



LYNNFIELD CENTER WATER DISTRICT

OTHER POSTEMPLOYMENT BENEFITS PROGRAM

FINANCIAL REPORTING AND DISCLOSURES
Governmental Accounting Standards Board
Statements 74 and 75

Disclosures as of
June 30, 2022

KMS Actuarial, LLC
52 Hunt Road
Kingston, NH 03848

January, 2023



January 18, 2023

Board of Water Commissioners
Lynnfield Center Water District
83 Phillips Road
Lynnfield, MA 01940

Dear Members of the Board:

We are pleased to present the enclosed report of the July 1, 2021 actuarial valuation of the retiree health care benefits for the Lynnfield Center Water District. The valuation was prepared in accordance with and for the purpose of financial reporting and disclosures as of June 30, 2022 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, 2021 and rolled forward to the plan's measurement date of June 30, 2022.

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 Lynnfield Center Water District as well as health plan rates provided by the District. Although we did not audit the data used in the valuation and disclosure calculations, we believe that the information is complete and reliable.

Liabilities presented in this report are based on a discount rate of 6.5%, the rate that reflects the long-term expected rate of return on OPEB plan assets. The long-term expected rate of return is based on the target allocations provided in the investment policy statement and long-term expected rates of return by asset class provided by Bartholomew & Company.

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 Essex Regional Retirement System's actuaries for the Retirement System pension valuations.

Future actuarial valuation results may differ significantly from the current results presented in this report. Examples of potential sources of volatility include plan experience differing from that anticipated by the economic or demographic assumptions, the effect of new entrants, changes in economic or demographic assumptions, the effect of law changes and the delayed effect of smoothing techniques.

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 report is intended for the sole use of the Lynnfield Center Water District and is intended to provide information to comply with the stated purpose of the report. It may not be appropriate for other purposes.

The undersigned credentialed actuaries 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.

KMS Actuaries is completely independent of the Lynnfield Center Water 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 Lynnfield Center Water District, other than as consulting actuary for this assignment, that would impair our independence.

Respectfully submitted,



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EXECUTIVE SUMMARY

Purpose of Report

This report presents the results of the actuarial valuation of the Lynnfield Center Water District's retiree health care benefits as of July 1, 2021. The valuation was prepared in accordance with and for the purpose of financial reporting and disclosures as of June 30, 2022 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 Lynnfield Center Water 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 Lynnfield Center Water 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

Lynnfield Center Water District Other Postemployment Benefits Program

The Lynnfield Center Water 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 Massachusetts Interlocal Insurance Association, 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, 2022	June 30, 2021	% Change
Valuation Date	July 1, 2021	July 1, 2019	
Membership Data			
Active Plan Members	7	7	0.0%
Inactive Plan Members (excludes covered spouses)	5	4	25.0%
Total Plan Members	12	11	9.1%
Covered Spouses	1	1	0.0%
Covered Payroll	\$909,994	\$864,241	5.3%
Net OPEB Liability			
Discount Rate	6.50%	6.50%	
Total OPEB Liability (TOL)	\$297,317	\$363,312	(18.2%)
Fiduciary Net Position (FNP)	\$251,891	\$267,507	(5.8%)
Net OPEB Liability	\$45,426	\$95,805	(52.6%)
FNP as % of TOL	84.7%	73.6%	
OPEB Expense			
OPEB Expense	\$25,681	\$32,919	(22.0%)
Deferred Outflows	\$121,112	\$112,689	
Deferred Inflows	\$128,356	\$76,928	
Recognition Period	7.97	8.31	

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 \$89,000. This gain is primarily due to lower than expected medical premiums and active employee turnover replaced by lower service employees since the prior valuation.

Changes of Assumptions

Many assumptions were updated in this valuation, including the inflation rate, healthcare trend rates, and mortality tables 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	(1,000)
◆ Decrease due to change in Trend Assumption	(4,000)
◆ Decrease due to change in Mortality Tables and Mortality Improvement Rates	(3,000)
Total	\$ (8,000)

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

Changes of Benefit Terms

All benefit terms are the same as those used in the prior valuation. 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, 2022, is \$297,317. The Total OPEB Liability as of the prior measurement date, June 30, 2021, was \$363,312. During the current measurement period ending June 30, 2022, the Total OPEB Liability decreased by \$65,995, or -18.2%. The development of the Total OPEB Liability for the current measurement period is shown in Section 1, Exhibit 1.2.

Fiduciary Net Position

The Fiduciary Net Position is equal to the market value of assets and as of the current measurement date, June 30, 2022, is \$251,891. The Fiduciary Net Position as of the prior measurement date, June 30, 2021, was \$267,507. During the plan years ended June 30, 2022 and June 30, 2021, the actual rates of return were -15.06% and 23.40%, respectively. The expected long-term rate of return is 6.50%. The Fiduciary Net Position is shown in Section 1, Exhibit 1.1.

EXECUTIVE SUMMARY

Employer Future Period Contributions

The District contributed \$25,000 to the OPEB trust in FY2022, and is assumed to contribute \$25,000 per year thereafter.

Discount Rate

As of the June 30, 2022 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, 2022, is \$25,681. Benefit changes are recognized immediately and experience gains and losses and assumption changes developed in this valuation are recognized over 7.97 years. Investment gains and losses are recognized over 5 years. The OPEB Expense for the prior measurement period was \$32,919. 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 do not reflect the potential impact of the COVID-19 pandemic on the OPEB program. Especially in the short range, the pandemic is likely to materially affect 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 District has established an irrevocable trust pursuant to Section 20 of Chapter 32B of the Massachusetts General Laws 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, employer contributions to the trust must be irrevocable. Asset information for the current and prior fiscal years was provided by the the Board and is presented below:

Fiscal Year Ended June 30	2022	2021
Trust Fund Composition at Fiscal Year-End		
Domestic Equity	\$112,509	\$74,000
International Equity	50,482	39,591
Domestic Bond	61,035	117,908
International Bond	11,769	14,828
Alternatives	14,977	20,083
Cash	1,119	1,097
Total Market Value of Assets	\$251,891	\$267,507
Asset Activity		
Market value, beginning of year	\$267,507	\$192,474
Employer Premiums	8,055	7,537
OPEB Trust Contributions	25,000	30,000
Benefit Payments	(8,055)	(7,537)
Administrative Expenses	-	-
Investment Return	(40,616)	45,033
Market value, end of year	\$251,891	\$267,507
Money-Weighted Rate of Return	-15.06%	23.40%
(Gain) / Loss on OPEB Plan Investments		
Projected earnings	\$17,520	\$11,163
Actual earnings	(40,616)	45,033
(Gain) / Loss on OPEB plan investments	\$58,136	(\$33,870)

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, 2022 measurement date was developed from an actuarial valuation as of July 1, 2021 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, 2021 to the end of the measurement period, June 30, 2022 is shown below:

Measurement Date	June 30, 2022
1. Total OPEB Liability, beginning of year:	
a. Actives	\$229,620
b. Retirees, Covered Spouses and Survivors	133,692
c. Total OPEB Liability at 6.5% (a. + b.)	\$363,312
2. Service Cost	
	\$14,861
3. Expected Benefit Payments	
a. Current retirees	(\$7,936)
b. Future retirees	(119)
c. Total (a. + b.)	(\$8,055)
4. Interest [6.5% x (1.c. + 2. + .5 x 3.c)]	
	\$24,319
5. Changes of benefit terms	
	\$0
6. Differences between expected and actual experience	
	(\$88,903)
7. Changes of assumptions or other inputs	
	(\$8,217)
8. Total OPEB Liability, end of year (1.c. + 2. + 3.c. + 4. + 5. + 6. + 7.)	
a. Actives	\$141,931
b. Retirees, Covered Spouses and Survivors	155,386
c. Total OPEB Liability at 6.5% (a. + b.)	\$297,317

SECTION 1 - PRINCIPAL VALUATION RESULTS

Exhibit 1.3 - Development of Actuarially Determined Employer Contributions

The District contributed \$25,000 to the OPEB trust in FY2022, and is assumed to contribute \$25,000 per year thereafter.

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

Fiscal Year Ending	June 30, 2022	June 30, 2023
Discount Rate	6.50%	6.50%
1. Normal Cost	\$14,861	\$13,463
2. Unfunded Actuarial Accrued Liability		
a. Actuarial Accrued Liability	\$363,312	\$297,317
b. Actuarial Value of Plan Assets	\$267,507	\$251,891
c. Unfunded Actuarial Accrued Liability (a. - b.)	\$95,805	\$45,426
3. Amortization of Unfunded Actuarial Accrued Liability		
a. Unfunded Actuarial Accrued Liability	\$95,805	\$45,426
b. Amortization Period in years	30	30
c. Payroll Growth Rate	0.0%	0.0%
d. Amortization Factor	13.91	13.91
e. Amortization Amount (3.a. / 3.d.)	\$6,887	\$3,266
4. Interest on 1. and 3.e.	\$1,414	\$1,087
5. Actuarially Determined Employer Contribution (1. + 3.e. + 4.)	\$23,162	\$17,816
6. Actual Employer Contribution to OPEB Trust	\$25,000	TBD
7. Expected Benefit Payments	\$8,055	
8. Total Contribution (6. + 7.)	\$33,055	

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.1 - Plan Description

Plan Administration

The Lynnfield Center Water 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, 2022, OPEB plan membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefit payments ¹	5
Inactive plan members entitled to but not yet receiving benefit payments	0
Active plan members	7
	<u>12</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 Massachusetts Interlocal Insurance Association, and the full cost of benefits is shared between the District and retirees.

Employer Future Period Contributions

The District contributed \$25,000 to the OPEB trust in FY2022, and is assumed to contribute \$25,000 per year thereafter.

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.2 - Net OPEB Liability

The components of the net OPEB liability at June 30, 2022, were as follows:

Total OPEB liability	\$	297,317
Fiduciary net position		(251,891)
Net OPEB liability	\$	45,426

Fiduciary net position as a percentage of the total OPEB liability 84.72%

Actuarial Assumptions

The total OPEB liability was determined by an actuarial valuation as of July 1, 2021, rolled forward to the measurement date and using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.4% per year, based on current economic data, analyses from economists and other experts, and professional judgment.
Discount rate	6.5 percent, net of investment expenses, including inflation.
Healthcare cost trend rate	7.5 percent for 2021, decreasing 0.6 percent per year to 5.7 percent, then grading down to an ultimate trend rate of 3.9 percent, utilizing the Society of Actuaries Getzen Medical Trend Model. The ultimate medical inflation rate is reached in 2075.
Pre-Retirement Mortality - General employees	RP-2014 Employees Mortality Table, projected with generational mortality improvement using scale MP-2021.
Healthy Retiree Mortality - General employees	RP-2014 Healthy Annuitant Mortality Table, projected with generational mortality improvement using scale MP-2021.
Disabled Retiree Mortality - General employees	RP-2014 Blue Collar Mortality Table set forward one year with full generational mortality improvement using Scale MP-2021.

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, 2022 are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rates of Return¹
Domestic Equity	34%	4.66%
International Equity	22%	5.88%
Domestic Bond	20%	1.30%
International Bond	4%	1.33%
Alternatives	20%	5.28%
Cash	0%	0.00%
Total	100%	

¹ provided by Bartholomew & Company.

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	\$ 347,849	\$ 297,317	\$ 257,303
Fiduciary Net Position	(251,891)	(251,891)	(251,891)
Net OPEB Liability	\$ 95,958	\$ 45,426	\$ 5,412
% Change in Net OPEB Liability	111.2%		-88.1%

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 (6.5% year 1 decreasing to 2.9%) or 1-percentage point higher (8.5% year 1 decreasing to 4.9%) than the current healthcare cost trend rates:

	1% Decrease 6.5% Year 1 Decreasing to 2.9%	Assumed Healthcare Cost Trend Rates 7.5% Year 1 Decreasing to 3.9%	1% Increase 8.5% Year 1 Decreasing to 4.9%
Total OPEB Liability	\$ 250,595	\$ 297,317	\$ 358,838
Fiduciary Net Position	(251,891)	(251,891)	(251,891)
Net OPEB Liability	\$ (1,296)	\$ 45,426	\$ 106,947
% Change in Net OPEB Liability	-102.9%		135.4%

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.1 - Changes in Net OPEB Liability and Related Ratios

Fiscal Year Ended June 30	2022	2021	2020	2019	2018
Total OPEB Liability					
Service cost	\$ 14,861	\$ 17,250	\$ 8,646	\$ 6,800	\$ 4,740
Interest	24,319	22,253	16,744	15,489	16,491
Changes of benefit terms	-	-	(9,381)	-	-
Differences between expected and actual experience	(88,903)	-	64,541	-	(34,161)
Changes of assumptions	(8,217)	(38,851)	53,728	24,398	13,611
Benefit payments	(8,055)	(7,537)	(6,998)	(6,974)	(25,247)
Net change in total OPEB liability	\$ (65,995)	\$ (6,885)	\$ 127,280	\$ 39,713	\$ (24,566)
Total OPEB liability—beginning	\$ 363,312	\$ 370,197	\$ 242,917	\$ 203,204	\$ 227,770
Total OPEB liability—ending (a)	\$ 297,317	\$ 363,312	\$ 370,197	\$ 242,917	\$ 203,204
Plan Fiduciary Net Position					
Contributions—employer	\$ 33,055	\$ 37,537	\$ 36,998	\$ 35,974	\$ 45,247
Net investment income	(40,616)	45,033	9,487	6,605	3,849
Benefit payments	(8,055)	(7,537)	(6,998)	(6,974)	(25,247)
Administrative expenses	-	-	-	-	-
Other	-	-	-	-	-
Net change in plan fiduciary net position	\$ (15,616)	\$ 75,033	\$ 39,487	\$ 35,605	\$ 23,849
Plan fiduciary net position—beginning	\$ 267,507	\$ 192,474	\$ 152,987	\$ 117,382	\$ 93,533
Plan fiduciary net position—ending (b)	\$ 251,891	\$ 267,507	\$ 192,474	\$ 152,987	\$ 117,382
Net OPEB liability—ending (a) – (b)	\$ 45,426	\$ 95,805	\$ 177,723	\$ 89,930	\$ 85,822
Plan fiduciary net position as a percentage of the total OPEB liability	84.72%	73.63%	51.99%	62.98%	57.77%
Covered payroll	\$ 909,994	\$ 864,241	\$ 813,725	\$ 665,185	\$ 713,838
Net OPEB liability as a percentage of covered payroll	4.99%	11.09%	21.84%	13.52%	12.02%
Discount Rate	6.50%	6.50%	5.80%	6.75%	7.50%

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.1 - Changes in Net OPEB Liability and Related Ratios

Fiscal Year Ended June 30	2017	2016	2015	2014	2013
Total OPEB Liability					
Service cost	\$ 4,558				
Interest	17,007				
Changes of benefit terms	-				
Differences between expected and actual experience	-				
Changes of assumptions	-				
Benefit payments	(31,985)				
Net change in total OPEB liability	\$ (10,420)				
Total OPEB liability—beginning	\$ 238,190				
Total OPEB liability—ending (a)	\$ 227,770				
Plan Fiduciary Net Position					
Contributions—employer	\$ 54,377				
Net investment income	3,988				
Benefit payments	(31,985)				
Administrative expenses	-				
Other	-				
Net change in plan fiduciary net position	\$ 26,380				
Plan fiduciary net position—beginning	\$ 67,153				
Plan fiduciary net position—ending (b)	\$ 93,533				
Net OPEB liability—ending (a) – (b)	\$ 134,237				
Plan fiduciary net position as a percentage of the total OPEB liability	41.06%				
Covered payroll	\$ 619,743				
Net OPEB liability as a percentage of covered payroll	21.66%				
Discount Rate	7.50%				

Note: Only 6 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

Changes of Benefit Terms

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

Changes of Assumptions

Many assumptions were updated in this valuation, including the inflation rate, healthcare trend rates, and mortality tables and mortality improvement rates.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.2 - Investment Returns

Fiscal Year Ended June 30	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Annual money-weighted rate of return, net of investment expenses	-15.06%	23.40%	5.92%	5.63%	4.12%	5.94%				

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 6 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, 2021	\$ 267,507	12	1.00	\$ 227,229
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	25,000	1	0.08	24,662
June	-	0	0.00	-
Ending value - June 30, 2022				\$ 251,891
Money-weighted rate of return:				-15.06%

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.3 - Schedule of Employer Contributions

Fiscal Year Ended June 30	2022	2021	2020	2019	2018
Actuarially determined contribution	\$ 23,162	\$ 30,887	\$ 16,293	\$ 14,575	\$ 16,458
Contributions in relation to the actuarially determined contribution	<u>33,055</u>	<u>37,537</u>	<u>36,998</u>	<u>35,974</u>	<u>45,247</u>
Contribution deficiency (excess)	<u><u>\$ (9,893)</u></u>	<u><u>\$ (6,650)</u></u>	<u><u>\$ (20,705)</u></u>	<u><u>\$ (21,399)</u></u>	<u><u>\$ (28,789)</u></u>
Covered payroll	\$ 909,994	\$ 864,241	\$ 813,725	\$ 665,185	\$ 713,838
Contributions as a percentage of covered payroll	3.63%	4.34%	4.55%	5.41%	6.34%
Discount rate	6.50%	5.80%	6.75%	7.50%	7.50%
Inflation	2.40%	2.20%	2.40%	2.60%	2.60%

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.3 - Schedule of Employer Contributions

Fiscal Year Ended June 30	2017	2016	2015	2014	2013
Actuarially determined contribution	\$ 26,138				
Contributions in relation to the actuarially determined contribution	54,377				
Contribution deficiency (excess)	\$ (28,239)				
Covered payroll	\$ 619,743				
Contributions as a percentage of covered payroll	8.77%				
Discount rate	5.00%				
Inflation	2.60%				

Note: Only 6 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	Level dollar amount 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	7.5 percent for 2021, decreasing 0.6 percent per year to 5.7 percent, then grading down to an ultimate trend rate of 3.9 percent, utilizing the Society of Actuaries Getzen Medical Trend Model. The ultimate medical inflation 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, 2022	
	Experience Losses	Experience Gains	Amounts Recognized in OPEB Expense through June 30, 2022	Deferred Outflows of Resources	Deferred Inflows of Resources	
Year	(a)	(b)	(c)	(a) - (c)	(b) + (c)	
2018	\$ -	\$ 34,161	\$ (20,240)	\$ -	\$ 13,921	
2019	-	-	-	-	-	
2020	64,541	-	23,301	41,240	-	
2021	-	-	-	-	-	
2022	-	88,903	(11,155)	-	77,748	
Total				<u>\$ 41,240</u>	<u>\$ 91,669</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, 2022	
	Increases in the Total OPEB Liability	Decreases in the Total OPEB Liability	Amounts Recognized in OPEB Expense through June 30, 2022	Deferred Outflows of Resources	Deferred Inflows of Resources	
Year	(a)	(b)	(c)	(a) - (c)	(b) + (c)	
2018	\$ 13,611	\$ -	\$ 8,065	\$ 5,546	\$ -	
2019	24,398	-	11,564	12,834	-	
2020	53,728	-	19,395	34,333	-	
2021	-	38,851	(9,350)	-	29,501	
2022	-	8,217	(1,031)	-	7,186	
Total				<u>\$ 52,713</u>	<u>\$ 36,687</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, 2022	
Year	Investment Earnings Less Than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in OPEB Expense through June 30, 2022 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) + (c)	
2018	\$ 3,166	\$ -	\$ 3,166	\$ -	\$ -	
2019	2,199	-	1,760	439	-	
2020	1,334	-	801	533	-	
2021	-	33,870	(13,548)	-	20,322	
2022	58,136	-	11,627	46,509	-	
Subtotal				\$ 47,481	\$ 20,322	
Net				\$ 27,159	\$ -	

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

Year ended June 30		
2023	\$	3,386
2024	\$	2,946
2025	\$	2,680
2026	\$	10,820
2027	\$	(1,359)
Thereafter	\$	(25,717)
Deferred Outflows	\$	121,112
Deferred Inflows	\$	128,356

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, 2022 is presented below:

Fiscal Year Ended June 30, 2022

Measurement Date	6/30/2022
1. Service cost	\$ 14,861
2. Interest on the total OPEB liability	
a. Total OPEB liability, beginning of year	363,312
b. Service cost, beginning of year	14,861
c. Benefit payments	<u>(8,055)</u>
d. Interest on total OPEB liability = 6.5% times (a. + b. + .5 times c.)	24,319
3. Differences between expected and actual experience	(7,436)
4. Changes of benefit terms	-
5. Changes of assumptions	5,263
6. Projected earnings on OPEB plan investments	
a. Plan fiduciary net position, beginning of year	267,507
b. Contributions - Employer	33,055
c. Benefit payments	(8,055)
d. Administrative expenses and other	<u>-</u>
e. Total projected earnings	(17,520)
7. Differences between projected and actual earnings on OPEB plan investments	6,194
8. OPEB plan administrative expenses	-
9. Other changes in fiduciary net position	-
10. Total OPEB Expense	<u>\$ 25,681</u>

SECTION 5 - SUMMARY OF PLAN PROVISIONS

Eligibility for Postemployment Benefits Employees of the District and their dependents are eligible for postemployment medical insurance based on the eligibility requirements under the Essex Regional Retirement System.

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

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

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, 2022	Individual	2-Person	Family
Blue Care Elect Preferred	\$1,471.43	\$2,942.88	\$4,267.18
HMO Blue NE	\$1,215.76	\$2,406.40	\$3,525.74

Medicare Plans - January 1, 2022

Medex	\$228.54
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Participant Contributions Retired employees contribute 50% 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 Life insurance coverage is not offered to retirees.

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Valuation Date	July 1, 2021
Disclosure Date	June 30, 2022
GASB 75 Reporting Date	June 30, 2022
Long-Term Expected Rate of Return	<p>6.5%, compounded annually, net of fees.</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	3.54%, based on the Bond Buyer 20-Bond GO Index published on June 30, 2022.
Discount Rate (GASB)	<p>6.5%, compounded annually, for the measurement as of June 30, 2022.</p> <p>6.5%, compounded annually, for the measurement as of June 30, 2021.</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)	6.5%, compounded annually, for development of the Actuarially Determined Contribution (ADEC) as of June 30, 2022.
Amortization Method	Level dollar amount over 30 years on an open amortization period for partial pre-funding.

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Medical Trend Rates

Year	Trend
1	7.50%
2	6.90%
3	6.30%
4	5.70%
Ultimate	3.90%

Trend rates after year 4 grade down to the ultimate rate of 3.9 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

2.4% 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 - 100% of eligible retired employees will elect to participate.

Dental - Not offered to retired employees.

Life - Not offered to retired employees.

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.

50% 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, 2021 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	Male	Female
Under 20	\$7,640	\$8,969
20-24	6,020	9,550
25-29	6,265	14,088
30-34	7,869	17,800
35-39	9,870	18,335
40-44	12,300	18,778
45-49	15,524	20,612
50-54	20,459	24,248
55-59	26,586	28,038
60-64	34,119	33,370
65-69	2,082	2,027
70-74	2,495	2,391
75-79	2,946	2,775
80-84	3,386	3,182
85-89	3,772	3,557
90-94	4,106	3,796
95+	4,364	3,671

Retiree Contributions

Annual per capita participant contributions for the fiscal year beginning July 1, 2021 are as follows:

Plan	Contribution
Non-Medicare	\$ 8,213
Medicare	1,323

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.

Employee Data

Employee and retiree data were compiled and submitted by the District as of June 30, 2022. We made reasonable adjustments for missing or invalid data.

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

Pre-Retirement Mortality Post-retirement mortality rates for General employees are based on the RP-2014 Employees Mortality Table, projected with generational mortality improvement using scale MP-2021.

Healthy Retiree Mortality Post-retirement mortality rates for General retirees are based on the RP-2014 Healthy Annuitant Mortality Table, projected with generational mortality improvement using scale MP-2021.

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-2021.

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.

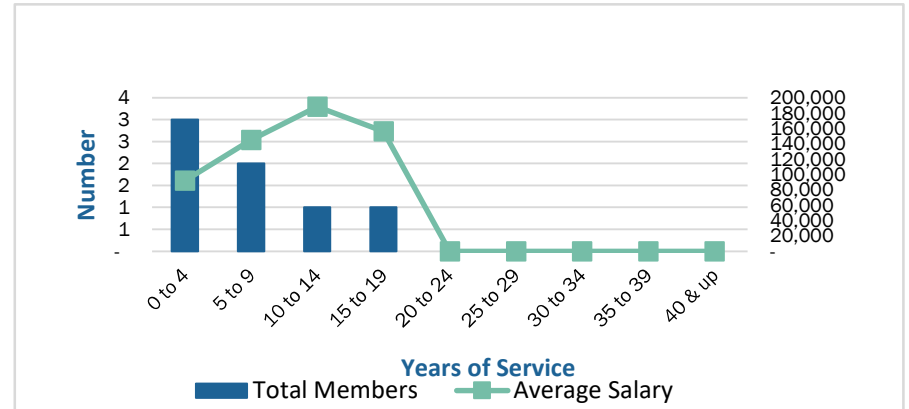
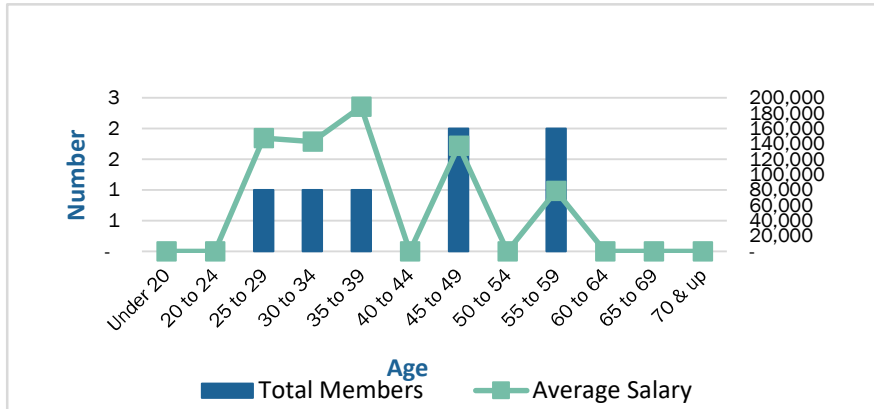
Retirement Rates 100% at age 65.

SECTION 7 - PLAN MEMBER INFORMATION

Exhibit 7.1 - Active Members by Age and Years of Service as of July 1, 2021

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	-	-	-	-	-	-	-	-	-	-	-	-
25 to 29	-	1	-	-	-	-	-	-	-	1	147,244	147,244
30 to 34	-	1	-	-	-	-	-	-	-	1	142,633	142,633
35 to 39	-	-	1	-	-	-	-	-	-	1	188,276	188,276
40 to 44	-	-	-	-	-	-	-	-	-	-	-	-
45 to 49	2	-	-	-	-	-	-	-	-	2	274,711	137,355
50 to 54	-	-	-	-	-	-	-	-	-	-	-	-
55 to 59	1	-	-	1	-	-	-	-	-	2	157,130	78,565
60 to 64	-	-	-	-	-	-	-	-	-	-	-	-
65 to 69	-	-	-	-	-	-	-	-	-	-	-	-
70 & up	-	-	-	-	-	-	-	-	-	-	-	-
Total	3	2	1	1	-	-	-	-	-	7	909,994	129,999
Total Salary	275,901	289,877	188,276	155,940	-	-	-	-	-			
Average Salary	91,967	144,939	188,276	155,940	-	-	-	-	-			

Average Age: 43.7 Average Service: 6.8



SECTION 7 - PLAN MEMBER INFORMATION

Exhibit 7.2 - Retired Members, Covered Spouses and Survivors as of July 1, 2021

Age	Non-Medicare Plans		Medicare Plans		Total
	Blue Care Elect Preferred	HMO Blue NE	Medex		
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	0	0	0		0
65 to 69	0	0	1		1
70 to 74	0	0	1		1
75 to 79	0	0	2		2
80 to 84	0	0	1		1
85 to 89	0	0	0		0
90+	0	0	0		0
Total	0	0	5		5
Covered Spouses	0	0	1		1

Average Age: 75.4

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.

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.

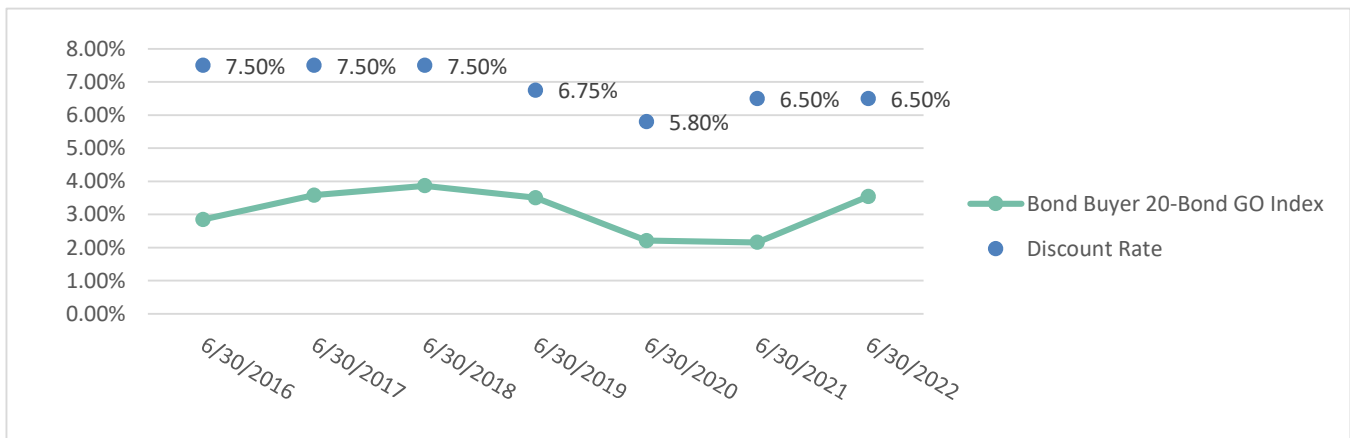
Projected cash flows into and out of the OPEB plan are assumed to be contributions to the OPEB plan, benefit payments, OPEB plan administrative expenses and OPEB plan investment earnings. These projected cash flows are used to project the OPEB plan's fiduciary net position at the beginning of each period. 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 3.54%, based on the Bond Buyer 20-Bond GO Index published on June 30, 2022. 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) * 1.42%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2022	915,944	-	915,944	8,055	25,000	-	33,055
2023	879,180	68,822	948,002	9,383	25,000	977	33,406
2024	849,586	131,596	981,182	10,381	25,000	1,869	33,512
2025	825,564	189,959	1,015,523	11,762	25,000	2,698	34,064
2026	805,538	245,528	1,051,066	12,835	25,000	3,487	34,348
2027	789,154	298,699	1,087,853	13,243	25,000	4,242	34,001
2028	775,784	350,144	1,125,928	14,573	25,000	4,973	34,600
2029	765,149	400,186	1,165,335	15,323	25,000	5,683	34,640
2030	756,879	449,243	1,206,122	16,391	25,000	6,380	35,011
2031	750,779	497,557	1,248,336	34,906	25,000	7,066	52,840
2032	567,355	724,673	1,292,028	36,260	25,000	10,292	50,968
2033	562,534	774,715	1,337,249	37,929	25,000	11,002	51,927
2034	564,543	819,510	1,384,053	19,766	25,000	11,638	33,128
2035	567,557	864,938	1,432,495	19,763	25,000	12,284	32,479
2036	571,549	911,083	1,482,632	20,829	25,000	12,939	32,890
2037	579,206	955,318	1,534,524	20,864	25,000	13,567	32,297
2038	587,319	1,000,913	1,588,232	21,099	25,000	14,215	31,884
2039	531,356	1,112,464	1,643,820	22,043	25,000	15,799	31,244
2040	539,272	1,162,082	1,701,354	32,632	25,000	16,504	41,128
2041	445,584	1,315,317	1,760,901	33,923	25,000	18,680	40,243
2042	453,094	1,369,439	1,822,533	34,403	25,000	19,448	39,955
2043	461,126	1,425,196	1,886,322	22,773	25,000	20,240	27,533
2044	469,695	1,482,648	1,952,343	23,667	25,000	21,056	27,611
2045	478,541	1,542,134	2,020,675	24,627	25,000	21,901	27,726
2046	487,660	1,603,739	2,091,399	25,723	25,000	22,776	27,947
2047	496,816	1,667,782	2,164,598	26,598	25,000	23,685	27,913
2048	505,963	1,734,396	2,240,359	28,026	25,000	24,631	28,395
2049	515,077	1,803,695	2,318,772	29,373	25,000	25,616	28,757
2050	524,146	1,875,783	2,399,929	31,807	25,000	26,639	30,168
2051	533,147	1,950,780	2,483,927	33,437	25,000	27,704	30,733
2052	542,048	2,028,816	2,570,864	65,167	25,000	28,813	61,354
2053	298,981	2,361,863	2,660,844	69,031	25,000	33,543	60,488
2054	304,042	2,449,932	2,753,974	71,735	25,000	34,793	61,942

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) * 1.42%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2055	309,036	2,541,327	2,850,363	64,654	25,000	36,091	53,563
2056	150,795	2,799,331	2,950,126	67,040	25,000	39,755	52,285
2057	153,258	2,900,122	3,053,380	69,951	25,000	41,187	53,764
2058	155,683	3,004,565	3,160,248	65,635	25,000	42,670	47,965
2059	-	3,270,857	3,270,857	66,879	25,000	46,452	45,427
2060	-	3,385,337	3,385,337	70,542	25,000	48,078	47,464
2061	-	3,503,824	3,503,824	36,786	25,000	49,760	12,026
2062	-	3,626,458	3,626,458	37,837	25,000	51,502	11,335
2063	-	3,753,384	3,753,384	39,882	25,000	53,305	11,577
2064	-	3,884,752	3,884,752	38,925	25,000	55,170	8,755
2065	-	4,020,718	4,020,718	41,351	25,000	57,101	9,250
2066	-	4,161,443	4,161,443	41,213	25,000	59,100	7,113
2067	-	4,307,094	4,307,094	42,514	25,000	61,168	6,346
2068	-	4,457,842	4,457,842	44,403	25,000	63,309	6,094
2069	-	4,613,866	4,613,866	43,683	25,000	65,525	3,158
2070	-	4,775,351	4,775,351	46,258	25,000	67,818	3,440
2071	-	4,942,488	4,942,488	46,425	25,000	70,192	1,233
2072	-	5,115,475	5,115,475	47,629	25,000	72,649	-
2073	-	5,294,517	5,294,517	49,743	25,000	75,191	-
2074	-	5,479,825	5,479,825	48,964	25,000	77,823	-
2075	-	5,671,619	5,671,619	50,965	25,000	80,547	-
2076	-	5,870,126	5,870,126	50,986	25,000	83,366	-
2077	-	6,075,580	6,075,580	51,210	25,000	86,284	-
2078	-	6,288,225	6,288,225	52,487	25,000	89,304	-
2079	-	6,508,313	6,508,313	50,725	25,000	92,429	-
2080	-	6,736,104	6,736,104	50,694	25,000	95,664	-
2081	-	6,971,868	6,971,868	49,292	25,000	99,013	-
2082	-	7,215,883	7,215,883	47,274	25,000	102,478	-
2083	-	7,468,439	7,468,439	46,118	25,000	106,065	-
2084	-	7,729,834	7,729,834	42,678	25,000	109,777	-
2085	-	8,000,378	8,000,378	39,439	25,000	113,619	-
2086	-	8,280,391	8,280,391	36,234	25,000	117,596	-
2087	-	8,570,205	8,570,205	32,338	25,000	121,712	-

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) * 1.42%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2088	-	8,870,162	8,870,162	28,895	25,000	125,972	-
2089	-	9,180,618	9,180,618	25,066	25,000	130,381	-
2090	-	9,501,940	9,501,940	21,426	25,000	134,944	-
2091	-	9,834,508	9,834,508	17,792	25,000	139,667	-
2092	-	10,178,716	10,178,716	14,711	25,000	144,555	-
2093	-	10,534,971	10,534,971	11,958	25,000	149,615	-
2094	-	10,903,695	10,903,695	9,549	25,000	154,851	-
2095	-	11,285,324	11,285,324	7,483	25,000	160,271	-
2096	-	11,680,310	11,680,310	5,750	25,000	165,881	-
2097	-	12,089,121	12,089,121	4,330	25,000	171,687	-
2098	-	12,512,240	12,512,240	3,191	25,000	177,696	-
2099	-	12,950,168	12,950,168	2,299	25,000	183,915	-
2100	-	13,403,424	13,403,424	1,619	25,000	190,352	-
2101	-	13,872,544	13,872,544	1,112	25,000	197,014	-
2102	-	14,358,083	14,358,083	745	25,000	203,910	-
2103	-	14,860,616	14,860,616	485	25,000	211,047	-
2104	-	15,380,738	15,380,738	308	25,000	218,433	-
2105	-	15,919,064	15,919,064	190	25,000	226,078	-
2106	-	16,476,231	16,476,231	114	25,000	233,991	-
2107	-	17,052,899	17,052,899	66	25,000	242,181	-
2108	-	17,649,750	17,649,750	37	25,000	250,657	-
2109	-	18,267,491	18,267,491	20	25,000	259,430	-
2110	-	18,906,853	18,906,853	11	25,000	268,510	-
2111	-	19,568,593	19,568,593	6	25,000	277,908	-
2112	-	20,253,494	20,253,494	3	25,000	287,635	-
2113	-	20,962,366	20,962,366	2	25,000	297,702	-
2114	-	21,696,049	21,696,049	1	25,000	308,122	-
2115	-	22,455,411	22,455,411	-	25,000	318,906	-
2116	-	23,241,350	23,241,350	-	25,000	330,068	-
2117	-	24,054,797	24,054,797	-	25,000	341,620	-
2118	-	24,896,715	24,896,715	-	25,000	353,577	-

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)
2022	267,507	33,055	8,055	-	(40,616)	251,891
2023	251,891	33,406	9,383	-	17,154	293,068
2024	293,068	33,512	10,381	-	19,801	336,000
2025	336,000	34,064	11,762	-	22,565	380,867
2026	380,867	34,348	12,835	-	25,456	427,836
2027	427,836	34,001	13,243	-	28,484	477,078
2028	477,078	34,600	14,573	-	31,661	528,766
2029	528,766	34,640	15,323	-	34,998	583,081
2030	583,081	35,011	16,391	-	38,505	640,206
2031	640,206	52,840	34,906	-	42,196	700,336
2032	700,336	50,968	36,260	-	46,000	761,044
2033	761,044	51,927	37,929	-	49,923	824,965
2034	824,965	33,128	19,766	-	54,057	892,384
2035	892,384	32,479	19,763	-	58,418	963,518
2036	963,518	32,890	20,829	-	63,021	1,038,600
2037	1,038,600	32,297	20,864	-	67,881	1,117,914
2038	1,117,914	31,884	21,099	-	73,015	1,201,714
2039	1,201,714	31,244	22,043	-	78,410	1,289,325
2040	1,289,325	41,128	32,632	-	84,082	1,381,903
2041	1,381,903	40,243	33,923	-	90,029	1,478,252
2042	1,478,252	39,955	34,403	-	96,267	1,580,071
2043	1,580,071	27,533	22,773	-	102,859	1,687,690
2044	1,687,690	27,611	23,667	-	109,828	1,801,462
2045	1,801,462	27,726	24,627	-	117,196	1,921,757
2046	1,921,757	27,947	25,723	-	124,986	2,048,967
2047	2,048,967	27,913	26,598	-	133,226	2,183,508
2048	2,183,508	28,395	28,026	-	141,940	2,325,817
2049	2,325,817	28,757	29,373	-	151,158	2,476,359
2050	2,476,359	30,168	31,807	-	160,910	2,635,630
2051	2,635,630	30,733	33,437	-	171,228	2,804,154
2052	2,804,154	61,354	65,167	-	182,146	2,982,487
2053	2,982,487	60,488	69,031	-	193,584	3,167,528
2054	3,167,528	61,942	71,735	-	205,571	3,363,306
2055	3,363,306	53,563	64,654	-	218,254	3,570,469

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)
2056	3,570,469	52,285	67,040	-	231,601	3,787,315
2057	3,787,315	53,764	69,951	-	245,649	4,016,777
2058	4,016,777	47,965	65,635	-	260,516	4,259,623
2059	4,259,623	45,427	66,879	-	276,178	4,514,349
2060	4,514,349	47,464	70,542	-	292,683	4,783,954
2061	4,783,954	12,026	36,786	-	310,152	5,069,346
2062	5,069,346	11,335	37,837	-	328,646	5,371,490
2063	5,371,490	11,577	39,882	-	348,227	5,691,412
2064	5,691,412	8,755	38,925	-	368,961	6,030,203
2065	6,030,203	9,250	41,351	-	390,920	6,389,022
2066	6,389,022	7,113	41,213	-	414,178	6,769,100
2067	6,769,100	6,346	42,514	-	438,816	7,171,748
2068	7,171,748	6,094	44,403	-	464,919	7,598,358
2069	7,598,358	3,158	43,683	-	492,576	8,050,409
2070	8,050,409	3,440	46,258	-	521,885	8,529,476
2071	8,529,476	1,233	46,425	-	552,947	9,037,231
2072	9,037,231	-	47,629	-	585,872	9,575,474
2073	9,575,474	-	49,743	-	620,789	10,146,520
2074	10,146,520	-	48,964	-	657,932	10,755,488
2075	10,755,488	-	50,965	-	697,450	11,401,973
2076	11,401,973	-	50,986	-	739,471	12,090,458
2077	12,090,458	-	51,210	-	784,215	12,823,463
2078	12,823,463	-	52,487	-	831,819	13,602,795
2079	13,602,795	-	50,725	-	882,533	14,434,603
2080	14,434,603	-	50,694	-	936,602	15,320,511
2081	15,320,511	-	49,292	-	994,231	16,265,450
2082	16,265,450	-	47,274	-	1,055,718	17,273,894
2083	17,273,894	-	46,118	-	1,121,304	18,349,080
2084	18,349,080	-	42,678	-	1,191,303	19,497,705
2085	19,497,705	-	39,439	-	1,266,069	20,724,335
2086	20,724,335	-	36,234	-	1,345,904	22,034,005
2087	22,034,005	-	32,338	-	1,431,159	23,432,826
2088	23,432,826	-	28,895	-	1,522,195	24,926,126
2089	24,926,126	-	25,066	-	1,619,384	26,520,444

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)
2090	26,520,444	-	21,426	-	1,723,133	28,222,151
2091	28,222,151	-	17,792	-	1,833,862	30,038,221
2092	30,038,221	-	14,711	-	1,952,006	31,975,516
2093	31,975,516	-	11,958	-	2,078,020	34,041,578
2094	34,041,578	-	9,549	-	2,212,392	36,244,421
2095	36,244,421	-	7,483	-	2,355,644	38,592,582
2096	38,592,582	-	5,750	-	2,508,331	41,095,163
2097	41,095,163	-	4,330	-	2,671,045	43,761,878
2098	43,761,878	-	3,191	-	2,844,418	46,603,105
2099	46,603,105	-	2,299	-	3,029,127	49,629,933
2100	49,629,933	-	1,619	-	3,225,893	52,854,207
2101	52,854,207	-	1,112	-	3,435,487	56,288,582
2102	56,288,582	-	745	-	3,658,734	59,946,571
2103	59,946,571	-	485	-	3,896,511	63,842,597
2104	63,842,597	-	308	-	4,149,759	67,992,048
2105	67,992,048	-	190	-	4,419,477	72,411,335
2106	72,411,335	-	114	-	4,706,733	77,117,954
2107	77,117,954	-	66	-	5,012,665	82,130,553
2108	82,130,553	-	37	-	5,338,485	87,469,001
2109	87,469,001	-	20	-	5,685,484	93,154,465
2110	93,154,465	-	11	-	6,055,040	99,209,494
2111	99,209,494	-	6	-	6,448,617	105,658,105
2112	105,658,105	-	3	-	6,867,777	112,525,879
2113	112,525,879	-	2	-	7,314,182	119,840,059
2114	119,840,059	-	1	-	7,789,604	127,629,662
2115	127,629,662	-	-	-	8,295,928	135,925,590
2116	135,925,590	-	-	-	8,835,163	144,760,753
2117	144,760,753	-	-	-	9,409,449	154,170,202
2118	154,170,202	-	-	-	10,021,063	164,191,265

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%
2023	251,891	9,383	9,383	-	9,092	-	9,092
2024	293,068	10,381	10,381	-	9,445	-	9,445
2025	336,000	11,762	11,762	-	10,049	-	10,049
2026	380,867	12,835	12,835	-	10,296	-	10,296
2027	427,836	13,243	13,243	-	9,975	-	9,975
2028	477,078	14,573	14,573	-	10,307	-	10,307
2029	528,766	15,323	15,323	-	10,176	-	10,176
2030	583,081	16,391	16,391	-	10,221	-	10,221
2031	640,206	34,906	34,906	-	20,438	-	20,438
2032	700,336	36,260	36,260	-	19,935	-	19,935
2033	761,044	37,929	37,929	-	19,579	-	19,579
2034	824,965	19,766	19,766	-	9,581	-	9,581
2035	892,384	19,763	19,763	-	8,995	-	8,995
2036	963,518	20,829	20,829	-	8,901	-	8,901
2037	1,038,600	20,864	20,864	-	8,372	-	8,372
2038	1,117,914	21,099	21,099	-	7,950	-	7,950
2039	1,201,714	22,043	22,043	-	7,798	-	7,798
2040	1,289,325	32,632	32,632	-	10,840	-	10,840
2041	1,381,903	33,923	33,923	-	10,581	-	10,581
2042	1,478,252	34,403	34,403	-	10,076	-	10,076
2043	1,580,071	22,773	22,773	-	6,263	-	6,263
2044	1,687,690	23,667	23,667	-	6,111	-	6,111
2045	1,801,462	24,627	24,627	-	5,971	-	5,971
2046	1,921,757	25,723	25,723	-	5,856	-	5,856
2047	2,048,967	26,598	26,598	-	5,686	-	5,686
2048	2,183,508	28,026	28,026	-	5,625	-	5,625
2049	2,325,817	29,373	29,373	-	5,536	-	5,536
2050	2,476,359	31,807	31,807	-	5,629	-	5,629
2051	2,635,630	33,437	33,437	-	5,556	-	5,556
2052	2,804,154	65,167	65,167	-	10,168	-	10,168
2053	2,982,487	69,031	69,031	-	10,113	-	10,113
2054	3,167,528	71,735	71,735	-	9,868	-	9,868

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%
2055	3,363,306	64,654	64,654	-	8,351	-	8,351
2056	3,570,469	67,040	67,040	-	8,131	-	8,131
2057	3,787,315	69,951	69,951	-	7,966	-	7,966
2058	4,016,777	65,635	65,635	-	7,018	-	7,018
2059	4,259,623	66,879	66,879	-	6,715	-	6,715
2060	4,514,349	70,542	70,542	-	6,650	-	6,650
2061	4,783,954	36,786	36,786	-	3,256	-	3,256
2062	5,069,346	37,837	37,837	-	3,145	-	3,145
2063	5,371,490	39,882	39,882	-	3,113	-	3,113
2064	5,691,412	38,925	38,925	-	2,852	-	2,852
2065	6,030,203	41,351	41,351	-	2,845	-	2,845
2066	6,389,022	41,213	41,213	-	2,663	-	2,663
2067	6,769,100	42,514	42,514	-	2,579	-	2,579
2068	7,171,748	44,403	44,403	-	2,529	-	2,529
2069	7,598,358	43,683	43,683	-	2,336	-	2,336
2070	8,050,409	46,258	46,258	-	2,323	-	2,323
2071	8,529,476	46,425	46,425	-	2,189	-	2,189
2072	9,037,231	47,629	47,629	-	2,109	-	2,109
2073	9,575,474	49,743	49,743	-	2,068	-	2,068
2074	10,146,520	48,964	48,964	-	1,911	-	1,911
2075	10,755,488	50,965	50,965	-	1,868	-	1,868
2076	11,401,973	50,986	50,986	-	1,755	-	1,755
2077	12,090,458	51,210	51,210	-	1,655	-	1,655
2078	12,823,463	52,487	52,487	-	1,593	-	1,593
2079	13,602,795	50,725	50,725	-	1,445	-	1,445
2080	14,434,603	50,694	50,694	-	1,356	-	1,356
2081	15,320,511	49,292	49,292	-	1,238	-	1,238
2082	16,265,450	47,274	47,274	-	1,115	-	1,115
2083	17,273,894	46,118	46,118	-	1,021	-	1,021
2084	18,349,080	42,678	42,678	-	888	-	888
2085	19,497,705	39,439	39,439	-	770	-	770
2086	20,724,335	36,234	36,234	-	664	-	664

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%
2087	22,034,005	32,338	32,338	-	557	-	557
2088	23,432,826	28,895	28,895	-	467	-	467
2089	24,926,126	25,066	25,066	-	380	-	380
2090	26,520,444	21,426	21,426	-	305	-	305
2091	28,222,151	17,792	17,792	-	238	-	238
2092	30,038,221	14,711	14,711	-	185	-	185
2093	31,975,516	11,958	11,958	-	141	-	141
2094	34,041,578	9,549	9,549	-	106	-	106
2095	36,244,421	7,483	7,483	-	78	-	78
2096	38,592,582	5,750	5,750	-	56	-	56
2097	41,095,163	4,330	4,330	-	40	-	40
2098	43,761,878	3,191	3,191	-	27	-	27
2099	46,603,105	2,299	2,299	-	19	-	19
2100	49,629,933	1,619	1,619	-	12	-	12
2101	52,854,207	1,112	1,112	-	8	-	8
2102	56,288,582	745	745	-	5	-	5
2103	59,946,571	485	485	-	3	-	3
2104	63,842,597	308	308	-	2	-	2
2105	67,992,048	190	190	-	1	-	1
2106	72,411,335	114	114	-	1	-	1
2107	77,117,954	66	66	-	-	-	-
2108	82,130,553	37	37	-	-	-	-
2109	87,469,001	20	20	-	-	-	-
2110	93,154,465	11	11	-	-	-	-
2111	99,209,494	6	6	-	-	-	-
2112	105,658,105	3	3	-	-	-	-
2113	112,525,879	2	2	-	-	-	-
2114	119,840,059	1	1	-	-	-	-
2115	127,629,662	-	-	-	-	-	-
2116	135,925,590	-	-	-	-	-	-
2117	144,760,753	-	-	-	-	-	-
2118	154,170,202	-	-	-	-	-	-

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

Year	Differences between Expected and Actual Experience	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
2018	(34,161)	8.44	(4,048)	(4,048)	(4,048)	(4,048)	(1,777)	-	-	-	-	-
2019	-	8.44	-	-	-	-	-	-	-	-	-	-
2020	64,541	8.31	7,767	7,767	7,767	7,767	7,767	7,767	2,405	-	-	-
2021	-	8.31	-	-	-	-	-	-	-	-	-	-
2022	(88,903)	7.97	(11,155)	(11,155)	(11,155)	(11,155)	(11,155)	(11,155)	(11,155)	(10,818)	-	-
Net Increase (Decrease) in OPEB Expense			(7,436)	(7,436)	(7,436)	(7,436)	(5,165)	(3,388)	(8,750)	(10,818)	-	-

Year	Changes of Assumptions	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
2018	13,611	8.44	1,613	1,613	1,613	1,613	707	-	-	-	-	-
2019	24,398	8.44	2,891	2,891	2,891	2,891	2,891	1,270	-	-	-	-
2020	53,728	8.31	6,465	6,465	6,465	6,465	6,465	6,465	2,008	-	-	-
2021	(38,851)	8.31	(4,675)	(4,675)	(4,675)	(4,675)	(4,675)	(4,675)	(4,675)	(1,451)	-	-
2022	(8,217)	7.97	(1,031)	(1,031)	(1,031)	(1,031)	(1,031)	(1,031)	(1,031)	(1,000)	-	-
Net Increase (Decrease) in OPEB Expense			5,263	5,263	5,263	5,263	4,357	2,029	(3,698)	(2,451)	-	-

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)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
2018	3,166	5	634	-	-	-	-	-	-	-	-	-
2019	2,199	5	440	439	-	-	-	-	-	-	-	-
2020	1,334	5	267	267	266	-	-	-	-	-	-	-
2021	(33,870)	5	(6,774)	(6,774)	(6,774)	(6,774)	-	-	-	-	-	-
2022	58,136	5	11,627	11,627	11,627	11,627	11,628	-	-	-	-	-
Net Increase (Decrease) in OPEB Expense			6,194	5,559	5,119	4,853	11,628	-	-	-	-	-