



MARTHA'S VINEYARD LAND BANK

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. Janette Andrews
Fiscal Officer
Martha's Vineyard Land Bank
PO Box 2057
Edgartown, MA 02539

Dear Janette:

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 Land Bank, 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 Land Bank as well as health plan rates provided by the Trustees of the Dukes County Pooled OPEB Trust. Although we did not audit the data used in the valuation and disclosure calculations, we believe that the information is complete and reliable.

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

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

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

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

This valuation report is intended for the sole use of the Martha's Vineyard Land Bank 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 Land Bank 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 Land Bank, other than as consulting actuary for this assignment, that would impair our independence.

Ms. Janette Andrews

November 8, 2023

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

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

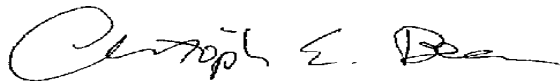
Respectfully submitted,



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EXECUTIVE SUMMARY

Purpose of Report

This report presents the results of the actuarial valuation of the Martha's Vineyard Land Bank'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, or the plan year in which an irrevocable OPEB trust was established, if later. For the Martha's Vineyard Land Bank, this is the plan year ending June 30, 2021. 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 Land Bank.

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 Land Bank Other Postemployment Benefits Program

The Martha's Vineyard Land Bank 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 Land Bank provides health care benefits for retirees and their dependents. Benefits are provided through the Cape Cod Municipal Health Group, and the full cost of benefits is shared between the Land Bank 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	11	11	0.0%
Inactive Plan Members (excludes covered spouses)	3	2	50.0%
Total Plan Members	14	13	7.7%
Covered Spouses	1	1	0.0%
Covered Payroll	\$948,008	\$934,357	1.5%
Net OPEB Liability			
Discount Rate	6.50%	6.60%	
Total OPEB Liability (TOL)	\$1,376,035	\$1,080,468	27.4%
Fiduciary Net Position (FNP)	\$1,334,339	\$1,156,913	15.3%
Net OPEB Liability (Asset)	\$41,696	(\$76,445)	(154.5%)
FNP as % of TOL	97.0%	107.1%	
OPEB Expense			
OPEB Expense	\$326,742	(\$2,487)	
Deferred Outflows	\$449,397	\$599,257	
Deferred Inflows	\$796,109	\$851,222	
Recognition Period	7.58	7.20	

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 \$127,000. 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 an employee retiring without a covered spouse

Changes of Assumptions

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

◆ Decrease due to change in Inflation Assumption	(2,000)
◆ Increase due to change in Trend Assumption	44,000
◆ Decrease due to change in Mortality Improvement Rates	(16,000)
◆ Increase due to change in Discount Rate	16,000
Total	\$ 42,000

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

Changes of Benefit Terms

The retiree contribution rate decreased from 50% to 25%. 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 \$1,376,035. The Total OPEB Liability as of the prior measurement date, June 30, 2022, was \$1,080,468. During the current measurement period ending June 30, 2023, the Total OPEB Liability increased by \$295,567, or 27.4%. The development of the Total OPEB Liability for the current measurement period is shown in Section 1, Exhibit 1.2.

Fiduciary Net Position

The Fiduciary Net Position is equal to the market value of assets and as of the current measurement date, June 30, 2023, is \$1,334,339. The Fiduciary Net Position as of the prior measurement date, June 30, 2022, was \$1,156,913. During the plan years ended June 30, 2023 and June 30, 2022, the actual rates of return were 10.60% and -10.78%, 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 Land Bank recently voted to join the pooled OPEB Trust and contributed \$262,422 in April 2021; \$1,000,000 in August 2021, and \$50,000 in July 2022. Future contributions may be made if the Plan is not fully funded.

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 \$326,742. Benefit changes are recognized immediately, and experience gains and losses and assumption changes developed in this valuation are recognized over 7.58 years. Investment gains and losses are recognized over 5 years. The OPEB Income for the prior measurement period was \$2,487. 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	\$229,881	\$233,611
Cash & Equivalents	713	978
Large Cap Equity	485,645	380,844
Mid Cap Equity	131,366	104,397
Small Cap Equity	130,956	102,958
International Equity	198,571	155,374
Real Estate	157,207	178,751
Total Market Value of Assets	\$1,334,339	\$1,156,913
Asset Activity		
Market value, beginning of year	\$1,156,913	\$277,544
Employer Premiums	63,854	36,610
OPEB Trust Contributions	50,000	1,000,000
Benefit Payments	(63,854)	(36,610)
Administrative Expenses	-	-
Investment Return	127,426	(120,631)
Market value, end of year	\$1,334,339	\$1,156,913
Money-Weighted Rate of Return	10.60%	-10.78%
(Gain) / Loss on OPEB Plan Investments		
Projected earnings	\$79,373	\$73,023
Actual earnings	127,426	(120,631)
(Gain) / Loss on OPEB plan investments	(\$48,053)	\$193,654

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	\$741,301
b. Retirees, Covered Spouses and Survivors	339,167
c. Total OPEB Liability at 6.6% (a. + b.)	\$1,080,468
2. Service Cost	\$20,028
3. Expected Benefit Payments	
a. Current retirees	(\$52,551)
b. Future retirees	(11,303)
c. Total (a. + b.)	(\$63,854)
4. Interest [6.6% x (1.c. + 2. + .5 x 3.c)]	\$70,526
5. Changes of benefit terms	\$353,090
6. Differences between expected and actual experience	(\$126,502)
7. Changes of assumptions or other inputs	\$42,279
8. Total OPEB Liability, end of year (1.c. + 2. + 3.c. + 4. + 5. + 6. + 7.)	
a. Actives	\$861,437
b. Retirees, Covered Spouses and Survivors	514,598
c. Total OPEB Liability at 6.5% (a. + b.)	\$1,376,035

SECTION 1 - PRINCIPAL VALUATION RESULTS

Exhibit 1.3 - Development of Actuarially Determined Employer Contributions

The Land Bank recently voted to join the pooled OPEB Trust and contributed \$262,422 in April 2021; \$1,000,000 in August 2021, and \$50,000 in July 2022. Future contributions may be made if the Plan is not fully funded.

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	6.60%	6.50%
1. Normal Cost	\$20,028	\$35,410
2. Unfunded Actuarial Accrued Liability		
a. Actuarial Accrued Liability	\$1,080,468	\$1,376,035
b. Actuarial Value of Plan Assets	\$1,156,913	\$1,334,339
Unfunded Actuarial Accrued Liability (Surplus)		
c. (a. - b.)	(\$76,445)	\$41,696
3. Amortization of Unfunded Actuarial Accrued Liability		
a. Unfunded Actuarial Accrued Liability	(\$76,445)	\$41,696
b. Amortization Period in years	30	30
c. Payroll Growth Rate	3.5%	3.5%
d. Amortization Factor	20.20	20.44
e. Amortization Amount (3.a. / 3.d.)	(\$3,784)	\$2,040
4. Interest on 1. and 3.e.	\$1,072	\$2,434
5. Actuarially Determined Employer Contribution (1. + 3.e. + 4.)	\$17,316	\$39,884
6. Actual Employer Contribution to OPEB Trust	\$50,000	TBD
7. Expected Benefit Payments	\$63,854	
8. Total Contribution (6. + 7.)	\$113,854	

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.1 - Plan Description

Plan Administration

The Martha's Vineyard Land Bank 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	3
Inactive plan members entitled to but not yet receiving benefit payments	0
Active plan members	11
	<u>14</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 Land Bank provides health care benefits for retirees and their dependents. Benefits are provided through the Cape Cod Municipal Health Group, and the full cost of benefits is shared between the Land Bank and retirees.

Employer Future Period Contributions

The Land Bank recently voted to join the pooled OPEB Trust and contributed \$262,422 in April 2021; \$1,000,000 in August 2021, and \$50,000 in July 2022. Future contributions may be made if the Plan is not fully funded.

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	\$ 1,376,035
Fiduciary net position	(1,334,339)
Net OPEB liability (asset)	\$ 41,696

Fiduciary net position as a percentage of the total OPEB liability 96.97%

Actuarial Assumptions

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

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

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.2 - Net OPEB Liability

Long-Term Expected Rate of Return

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

Asset Class	Target Allocation 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 on 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 Land Bank 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	\$ 1,558,973	\$ 1,376,035	\$ 1,228,413
Fiduciary Net Position	(1,334,339)	(1,334,339)	(1,334,339)
Net OPEB Liability (Asset)	\$ 224,634	\$ 41,696	\$ (105,926)
% Change in Net OPEB Liability	438.7%		-354.0%

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	\$ 1,207,501	\$ 1,376,035	\$ 1,587,542
Fiduciary Net Position	(1,334,339)	(1,334,339)	(1,334,339)
Net OPEB Liability (Asset)	\$ (126,838)	\$ 41,696	\$ 253,203
% Change in Net OPEB Liability	-404.2%		507.3%

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	\$ 20,028	\$ 19,164	\$ 80,522	\$ 54,295	\$ 36,714
Interest	70,526	68,179	47,173	57,852	44,952
Changes of benefit terms	353,090	-	-	(58,601)	-
Differences between expected and actual experience	(126,502)	-	(243,741)	-	114,534
Changes of assumptions	42,279	(2,414)	(891,380)	428,459	298,997
Benefit payments	(63,854)	(36,610)	(28,820)	(24,478)	(18,332)
Net change in total OPEB liability	\$ 295,567	\$ 48,319	\$ (1,036,246)	\$ 457,527	\$ 476,865
Total OPEB liability—beginning	\$ 1,080,468	\$ 1,032,149	\$ 2,068,395	\$ 1,610,868	\$ 1,134,003
Total OPEB liability—ending (a)	\$ 1,376,035	\$ 1,080,468	\$ 1,032,149	\$ 2,068,395	\$ 1,610,868
Plan Fiduciary Net Position					
Contributions—employer	\$ 113,854	\$ 1,036,610	\$ 291,242	\$ 24,478	\$ 18,332
Net investment income	127,426	(120,631)	15,122	-	-
Benefit payments	(63,854)	(36,610)	(28,820)	(24,478)	(18,332)
Administrative expenses	-	-	-	-	-
Other	-	-	-	-	-
Net change in plan fiduciary net position	\$ 177,426	\$ 879,369	\$ 277,544	\$ -	\$ -
Plan fiduciary net position—beginning	\$ 1,156,913	\$ 277,544	\$ -	\$ -	\$ -
Plan fiduciary net position—ending (b)	\$ 1,334,339	\$ 1,156,913	\$ 277,544	\$ -	\$ -
Net OPEB liability—ending (a) - (b)	\$ 41,696	\$ (76,445)	\$ 754,605	\$ 2,068,395	\$ 1,610,868
Plan fiduciary net position as a percentage of the total OPEB liability	96.97%	107.08%	26.89%	0.00%	0.00%
Covered payroll	\$ 948,008	\$ 934,357	\$ 763,338	\$ 807,171	\$ 797,509
Net OPEB liability as a percentage of covered payroll	4.40%	-8.18%	98.86%	256.25%	201.99%
Discount Rate	6.50%	6.60%	6.60%	2.21%	3.50%

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	\$ 38,635	\$ 46,746			
Interest	41,525	36,107			
Changes of benefit terms	(758)	-			
Differences between expected and actual experience	-	-			
Changes of assumptions	(64,009)	(177,087)			
Benefit payments	(5,358)	(3,905)			
Net change in total OPEB liability	\$ 10,035	\$ (98,139)			
Total OPEB liability—beginning	\$ 1,123,968	\$ 1,222,107			
Total OPEB liability—ending (a)	\$ 1,134,003	\$ 1,123,968			
	Plan Fiduciary Net Position				
Contributions—employer	\$ 5,358	\$ 3,905			
Net investment income	-	-			
Benefit payments	(5,358)	(3,905)			
Administrative expenses	-	-			
Other	-	-			
Net change in plan fiduciary net position	\$ -	\$ -			
Plan fiduciary net position—beginning	\$ -	\$ -			
Plan fiduciary net position—ending (b)	\$ -	\$ -			
Net OPEB liability—ending (a) - (b)	\$ 1,134,003	\$ 1,123,968			
Plan fiduciary net position as a percentage of the total OPEB liability	0.00%	0.00%			
Covered payroll	\$ 710,570	\$ 677,661			
Net OPEB liability as a percentage of covered payroll	159.59%	165.86%			
Discount Rate	3.87%	3.58%			

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

The retiree contribution rate decreased from 50% to 25%. All other benefit terms are the same as those used in the prior measurement.

Changes of Assumptions

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

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.2 - Investment Returns

Fiscal Year Ended June 30	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expenses	10.60%	-10.78%	39.96%	Not applicable	Not applicable	Not applicable	Not applicable			

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.

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	\$ 1,156,913	12	1.00	
Monthly net external cash flows:				
July	50,000	11	0.92	54,836
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	-	0	0.00	-
Ending value - June 30, 2023				\$ 1,334,339
Money-weighted rate of return:				10.60%

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	\$ 17,316	\$ 60,251	\$ 140,702	\$ 111,771	\$ 79,465
Contributions in relation to the actuarially determined contribution	113,854	1,036,610	291,242	24,478	18,332
Contribution deficiency (excess)	<u>\$ (96,538)</u>	<u>\$ (976,359)</u>	<u>\$ (150,540)</u>	<u>\$ 87,293</u>	<u>\$ 61,133</u>
Covered payroll	\$ 948,008	\$ 934,357	\$ 763,338	\$ 807,171	\$ 797,509
Contributions as a percentage of covered payroll	12.01%	110.94%	38.15%	3.03%	2.30%
Discount rate	6.60%	6.60%	2.21%	3.50%	3.87%
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	\$ 76,594	\$ 65,208			
Contributions in relation to the actuarially determined contribution	5,358	3,905			
Contribution deficiency (excess)	\$ 71,236	\$ 61,303			
Covered payroll	\$ 710,570	\$ 677,661			
Contributions as a percentage of covered payroll	0.75%	0.58%			
Discount rate	3.58%	4.00%			
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	114,534	-	76,050	38,484	-
2020	-	-	-	-	-
2021	-	243,741	(101,559)	-	142,182
2022	-	-	-	-	-
2023	-	126,502	(16,689)	-	109,813
Total				<u>\$ 38,484</u>	<u>\$ 251,995</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	\$ -	\$ 64,009	\$ (41,610)	\$ -	\$ 22,399
2019	298,997	-	198,535	100,462	-
2020	428,459	-	227,600	200,859	-
2021	-	891,380	(371,409)	-	519,971
2022	-	2,414	(670)	-	1,744
2023	42,279	-	5,578	36,701	-
Total				<u>\$ 338,022</u>	<u>\$ 544,114</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	\$ -	\$ -	\$ -	\$ -	\$ -
2019	-	-	-	-	-
2020	-	-	-	-	-
2021	-	12,146	(7,287)	-	4,859
2022	193,654	-	77,462	116,192	-
2023	-	48,053	(9,611)	-	38,442
Subtotal				\$ 116,192	\$ 43,301
Net				\$ 72,891	\$ -

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	\$	(37,529)
2025	\$	(37,530)
2026	\$	(60,905)
2027	\$	(150,147)
2028	\$	(42,975)
Thereafter		(17,626)
Deferred Outflows	\$	449,397
Deferred Inflows	\$	796,109

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	\$ 20,028
2. Interest on the total OPEB liability	
a. Total OPEB liability, beginning of year	1,080,468
b. Service cost, beginning of year	20,028
c. Benefit payments	(63,854)
d. Interest on total OPEB liability = 6.6% times (a. + b. + .5 times c.)	70,526
3. Differences between expected and actual experience	(35,332)
4. Changes of benefit terms	353,090
5. Changes of assumptions	(28,888)
6. Projected earnings on OPEB plan investments	
a. Plan fiduciary net position, beginning of year	1,156,913
b. Contributions - Employer	113,854
c. Benefit payments	(63,854)
d. Administrative expenses and other	-
e. Total projected earnings	(79,373)
7. Differences between projected and actual earnings on OPEB plan investments	26,691
8. OPEB plan administrative expenses	-
9. Other changes in fiduciary net position	-
10. Total OPEB Expense	\$ 326,742

SECTION 5 - SUMMARY OF PLAN PROVISIONS

Eligibility for Postemployment Benefits Employees of the Land Bank and their dependents are eligible for postemployment medical insurance based on the eligibility requirements under the Dukes County Retirement System.

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

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

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
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

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

Participant Contributions Retired employees contribute 25% of the total medical premium. Previously, 50%.

Continuation of Coverage to Spouse After Death of Retiree Surviving spouse may continue coverage for lifetime by paying the required medical premium.

SECTION 5 - SUMMARY OF PLAN PROVISIONS

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, 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.</p> <p>6.6%, compounded annually, for the measurement as of June 30, 2022.</p> <p>The single rate that reflects the long-term expected rate of return on OPEB plan investments to the extent that the OPEB plan's assets, which are expected to be invested using a strategy to achieve that return, are sufficient to pay benefits, and a tax-exempt, high-quality municipal bond rate to the extent that the conditions for use of the long-term expected rate of return are not met.</p>
Discount Rate (ADEC)	6.6%, 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 - 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.

70% of employees are assumed to retire with a covered spouse.

For current retirees, the actual census information is used.

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Medical Per Capita Costs

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

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

Retiree Contributions

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

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

Actuarial Cost Method

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

Actuarial Value of Assets

Market value of assets as of the disclosure date.

Census Data

Employee and retiree data were compiled and submitted by the Land Bank as of May 31, 2023. 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

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:

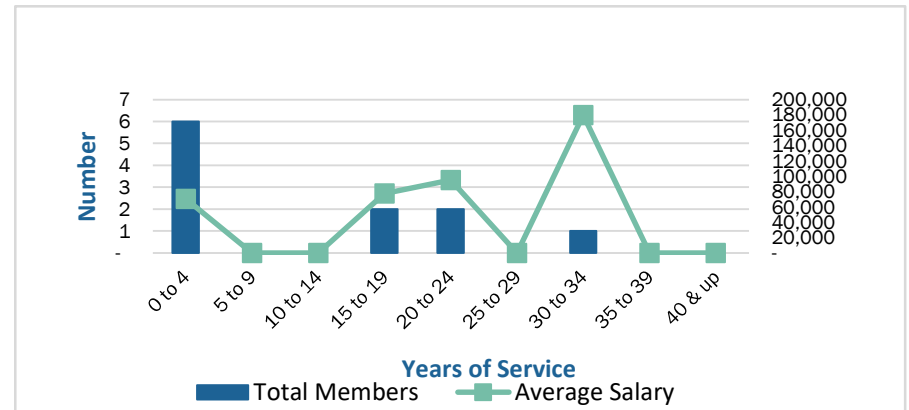
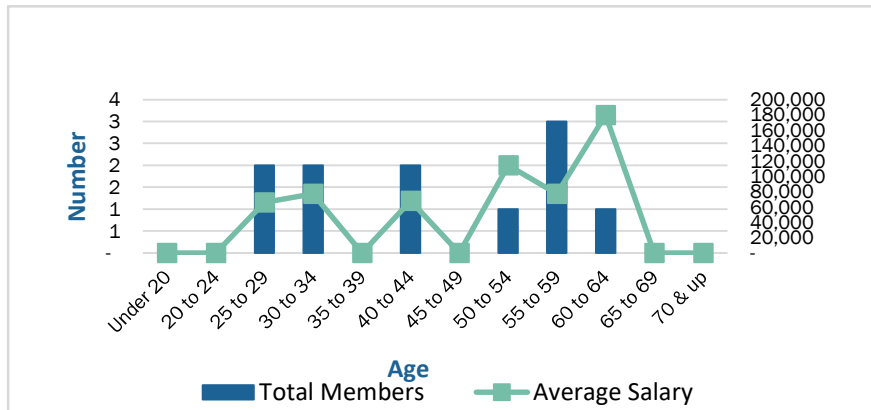
General Employees		
Age	Male	Female
45	0.00%	0.00%
50	1.00%	1.50%
55	2.00%	5.50%
60	12.00%	5.00%
62	30.00%	15.00%
65	40.00%	15.00%
69	30.00%	20.00%
70	100.00%	100.00%

SECTION 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	-	-	-	-	-	-	-	-	-	-	-
25 to 29	2	-	-	-	-	-	-	-	-	2	132,042
30 to 34	2	-	-	-	-	-	-	-	-	2	154,306
35 to 39	-	-	-	-	-	-	-	-	-	-	-
40 to 44	2	-	-	-	-	-	-	-	-	2	136,355
45 to 49	-	-	-	-	-	-	-	-	-	-	-
50 to 54	-	-	-	-	1	-	-	-	-	1	114,084
55 to 59	-	-	-	2	1	-	-	-	-	3	231,511
60 to 64	-	-	-	-	-	-	1	-	-	1	179,712
65 to 69	-	-	-	-	-	-	-	-	-	-	-
70 & up	-	-	-	-	-	-	-	-	-	-	-
Total	6	-	-	2	2	-	1	-	-	11	948,008
Total Salary	422,702	-	-	155,457	190,138	-	179,712	-	-	-	-
Average Salary	70,450	-	-	77,728	95,069	-	179,712	-	-	-	-

Average Age: 44.1 Average Service: 11.2



SECTION 7 - PLAN MEMBER INFORMATION

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

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

Average Age: 67.8

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.

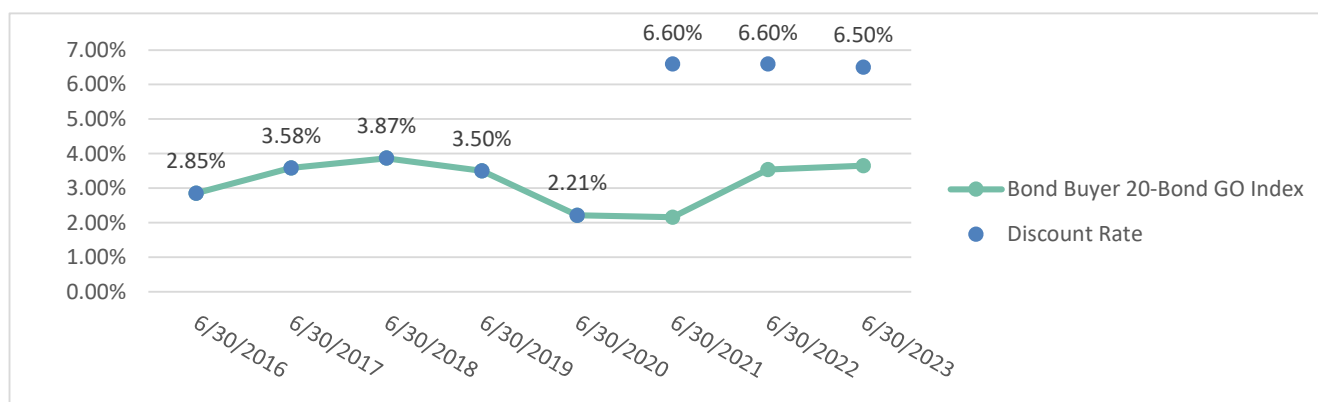
Projected cash flows into and out of the OPEB plan are assumed to be contributions to the OPEB plan, benefit payments, OPEB plan administrative expenses and OPEB plan investment earnings. These projected cash flows are used to project the OPEB plan's fiduciary net position at the beginning of each period. 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 3.65%, 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 Land Bank'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) * 3.61%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2023	948,008	-	948,008	63,855	50,000	-	113,855
2024	854,651	126,537	981,188	79,650	-	4,567	75,083
2025	787,663	227,867	1,015,530	81,305	-	8,224	73,081
2026	730,033	321,041	1,051,074	96,346	-	11,586	84,760
2027	658,598	429,264	1,087,862	119,051	-	15,492	103,559
2028	591,646	534,291	1,125,937	137,303	-	19,282	118,021
2029	530,461	634,884	1,165,345	145,333	-	22,913	122,420
2030	485,063	721,069	1,206,132	121,370	-	26,023	95,347
2031	441,590	806,757	1,248,347	76,825	-	29,115	47,710
2032	397,707	894,332	1,292,039	84,779	-	32,276	52,503
2033	374,011	963,249	1,337,260	78,314	-	34,763	43,551
2034	346,358	1,037,706	1,384,064	60,369	-	37,450	22,919
2035	321,325	1,111,181	1,432,506	68,076	-	40,102	27,974
2036	300,944	1,181,700	1,482,644	78,468	-	42,647	35,821
2037	269,722	1,264,815	1,534,537	61,392	-	45,646	15,746
2038	259,606	1,328,640	1,588,246	65,236	-	47,950	17,286
2039	248,811	1,395,024	1,643,835	73,150	-	50,346	22,804
2040	236,004	1,465,365	1,701,369	84,063	-	52,884	31,179
2041	221,986	1,538,931	1,760,917	95,536	-	55,539	39,997
2042	213,820	1,608,729	1,822,549	102,164	-	58,058	44,106
2043	193,368	1,692,970	1,886,338	100,589	-	61,098	39,491
2044	188,831	1,763,529	1,952,360	108,580	-	63,645	44,935
2045	185,555	1,835,138	2,020,693	115,543	-	66,229	49,314
2046	182,758	1,908,659	2,091,417	115,973	-	68,882	47,091
2047	181,247	1,983,370	2,164,617	120,472	-	71,579	48,893
2048	179,230	2,061,149	2,240,379	118,462	-	74,386	44,076
2049	177,171	2,141,621	2,318,792	122,369	-	77,290	45,079
2050	177,369	2,222,581	2,399,950	126,697	-	80,212	46,485
2051	178,312	2,305,636	2,483,948	138,157	-	83,209	54,948
2052	167,642	2,403,244	2,570,886	147,201	-	86,732	60,469
2053	154,987	2,505,880	2,660,867	159,959	-	90,436	69,523
2054	139,995	2,614,002	2,753,997	169,653	-	94,338	75,315
2055	130,880	2,719,507	2,850,387	167,817	-	98,145	69,672
2056	111,343	2,838,808	2,950,151	182,386	-	102,451	79,935

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) * 3.61%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2057	96,310	2,957,096	3,053,406	193,446	-	106,720	86,726
2058	81,046	3,079,229	3,160,275	176,524	-	111,127	65,397
2059	64,679	3,206,206	3,270,885	185,437	-	115,710	69,727
2060	51,231	3,334,135	3,385,366	174,953	-	120,327	54,626
2061	32,438	3,471,416	3,503,854	165,695	-	125,281	40,414
2062	24,444	3,602,045	3,626,489	166,598	-	129,995	36,603
2063	18,862	3,734,554	3,753,416	126,749	-	134,778	-
2064	10,936	3,873,850	3,884,786	122,013	-	139,805	-
2065	8,079	4,012,675	4,020,754	120,887	-	144,815	-
2066	4,004	4,157,476	4,161,480	96,597	-	150,041	-
2067	2,825	4,304,307	4,307,132	90,962	-	155,340	-
2068	1,992	4,455,890	4,457,882	92,716	-	160,810	-
2069	-	4,613,908	4,613,908	88,538	-	166,513	-
2070	-	4,775,395	4,775,395	88,551	-	172,341	-
2071	-	4,942,534	4,942,534	87,767	-	178,373	-
2072	-	5,115,523	5,115,523	84,986	-	184,616	-
2073	-	5,294,566	5,294,566	89,179	-	191,077	-
2074	-	5,479,876	5,479,876	87,137	-	197,765	-
2075	-	5,671,672	5,671,672	88,744	-	204,687	-
2076	-	5,870,181	5,870,181	89,295	-	211,851	-
2077	-	6,075,637	6,075,637	87,557	-	219,266	-
2078	-	6,288,284	6,288,284	91,730	-	226,940	-
2079	-	6,508,374	6,508,374	89,963	-	234,883	-
2080	-	6,736,167	6,736,167	90,792	-	243,104	-
2081	-	6,971,933	6,971,933	91,257	-	251,613	-
2082	-	7,215,951	7,215,951	88,734	-	260,419	-
2083	-	7,468,509	7,468,509	90,876	-	269,534	-
2084	-	7,729,907	7,729,907	87,509	-	278,967	-
2085	-	8,000,454	8,000,454	85,512	-	288,731	-
2086	-	8,280,470	8,280,470	83,392	-	298,837	-
2087	-	8,570,286	8,570,286	78,608	-	309,296	-
2088	-	8,870,246	8,870,246	75,916	-	320,121	-
2089	-	9,180,705	9,180,705	70,270	-	331,326	-
2090	-	9,502,030	9,502,030	65,026	-	342,922	-

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) * 3.61%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2091	-	9,834,601	9,834,601	59,587	-	354,924	-
2092	-	10,178,812	10,178,812	53,395	-	367,347	-
2093	-	10,535,070	10,535,070	47,593	-	380,204	-
2094	-	10,903,797	10,903,797	41,559	-	393,511	-
2095	-	11,285,430	11,285,430	35,805	-	407,284	-
2096	-	11,680,420	11,680,420	30,045	-	421,539	-
2097	-	12,089,235	12,089,235	25,101	-	436,293	-
2098	-	12,512,358	12,512,358	20,641	-	451,563	-
2099	-	12,950,291	12,950,291	16,691	-	467,368	-
2100	-	13,403,551	13,403,551	13,255	-	483,726	-
2101	-	13,872,675	13,872,675	10,326	-	500,656	-
2102	-	14,358,219	14,358,219	7,883	-	518,179	-
2103	-	14,860,757	14,860,757	5,890	-	536,315	-
2104	-	15,380,883	15,380,883	4,303	-	555,086	-
2105	-	15,919,214	15,919,214	3,071	-	574,514	-
2106	-	16,476,386	16,476,386	2,137	-	594,622	-
2107	-	17,053,060	17,053,060	1,449	-	615,434	-
2108	-	17,649,917	17,649,917	956	-	636,974	-
2109	-	18,267,664	18,267,664	613	-	659,268	-
2110	-	18,907,032	18,907,032	381	-	682,343	-
2111	-	19,568,778	19,568,778	230	-	706,225	-
2112	-	20,253,685	20,253,685	135	-	730,942	-
2113	-	20,962,564	20,962,564	77	-	756,525	-
2114	-	21,696,254	21,696,254	42	-	783,004	-
2115	-	22,455,623	22,455,623	23	-	810,409	-
2116	-	23,241,570	23,241,570	12	-	838,773	-
2117	-	24,055,025	24,055,025	6	-	868,130	-
2118	-	24,896,951	24,896,951	3	-	898,515	-
2119	-	25,768,344	25,768,344	1	-	929,963	-
2120	-	26,670,236	26,670,236	1	-	962,512	-
2121	-	27,603,694	27,603,694	-	-	996,200	-

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	1,156,913	113,855	63,855	-	127,426	1,334,339
2024	1,334,339	75,083	79,650	-	86,584	1,416,356
2025	1,416,356	73,081	81,305	-	91,796	1,499,928
2026	1,499,928	84,760	96,346	-	97,119	1,585,461
2027	1,585,461	103,559	119,051	-	102,551	1,672,520
2028	1,672,520	118,021	137,303	-	108,087	1,761,325
2029	1,761,325	122,420	145,333	-	113,741	1,852,153
2030	1,852,153	95,347	121,370	-	119,544	1,945,674
2031	1,945,674	47,710	76,825	-	125,523	2,042,082
2032	2,042,082	52,503	84,779	-	131,686	2,141,492
2033	2,141,492	43,551	78,314	-	138,067	2,244,796
2034	2,244,796	22,919	60,369	-	144,695	2,352,041
2035	2,352,041	27,974	68,076	-	151,579	2,463,518
2036	2,463,518	35,821	78,468	-	158,743	2,579,614
2037	2,579,614	15,746	61,392	-	166,191	2,700,159
2038	2,700,159	17,286	65,236	-	173,952	2,826,161
2039	2,826,161	22,804	73,150	-	182,064	2,957,879
2040	2,957,879	31,179	84,063	-	190,543	3,095,538
2041	3,095,538	39,997	95,536	-	199,405	3,239,404
2042	3,239,404	44,106	102,164	-	208,674	3,390,020
2043	3,390,020	39,491	100,589	-	218,366	3,547,288
2044	3,547,288	44,935	108,580	-	228,505	3,712,148
2045	3,712,148	49,314	115,543	-	239,137	3,885,056
2046	3,885,056	47,091	115,973	-	250,290	4,066,464
2047	4,066,464	48,893	120,472	-	261,994	4,256,879
2048	4,256,879	44,076	118,462	-	274,280	4,456,773
2049	4,456,773	45,079	122,369	-	287,178	4,666,661
2050	4,666,661	46,485	126,697	-	300,726	4,887,175
2051	4,887,175	54,948	138,157	-	314,962	5,118,928
2052	5,118,928	60,469	147,201	-	329,912	5,362,108
2053	5,362,108	69,523	159,959	-	345,598	5,617,270
2054	5,617,270	75,315	169,653	-	362,057	5,884,989
2055	5,884,989	69,672	167,817	-	379,335	6,166,179
2056	6,166,179	79,935	182,386	-	397,472	6,461,200

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	6,461,200	86,726	193,446	-	416,510	6,770,990
2058	6,770,990	65,397	176,524	-	436,503	7,096,366
2059	7,096,366	69,727	185,437	-	457,503	7,438,159
2060	7,438,159	54,626	174,953	-	479,570	7,797,402
2061	7,797,402	40,414	165,695	-	502,759	8,174,880
2062	8,174,880	36,603	166,598	-	527,142	8,572,027
2063	8,572,027	-	126,749	-	553,062	8,998,340
2064	8,998,340	-	122,013	-	580,927	9,457,254
2065	9,457,254	-	120,887	-	610,793	9,947,160
2066	9,947,160	-	96,597	-	643,426	10,493,989
2067	10,493,989	-	90,962	-	679,153	11,082,180
2068	11,082,180	-	92,716	-	717,328	11,706,792
2069	11,706,792	-	88,538	-	758,064	12,376,318
2070	12,376,318	-	88,551	-	801,583	13,089,350
2071	13,089,350	-	87,767	-	847,955	13,849,538
2072	13,849,538	-	84,986	-	897,458	14,662,010
2073	14,662,010	-	89,179	-	950,132	15,522,963
2074	15,522,963	-	87,137	-	1,006,161	16,441,987
2075	16,441,987	-	88,744	-	1,065,845	17,419,088
2076	17,419,088	-	89,295	-	1,129,339	18,459,132
2077	18,459,132	-	87,557	-	1,196,998	19,568,573
2078	19,568,573	-	91,730	-	1,268,976	20,745,819
2079	20,745,819	-	89,963	-	1,345,554	22,001,410
2080	22,001,410	-	90,792	-	1,427,141	23,337,759
2081	23,337,759	-	91,257	-	1,513,988	24,760,490
2082	24,760,490	-	88,734	-	1,606,548	26,278,304
2083	26,278,304	-	90,876	-	1,705,136	27,892,564
2084	27,892,564	-	87,509	-	1,810,173	29,615,228
2085	29,615,228	-	85,512	-	1,922,211	31,451,927
2086	31,451,927	-	83,392	-	2,041,665	33,410,200
2087	33,410,200	-	78,608	-	2,169,108	35,500,700
2088	35,500,700	-	75,916	-	2,305,078	37,729,862
2089	37,729,862	-	70,270	-	2,450,157	40,109,749
2090	40,109,749	-	65,026	-	2,605,020	42,649,743

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	42,649,743	-	59,587	-	2,770,297	45,360,453
2092	45,360,453	-	53,395	-	2,946,694	48,253,752
2093	48,253,752	-	47,593	-	3,134,947	51,341,106
2094	51,341,106	-	41,559	-	3,335,821	54,635,368
2095	54,635,368	-	35,805	-	3,550,135	58,149,698
2096	58,149,698	-	30,045	-	3,778,754	61,898,407
2097	61,898,407	-	25,101	-	4,022,581	65,895,887
2098	65,895,887	-	20,641	-	4,282,562	70,157,808
2099	70,157,808	-	16,691	-	4,559,715	74,700,832
2100	74,700,832	-	13,255	-	4,855,123	79,542,700
2101	79,542,700	-	10,326	-	5,169,940	84,702,314
2102	84,702,314	-	7,883	-	5,505,394	90,199,825
2103	90,199,825	-	5,890	-	5,862,797	96,056,732
2104	96,056,732	-	4,303	-	6,243,548	102,295,977
2105	102,295,977	-	3,071	-	6,649,139	108,942,045
2106	108,942,045	-	2,137	-	7,081,163	116,021,071
2107	116,021,071	-	1,449	-	7,541,323	123,560,945
2108	123,560,945	-	956	-	8,031,430	131,591,419
2109	131,591,419	-	613	-	8,553,422	140,144,228
2110	140,144,228	-	381	-	9,109,362	149,253,209
2111	149,253,209	-	230	-	9,701,451	158,954,430
2112	158,954,430	-	135	-	10,332,034	169,286,329
2113	169,286,329	-	77	-	11,003,609	180,289,861
2114	180,289,861	-	42	-	11,718,840	192,008,659
2115	192,008,659	-	23	-	12,480,562	204,489,198
2116	204,489,198	-	12	-	13,291,797	217,780,983
2117	217,780,983	-	6	-	14,155,764	231,936,741
2118	231,936,741	-	3	-	15,075,888	247,012,626
2119	247,012,626	-	1	-	16,055,821	263,068,446
2120	263,068,446	-	1	-	17,099,449	280,167,894
2121	280,167,894	-	-	-	18,210,913	298,378,807

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	1,334,339	79,650	79,650	-	77,181	-	77,181
2025	1,416,356	81,305	81,305	-	73,976	-	73,976
2026	1,499,928	96,346	96,346	-	82,311	-	82,311
2027	1,585,461	119,051	119,051	-	95,501	-	95,501
2028	1,672,520	137,303	137,303	-	103,421	-	103,421
2029	1,761,325	145,333	145,333	-	102,788	-	102,788
2030	1,852,153	121,370	121,370	-	80,601	-	80,601
2031	1,945,674	76,825	76,825	-	47,905	-	47,905
2032	2,042,082	84,779	84,779	-	49,638	-	49,638
2033	2,141,492	78,314	78,314	-	43,054	-	43,054
2034	2,244,796	60,369	60,369	-	31,163	-	31,163
2035	2,352,041	68,076	68,076	-	32,997	-	32,997
2036	2,463,518	78,468	78,468	-	35,713	-	35,713
2037	2,579,614	61,392	61,392	-	26,236	-	26,236
2038	2,700,159	65,236	65,236	-	26,177	-	26,177
2039	2,826,161	73,150	73,150	-	27,561	-	27,561
2040	2,957,879	84,063	84,063	-	29,740	-	29,740
2041	3,095,538	95,536	95,536	-	31,736	-	31,736
2042	3,239,404	102,164	102,164	-	31,866	-	31,866
2043	3,390,020	100,589	100,589	-	29,460	-	29,460
2044	3,547,288	108,580	108,580	-	29,860	-	29,860
2045	3,712,148	115,543	115,543	-	29,835	-	29,835
2046	3,885,056	115,973	115,973	-	28,118	-	28,118
2047	4,066,464	120,472	120,472	-	27,426	-	27,426
2048	4,256,879	118,462	118,462	-	25,323	-	25,323
2049	4,456,773	122,369	122,369	-	24,562	-	24,562
2050	4,666,661	126,697	126,697	-	23,878	-	23,878
2051	4,887,175	138,157	138,157	-	24,449	-	24,449
2052	5,118,928	147,201	147,201	-	24,459	-	24,459
2053	5,362,108	159,959	159,959	-	24,957	-	24,957
2054	5,617,270	169,653	169,653	-	24,854	-	24,854
2055	5,884,989	167,817	167,817	-	23,085	-	23,085

APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

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

Year	Projected Beginning Fiduciary Net Position (a)	Projected Benefit Payments (b)	Projected Benefit Payments		Actuarial Present Value of Projected Benefit Payments		
			"Funded" Portion of Benefit Payments (c)	"Unfunded" Portion of Benefit Payments (d)	Present Value of "Funded" Benefit Payments (e)	Present Value of "Unfunded" Benefit Payments (f)	Present Value of Benefit Payments Using the Single Discount Rate (g) = 6.5%
2056	6,166,179	182,386	182,386	-	23,558	-	23,558
2057	6,461,200	193,446	193,446	-	23,461	-	23,461
2058	6,770,990	176,524	176,524	-	20,102	-	20,102
2059	7,096,366	185,437	185,437	-	19,828	-	19,828
2060	7,438,159	174,953	174,953	-	17,566	-	17,566
2061	7,797,402	165,695	165,695	-	15,621	-	15,621
2062	8,174,880	166,598	166,598	-	14,747	-	14,747
2063	8,572,027	126,749	126,749	-	10,535	-	10,535
2064	8,998,340	122,013	122,013	-	9,522	-	9,522
2065	9,457,254	120,887	120,887	-	8,859	-	8,859
2066	9,947,160	96,597	96,597	-	6,647	-	6,647
2067	10,493,989	90,962	90,962	-	5,877	-	5,877
2068	11,082,180	92,716	92,716	-	5,625	-	5,625
2069	11,706,792	88,538	88,538	-	5,043	-	5,043
2070	12,376,318	88,551	88,551	-	4,736	-	4,736
2071	13,089,350	87,767	87,767	-	4,408	-	4,408
2072	13,849,538	84,986	84,986	-	4,008	-	4,008
2073	14,662,010	89,179	89,179	-	3,949	-	3,949
2074	15,522,963	87,137	87,137	-	3,623	-	3,623
2075	16,441,987	88,744	88,744	-	3,464	-	3,464
2076	17,419,088	89,295	89,295	-	3,273	-	3,273
2077	18,459,132	87,557	87,557	-	3,014	-	3,014
2078	19,568,573	91,730	91,730	-	2,965	-	2,965
2079	20,745,819	89,963	89,963	-	2,730	-	2,730
2080	22,001,410	90,792	90,792	-	2,587	-	2,587
2081	23,337,759	91,257	91,257	-	2,442	-	2,442
2082	24,760,490	88,734	88,734	-	2,229	-	2,229
2083	26,278,304	90,876	90,876	-	2,144	-	2,144
2084	27,892,564	87,509	87,509	-	1,938	-	1,938
2085	29,615,228	85,512	85,512	-	1,778	-	1,778
2086	31,451,927	83,392	83,392	-	1,628	-	1,628
2087	33,410,200	78,608	78,608	-	1,441	-	1,441

APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

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

Year	Projected Beginning Fiduciary Net Position (a)	Projected Benefit Payments (b)	Projected Benefit Payments		Actuarial Present Value of Projected Benefit Payments		
			"Funded" Portion of Benefit Payments (c)	"Unfunded" Portion of Benefit Payments (d)	Present Value of "Funded" Benefit Payments (e)	Present Value of "Unfunded" Benefit Payments (f)	Present Value of Benefit Payments Using the Single Discount Rate (g) = 6.5%
2088	35,500,700	75,916	75,916	-	1,307	-	1,307
2089	37,729,862	70,270	70,270	-	1,136	-	1,136
2090	40,109,749	65,026	65,026	-	987	-	987
2091	42,649,743	59,587	59,587	-	849	-	849
2092	45,360,453	53,395	53,395	-	715	-	715
2093	48,253,752	47,593	47,593	-	598	-	598
2094	51,341,106	41,559	41,559	-	490	-	490
2095	54,635,368	35,805	35,805	-	397	-	397
2096	58,149,698	30,045	30,045	-	313	-	313
2097	61,898,407	25,101	25,101	-	245	-	245
2098	65,895,887	20,641	20,641	-	189	-	189
2099	70,157,808	16,691	16,691	-	144	-	144
2100	74,700,832	13,255	13,255	-	107	-	107
2101	79,542,700	10,326	10,326	-	78	-	78
2102	84,702,314	7,883	7,883	-	56	-	56
2103	90,199,825	5,890	5,890	-	39	-	39
2104	96,056,732	4,303	4,303	-	27	-	27
2105	102,295,977	3,071	3,071	-	18	-	18
2106	108,942,045	2,137	2,137	-	12	-	12
2107	116,021,071	1,449	1,449	-	8	-	8
2108	123,560,945	956	956	-	5	-	5
2109	131,591,419	613	613	-	3	-	3
2110	140,144,228	381	381	-	2	-	2
2111	149,253,209	230	230	-	1	-	1
2112	158,954,430	135	135	-	1	-	1
2113	169,286,329	77	77	-	-	-	-
2114	180,289,861	42	42	-	-	-	-
2115	192,008,659	23	23	-	-	-	-
2116	204,489,198	12	12	-	-	-	-
2117	217,780,983	6	6	-	-	-	-
2118	231,936,741	3	3	-	-	-	-
2119	247,012,626	1	1	-	-	-	-

APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

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

Year	Projected Beginning Fiduciary Net Position (a)	Projected Benefit Payments (b)	Projected Benefit Payments		Actuarial Present Value of Projected Benefit Payments		
			"Funded" Portion of Benefit Payments (c)	"Unfunded" Portion of Benefit Payments (d)	Present Value of "Funded" Benefit Payments (e)	Present Value of "Unfunded" Benefit Payments (f)	Present Value of Benefit Payments Using the Single Discount Rate (g) = 6.5%
2120	263,068,446	1	1	-	-	-	-
2121	280,167,894	-	-	-	-	-	-

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	-	9.23	-	-	-	-	-	-	-	-	-	-
2019	114,534	7.53	15,210	15,210	15,210	8,064	-	-	-	-	-	-
2020	-	7.53	-	-	-	-	-	-	-	-	-	-
2021	(243,741)	7.20	(33,853)	(33,853)	(33,853)	(33,853)	(33,853)	(6,770)	-	-	-	-
2022	-	7.20	-	-	-	-	-	-	-	-	-	-
2023	(126,502)	7.58	(16,689)	(16,689)	(16,689)	(16,689)	(16,689)	(16,689)	(16,689)	(9,679)	-	-
Net Increase (Decrease) in OPEB Expense			(35,332)	(35,332)	(35,332)	(42,478)	(50,542)	(23,459)	(16,689)	(9,679)	-	-

Year	Changes of Assumptions	Recognition Period (Years)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
2018	(64,009)	9.23	(6,935)	(6,935)	(6,935)	(6,935)	(1,594)	-	-	-	-	-
2019	298,997	7.53	39,707	39,707	39,707	21,048	-	-	-	-	-	-
2020	428,459	7.53	56,900	56,900	56,900	56,900	30,159	-	-	-	-	-
2021	(891,380)	7.20	(123,803)	(123,803)	(123,803)	(123,803)	(123,803)	(24,759)	-	-	-	-
2022	(2,414)	7.20	(335)	(335)	(335)	(335)	(335)	(335)	(69)	-	-	-
2023	42,279	7.58	5,578	5,578	5,578	5,578	5,578	5,578	5,578	3,233	-	-
Net Increase (Decrease) in OPEB Expense			(28,888)	(28,888)	(28,888)	(47,547)	(89,995)	(19,516)	5,509	3,233	-	-

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	-	5	-	-	-	-	-	-	-	-	-	-
2019	-	5	-	-	-	-	-	-	-	-	-	-
2020	-	5	-	-	-	-	-	-	-	-	-	-
2021	(12,146)	5	(2,429)	(2,429)	(2,430)	-	-	-	-	-	-	-
2022	193,654	5	38,731	38,731	38,731	38,730	-	-	-	-	-	-
2023	(48,053)	5	(9,611)	(9,611)	(9,611)	(9,610)	(9,610)	-	-	-	-	-
Net Increase (Decrease) in OPEB Expense			26,691	26,691	26,690	29,120	(9,610)	-	-	-	-	-