## A C T U A R I E S

# LYNNFIELD CENTER WATER DISTRICT 

## OTHER POSTEMPLOYMENT BENEFITS PROGRAM

# FINANCIAL REPORTING AND DISCLOSURES <br> Governmental Accounting Standards Board Statements 74 and 75 

## Disclosures as of <br> June 30, 2020

KMS Actuaries, LLC 52 Hunt Road
Kingston, NH 03848

March, 2021


March 31, 2021
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## Board of Water Commissioners <br> Lynnfield Center Water District <br> 83 Phillips Road <br> Lynnfield, MA 01940 <br> Dear Members of the Board:

We are pleased to present the enclosed report of the July 1, 2019 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, 2020 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 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 5.8\%, 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.

## Board of Water Commissioners

March 31, 2021
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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.

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, 2019. The valuation was prepared in accordance with and for the purpose of financial reporting and disclosures as of June 30, 2020 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, 2020 | June 30, 2019 | \% Change |
| :---: | :---: | :---: | :---: |
| Valuation Date | July 1, 2019 | July 1, 2017 |  |
| Membership Data |  |  |  |
| Active Plan Members | 7 | 6 | 16.7\% |
| Inactive Plan Members (excludes covered spouses) | 4 | 4 | 0.0\% |
| Total Plan Members | 11 | 10 | 10.0\% |
| Covered Spouses | 1 | Not Provided |  |
| Covered Payroll | \$813,725 | \$665,185 | 22.3\% |
| Net OPEB Liability |  |  |  |
| Discount Rate | 5.80\% | 6.75\% |  |
| Total OPEB Liability (TOL) | \$370,197 | \$242,917 | 52.4\% |
| Fiduciary Net Position (FNP) | \$192,474 | \$152,987 | 25.8\% |
| Net OPEB Liability | \$177,723 | \$89,930 | 97.6\% |
| FNP as \% of TOL | 52.0\% | 63.0\% | (17.5\%) |
| OPEB Expense |  |  |  |
| OPEB Expense | \$21,216 | \$15,014 | 41.3\% |
| Deferred Outflows | \$135,078 | \$35,551 |  |
| Deferred Inflows | \$22,017 | \$26,065 |  |
| Recognition Period | 8.31 | 8.44 |  |

## 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 loss of approximately $\$ 65,000$. The loss is primarily attributable to an increase in the number of active employees and retirees since the prior valuation.

## Changes of Assumptions

The discount rate changed from $6.75 \%$ as of June 30, 2019 to $5.8 \%$ as of June 30, 2020. In addition, many other 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:

| - Increase due to change in Inflation Assumption | 1,000 |
| :--- | ---: |
| - Increase due to change in Trend Assumption | 3,000 |
| - Decrease due to change in Mortality Tables and Mortality | $(300)$ |
| Improvement Rates |  |
| - Increase due to change in Discount Rate | 50,000 |
| Total | $\$$ |

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

## Changes of Benefit Terms

The Patient Protection and Affordable Care Act (PPACA) previously applied a 40\% excise tax, commonly referred to as the "Cadillac Tax," to the cost of plan benefits in excess of statutory thresholds beginning in 2022. This tax was repealed in December 2019. 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, 2020, is $\$ 370,197$. The Total OPEB Liability as of the prior measurement date, June 30, 2019, was $\$ 242,917$. During the current measurement period ending June 30, 2020, the Total OPEB Liability increased by $\$ 127,280$, or $52.4 \%$. 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, 2020, is $\$ 192,474$. The Fiduciary Net Position as of the prior measurement date, June 30, 2019, was \$152,987. During the plan years ended 2020 and 2019, the actual rates of return were $5.92 \%$ and $5.63 \%$, respectively. The expected long-term rate of return is $5.80 \%$. The Fiduciary Net Position is shown in Section 1, Exhibit 1.1.

## Employer Future Period Contributions

The District is assumed to contribute $\$ 30,000$ per year to the OPEB trust.

## Discount Rate

As of the June 30, 2020 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 5.8\%.

OPEB Expense
The OPEB Expense for the current measurement period ending June 30,2020 , is $\$ 21,216$. Benefit changes are recognized immediately and experience gains and losses and assumption changes developed in this valuation are recognized over 8.31 years. Investment gains and losses are recognized over 5 years. The OPEB Expense for the prior measurement period was $\$ 15,014$. 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 impacts 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 healthcarespecific 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
2020
2019

|  | Trust Fund Composition at Fiscal Year-End |  |
| :--- | ---: | ---: |
|  |  |  |
| Domestic Equity | $\$ 61,803$ | $\$ 45,471$ |
| International Equity | 31,701 | 26,223 |
| Domestic Bond | 70,377 | 42,222 |
| International Bond | 14,459 | 12,069 |
| Alternatives | 13,510 | 26,393 |
| Cash | 624 | 609 |
| Total Market Value of Assets | $\$ 192,474$ | $\$ 152,987$ |


| Asset Activity |  |  |  |
| :--- | ---: | ---: | ---: |
| Market value, beginning of year |  |  |  |
| Employer Premiums | $\$ 152,987$ | $\$, 998$ | 6,974 |
| OPEB Trust Contributions | 30,000 | 29,000 |  |
| Benefit Payments | $(6,998)$ | $(6,974)$ |  |
| Administrative Expenses | - | - |  |
| Investment Return | 9,487 | 6,605 |  |
| Market value, end of year | $\$ 192,474$ | $\$ 152,987$ |  |
|  |  | $5.63 \%$ |  |
| Money-Weighted Rate of Return | $5.92 \%$ |  |  |


| (Gain) / Loss on OPEB Plan Investments |  |  |  |
| :--- | ---: | ---: | :---: |
|  |  |  |  |
| Projected earnings | $\$ 10,821$ | $\$ 8,804$ |  |
| Actual earnings | 9,487 | 6,605 |  |
| (Gain) / Loss on OPEB plan investments | $\$ 1,334$ | $\$ 2,199$ |  |

## 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, 2020 measurement date was developed from an actuarial valuation as of July 1, 2019 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, 2019 to the end of the measurement period, June 30, 2020 is shown below:

Measurement Date
June 30, 2020

1. Total OPEB Liability, beginning of year:

| a. Actives | $\$ 131,719$ |  |
| :--- | ---: | ---: |
| b. Retirees, Covered Spouses and Survivors | 111,198 |  |
| c. Total OPEB Liability at $6.75 \%(a .+$ b.) |  | $\$ 242,917$ |

## 2. Service Cost

 \$8,6463. Expected Benefit Payments
a. Current retirees
$(\$ 6,815)$
b. Future retirees
(183)
c. Total (a. + b.)
4. Interest $[6.75 \% \times(1 . c .+2 .+.5 \times 3 . c)]$
5. Changes of benefit terms (\$9,381)
6. Differences between expected and actual experience \$64,541
7. Changes of assumptions or other inputs
\$53,728
8. Total OPEB Liability, end of year (1.c. $+2 .+3 . c .+4 .+5 .+6 .+7$.
a. Actives \$228,141
b. Retirees, Covered Spouses and Survivors 142,056
c. Total OPEB Liability at $5.8 \%$ (a. + b.)
\$370,197

## SECTION 1 - PRINCIPAL VALUATION RESULTS

## Exhibit 1.3 - Development of Actuarially Determined Employer Contributions

The District is assumed to contribute $\$ 30,000$ per year to the OPEB trust.

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, 2020 | June 30, 2021 |
| :---: | :---: | :---: |
| Discount Rate | 6.75\% | 5.80\% |
| 1. Normal Cost | \$8,646 | \$17,250 |
| 2. Unfunded Actuarial Accrued Liability |  |  |
| a. Actuarial Accrued Liability | \$242,917 | \$370,197 |
| b. Actuarial Value of Plan Assets | \$152,987 | \$192,474 |
| c. Unfunded Actuarial Accrued Liability (a. - b.) | \$89,930 | \$177,723 |
| 3. Amortization of Unfunded Actuarial Accrued Liability |  |  |
| a. Unfunded Actuarial Accrued Liability | \$89,930 | \$177,723 |
| b. Amortization Period in years | 30 | 30 |
| c. Payroll Growth Rate | 0.0\% | 0.0\% |
| d. Amortization Factor | 13.59 | 14.88 |
| e. Amortization Amount (3.a. / 3.d.) | \$6,617 | \$11,944 |
| 4. Interest on 1. and 3.e. | \$1,030 | \$1,693 |
| 5. Actuarially Determined Employer Contribution (1. + 3.e. + 4.) | \$16,293 | \$30,887 |
| 6. Actual Employer Contribution to OPEB Trust | \$30,000 | TBD |
| 7. Expected Benefit Payments | \$6,998 |  |
| 8. Total Contribution (6. + 7.) | \$36,998 |  |

## 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 singleemployer 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, 2020, OPEB plan membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefit payments ${ }^{1}$
Inactive plan members entitled to but not yet receiving benefit payments 0
Active plan members

[^0]
## 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 is assumed to contribute \$30,000 per year to the OPEB trust.

## SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

## Exhibit 2.2 - Net OPEB Liability

The components of the net OPEB liability at June 30, 2020, were as follows:

| Total OPEB liability | $\$$ |
| :--- | :---: |
| Fiduciary net position | 370,197 |
| Net OPEB liability | $\$$ |
| Fiduciary net position as a percentage of the total OPEB liability | 177,723 |

## Actuarial Assumptions

The total OPEB liability was determined by an actuarial valuation as of July 1, 2019, rolled forward to the measurement date and using the following actuarial assumptions, applied to all periods included in the measurement:


Post-Retirement Mortality - General employees
2.4 percent
5.8 percent, net of investment expenses, including inflation

7 percent for 2019, decreasing 0.45 percent per year to 5.2 percent, then grading down to an ultimate trend rate of 4 percent, utilizing the Society of Actuaries Getzen Medical Trend Model. The ultimate medical inflation rate is reached in 2075.

RP-2014 Employees Mortality Table, projected with generational mortality improvement using scale MP2019.

RP-2014 Healthy Annuitant Mortality Table, projected with generational mortality improvement using scale MP2019.

## 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, 2020 are summarized in the following table:

|  | Target <br> Allocation |  | Long-Term Expected <br> Real Rates of Return ${ }^{1}$ |
| :--- | :---: | :---: | :---: |
| Domestic Equity | $25 \%$ |  | $4.96 \%$ |
| International Equity | $10 \%$ | $7.01 \%$ |  |
| Domestic Bond | $35 \%$ | $2.22 \%$ |  |
| International Bond | $10 \%$ | $1.53 \%$ |  |
| Alternatives | $20 \%$ | $2.76 \%$ |  |
| Cash | $0 \%$ | $0.00 \%$ |  |
|  |  |  |  |
| Total | $100 \%$ |  |  |

${ }^{1}$ provided by Bartholomew \& Company.

## Discount Rate

The discount rate used to measure the total OPEB liability was $5.8 \%$. 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.

## 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 5.8 percent, as well as what the net OPEB liability would be if it were calculated using a discount rate 1-percentage point lower (4.8 percent) or 1-percentage point higher ( 6.8 percent) than the current rate:

|  |  | $\begin{aligned} & \text { Decrease } \\ & 4.8 \%) \\ & \hline \end{aligned}$ |  | sumed ount Rate 5.8\%) |  | $\begin{aligned} & \text { Increase } \\ & 6.8 \%) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total OPEB Liability | \$ | 436,343 | \$ | 370,197 | \$ | 318,383 |
| Fiduciary Net Position |  | $(192,474)$ |  | $(192,474)$ |  | $(192,474)$ |
| Net OPEB Liability | \$ | 243,869 | \$ | 177,723 | \$ | 125,909 |

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 1percentage point lower (6\% year 1 decreasing to 3\%) or 1-percentage point higher (8\% year 1 decreasing to $5 \%)$ than the current healthcare cost trend rates:

|  | 1\% Decrease 6\% Year 1 Decreasing to 3\% |  |  | sumed <br> lthcare <br> t Trend <br> Rates <br> Year 1 <br> easing to <br> 4\% |  | Increase <br> Year 1 <br> easing to 5\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total OPEB Liability | \$ | 309,818 | \$ | 370,197 | \$ | 450,571 |
| Fiduciary Net Position |  | $(192,474)$ |  | $(192,474)$ |  | $(192,474)$ |
| Net OPEB Liability | \$ | 117,344 | \$ | 177,723 | \$ | 258,097 |

Exhibit 3.1 - Changes in Net OPEB Liability and Related Ratios

| Fiscal Year Ended June 30 |  | 2020 |  | 2019 |  | 2018 |  | 2017 | 2016 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total OPEB Liability |  |  |  |  |  |  |  |  |  |
| Service cost | \$ | 8,646 | \$ | 6,800 | \$ | 4,740 | \$ | 4,558 |  |
| Interest |  | 16,744 |  | 15,489 |  | 16,491 |  | 17,007 |  |
| Changes of benefit terms |  | $(9,381)$ |  | - |  | - |  | - |  |
| Differences between expected and actual experience |  | 64,541 |  | - |  | $(34,161)$ |  | - |  |
| Changes of assumptions |  | 53,728 |  | 24,398 |  | 13,611 |  | - |  |
| Benefit payments |  | $(6,998)$ |  | $(6,974)$ |  | $(25,247)$ |  | $(31,985)$ |  |
| Net change in total OPEB liability | \$ | 127,280 | \$ | 39,713 | \$ | $(24,566)$ | \$ | $(10,420)$ |  |
| Total OPEB liability--beginning | \$ | 242,917 | \$ | 203,204 | \$ | 227,770 | \$ | 238,190 |  |
| Total OPEB liability--ending (a) | \$ | 370,197 | \$ | 242,917 | \$ | 203,204 | \$ | 227,770 |  |
| Plan Fiduciary Net Position |  |  |  |  |  |  |  |  |  |
| Contributions--employer | \$ | 36,998 | \$ | 35,974 | \$ | 45,247 | \$ | 54,377 |  |
| Net investment income |  | 9,487 |  | 6,605 |  | 3,849 |  | 3,988 |  |
| Benefit payments |  | $(6,998)$ |  | $(6,974)$ |  | $(25,247)$ |  | $(31,985)$ |  |
| Administrative expenses |  | - |  | - |  | - |  | - |  |
| Other |  | - |  | - |  | - |  | - |  |
| Net change in plan fiduciary net position | \$ | 39,487 | \$ | 35,605 | \$ | 23,849 | \$ | 26,380 |  |
| Plan fiduciary net position-beginning | \$ | 152,987 | \$ | 117,382 | \$ | 93,533 | \$ | 67,153 |  |
| Plan fiduciary net position-ending (b) | \$ | 192,474 | \$ | 152,987 | \$ | 117,382 | \$ | 93,533 |  |
| Net OPEB liability-ending (a) - (b) | \$ | 177,723 | \$ | 89,930 | \$ | 85,822 | \$ | 134,237 |  |
| Plan fiduciary net position as a percentage of the total OPEB liability |  | 51.99\% |  | 62.98\% |  | 57.77\% |  | 41.06\% |  |
| Covered payroll | \$ | 813,725 | \$ | 665,185 | \$ | 713,838 | \$ | 619,743 |  |
| Net OPEB liability as a percentage of covered payroll |  | 21.84\% |  | 13.52\% |  | 12.02\% |  | 21.66\% |  |
| Discount Rate |  | 5.80\% |  | 6.75\% |  | 7.50\% |  | 7.50\% |  |

## SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

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

## Changes of Benefit Terms

The Patient Protection and Affordable Care Act (PPACA) previously applied a 40\% excise tax, commonly referred to as the "Cadillac Tax," to the cost of plan benefits in excess of statutory thresholds beginning in 2022. This tax was repealed in December 2019.

Changes of Assumptions
The discount rate changed from $6.75 \%$ as of June 30,2019 to $5.8 \%$ as of June 30, 2020. In addition, many other 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

| Fiscal Year Ended June 30 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Annual money-weighted rate of return, net of investment expenses | 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 4 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


Exhibit 3.3-Schedule of Employer Contributions

| Fiscal Year Ended June 30 |  | 2020 |  | 2019 |  | 2018 |  | 2017 | 2016 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarially determined contribution | \$ | 16,293 | \$ | 14,575 | \$ | 16,458 | \$ | 26,138 |  |
| Contributions in relation to the actuarially determined contribution |  | 36,998 |  | 35,974 |  | 45,247 |  | 54,377 |  |
| Contribution deficiency (excess) | \$ | $(20,705)$ | \$ | $(21,399)$ | \$ | $(28,789)$ | \$ | $(28,239)$ |  |
| Covered payroll | \$ | 813,725 | \$ | 665,185 | \$ | 713,838 | \$ | 619,743 |  |
| Contributions as a percentage of covered payroll |  | 4.55\% |  | 5.41\% |  | 6.34\% |  | 8.77\% |  |
| Discount rate |  | 6.75\% |  | 7.50\% |  | 7.50\% |  | 5.00\% |  |
| Inflation |  | 2.40\% |  | 2.60\% |  | 2.60\% |  | 2.60\% |  |

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- <br> funding. |
| Amortization period | 30 years |
| Asset valuation method | Market value |
| Healthcare cost trend rates | 7 percent for 2019, decreasing 0.45 percent per year to 5.2 percent, then <br> grading down to an ultimate trend rate of 4 percent, utilizing the Society of <br> Actuaries Getzen Medical Trend Model. The ultimate medical inflation rate is <br> 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.

|  |  |  |  |  |  |  |  | $\mathrm{Ba}$ <br> June |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Experience Losses |  | Experience Gains |  | Amounts Recognized in OPEB Expense through June 30, 2020 |  | Deferred Outflows of Resources |  | Deferred Inflows of Resources |  |
| Year |  | (a) |  | b) |  |  |  | - (c) |  | - (c) |
| 2018 | \$ | - | \$ | 34,161 | \$ | $(12,144)$ | \$ | - | \$ | 22,017 |
| 2019 |  | - |  | - |  |  |  | - |  | - |
| 2020 |  | 64,541 |  | - |  | 7,767 |  | 56,774 |  | - |
| Total |  |  |  |  |  |  | \$ | 56,774 | \$ | 22,017 |

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.


## 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.


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

| Year ended June 30 |  |  |
| ---: | ---: | ---: |
| 2021 | $\$$ | 16,028 |
| 2022 | $\$$ | 16,029 |
| 2023 | $\$$ | 15,394 |
| 2024 | $\$$ | 14,954 |
| 2025 | $\$$ | 14,688 |
| Thereafter | $\$$ | 35,968 |
|  |  |  |
| Deferred Outflows | $\$$ | 135,078 |
| Deferred Inflows | $\$$ | 22,017 |

## 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, 2020 is presented below:

Fiscal Year Ended June 30, 2020
Measurement Date 6/30/2020

| 1. Service cost |  | \$ | 8,646 |
| :---: | :---: | :---: | :---: |
| 2. Interest on the total OPEB liability |  |  |  |
| a. Total OPEB liability, beginning of year | 242,917 |  |  |
| b. Service cost, beginning of year | 8,646 |  |  |
| c. Benefit payments | $(6,998)$ |  |  |
| d. Interest on total OPEB liability $=6.75 \%$ times (a. + b. + . 5 times c.) |  |  | 16,744 |
| 3. Differences between expected and actual experience |  |  | 3,719 |
| 4. Changes of benefit terms |  |  | $(9,381)$ |
| 5. Changes of assumptions |  |  | 10,969 |
| 6. Projected earnings on OPEB plan investments |  |  |  |
| a. Plan fiduciary net position, beginning of year | 152,987 |  |  |
| b. Contributions - Employer | 36,998 |  |  |
| c. Benefit payments | $(6,998)$ |  |  |
| d. Administrative expenses and other | - |  |  |
| e. Total projected earnings |  |  | $(10,821)$ |
| 7. Differences between projected and actual earnings on OPEB plan investments |  |  | 1,340 |
| 8. OPEB plan administrative expenses |  |  | - |
| 9. Other changes in fiduciary net position |  |  | - |
| 10. Total OPEB Expense |  | \$ | 21,216 |

Eligibility for Postemployment Benefits

Retirement Eligibility

Ordinary Disability Eligibility

Accidental Disability Eligibility

Medical Premiums

## Participant Contributions

Continuation of Coverage to Spouse After Death of Retiree

Dental Coverage

Life Insurance Coverage

PPACA Excise Tax

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

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

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.

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

The total monthly premiums by plan are shown below:

| Non-Medicare Plans - July 1, 2020 | Individual | 2-Person | Family |
| :--- | ---: | ---: | ---: |
| Blue Care Elect Preferred | $\$ 1,480.31$ | $\$ 2,960.64$ | $\$ 4,292.94$ |
| HMO Blue NE | $\$ 1,233.10$ | $\$ 2,420.93$ | $\$ 3,547.02$ |

Medicare Plans - January 1, 2020
Medex
\$206.61

Retired employees contribute 50\% of the total medical premium.

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

Dental coverage is not offered to retirees.

Life insurance coverage is not offered to retirees.

The Patient Protection and Affordable Care Act (PPACA) previously applied a 40\% excise tax, commonly referred to as the "Cadillac Tax," to the cost of plan benefits in excess of statutory thresholds beginning in 2022. This tax was repealed in December 2019.

| Valuation Date | July 1, 2019 |
| :---: | :---: |
| Disclosure Date | June 30, 2020 |
| GASB 75 Reporting Date | June 30, 2020 |
| Long-Term Expected Rate of Return | $5.8 \%$, compounded annually, net of fees. |
|  | 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. |
| Municipal Bond Rate | 2.21\%, based on the Bond Buyer 20-Bond GO Index published on June 30, 2020. |
| Discount Rate (GASB) | $5.8 \%$, compounded annually, for the measurement as of June 30, 2020. $6.75 \%$, compounded annually, for the measurement as of June 30, 2019. |
|  | 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. |
| Discount Rate (ADEC) | $6.75 \%$, compounded annually, for development of the Actuarially Determined Contribution (ADEC) as of June 30, 2020. |
| Amortization Method | Level dollar amount over 30 years on an open amortization period for partial pre-funding. |


| Medical Trend Rates | Year | Trend |
| :---: | :---: | :---: |
|  | 1 | 7.00\% |
|  | 2 | 6.55\% |
|  | 3 | 6.10\% |
|  | 4 | 5.65\% |
|  | 5 | 5.20\% |
|  | Ultimate | 4.00\% |
|  | Trend rates after year 5 grade down to the ultimate rate of 4 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 the 2020 Social Security Trustees Report published April 22, 2020. |  |
| Payroll Growth | 3.5\% per year. |  |
| Participation Rates | Medical - 100\% of eligible retired employees will elect to participate. <br> Dental - Not offered to retired employees. <br> Life - Not offered to retired employees. <br> 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 retir | nsus information is used. |

Medical Per Capita Costs

Retiree Contributions

Actuarial Cost Method

Employee Data Employee and retiree data were compiled and submitted by the District as of June 30, 2020. We made reasonable adjustments for missing or invalid data.

## SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

| Post-Retirement Mortality | Post-retirement mortality rates for General employees a Healthy Annuitant Mortality Table, projected with improvement using scale MP-2019. |
| :---: | :---: |
| Pre-Retirement Mortality | Pre-retirement mortality rates for General employees ar Employees Mortality Table, projected with generational m scale MP-2019. |
| 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\% |
|  | $60 \quad 0.28 \%$ |
|  | $55 \%$ 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, 2019


## SECTION 7 - PLAN MEMBER INFORMATION

Exhibit 7.2 - Retired Members, Covered Spouses and Survivors as of July 1, 2019

|  | Non-Medicare Plans |  |
| :--- | :--- | :--- | :--- |
|  |  |  |

## 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 $\mathrm{AA} / \mathrm{Aa}$ 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 $A A / A a$ 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 $5.8 \%$, a long-term investment return rate of $5.8 \%$ and a municipal bond rate of $2.21 \%$, based on the Bond Buyer 20-Bond GO Index published on June 30, 2020. 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 $5.8 \%$.

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

|  | Projected Payroll |  |  | Projected Contributions |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Payroll for Current Plan Members <br> (a) | Payroll for Future Plan Members <br> (b) | Total Payroll $(c)=(a)+(b)$ | Employer Contributions (Benefit Payments) <br> (d) | Employer Contributions (OPEB Trust) <br> (e) | Employer <br> Contributions Related to Payroll of Future Employees $(f)=(b) * 1.98 \%$ | Portion of Employer Contributions for Current Plan Members $(g)=(d)+(e)-(f)$ |
| 2020 | 840,568 | - | 840,568 | 6,998 | 30,000 | - | 36,998 |
| 2021 | 788,433 | 81,555 | 869,988 | 7,537 | 30,000 | 1,617 | 35,920 |
| 2022 | 748,966 | 151,472 | 900,438 | 8,078 | 30,000 | 3,003 | 35,075 |
| 2023 | 722,486 | 209,467 | 931,953 | 9,459 | 30,000 | 4,153 | 35,306 |
| 2024 | 701,118 | 263,453 | 964,571 | 27,016 | 30,000 | 5,224 | 51,792 |
| 2025 | 676,050 | 322,281 | 998,331 | 29,025 | 30,000 | 6,390 | 52,635 |
| 2026 | 661,719 | 371,554 | 1,033,273 | 30,323 | 30,000 | 7,367 | 52,956 |
| 2027 | 650,163 | 419,275 | 1,069,438 | 13,449 | 30,000 | 8,313 | 35,136 |
| 2028 | 640,888 | 465,980 | 1,106,868 | 14,816 | 30,000 | 9,240 | 35,576 |
| 2029 | 633,688 | 511,920 | 1,145,608 | 16,517 | 30,000 | 10,150 | 36,367 |
| 2030 | 628,275 | 557,429 | 1,185,704 | 17,733 | 30,000 | 11,053 | 36,680 |
| 2031 | 624,506 | 602,698 | 1,227,204 | 38,268 | 30,000 | 11,950 | 56,318 |
| 2032 | 456,863 | 813,293 | 1,270,156 | 39,701 | 30,000 | 16,126 | 53,575 |
| 2033 | 456,566 | 858,045 | 1,314,611 | 41,706 | 30,000 | 17,014 | 54,692 |
| 2034 | 458,688 | 901,934 | 1,360,622 | 20,961 | 30,000 | 17,884 | 33,077 |
| 2035 | 461,582 | 946,662 | 1,408,244 | 21,113 | 30,000 | 18,771 | 32,342 |
| 2036 | 465,231 | 992,302 | 1,457,533 | 21,851 | 30,000 | 19,676 | 32,175 |
| 2037 | 471,510 | 1,037,037 | 1,508,547 | 22,369 | 30,000 | 20,563 | 31,806 |
| 2038 | 478,165 | 1,083,181 | 1,561,346 | 22,665 | 30,000 | 21,478 | 31,187 |
| 2039 | 444,432 | 1,171,561 | 1,615,993 | 24,349 | 30,000 | 23,230 | 31,119 |
| 2040 | 451,148 | 1,221,405 | 1,672,553 | 34,603 | 30,000 | 24,218 | 40,385 |
| 2041 | 386,676 | 1,344,416 | 1,731,092 | 35,861 | 30,000 | 26,657 | 39,204 |
| 2042 | 393,237 | 1,398,443 | 1,791,680 | 37,050 | 30,000 | 27,729 | 39,321 |
| 2043 | 400,223 | 1,454,166 | 1,854,389 | 26,021 | 30,000 | 28,834 | 27,187 |
| 2044 | 407,642 | 1,511,651 | 1,919,293 | 27,638 | 30,000 | 29,973 | 27,665 |
| 2045 | 415,271 | 1,571,197 | 1,986,468 | 28,854 | 30,000 | 31,154 | 27,700 |
| 2046 | 423,105 | 1,632,889 | 2,055,994 | 30,109 | 30,000 | 32,377 | 27,732 |
| 2047 | 430,955 | 1,696,999 | 2,127,954 | 31,635 | 30,000 | 33,649 | 27,986 |
| 2048 | 438,779 | 1,763,653 | 2,202,432 | 33,250 | 30,000 | 34,970 | 28,280 |
| 2049 | 446,554 | 1,832,963 | 2,279,517 | 35,071 | 30,000 | 36,344 | 28,727 |
| 2050 | 454,264 | 1,905,036 | 2,359,300 | 37,651 | 30,000 | 37,774 | 29,877 |
| 2051 | 461,893 | 1,979,983 | 2,441,876 | 39,472 | 30,000 | 39,260 | 30,212 |
| 2052 | 469,410 | 2,057,932 | 2,527,342 | 77,577 | 30,000 | 40,805 | 66,772 |

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

## Table 1: Projection of Contributions

|  |  | Projected Payroll |  |  | Projected Contributions |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

## Table 1: Projection of Contributions

|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Projected Payroll |  |
| Projected Contributions |  |  |  |  |  |  |  |

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

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

| Year | Projected Beginning <br> Fiduciary Net Position <br> (a) | Employer Contributions for Current Plan Members (b) | Projected Benefit Payments <br> (c) | Projected Administrative Expenses (d) | Projected Investment Earnings (e) | Projected Ending Fiduciary Net Position $\begin{gathered} (\mathrm{f})=(\mathrm{a})+(\mathrm{b})-(\mathrm{c})- \\ (\mathrm{d})+(\mathrm{e}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2020 | 152,987 | 36,998 | 6,998 | - | 9,487 | 192,474 |
| 2021 | 192,474 | 35,920 | 7,537 | - | 11,987 | 232,844 |
| 2022 | 232,844 | 35,075 | 8,078 | - | 14,288 | 274,129 |
| 2023 | 274,129 | 35,306 | 9,459 | - | 16,649 | 316,625 |
| 2024 | 316,625 | 51,792 | 27,016 | - | 19,083 | 360,484 |
| 2025 | 360,484 | 52,635 | 29,025 | - | 21,593 | 405,687 |
| 2026 | 405,687 | 52,956 | 30,323 | - | 24,186 | 452,506 |
| 2027 | 452,506 | 35,136 | 13,449 | - | 26,874 | 501,067 |
| 2028 | 501,067 | 35,576 | 14,816 | - | 29,664 | 551,491 |
| 2029 | 551,491 | 36,367 | 16,517 | - | 32,562 | 603,903 |
| 2030 | 603,903 | 36,680 | 17,733 | - | 35,576 | 658,426 |
| 2031 | 658,426 | 56,318 | 38,268 | - | 38,712 | 715,188 |
| 2032 | 715,188 | 53,575 | 39,701 | - | 41,883 | 770,945 |
| 2033 | 770,945 | 54,692 | 41,706 | - | 45,091 | 829,022 |
| 2034 | 829,022 | 33,077 | 20,961 | - | 48,435 | 889,573 |
| 2035 | 889,573 | 32,342 | 21,113 | - | 51,921 | 952,723 |
| 2036 | 952,723 | 32,175 | 21,851 | - | 55,557 | 1,018,604 |
| 2037 | 1,018,604 | 31,806 | 22,369 | - | 59,353 | 1,087,394 |
| 2038 | 1,087,394 | 31,187 | 22,665 | - | 63,316 | 1,159,232 |
| 2039 | 1,159,232 | 31,119 | 24,349 | - | 67,432 | 1,233,434 |
| 2040 | 1,233,434 | 40,385 | 34,603 | - | 71,707 | 1,310,923 |
| 2041 | 1,310,923 | 39,204 | 35,861 | - | 76,130 | 1,390,396 |
| 2042 | 1,390,396 | 39,321 | 37,050 | - | 80,709 | 1,473,376 |
| 2043 | 1,473,376 | 27,187 | 26,021 | - | 85,490 | 1,560,032 |
| 2044 | 1,560,032 | 27,665 | 27,638 | - | 90,483 | 1,650,542 |
| 2045 | 1,650,542 | 27,700 | 28,854 | - | 95,698 | 1,745,086 |
| 2046 | 1,745,086 | 27,732 | 30,109 | - | 101,146 | 1,843,855 |
| 2047 | 1,843,855 | 27,986 | 31,635 | - | 106,838 | 1,947,044 |
| 2048 | 1,947,044 | 28,280 | 33,250 | - | 112,784 | 2,054,858 |
| 2049 | 2,054,858 | 28,727 | 35,071 | - | 118,998 | 2,167,512 |
| 2050 | 2,167,512 | 29,877 | 37,651 | - | 125,490 | 2,285,228 |
| 2051 | 2,285,228 | 30,212 | 39,472 | - | 132,275 | 2,408,243 |
| 2052 | 2,408,243 | 66,772 | 77,577 | - | 139,365 | 2,536,803 |
| 2053 | 2,536,803 | 64,872 | 81,867 | - | 146,642 | 2,666,450 |

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

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

| Year | Projected Beginning Fiduciary Net Position <br> (a) | Employer Contributions for Current Plan Members (b) | Projected Benefit Payments <br> (c) | Projected Administrative Expenses <br> (d) | Projected Investment Earnings (e) | Projected Ending Fiduciary Net Position $(\mathrm{f})=(\mathrm{a})+(\mathrm{b})-(\mathrm{c})-$ <br> (d) + (e) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2054 | 2,666,450 | 66,268 | 84,998 | - | 154,111 | 2,801,831 |
| 2055 | 2,801,831 | 54,445 | 74,974 | - | 161,911 | 2,943,213 |
| 2056 | 2,943,213 | 52,536 | 77,683 | - | 169,977 | 3,088,043 |
| 2057 | 3,088,043 | 53,480 | 80,602 | - | 178,320 | 3,239,241 |
| 2058 | 3,239,241 | 44,917 | 74,086 | - | 187,030 | 3,397,102 |
| 2059 | 3,397,102 | 41,694 | 75,451 | - | 196,053 | 3,559,398 |
| 2060 | 3,559,398 | 43,365 | 79,354 | - | 205,401 | 3,728,810 |
| 2061 | 3,728,810 | 775 | 39,074 | - | 215,160 | 3,905,671 |
| 2062 | 3,905,671 | - | 40,296 | - | 225,360 | 4,090,735 |
| 2063 | 4,090,735 | - | 42,386 | - | 236,033 | 4,284,382 |
| 2064 | 4,284,382 | - | 41,550 | - | 247,289 | 4,490,121 |
| 2065 | 4,490,121 | - | 44,172 | - | 259,146 | 4,705,095 |
| 2066 | 4,705,095 | - | 44,237 | - | 271,613 | 4,932,471 |
| 2067 | 4,932,471 | - | 45,826 | - | 284,754 | 5,171,399 |
| 2068 | 5,171,399 | - | 47,918 | - | 298,552 | 5,422,033 |
| 2069 | 5,422,033 | - | 47,348 | - | 313,105 | 5,687,790 |
| 2070 | 5,687,790 | - | 50,168 | - | 328,437 | 5,966,059 |
| 2071 | 5,966,059 | - | 50,474 | - | 344,568 | 6,260,153 |
| 2072 | 6,260,153 | - | 51,880 | - | 361,584 | 6,569,857 |
| 2073 | 6,569,857 | - | 54,151 | - | 379,481 | 6,895,187 |
| 2074 | 6,895,187 | - | 53,414 | - | 398,372 | 7,240,145 |
| 2075 | 7,240,145 | - | 55,634 | - | 418,315 | 7,602,826 |
| 2076 | 7,602,826 | - | 55,741 | - | 439,347 | 7,986,432 |
| 2077 | 7,986,432 | - | 56,203 | - | 461,583 | 8,391,812 |
| 2078 | 8,391,812 | - | 57,707 | - | 485,052 | 8,819,157 |
| 2079 | 8,819,157 | - | 56,162 | - | 509,882 | 9,272,877 |
| 2080 | 9,272,877 | - | 56,581 | - | 536,186 | 9,752,482 |
| 2081 | 9,752,482 | - | 55,567 | - | 564,033 | 10,260,948 |
| 2082 | 10,260,948 | - | 54,145 | - | 593,565 | 10,800,368 |
| 2083 | 10,800,368 | - | 53,595 | - | 624,867 | 11,371,640 |
| 2084 | 11,371,640 | - | 50,641 | - | 658,087 | 11,979,086 |
| 2085 | 11,979,086 | - | 47,946 | - | 693,397 | 12,624,537 |
| 2086 | 12,624,537 | - | 45,179 | - | 730,913 | 13,310,271 |
| 2087 | 13,310,271 | - | 41,566 | - | 770,790 | 14,039,495 |

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

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

| Year | Projected Beginning Fiduciary Net Position <br> (a) | Employer Contributions for Current Plan Members (b) | Projected Benefit Payments <br> (c) | Projected Administrative Expenses <br> (d) | Projected Investment Earnings (e) | Projected Ending Fiduciary Net Position $\begin{gathered} (\mathrm{f})=(\mathrm{a})+(\mathrm{b})-(\mathrm{c})- \\ (\mathrm{d})+(\mathrm{e}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2088 | 14,039,495 | - | 38,366 | - | 813,178 | 14,814,307 |
| 2089 | 14,814,307 | - | 34,542 | - | 858,228 | 15,637,993 |
| 2090 | 15,637,993 | - | 30,708 | - | 906,113 | 16,513,398 |
| 2091 | 16,513,398 | - | 26,658 | - | 957,004 | 17,443,744 |
| 2092 | 17,443,744 | - | 23,040 | - | 1,011,069 | 18,431,773 |
| 2093 | 18,431,773 | - | 19,606 | - | 1,068,474 | 19,480,641 |
| 2094 | 19,480,641 | - | 16,418 | - | 1,129,401 | 20,593,624 |
| 2095 | 20,593,624 | - | 13,515 | - | 1,194,038 | 21,774,147 |
| 2096 | 21,774,147 | - | 10,921 | - | 1,262,584 | 23,025,810 |
| 2097 | 23,025,810 | - | 8,655 | - | 1,335,246 | 24,352,401 |
| 2098 | 24,352,401 | - | 6,725 | - | 1,412,244 | 25,757,920 |
| 2099 | 25,757,920 | - | 5,115 | - | 1,493,811 | 27,246,616 |
| 2100 | 27,246,616 | - | 3,801 | - | 1,580,193 | 28,823,008 |
| 2101 | 28,823,008 | - | 2,758 | - | 1,671,654 | 30,491,904 |
| 2102 | 30,491,904 | - | 1,953 | - | 1,768,474 | 32,258,425 |
| 2103 | 32,258,425 | - | 1,345 | - | 1,870,950 | 34,128,030 |
| 2104 | 34,128,030 | - | 899 | - | 1,979,400 | 36,106,531 |
| 2105 | 36,106,531 | - | 585 | - | 2,094,162 | 38,200,108 |
| 2106 | 38,200,108 | - | 368 | - | 2,215,596 | 40,415,336 |
| 2107 | 40,415,336 | - | 224 | - | 2,344,083 | 42,759,195 |
| 2108 | 42,759,195 | - | 132 | - | 2,480,029 | 45,239,092 |
| 2109 | 45,239,092 | - | 74 | - | 2,623,865 | 47,862,883 |
| 2110 | 47,862,883 | - | 41 | - | 2,776,046 | 50,638,888 |
| 2111 | 50,638,888 | - | 21 | - | 2,937,055 | 53,575,922 |
| 2112 | 53,575,922 | - | 11 | - | 3,107,403 | 56,683,314 |
| 2113 | 56,683,314 | - | 6 | - | 3,287,632 | 59,970,940 |
| 2114 | 59,970,940 | - | 2 | - | 3,478,314 | 63,449,252 |
| 2115 | 63,449,252 | - | 1 | - | 3,680,057 | 67,129,308 |
| 2116 | 67,129,308 | - | 1 | - | 3,893,500 | 71,022,807 |
| 2117 | 71,022,807 | - | - | - | 4,119,323 | 75,142,130 |

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

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

|  |  |  | Projected Benefit Payments |  | Actuarial Present Value of Projected Benefit Payments |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Projected Beginning Fiduciary Net Position <br> (a) | Projected Benefit Payments <br> (b) | "Funded" <br> Portion of Benefit Payments (c) | "Unfunded" Portion of Benefit Payments <br> (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 $\text { (g) }=5.8 \%$ |
| 2021 | 192,474 | 7,537 | 7,537 | - | 7,327 | - | 7,327 |
| 2022 | 232,844 | 8,078 | 8,078 | - | 7,423 | - | 7,423 |
| 2023 | 274,129 | 9,459 | 9,459 | - | 8,215 | - | 8,215 |
| 2024 | 316,625 | 27,016 | 27,016 | - | 22,178 | - | 22,178 |
| 2025 | 360,484 | 29,025 | 29,025 | - | 22,521 | - | 22,521 |
| 2026 | 405,687 | 30,323 | 30,323 | - | 22,238 | - | 22,238 |
| 2027 | 452,506 | 13,449 | 13,449 | - | 9,323 | - | 9,323 |
| 2028 | 501,067 | 14,816 | 14,816 | - | 9,707 | - | 9,707 |
| 2029 | 551,491 | 16,517 | 16,517 | - | 10,228 | - | 10,228 |
| 2030 | 603,903 | 17,733 | 17,733 | - | 10,379 | - | 10,379 |
| 2031 | 658,426 | 38,268 | 38,268 | - | 21,171 | - | 21,171 |
| 2032 | 715,188 | 39,701 | 39,701 | - | 20,759 | - | 20,759 |
| 2033 | 770,945 | 41,706 | 41,706 | - | 20,612 | - | 20,612 |
| 2034 | 829,022 | 20,961 | 20,961 | - | 9,792 | - | 9,792 |
| 2035 | 889,573 | 21,113 | 21,113 | - | 9,322 | - | 9,322 |
| 2036 | 952,723 | 21,851 | 21,851 | - | 9,119 | - | 9,119 |
| 2037 | 1,018,604 | 22,369 | 22,369 | - | 8,823 | - | 8,823 |
| 2038 | 1,087,394 | 22,665 | 22,665 | - | 8,450 | - | 8,450 |
| 2039 | 1,159,232 | 24,349 | 24,349 | - | 8,580 | - | 8,580 |
| 2040 | 1,233,434 | 34,603 | 34,603 | - | 11,525 | - | 11,525 |
| 2041 | 1,310,923 | 35,861 | 35,861 | - | 11,289 | - | 11,289 |
| 2042 | 1,390,396 | 37,050 | 37,050 | - | 11,024 | - | 11,024 |
| 2043 | 1,473,376 | 26,021 | 26,021 | - | 7,318 | - | 7,318 |
| 2044 | 1,560,032 | 27,638 | 27,638 | - | 7,347 | - | 7,347 |
| 2045 | 1,650,542 | 28,854 | 28,854 | - | 7,249 | - | 7,249 |
| 2046 | 1,745,086 | 30,109 | 30,109 | - | 7,150 | - | 7,150 |
| 2047 | 1,843,855 | 31,635 | 31,635 | - | 7,101 | - | 7,101 |
| 2048 | 1,947,044 | 33,250 | 33,250 | - | 7,054 | - | 7,054 |
| 2049 | 2,054,858 | 35,071 | 35,071 | - | 7,032 | - | 7,032 |
| 2050 | 2,167,512 | 37,651 | 37,651 | - | 7,136 | - | 7,136 |
| 2051 | 2,285,228 | 39,472 | 39,472 | - | 7,071 | - | 7,071 |
| 2052 | 2,408,243 | 77,577 | 77,577 | - | 13,135 | - | 13,135 |

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

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

|  |  |  | Projected Benefit Payments |  | Actuarial Present Value of Projected Benefit Payments |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Projected Beginning Fiduciary Net Position <br> (a) | Projected Benefit Payments <br> (b) | "Funded" <br> 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 $\text { (g) }=5.8 \%$ |
| 2053 | 2,536,803 | 81,867 | 81,867 | - | 13,102 | - | 13,102 |
| 2054 | 2,666,450 | 84,998 | 84,998 | - | 12,857 | - | 12,857 |
| 2055 | 2,801,831 | 74,974 | 74,974 | - | 10,719 | - | 10,719 |
| 2056 | 2,943,213 | 77,683 | 77,683 | - | 10,497 | - | 10,497 |
| 2057 | 3,088,043 | 80,602 | 80,602 | - | 10,295 | - | 10,295 |
| 2058 | 3,239,241 | 74,086 | 74,086 | - | 8,944 | - | 8,944 |
| 2059 | 3,397,102 | 75,451 | 75,451 | - | 8,609 | - | 8,609 |
| 2060 | 3,559,398 | 79,354 | 79,354 | - | 8,558 | - | 8,558 |
| 2061 | 3,728,810 | 39,074 | 39,074 | - | 3,983 | - | 3,983 |
| 2062 | 3,905,671 | 40,296 | 40,296 | - | 3,882 | - | 3,882 |
| 2063 | 4,090,735 | 42,386 | 42,386 | - | 3,860 | - | 3,860 |
| 2064 | 4,284,382 | 41,550 | 41,550 | - | 3,576 | - | 3,576 |
| 2065 | 4,490,121 | 44,172 | 44,172 | - | 3,594 | - | 3,594 |
| 2066 | 4,705,095 | 44,237 | 44,237 | - | 3,402 | - | 3,402 |
| 2067 | 4,932,471 | 45,826 | 45,826 | - | 3,331 | - | 3,331 |
| 2068 | 5,171,399 | 47,918 | 47,918 | - | 3,292 | - | 3,292 |
| 2069 | 5,422,033 | 47,348 | 47,348 | - | 3,074 | - | 3,074 |
| 2070 | 5,687,790 | 50,168 | 50,168 | - | 3,079 | - | 3,079 |
| 2071 | 5,966,059 | 50,474 | 50,474 | - | 2,928 | - | 2,928 |
| 2072 | 6,260,153 | 51,880 | 51,880 | - | 2,844 | - | 2,844 |
| 2073 | 6,569,857 | 54,151 | 54,151 | - | 2,806 | - | 2,806 |
| 2074 | 6,895,187 | 53,414 | 53,414 | - | 2,616 | - | 2,616 |
| 2075 | 7,240,145 | 55,634 | 55,634 | - | 2,576 | - | 2,576 |
| 2076 | 7,602,826 | 55,741 | 55,741 | - | 2,439 | - | 2,439 |
| 2077 | 7,986,432 | 56,203 | 56,203 | - | 2,324 | - | 2,324 |
| 2078 | 8,391,812 | 57,707 | 57,707 | - | 2,256 | - | 2,256 |
| 2079 | 8,819,157 | 56,162 | 56,162 | - | 2,075 | - | 2,075 |
| 2080 | 9,272,877 | 56,581 | 56,581 | - | 1,976 | - | 1,976 |
| 2081 | 9,752,482 | 55,567 | 55,567 | - | 1,834 | - | 1,834 |
| 2082 | 10,260,948 | 54,145 | 54,145 | - | 1,689 | - | 1,689 |
| 2083 | 10,800,368 | 53,595 | 53,595 | - | 1,580 | - | 1,580 |
| 2084 | 11,371,640 | 50,641 | 50,641 | - | 1,411 | - | 1,411 |

## APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

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

|  |  |  | Projected Benefit Payments |  | Actuarial Present Value of Projected Benefit Payments |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Projected Beginning Fiduciary Net Position <br> (a) | Projected Benefit Payments <br> (b) | "Funded" <br> Portion of Benefit Payments <br> (c) | "Unfunded" <br> Portion of Benefit Payments <br> (d) | Present Value of "Funded" Benefit Payments <br> (e) | Present Value of "Unfunded" Benefit Payments <br> (f) | Present Value of Benefit Payments Using the Single Discount Rate (g) $=5.8 \%$ |
| 2085 | 11,979,086 | 47,946 | 47,946 | - | 1,263 |  | 1,263 |
| 2086 | 12,624,537 | 45,179 | 45,179 | - | 1,125 |  | 1,125 |
| 2087 | 13,310,271 | 41,566 | 41,566 | - | 978 |  | 978 |
| 2088 | 14,039,495 | 38,366 | 38,366 | - | 853 |  | 853 |
| 2089 | 14,814,307 | 34,542 | 34,542 | - | 726 |  | 726 |
| 2090 | 15,637,993 | 30,708 | 30,708 | - | 610 |  | 610 |
| 2091 | 16,513,398 | 26,658 | 26,658 | - | 501 |  | 501 |
| 2092 | 17,443,744 | 23,040 | 23,040 | - | 409 |  | 409 |
| 2093 | 18,431,773 | 19,606 | 19,606 | - | 329 |  | 329 |
| 2094 | 19,480,641 | 16,418 | 16,418 | - | 260 |  | 260 |
| 2095 | 20,593,624 | 13,515 | 13,515 | - | 203 |  | 203 |
| 2096 | 21,774,147 | 10,921 | 10,921 | - | 155 |  | 155 |
| 2097 | 23,025,810 | 8,655 | 8,655 | - | 116 |  | 116 |
| 2098 | 24,352,401 | 6,725 | 6,725 | - | 85 |  | 85 |
| 2099 | 25,757,920 | 5,115 | 5,115 | - | 61 | - | 61 |
| 2100 | 27,246,616 | 3,801 | 3,801 | - | 43 |  | 43 |
| 2101 | 28,823,008 | 2,758 | 2,758 | - | 29 | - | 29 |
| 2102 | 30,491,904 | 1,953 | 1,953 | - | 20 |  | 20 |
| 2103 | 32,258,425 | 1,345 | 1,345 | - | 13 | - | 13 |
| 2104 | 34,128,030 | 899 | 899 | - | 8 | - | 8 |
| 2105 | 36,106,531 | 585 | 585 | - | 5 |  | 5 |
| 2106 | 38,200,108 | 368 | 368 | - | 3 | - | 3 |
| 2107 | 40,415,336 | 224 | 224 | - | 2 | - | 2 |
| 2108 | 42,759,195 | 132 | 132 | - | 1 | - |  |
| 2109 | 45,239,092 | 74 | 74 | - | 1 | - | 1 |
| 2110 | 47,862,883 | 41 | 41 | - | - |  |  |
| 2111 | 50,638,888 | 21 | 21 | - | - | - |  |
| 2112 | 53,575,922 | 11 | 11 | - | - | - |  |
| 2113 | 56,683,314 | 6 | 6 | - | - | - |  |
| 2114 | 59,970,940 | 2 | 2 | - | - | - |  |
| 2115 | 63,449,252 | 1 | 1 | - | - | - |  |
| 2116 | 67,129,308 | 1 | 1 | - | - | - |  |
| 2117 | 71,022,807 | - | - | - | - |  |  |

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

| Year | Differences between Expected and Actual Experience | Recognition <br> Period <br> (Years) | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2018 | $(34,161)$ | 8.44 | $(4,048)$ | $(4,048)$ | $(4,048)$ | $(4,048)$ | $(4,048)$ | $(4,048)$ | $(1,777)$ | - | - | - |
| 2019 | - | 8.44 | - | - | - | - | - | - | - | - | - | - |
| 2020 | 64,541 | 8.31 | 7,767 | 7,767 | 7,767 | 7,767 | 7,767 | 7,767 | 7,767 | 7,767 | 2,405 | - |
| Net Inc | (Decrease) in OPEB Exp | pense | 3,719 | 3,719 | 3,719 | 3,719 | 3,719 | 3,719 | 5,990 | 7,767 | 2,405 | - |
| Year | Changes of Assumptions | Recognition <br> Period <br> (Years) | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| 2018 | 13,611 | 8.44 | 1,613 | 1,613 | 1,613 | 1,613 | 1,613 | 1,613 | 707 | - | - | - |
| 2019 | 24,398 | 8.44 | 2,891 | 2,891 | 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 | 6,465 | 6,465 | 2,008 | - |
| Net Inc | (Decrease) in OPEB Exp | ense | 10,969 | 10,969 | 10,969 | 10,969 | 10,969 | 10,969 | 10,063 | 7,735 | 2,008 | - |
| Year | Differences between Projected and Actual Earnings on OPEB Plan Investments | Recognition <br> Period <br> (Years) | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| 2018 | 3,166 | 5 | 633 | 633 | 634 | - | - | - | - | - | - | - |
| 2019 | 2,199 | 5 | 440 | 440 | 440 | 439 | - | - | - | - | - | - |
| 2020 | 1,334 | 5 | 267 | 267 | 267 | 267 | 266 | - | - | - | - | - |
| Net Increase (Decrease) in OPEB Expense |  |  | 1,340 | 1,340 | 1,341 | 706 | 266 | - | - | - | - | - |


[^0]:    ${ }^{1}$ Per paragraph 34a of GASB 74 and further clarified by Question 4.67 of the 2017-2 GASB 74 Implementation Guide, the total shown for inactive plan members or beneficiaries currently receiving benefit payments does not include covered spouses or other dependents.

