9	0	24	33
75 to 79	6	1	20	27
80 to 84	4	1	5	10
85 to 89	0	0	3	3
90+	0	0	0	0
Total	28	2	70	100
Covered Spouses	13	1	23	37

SECTION 8 - GLOSSARY OF TERMS

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

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

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	Non-Teacher Personnel	Teachers	Total
Summary of Member Data Used in Valuation			
Active Members	96	125	221
Average Age	48.5	46.7	47.5
Average Service	4.7	8.1	6.6
Covered Payroll	5,038,033	12,549,317	17,587,350
Retired Members and Survivors	39	95	134
Average Age	70.8	71.7	71.5
Covered Spouses	19	25	44
Expected Benefit Payments	384,404	858,767	1,243,171
OPEB Trust contributions	252,635	771,079	1,023,714
Total Employer Contributions	637,039	1,629,846	2,266,885
Beginning Net OPEB Liability - June 30, 2022			
Total OPEB Liability	10,921,565	33,334,210	44,255,775
Fiduciary Net Position	1,634,343	4,661,668	6,296,011
Net OPEB Liability	9,287,222	28,672,542	37,959,764
Total OPEB Liability, beginning of year	10,921,565	33,334,210	44,255,775
Service cost	639,239	1,159,522	1,798,761
Interest	492,260	1,474,987	1,967,247
Changes of benefit terms	0	(69,104)	(69,104)
Differences between expected and actual experience	(2,299,675)	(6,142,919)	(8,442,594)
Changes of assumptions	(2,314,200)	(6,702,338)	(9,016,538)
Benefit payments	(384,404)	(858,767)	(1,243,171)
Net change in total OPEB liability	(3,866,780)	(11,138,619)	(15,005,399)
Total OPEB Liability, end of year	7,054,785	22,195,591	29,250,376
Ending Net OPEB Liability - June 30, 2023			
Total OPEB Liability	7,054,785	22,195,591	29,250,376
Fiduciary Net Position	2,062,433	5,933,199	7,995,632
Net OPEB Liability	4,992,352	16,262,392	21,254,744

SECTION 9 - BREAKOUT OF RESULTS BY DEPARTMENT

Department	Non-Teacher Personnel	Teachers	Total
Total Deferred Outflows of Resources			
Differences between Expected and Actual Experience	339,349	1,035,744	1,375,093
Changes in Assumptions	1,557,459	4,753,591	6,311,050
Differences between Expected and Actual Earnings on OPEB Plan Investments	34,794	99,244	134,038
Total Deferred Outflows of Resources	1,931,602	5,888,579	7,820,181
Total Deferred Inflows of Resources			
Differences between Expected and Actual Experience	1,862,233	5,683,805	7,546,038
Changes in Assumptions	5,171,630	15,784,568	20,956,198
Differences between Expected and Actual Earnings on OPEB Plan Investments	0	0	0
Total Deferred Inflows of Resources	7,033,862	21,468,374	28,502,236
Total OPEB Expense (Income)	(67,606)	112,141	44,535
Sensitivity of the Net OPEB Liability to Changes in the Discount Rate			
Current Discount Rate: 6.5%	4,992,352	16,262,392	21,254,744
1% Decrease in the Discount Rate: 5.5%	5,949,043	19,272,309	25,221,352
1% Increase in the Discount Rate: 7.5%	4,206,356	13,789,510	17,995,866
Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates			
Current Trend Rates	4,992,352	16,262,392	21,254,744
1% Decrease in Trend Rates	4,096,727	13,444,598	17,541,325
1% Increase in Trend Rates	6,098,663	19,743,042	25,841,705
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in OPEB Expense			
2024	(757,988)	(2,314,521)	(3,072,509)
2025	(859,113)	(2,623,309)	(3,482,422)
2026	(1,169,655)	(3,571,551)	(4,741,206)
2027	(1,409,405)	(4,303,632)	(5,713,037)
2028	(780,649)	(2,383,718)	(3,164,367)
Thereafter	(125,450)	(383,064)	(508,514)

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.

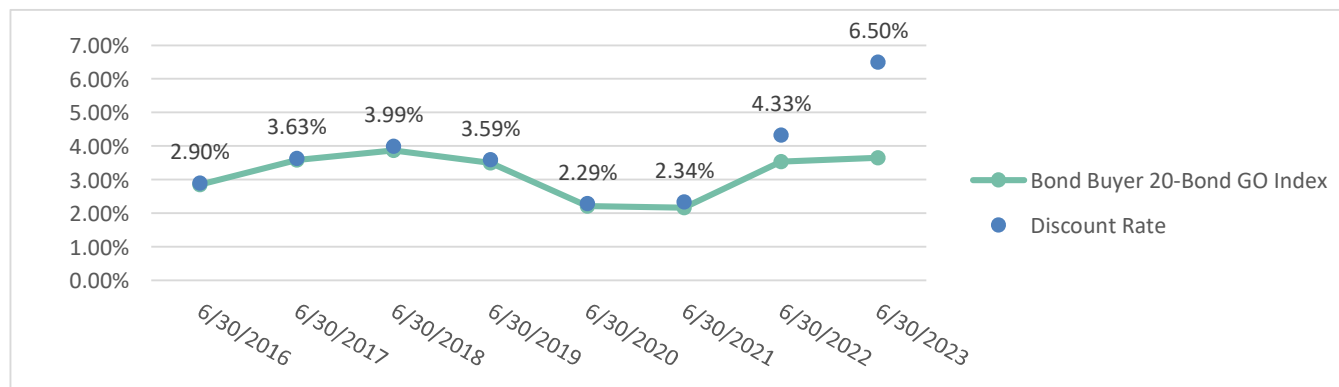
Projected cash flows into and out of the OPEB plan are assumed to be contributions to the OPEB plan, benefit payments, OPEB plan administrative expenses and OPEB plan investment earnings. These projected cash flows are used to project the OPEB plan's fiduciary net position at the beginning of each period. 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 District'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) * 5.53%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2023	18,387,916	-	18,387,916	1,243,171	1,023,714	-	2,266,885
2024	17,040,113	1,991,380	19,031,493	1,312,484	900,000	110,195	2,102,289
2025	16,095,538	3,602,057	19,697,595	1,470,547	900,000	199,323	2,171,224
2026	15,279,652	5,107,359	20,387,011	1,594,893	900,000	282,620	2,212,273
2027	14,499,234	6,601,322	21,100,556	1,625,125	900,000	365,290	2,159,835
2028	13,723,629	8,115,446	21,839,075	1,725,321	900,000	449,075	2,176,246
2029	12,967,178	9,636,265	22,603,443	1,918,694	900,000	533,231	2,285,463
2030	12,162,496	11,232,068	23,394,564	1,986,721	900,000	621,536	2,265,185
2031	11,551,217	12,662,157	24,213,374	2,111,987	900,000	700,671	2,311,316
2032	10,944,982	14,115,860	25,060,842	2,291,567	900,000	781,113	2,410,454
2033	10,367,613	15,570,358	25,937,971	2,427,047	900,000	861,599	2,465,448
2034	9,658,312	17,187,488	26,845,800	2,519,344	900,000	951,084	2,468,260
2035	9,081,529	18,703,874	27,785,403	2,636,373	900,000	1,034,995	2,501,378
2036	8,457,962	20,299,930	28,757,892	2,662,384	900,000	1,123,314	2,439,070
2037	7,840,036	21,924,382	29,764,418	2,721,177	900,000	1,213,204	2,407,973
2038	7,286,767	23,519,406	30,806,173	2,725,926	900,000	1,301,466	2,324,460
2039	6,729,078	25,155,311	31,884,389	2,793,150	900,000	1,391,991	2,301,159
2040	6,210,051	26,790,292	33,000,343	2,869,880	900,000	1,482,464	2,287,416
2041	5,672,790	28,482,565	34,155,355	2,962,702	900,000	1,576,107	2,286,595
2042	5,147,413	30,203,379	35,350,792	3,059,081	900,000	1,671,330	2,287,751
2043	4,614,207	31,973,863	36,588,070	3,120,476	900,000	1,769,301	2,251,175
2044	4,018,921	33,849,731	37,868,652	3,199,394	900,000	1,873,104	2,226,290
2045	3,529,159	35,664,896	39,194,055	3,227,717	900,000	1,973,547	2,154,170
2046	3,038,512	37,527,335	40,565,847	3,287,022	900,000	2,076,607	2,110,415
2047	2,591,962	39,393,690	41,985,652	3,256,796	900,000	2,179,883	1,976,913
2048	2,266,330	41,188,820	43,455,150	3,294,095	900,000	2,279,218	1,914,877
2049	1,902,488	43,073,592	44,976,080	3,332,774	900,000	2,383,514	1,849,260
2050	1,641,260	44,908,983	46,550,243	3,253,374	900,000	2,485,077	1,668,297
2051	1,453,605	46,725,897	48,179,502	3,183,548	900,000	2,585,617	1,497,931
2052	1,222,901	48,642,884	49,865,785	3,193,173	900,000	2,691,695	1,401,478
2053	1,029,844	50,581,243	51,611,087	3,195,701	900,000	2,798,956	1,296,745
2054	841,868	52,575,607	53,417,475	3,165,817	900,000	2,909,316	1,156,501
2055	712,994	54,574,093	55,287,087	3,115,370	900,000	3,019,904	995,466
2056	587,195	56,634,940	57,222,135	3,077,363	900,000	3,133,943	843,420

APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

Table 1: Projection of Contributions

Projected Payroll				Projected Contributions			
Year	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) * 5.53%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2057	470,243	58,754,667	59,224,910	3,087,782	900,000	3,251,240	736,542
2058	368,697	60,929,085	61,297,782	3,095,406	900,000	3,371,563	623,843
2059	299,813	63,143,391	63,443,204	3,082,720	900,000	3,494,093	488,627
2060	245,314	65,418,402	65,663,716	3,073,612	900,000	3,619,983	353,629
2061	189,444	67,772,502	67,961,946	3,044,695	900,000	3,750,249	194,446
2062	140,857	70,199,757	70,340,614	3,017,878	900,000	3,884,563	33,315
2063	114,699	72,687,836	72,802,535	2,969,864	900,000	4,022,243	-
2064	91,918	75,258,706	75,350,624	2,921,490	900,000	4,164,505	-
2065	70,198	77,917,698	77,987,896	2,880,459	900,000	4,311,642	-
2066	49,240	80,668,232	80,717,472	2,836,563	900,000	4,463,845	-
2067	29,191	83,513,393	83,542,584	2,779,478	900,000	4,621,285	-
2068	16,347	86,450,227	86,466,574	2,711,245	900,000	4,783,797	-
2069	8,687	89,484,217	89,492,904	2,623,675	900,000	4,951,685	-
2070	4,298	92,620,858	92,625,156	2,542,287	900,000	5,125,254	-
2071	-	95,867,036	95,867,036	2,452,206	900,000	5,304,884	-
2072	-	99,222,382	99,222,382	2,350,084	900,000	5,490,555	-
2073	-	102,695,165	102,695,165	2,238,188	900,000	5,682,724	-
2074	-	106,289,496	106,289,496	2,118,553	900,000	5,881,620	-
2075	-	110,009,628	110,009,628	2,004,438	900,000	6,087,477	-
2076	-	113,859,965	113,859,965	1,885,899	900,000	6,300,538	-
2077	-	117,845,064	117,845,064	1,757,151	900,000	6,521,057	-
2078	-	121,969,641	121,969,641	1,630,937	900,000	6,749,294	-
2079	-	126,238,578	126,238,578	1,500,473	900,000	6,985,519	-
2080	-	130,656,928	130,656,928	1,377,763	900,000	7,230,012	-
2081	-	135,229,920	135,229,920	1,255,277	900,000	7,483,063	-
2082	-	139,962,967	139,962,967	1,133,164	900,000	7,744,970	-
2083	-	144,861,671	144,861,671	1,019,086	900,000	8,016,044	-
2084	-	149,931,829	149,931,829	907,158	900,000	8,296,606	-
2085	-	155,179,443	155,179,443	801,024	900,000	8,586,987	-
2086	-	160,610,724	160,610,724	702,108	900,000	8,887,531	-
2087	-	166,232,099	166,232,099	610,920	900,000	9,198,595	-
2088	-	172,050,222	172,050,222	527,843	900,000	9,520,546	-
2089	-	178,071,980	178,071,980	450,790	900,000	9,853,765	-
2090	-	184,304,499	184,304,499	381,940	900,000	10,198,646	-

APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

Table 1: Projection of Contributions

Projected Payroll				Projected Contributions			
Year	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) * 5.53%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2091	-	190,755,156	190,755,156	319,015	900,000	10,555,599	-
2092	-	197,431,586	197,431,586	264,092	900,000	10,925,045	-
2093	-	204,341,692	204,341,692	215,664	900,000	11,307,422	-
2094	-	211,493,651	211,493,651	174,509	900,000	11,703,181	-
2095	-	218,895,929	218,895,929	139,435	900,000	12,112,793	-
2096	-	226,557,287	226,557,287	110,243	900,000	12,536,741	-
2097	-	234,486,792	234,486,792	85,985	900,000	12,975,526	-
2098	-	242,693,830	242,693,830	66,083	900,000	13,429,670	-
2099	-	251,188,114	251,188,114	49,981	900,000	13,899,708	-
2100	-	259,979,698	259,979,698	37,152	900,000	14,386,198	-
2101	-	269,078,987	269,078,987	27,103	900,000	14,889,715	-
2102	-	278,496,752	278,496,752	19,375	900,000	15,410,855	-
2103	-	288,244,138	288,244,138	13,554	900,000	15,950,235	-
2104	-	298,332,683	298,332,683	9,266	900,000	16,508,493	-
2105	-	308,774,327	308,774,327	6,182	900,000	17,086,290	-
2106	-	319,581,428	319,581,428	4,019	900,000	17,684,311	-
2107	-	330,766,778	330,766,778	2,542	900,000	18,303,262	-
2108	-	342,343,615	342,343,615	1,564	900,000	18,943,876	-
2109	-	354,325,642	354,325,642	934	900,000	19,606,911	-
2110	-	366,727,039	366,727,039	542	900,000	20,293,153	-
2111	-	379,562,485	379,562,485	305	900,000	21,003,414	-
2112	-	392,847,172	392,847,172	168	900,000	21,738,533	-
2113	-	406,596,823	406,596,823	90	900,000	22,499,382	-
2114	-	420,827,712	420,827,712	47	900,000	23,286,860	-
2115	-	435,556,682	435,556,682	24	900,000	24,101,900	-
2116	-	450,801,166	450,801,166	12	900,000	24,945,467	-
2117	-	466,579,207	466,579,207	6	900,000	25,818,558	-
2118	-	482,909,479	482,909,479	3	900,000	26,722,208	-
2119	-	499,811,311	499,811,311	1	900,000	27,657,485	-
2120	-	517,304,707	517,304,707	-	900,000	28,625,497	-

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	6,296,011	2,266,885	1,243,171	-	675,907	7,995,632
2024	7,995,632	2,102,289	1,312,484	-	545,385	9,330,822
2025	9,330,822	2,171,224	1,470,547	-	629,275	10,660,774
2026	10,660,774	2,212,273	1,594,893	-	713,015	11,991,169
2027	11,991,169	2,159,835	1,625,125	-	796,804	13,322,683
2028	13,322,683	2,176,246	1,725,321	-	880,629	14,654,237
2029	14,654,237	2,285,463	1,918,694	-	964,445	15,985,451
2030	15,985,451	2,265,185	1,986,721	-	1,048,104	17,312,019
2031	17,312,019	2,311,316	2,111,987	-	1,131,759	18,643,107
2032	18,643,107	2,410,454	2,291,567	-	1,215,666	19,977,660
2033	19,977,660	2,465,448	2,427,047	-	1,299,796	21,315,857
2034	21,315,857	2,468,260	2,519,344	-	1,383,870	22,648,643
2035	22,648,643	2,501,378	2,636,373	-	1,467,774	23,981,422
2036	23,981,422	2,439,070	2,662,384	-	1,551,535	25,309,643
2037	25,309,643	2,407,973	2,721,177	-	1,634,948	26,631,387
2038	26,631,387	2,324,460	2,725,926	-	1,717,993	27,947,914
2039	27,947,914	2,301,159	2,793,150	-	1,800,625	29,256,548
2040	29,256,548	2,287,416	2,869,880	-	1,882,746	30,556,830
2041	30,556,830	2,286,595	2,962,702	-	1,964,220	31,844,943
2042	31,844,943	2,287,751	3,059,081	-	2,044,853	33,118,466
2043	33,118,466	2,251,175	3,120,476	-	2,124,448	34,373,613
2044	34,373,613	2,226,290	3,199,394	-	2,202,659	35,603,168
2045	35,603,168	2,154,170	3,227,717	-	2,279,316	36,808,937
2046	36,808,937	2,110,415	3,287,022	-	2,354,341	37,986,671
2047	37,986,671	1,976,913	3,256,796	-	2,427,537	39,134,325
2048	39,134,325	1,914,877	3,294,095	-	2,498,907	40,254,014
2049	40,254,014	1,849,260	3,332,774	-	2,568,297	41,338,797
2050	41,338,797	1,668,297	3,253,374	-	2,635,507	42,389,227
2051	42,389,227	1,497,931	3,183,548	-	2,700,517	43,404,127
2052	43,404,127	1,401,478	3,193,173	-	2,763,038	44,375,470
2053	44,375,470	1,296,745	3,195,701	-	2,822,689	45,299,203
2054	45,299,203	1,156,501	3,165,817	-	2,879,145	46,169,032
2055	46,169,032	995,466	3,115,370	-	2,932,090	46,981,218
2056	46,981,218	843,420	3,077,363	-	2,981,176	47,728,451

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	47,728,451	736,542	3,087,782	-	3,025,934	48,403,145
2058	48,403,145	623,843	3,095,406	-	3,065,879	48,997,461
2059	48,997,461	488,627	3,082,720	-	3,100,527	49,503,895
2060	49,503,895	353,629	3,073,612	-	3,129,354	49,913,266
2061	49,913,266	194,446	3,044,695	-	3,151,729	50,214,746
2062	50,214,746	33,315	3,017,878	-	3,166,960	50,397,143
2063	50,397,143	-	2,969,864	-	3,179,294	50,606,573
2064	50,606,573	-	2,921,490	-	3,194,479	50,879,562
2065	50,879,562	-	2,880,459	-	3,213,557	51,212,660
2066	51,212,660	-	2,836,563	-	3,236,635	51,612,732
2067	51,612,732	-	2,779,478	-	3,264,495	52,097,749
2068	52,097,749	-	2,711,245	-	3,298,238	52,684,742
2069	52,684,742	-	2,623,675	-	3,339,239	53,400,306
2070	53,400,306	-	2,542,287	-	3,388,396	54,246,415
2071	54,246,415	-	2,452,206	-	3,446,320	55,240,529
2072	55,240,529	-	2,350,084	-	3,514,257	56,404,702
2073	56,404,702	-	2,238,188	-	3,593,565	57,760,079
2074	57,760,079	-	2,118,553	-	3,685,552	59,327,078
2075	59,327,078	-	2,004,438	-	3,791,116	61,113,756
2076	61,113,756	-	1,885,899	-	3,911,102	63,138,959
2077	63,138,959	-	1,757,151	-	4,046,925	65,428,733
2078	65,428,733	-	1,630,937	-	4,199,862	67,997,658
2079	67,997,658	-	1,500,473	-	4,371,082	70,868,267
2080	70,868,267	-	1,377,763	-	4,561,660	74,052,164
2081	74,052,164	-	1,255,277	-	4,772,594	77,569,481
2082	77,569,481	-	1,133,164	-	5,005,188	81,441,505
2083	81,441,505	-	1,019,086	-	5,260,578	85,682,997
2084	85,682,997	-	907,158	-	5,539,912	90,315,751
2085	90,315,751	-	801,024	-	5,844,491	95,359,218
2086	95,359,218	-	702,108	-	6,175,531	100,832,641
2087	100,832,641	-	610,920	-	6,534,267	106,755,988
2088	106,755,988	-	527,843	-	6,921,984	113,150,129
2089	113,150,129	-	450,790	-	7,340,108	120,039,447
2090	120,039,447	-	381,940	-	7,790,151	127,447,658

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	127,447,658	-	319,015	-	8,273,730	135,402,373
2092	135,402,373	-	264,092	-	8,792,571	143,930,852
2093	143,930,852	-	215,664	-	9,348,496	153,063,684
2094	153,063,684	-	174,509	-	9,943,468	162,832,643
2095	162,832,643	-	139,435	-	10,579,590	173,272,798
2096	173,272,798	-	110,243	-	11,259,149	184,421,704
2097	184,421,704	-	85,985	-	11,984,616	196,320,335
2098	196,320,335	-	66,083	-	12,758,674	209,012,926
2099	209,012,926	-	49,981	-	13,584,216	222,547,161
2100	222,547,161	-	37,152	-	14,464,358	236,974,367
2101	236,974,367	-	27,103	-	15,402,453	252,349,717
2102	252,349,717	-	19,375	-	16,402,102	268,732,444
2103	268,732,444	-	13,554	-	17,467,168	286,186,058
2104	286,186,058	-	9,266	-	18,601,793	304,778,585
2105	304,778,585	-	6,182	-	19,810,407	324,582,810
2106	324,582,810	-	4,019	-	21,097,752	345,676,543
2107	345,676,543	-	2,542	-	22,468,893	368,142,894
2108	368,142,894	-	1,564	-	23,929,237	392,070,567
2109	392,070,567	-	934	-	25,484,557	417,554,190
2110	417,554,190	-	542	-	27,141,005	444,694,653
2111	444,694,653	-	305	-	28,905,143	473,599,491
2112	473,599,491	-	168	-	30,783,961	504,383,284
2113	504,383,284	-	90	-	32,784,911	537,168,105
2114	537,168,105	-	47	-	34,915,925	572,083,983
2115	572,083,983	-	24	-	37,185,458	609,269,417
2116	609,269,417	-	12	-	39,602,512	648,871,917
2117	648,871,917	-	6	-	42,176,674	691,048,585
2118	691,048,585	-	3	-	44,918,158	735,966,740
2119	735,966,740	-	1	-	47,837,838	783,804,577
2120	783,804,577	-	-	-	50,947,298	834,751,875

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	7,995,632	1,312,484	1,312,484	-	1,271,801	-	1,271,801
2025	9,330,822	1,470,547	1,470,547	-	1,337,995	-	1,337,995
2026	10,660,774	1,594,893	1,594,893	-	1,362,566	-	1,362,566
2027	11,991,169	1,625,125	1,625,125	-	1,303,656	-	1,303,656
2028	13,322,683	1,725,321	1,725,321	-	1,299,561	-	1,299,561
2029	14,654,237	1,918,694	1,918,694	-	1,357,009	-	1,357,009
2030	15,985,451	1,986,721	1,986,721	-	1,319,363	-	1,319,363
2031	17,312,019	2,111,987	2,111,987	-	1,316,950	-	1,316,950
2032	18,643,107	2,291,567	2,291,567	-	1,341,717	-	1,341,717
2033	19,977,660	2,427,047	2,427,047	-	1,334,311	-	1,334,311
2034	21,315,857	2,519,344	2,519,344	-	1,300,519	-	1,300,519
2035	22,648,643	2,636,373	2,636,373	-	1,277,869	-	1,277,869
2036	23,981,422	2,662,384	2,662,384	-	1,211,715	-	1,211,715
2037	25,309,643	2,721,177	2,721,177	-	1,162,886	-	1,162,886
2038	26,631,387	2,725,926	2,725,926	-	1,093,817	-	1,093,817
2039	27,947,914	2,793,150	2,793,150	-	1,052,387	-	1,052,387
2040	29,256,548	2,869,880	2,869,880	-	1,015,302	-	1,015,302
2041	30,556,830	2,962,702	2,962,702	-	984,169	-	984,169
2042	31,844,943	3,059,081	3,059,081	-	954,164	-	954,164
2043	33,118,466	3,120,476	3,120,476	-	913,910	-	913,910
2044	34,373,613	3,199,394	3,199,394	-	879,834	-	879,834
2045	35,603,168	3,227,717	3,227,717	-	833,449	-	833,449
2046	36,808,937	3,287,022	3,287,022	-	796,960	-	796,960
2047	37,986,671	3,256,796	3,256,796	-	741,438	-	741,438
2048	39,134,325	3,294,095	3,294,095	-	704,159	-	704,159
2049	40,254,014	3,332,774	3,332,774	-	668,946	-	668,946
2050	41,338,797	3,253,374	3,253,374	-	613,154	-	613,154
2051	42,389,227	3,183,548	3,183,548	-	563,375	-	563,375
2052	43,404,127	3,193,173	3,193,173	-	530,589	-	530,589
2053	44,375,470	3,195,701	3,195,701	-	498,600	-	498,600
2054	45,299,203	3,165,817	3,165,817	-	463,791	-	463,791
2055	46,169,032	3,115,370	3,115,370	-	428,546	-	428,546
2056	46,981,218	3,077,363	3,077,363	-	397,481	-	397,481
2057	47,728,451	3,087,782	3,087,782	-	374,485	-	374,485

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%
2058	48,403,145	3,095,406	3,095,406	-	352,498	-	352,498
2059	48,997,461	3,082,720	3,082,720	-	329,627	-	329,627
2060	49,503,895	3,073,612	3,073,612	-	308,595	-	308,595
2061	49,913,266	3,044,695	3,044,695	-	287,034	-	287,034
2062	50,214,746	3,017,878	3,017,878	-	267,142	-	267,142
2063	50,397,143	2,969,864	2,969,864	-	246,847	-	246,847
2064	50,606,573	2,921,490	2,921,490	-	228,005	-	228,005
2065	50,879,562	2,880,459	2,880,459	-	211,083	-	211,083
2066	51,212,660	2,836,563	2,836,563	-	195,179	-	195,179
2067	51,612,732	2,779,478	2,779,478	-	179,579	-	179,579
2068	52,097,749	2,711,245	2,711,245	-	164,479	-	164,479
2069	52,684,742	2,623,675	2,623,675	-	149,452	-	149,452
2070	53,400,306	2,542,287	2,542,287	-	135,978	-	135,978
2071	54,246,415	2,452,206	2,452,206	-	123,155	-	123,155
2072	55,240,529	2,350,084	2,350,084	-	110,822	-	110,822
2073	56,404,702	2,238,188	2,238,188	-	99,104	-	99,104
2074	57,760,079	2,118,553	2,118,553	-	88,081	-	88,081
2075	59,327,078	2,004,438	2,004,438	-	78,251	-	78,251
2076	61,113,756	1,885,899	1,885,899	-	69,130	-	69,130
2077	63,138,959	1,757,151	1,757,151	-	60,479	-	60,479
2078	65,428,733	1,630,937	1,630,937	-	52,709	-	52,709
2079	67,997,658	1,500,473	1,500,473	-	45,533	-	45,533
2080	70,868,267	1,377,763	1,377,763	-	39,257	-	39,257
2081	74,052,164	1,255,277	1,255,277	-	33,584	-	33,584
2082	77,569,481	1,133,164	1,133,164	-	28,467	-	28,467
2083	81,441,505	1,019,086	1,019,086	-	24,039	-	24,039
2084	85,682,997	907,158	907,158	-	20,092	-	20,092
2085	90,315,751	801,024	801,024	-	16,659	-	16,659
2086	95,359,218	702,108	702,108	-	13,711	-	13,711
2087	100,832,641	610,920	610,920	-	11,202	-	11,202
2088	106,755,988	527,843	527,843	-	9,088	-	9,088
2089	113,150,129	450,790	450,790	-	7,287	-	7,287
2090	120,039,447	381,940	381,940	-	5,798	-	5,798
2091	127,447,658	319,015	319,015	-	4,547	-	4,547

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%
2092	135,402,373	264,092	264,092	-	3,534	-	3,534
2093	143,930,852	215,664	215,664	-	2,710	-	2,710
2094	153,063,684	174,509	174,509	-	2,059	-	2,059
2095	162,832,643	139,435	139,435	-	1,545	-	1,545
2096	173,272,798	110,243	110,243	-	1,147	-	1,147
2097	184,421,704	85,985	85,985	-	840	-	840
2098	196,320,335	66,083	66,083	-	606	-	606
2099	209,012,926	49,981	49,981	-	430	-	430
2100	222,547,161	37,152	37,152	-	300	-	300
2101	236,974,367	27,103	27,103	-	206	-	206
2102	252,349,717	19,375	19,375	-	138	-	138
2103	268,732,444	13,554	13,554	-	91	-	91
2104	286,186,058	9,266	9,266	-	58	-	58
2105	304,778,585	6,182	6,182	-	36	-	36
2106	324,582,810	4,019	4,019	-	22	-	22
2107	345,676,543	2,542	2,542	-	13	-	13
2108	368,142,894	1,564	1,564	-	8	-	8
2109	392,070,567	934	934	-	4	-	4
2110	417,554,190	542	542	-	2	-	2
2111	444,694,653	305	305	-	1	-	1
2112	473,599,491	168	168	-	1	-	1
2113	504,383,284	90	90	-	-	-	-
2114	537,168,105	47	47	-	-	-	-
2115	572,083,983	24	24	-	-	-	-
2116	609,269,417	12	12	-	-	-	-
2117	648,871,917	6	6	-	-	-	-
2118	691,048,585	3	3	-	-	-	-
2119	735,966,740	1	1	-	-	-	-
2120	783,804,577	-	-	-	-	-	-

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	-	6.46	-	-	-	-	-	-	-	-	-	-
2019	(2,099,980)	6.44	(326,084)	(326,084)	(143,476)	-	-	-	-	-	-	-
2020	-	6.44	-	-	-	-	-	-	-	-	-	-
2021	2,697,295	6.12	440,734	440,734	440,734	440,734	52,891	-	-	-	-	-
2022	-	6.12	-	-	-	-	-	-	-	-	-	-
2023	(8,442,594)	6.18	(1,366,116)	(1,366,116)	(1,366,116)	(1,366,116)	(1,366,116)	(1,366,116)	(245,898)	-	-	-
Net Increase (Decrease) in OPEB Expense			(1,251,466)	(1,251,466)	(1,068,858)	(925,382)	(1,313,225)	(1,366,116)	(245,898)	-	-	-

Year	Changes of Assumptions	Recognition Period (Years)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
2018	(2,114,840)	6.46	(327,375)	(150,590)	-	-	-	-	-	-	-	-
2019	8,262,365	6.44	1,282,976	1,282,976	564,509	-	-	-	-	-	-	-
2020	11,780,889	6.44	1,829,331	1,829,331	1,829,331	804,903	-	-	-	-	-	-
2021	(3,138,323)	6.12	(512,798)	(512,798)	(512,798)	(512,798)	(61,535)	-	-	-	-	-
2022	(17,302,560)	6.12	(2,827,216)	(2,827,216)	(2,827,216)	(2,827,216)	(2,827,216)	(339,264)	-	-	-	-
2023	(9,016,538)	6.18	(1,458,987)	(1,458,987)	(1,458,987)	(1,458,987)	(1,458,987)	(1,458,987)	(262,616)	-	-	-
Net Increase (Decrease) in OPEB Expense			(2,014,069)	(1,837,284)	(2,405,161)	(3,994,098)	(4,347,738)	(1,798,251)	(262,616)	-	-	-

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	35,975	5	-	-	-	-	-	-	-	-	-	-
2019	62,312	5	12,463	-	-	-	-	-	-	-	-	-
2020	123,218	5	24,643	24,644	-	-	-	-	-	-	-	-
2021	(933,380)	5	(186,676)	(186,676)	(186,676)	-	-	-	-	-	-	-
2022	1,151,736	5	230,347	230,347	230,347	230,348	-	-	-	-	-	-
2023	(260,370)	5	(52,074)	(52,074)	(52,074)	(52,074)	(52,074)	-	-	-	-	-
Net Increase (Decrease) in OPEB Expense			28,703	16,241	(8,403)	178,274	(52,074)	-	-	-	-	-