



LYNNFIELD CENTER WATER DISTRICT

OTHER POSTEMPLOYMENT BENEFITS PROGRAM

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

Disclosures as of
June 30, 2019

KMS Actuarial, LLC
52 Hunt Road
Kingston, NH 03848

April, 2020



April 7, 2020

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

Dear Members of the Board:

We are pleased to present the enclosed report of the July 1, 2017 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, 2019 under the following Government 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 6.75%, a long-term investment return rate of 6.75% and a municipal bond rate of 3.5%. The long-term investment return rate is based on expected long-term investment return rates provided by Bartholomew & Company.

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

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

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

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

The undersigned credentialed actuaries are Members of the American Academy of Actuaries and 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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TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
SECTION 1 PRINCIPAL VALUATION RESULTS	4
Exhibit 1.1 - OPEB Trust Assets	
Exhibit 1.2 - Total OPEB Liability	
Exhibit 1.3 - Development of Actuarially Determined Employer Contributions	
SECTION 2 NOTES TO THE FINANCIAL STATEMENTS	7
Exhibit 2.1 - Plan Description	
Exhibit 2.2 - Net OPEB Liability	
SECTION 3 SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION	11
Exhibit 3.1 - Changes in Net OPEB Liability and Related Ratios	
Exhibit 3.2 - Investment Returns	
Exhibit 3.3 - Schedule of Employer Contributions	
SECTION 4 EMPLOYER REPORTING AMOUNTS UNDER GASB 75	15
Exhibit 4.1 - Deferred Outflows and Deferred Inflows of Resources	
Exhibit 4.2 - OPEB Expense	
SECTION 5 SUMMARY OF PLAN PROVISIONS	18
SECTION 6 ACTUARIAL ASSUMPTIONS AND METHODS	20
SECTION 7 PLAN MEMBER INFORMATION	25
Exhibit 7.1 - Active Members by Age and Years of Service	
Exhibit 7.2 - Retired Members, Covered Spouses and Survivors	
SECTION 8 GLOSSARY OF TERMS	27
Appendix A CALCULATION OF SINGLE DISCOUNT RATE	
Appendix B SCHEDULE OF DEFERRED OUTFLOWS OF RESOURCES and DEFERRED INFLOWS OF RESOURCES	

EXECUTIVE SUMMARY

This report presents the results of the actuarial valuation of the Lynnfield Center Water District's retiree health care benefits as of July 1, 2017. The valuation was prepared in accordance with and for the purpose of financial reporting and disclosures as of June 30, 2019 under the following Government 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.

New 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. Effective for plans with fiscal years beginning after June 15, 2016, GASB Statement No. 74 (GASB 74), *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, replaced the requirements of Statement No. 43 and effective for employers with fiscal years beginning after June 15, 2017, GASB Statement No. 75 (GASB 75), *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, replaced the requirements of Statement No. 45.

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 effective date for GASB 74 is for plan years beginning after June 15, 2016, which is the fiscal 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.

Summary of Results

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

Measurement Date	<u>June 30, 2019</u>	<u>June 30, 2018</u>	<u>Increase/ (Decrease)</u>
Valuation Date	July 1, 2017	July 1, 2017	
Membership Data			
Active Plan Members	6	6	0.0%
Inactive Plan Members	4	3	33.3%
Total Plan Members	10	9	11.1%
 Covered Payroll	 \$665,185	 \$713,838	 (6.8%)
Valuation Results (GASB 74 and GASB 75)			
Discount rate	6.75%	7.50%	
Total OPEB Liability	\$242,917	\$203,204	19.5%
Fiduciary Net Position	\$152,987	\$117,382	30.3%
Net OPEB Liability	\$89,930	\$85,822	4.8%
Funded Ratio	63.0%	57.8%	9.0%
Valuation Results (GASB 75)			
OPEB Expense	\$15,014	\$12,414	20.9%
Deferred Outflows	\$35,551	\$14,531	
Deferred Inflows	\$26,065	\$30,113	

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, there is no experience gain or loss as the Total OPEB liability was developed from a roll forward of results of the most recent valuation.

Changes of Assumptions

The long term rate of return, and consequently, the discount rate, changed from 7.5% as of June 30, 2018 to 6.75% as of June 30, 2019. All other assumptions were the same as those used in the previous measurement. The Actuarial Assumptions and Methods used in the valuation are summarized in Section 6.

Changes of Benefit Terms

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

Total OPEB Liability

The Total OPEB Liability as of the current measurement date, June 30, 2019, is \$242,917. The Total OPEB Liability as of the prior measurement date, June 30, 2018, was \$203,204. The development of the Total OPEB Liability for the current measurement date 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, 2019, is \$152,987. The Fiduciary Net Position as of the prior measurement date, June 30, 2018, was \$117,382. During the plan years ended 2019 and 2018, the actual rates of return were 5.63% and 4.12%, respectively. The expected long-term rate of return is 6.75%. The Fiduciary Net Position is shown in Section 1, Exhibit 1.1.

Employer Future Period Contributions

The District is assumed to contribute \$20,000 per year to the OPEB trust.

Discount Rate

As of the June 30, 2019 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 6.75%.

OPEB Expense

The OPEB Expense as of the current measurement date, June 30, 2019, is \$15,014. Benefit changes are recognized immediately and experience and assumption changes developed in this valuation are recognized over 8.44 years. Investment gains and losses are recognized over 5 years. The OPEB Expense for the prior measurement period was \$12,414. The development of the OPEB expense for the current measurement date is shown in Section 4, Exhibit 4.2.

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	2019	2018
Trust Fund Composition at Fiscal Year-End		
Domestic Equity	\$45,471	\$29,301
International Equity	26,223	19,450
Domestic Bond	42,222	37,155
International Bond	12,069	8,666
Alternatives	26,393	22,317
Cash	609	493
Total Market Value of Assets	\$152,987	\$117,382
Asset Activity		
Market value, beginning of year	\$117,382	\$93,533
Employer Premiums	6,974	25,247
OPEB Trust Contributions	29,000	20,000
Benefit Payments	(6,974)	(25,247)
Administrative Expenses	-	-
Investment Return	6,605	3,849
Market value, end of year	\$152,987	\$117,382
Money-Weighted Rate of Return	5.63%	4.12%
(Gain) / Loss on OPEB Plan Investments		
Projected earnings	\$8,804	\$7,015
Actual earnings	6,605	3,849
(Gain) / Loss on OPEB plan investments	\$2,199	\$3,166

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, 2019 measurement date was developed from an actuarial valuation as of July 1, 2017 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 gains and losses arise from the difference between estimates 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, 2018 to the end of the measurement period, June 30, 2019 is shown below:

<u>Measurement Date</u>		<u>June 30, 2019</u>
1. Total OPEB Liability, beginning of year:		
a. Actives	\$101,769	
b. Retirees, Covered Spouses and Survivors	101,435	
c. Total OPEB Liability at 7.5% (a. + b.)		\$203,204
2. Service Cost		\$6,800
3. Expected Benefit Payments		
a. Current retirees	(\$5,427)	
b. Future retirees	(1,547)	
c. Total (a. + b.)		(\$6,974)
4. Interest [7.5% x (1.c. + 2. + .5 x 3.c)]		\$15,489
5. Changes of benefit terms		\$0
6. Differences between expected and actual experience		\$0
7. Changes of assumptions or other inputs		\$24,398
8. Total OPEB Liability, end of year (1.c. + 2. + 3.c. + 4. + 5. + 6. + 7.)		
a. Actives	\$131,719	
b. Retirees, Covered Spouses and Survivors	111,198	
c. Total OPEB Liability at 6.75% (a. + b.)		\$242,917

SECTION 1 - PRINCIPAL VALUATION RESULTS

Exhibit 1.3 - Development of Actuarially Determined Employer Contributions

The District is assumed to contribute \$20,000 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, 2019
Discount Rate	7.50%
1. Normal Cost	\$6,800
2. Unfunded Actuarial Accrued Liability	
a. Actuarial Accrued Liability	\$203,204
b. Actuarial Value of Plan Assets	\$117,382
c. Unfunded Actuarial Accrued Liability	\$85,822
3. Amortization of Unfunded Actuarial Accrued Liability	
a. Unfunded Actuarial Accrued Liability	\$85,822
b. Amortization Period in years	30
c. Payroll Growth Rate	0.0%
d. Amortization Factor	12.70
e. Amortization Amount (3.a. / 3.d.)	\$6,758
4. Interest on 1. and 3.e.	\$1,017
5. Actuarially Determined Employer Contribution (1. + 3.e. + 4.)	\$14,575
6. Actual Employer Contribution to OPEB Trust	\$29,000
7. Expected Benefit Payments	\$6,974
8. Total Contribution (6. + 7.)	\$35,974

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.1 - Plan Description

Plan administration:

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

Plan membership:

At June 30, 2019, OPEB plan membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefit payments ¹	4
Inactive plan members entitled to but not yet receiving benefit payments	0
Active plan members	6
	<hr/>
	10
	<hr/>

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

Benefits provided:

The District provides health care benefits for retirees and their dependents. Benefits are provided through the Massachusetts Interlocal Insurance Association, and the full cost of benefits is shared between the District and retirees.

Contributions:

The District is assumed to contribute \$20,000 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, 2019, were as follows:

Total OPEB liability	\$ 242,917
Fiduciary net position	(152,987)
Net OPEB liability	\$ 89,930

Fiduciary net position as a percentage of the total OPEB liability	62.98%
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Actuarial assumptions:

The total OPEB liability was determined by an actuarial valuation as of July 1, 2017, rolled forward to the measurement date and using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.6 percent
Discount rate	6.75%, net of investment expenses, including inflation
Healthcare cost trend rate	8 percent for 2017, decreasing 0.5 percent per year to 5.5 percent, then grading down to an ultimate trend rate of 3.8 percent, utilizing the Society of Actuaries Getzen Medical Trend Model. The ultimate medical inflation rate is reached in 2075.
Pre-Retirement Mortality - General employees:	RP-2000 Employees Mortality Table, base year 2000, projected with generational mortality improvement using scale BB.
Post-Retirement Mortality - General employees:	RP-2000 Healthy Annuitant Mortality Table, base year 2000, projected with generational mortality improvement using scale BB.

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.2 - Net OPEB Liability

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 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, 2019 are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation¹</u>	<u>Long-Term Expected Real Rates of Return¹</u>
Domestic Equity	25%	5.92%
International Equity	10%	2.73%
Domestic Bond	35%	3.69%
International Bond	10%	3.80%
Alternatives	20%	3.50%
Cash	0%	0.00%
Total	100%	

¹ provided by Bartholomew & Company.

Discount rate:

The discount rate used to measure the total OPEB liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that contributions from the District will be made in accordance with the plan's funding policy. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.2 - Net OPEB Liability

Sensitivity of the net OPEB liability to changes in the discount rate:

The following presents the net OPEB liability calculated using the current discount rate of 6.75 percent, as well as what the net OPEB liability would be if it were calculated using a discount rate 1-percentage point lower (5.75 percent) or 1-percentage point higher (7.75 percent) than the current rate:

	1% Decrease (5.75%)	Discount Rate (6.75%)	1% Increase (7.75%)
Net OPEB Liability	\$ 129,684	\$ 89,930	\$ 58,251

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 2.8%) or 1-percentage point higher (9% year 1 decreasing to 4.8%) than the current healthcare cost trend rates:

	1% Decrease 7% Year 1 Decreasing to 2.8%	Healthcare Cost Trend Rates 8% Year 1 Decreasing to 3.8%	1% Increase 9% Year 1 Decreasing to 4.8%
Net OPEB Liability	\$ 51,243	\$ 89,930	\$ 140,649

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.1 - Changes in Net OPEB Liability and Related Ratios

Fiscal Year Ended June 30	2019	2018	2017
Total OPEB Liability			
Service cost	\$ 6,800	\$ 4,740	\$ 4,558
Interest	15,489	16,491	17,007
Changes of benefit terms	-	-	-
Differences between expected and actual experience	-	(34,161)	-
Changes of assumptions	24,398	13,611	-
Benefit payments	(6,974)	(25,247)	(31,985)
Net change in total OPEB liability	\$ 39,713	\$ (24,566)	\$ (10,420)
Total OPEB liability—beginning	\$ 203,204	\$ 227,770	\$ 238,190
Total OPEB liability—ending (a)	\$ 242,917	\$ 203,204	\$ 227,770
Plan fiduciary net position			
Contributions—employer	\$ 35,974	\$ 45,247	\$ 54,377
Net investment income	6,605	3,849	3,988
Benefit payments	(6,974)	(25,247)	(31,985)
Administrative expenses	-	-	-
Other	-	-	-
Net change in plan fiduciary net position	\$ 35,605	\$ 23,849	\$ 26,380
Plan fiduciary net position—beginning	\$ 117,382	\$ 93,533	\$ 67,153
Plan fiduciary net position—ending (b)	\$ 152,987	\$ 117,382	\$ 93,533
Net OPEB liability—ending (a) – (b)	\$ 89,930	\$ 85,822	\$ 134,237
Plan fiduciary net position as a percentage of the total OPEB liability	62.98%	57.77%	41.06%
Covered payroll	\$ 665,185	\$ 713,838	\$ 471,153
Net OPEB liability as a percentage of covered payroll	13.52%	12.02%	28.49%
Discount rate:	6.75%	7.50%	7.50%

Changes of benefit terms:
None.

Changes of assumptions:

The long term rate of return, and consequently, the discount rate, changed from 7.5% as of June 30, 2018 to 6.75% as of June 30, 2019. All other assumptions were the same as those used in the previous measurement.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.2 - Investment Returns

Fiscal Year Ended June 30	<u>2019</u>	<u>2018</u>	<u>2017</u>
Annual money-weighted rate of return, net of investment expenses	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.

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, 2018	\$ 117,382	12	1.00	\$ 123,987
Monthly net external cash flows:				
July	-	11	0.92	-
August	-	10	0.83	-
September	-	9	0.75	-
October	-	8	0.67	-
November	-	7	0.58	-
December	-	6	0.50	-
January	-	5	0.42	-
February	-	4	0.33	-
March	-	3	0.25	-
April	-	2	0.17	-
May	-	1	0.08	-
June	29,000	0	0.00	29,000
Ending value - June 30, 2019				\$ 152,987
			Money-weighted rate of return:	5.63%

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.3 - Schedule of Employer Contributions

Fiscal Year Ended June 30	2019	2018	2017
Actuarially determined contribution	\$ 14,575	\$ 16,458	\$ 26,138
Contributions in relation to the actuarially determined contribution	35,974	45,247	54,377
Contribution deficiency (excess)	\$ (21,399)	\$ (28,789)	\$ (28,239)
Covered payroll	\$ 665,185	\$ 713,838	\$ 471,153
Contributions as a percentage of covered payroll	5.41%	6.34%	11.54%
Discount rate	7.50%	7.50%	5.00%
Inflation	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 used in calculations of actuarially determined contributions:

Actuarial cost method	Entry Age Normal
Amortization method	Level dollar amount over 30 years on an open amortization period
Amortization period	30 years
Asset valuation method	Market value
Healthcare cost trend rates	8 percent for 2017, decreasing 0.5 percent per year to 5.5 percent, then grading down to an ultimate trend rate of 3.8 percent, utilizing the Society of Actuaries Getzen Medical Trend Model. The ultimate medical inflation rate is reached in 2075.

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 75

Exhibit 4.1 - Deferred Outflows and Deferred Inflows of Resources

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

Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in OPEB Expense through June 30, 2019 (c)	Balances at June 30, 2019	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2018	\$ -	\$ 34,161	\$ (8,096)	\$ -	\$ 26,065
2019	\$ -	\$ -	\$ -	\$ -	\$ -
Total				<u>\$ -</u>	<u>\$ 26,065</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.

Year	Increases in the Total OPEB Liability (a)	Decreases in the Total OPEB Liability (b)	Amounts Recognized in OPEB Expense through June 30, 2019 (c)	Balances at June 30, 2019	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2018	\$ 13,611	\$ -	\$ 3,226	\$ 10,385	\$ -
2019	\$ 24,398	\$ -	\$ 2,891	\$ 21,507	\$ -
Total				<u>\$ 31,892</u>	<u>\$ -</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.

Year	Investment Earnings Less Than Projected	Investment Earnings Greater Than Projected	Amounts Recognized in OPEB Expense through June 30, 2019	Balances at June 30, 2019	
	(a)	(b)	(c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2018	\$ 3,166	\$ -	\$ 1,266	\$ 1,900	\$ -
2019	\$ 2,199	\$ -	\$ 440	\$ 1,759	\$ -
Total				\$ 3,659	\$ -
Net				\$ 3,659	\$ -

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

Year ended June 30		
2020	\$	1,529
2021	\$	1,529
2022	\$	1,530
2023	\$	895
2024	\$	456
Thereafter		3,547

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, 2019 is presented below:

Fiscal Year Ended June 30	2019
Measurement date	6/30/2019
1. Service cost	\$ 6,800
2. Interest on the total OPEB liability	
a. Total OPEB liability, beginning of year	203,204
b. Service cost, beginning of year	6,800
c. Benefit payments	(6,974)
d. Interest on total OPEB liability = 7.5% times (a. + b. + .5 times c.)	15,489
3. Differences between expected and actual experience	(4,048)
4. Changes of benefit terms	-
5. Changes of assumptions	4,504
6. Projected earnings on OPEB plan investments	
a. Plan fiduciary net position, beginning of year	117,382
b. Contributions - Employer	35,974
c. Benefit payments	(6,974)
d. Administrative expenses and other	-
e. Total projected earnings	(8,804)
7. Differences between projected and actual earnings on OPEB plan investments	1,073
8. OPEB plan administrative expenses	-
9. Other changes in fiduciary net position	-
10. Total OPEB Expense	\$ 15,014

SECTION 5 - SUMMARY OF PLAN PROVISIONS

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

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

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

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

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

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

<u>Non-Medicare Plans - July 1, 2018</u>	<u>Individual</u>	<u>2-Person</u>
Blue Care Elect Preferred	\$1,533.52	\$3,067.07
HMO Blue	\$1,267.07	\$2,507.96
<u>Medicare Plans - January 1, 2019</u>		
Medex	\$197.21	

Participant Contributions: Retired employees contribute 50% of the total medical premium.

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

Dental Coverage: Dental coverage is not offered to retirees.

Life Insurance Coverage: Life insurance coverage is not offered to retirees.

SECTION 5 - SUMMARY OF PLAN PROVISIONS

PPACA Excise Tax:

The Patient Protection and Affordable Care Act (PPACA) applies 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. The 2018 thresholds are assumed to be \$10,200 for individual and \$27,500 for family coverage, increasing by chained CPI plus one percentage point in 2019 and by chained CPI thereafter. The annual limits are increased by \$1,650 for individual and \$3,450 for family coverage for retirees not eligible for Medicare benefits.

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Valuation Date:	July 1, 2017
Disclosure Date:	June 30, 2019
GASB 75 Reporting Date:	June 30, 2019
Long-Term Expected Rate of Return:	<p>6.75%, compounded annually, net of fees.</p> <p>A long-term assumption based on capital market expectations by asset class, historical returns and professional judgment. A building block approach was used that considered the target asset allocation, expected returns by asset class and risk analysis to determine a long-term expected average annual rate of return.</p>
Municipal Bond Rate:	3.5%, based on the Bond Buyer 20-Bond GO Index published on June 27, 2019.
Discount Rate (GASB):	<p>6.75%, compounded annually, for the measurement as of June 30, 2019.</p> <p>7.5%, compounded annually, for the measurement as of June 30, 2018.</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):	7.5%, compounded annually, for development of the Actuarially Determined Contribution (ADEC) as of June 30, 2019.
Amortization Method:	Level dollar amount over 30 years on an open amortization period for partial pre-funding.

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Medical Trend Rates:

Year	Trend
1	8.00%
2	7.50%
3	7.00%
4	6.50%
5	6.00%
6	5.50%
Ultimate	3.80%

Trend rates after year 6 grade down to the ultimate rate utilizing the Society of Actuaries Getzen Medical Trend Model. The ultimate trend rate is reached in 2075.

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

Dental Trend Rates: Not applicable (no dental coverage).

Inflation: 2.6% per year, based on the 2019 Social Security Trustees Report.

Chained Consumer Price Index: 2.35% per year, based on assumed CPI of 2.6% and historical data trends of chained CPI approximately 0.25% lower than standard CPI.

Payroll Growth: 3.5% per year.

Participation Rates: Medical - 100% of eligible retired employees will elect to participate.
 Dental - Not offered to retired employees.
 Life - Not offered to retired employees.
 Medicare - all retired employees are assumed to enroll in Medicare at age 65.

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

50% of employees are assumed to retire with a covered spouse.

For current retirees, the actual census information is used.

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Medical Per Capita Costs: The following annual per capita costs are for the fiscal year beginning July 1, 2017 and are applicable to retirees, survivors and spouses. Annual costs for current and future retirees are based on the blended curve 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.

<u>Age</u>	<u>Male</u>	<u>Female</u>
Under 20	\$6,227	\$7,311
20-24	4,907	7,784
25-29	5,106	11,483
30-34	6,414	14,509
35-39	8,045	14,945
40-44	10,026	15,306
45-49	12,653	16,801
50-54	16,676	19,765
55-59	21,670	22,853
60-64	27,810	27,200
65-69	1,675	1,632
70-74	2,008	1,925
75-79	2,371	2,233
80-84	2,725	2,561
85-89	3,036	2,863
90-94	3,305	3,056
95+	3,513	2,955

Retiree Contributions: Annual per capita participant contributions for the fiscal year beginning July 1, 2017 are as follows:

<u>Plan</u>	<u>Contribution</u>
Non-Medicare	\$ 8,520
Medicare	1,057

PPACA Excise Tax: For purposes of estimating the Patient Protection and Affordable Care Act (PPACA) excise tax, per capita plan costs are developed for individual and family coverage for both Medicare and non-Medicare members. These plan costs are compared to the thresholds stipulated in the PPACA. Beginning in 2022, a 40% excise tax is applied on the excess of the plan costs over the thresholds. The thresholds increase annually by chained CPI.

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

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

Employee Data: Employee and retiree data were submitted by the District. 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 are based on the RP-2000 Healthy Annuitant Mortality Table, base year 2000, projected with generational mortality improvement using scale BB.

Pre-Retirement Mortality: Pre-retirement mortality rates for General employees are based on the RP-2000 Employees Mortality Table, base year 2000, projected with generational mortality improvement using scale BB.

Turnover Rates: Turnover rates for General employees are as follows:

<u>General Employees</u>	
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:

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

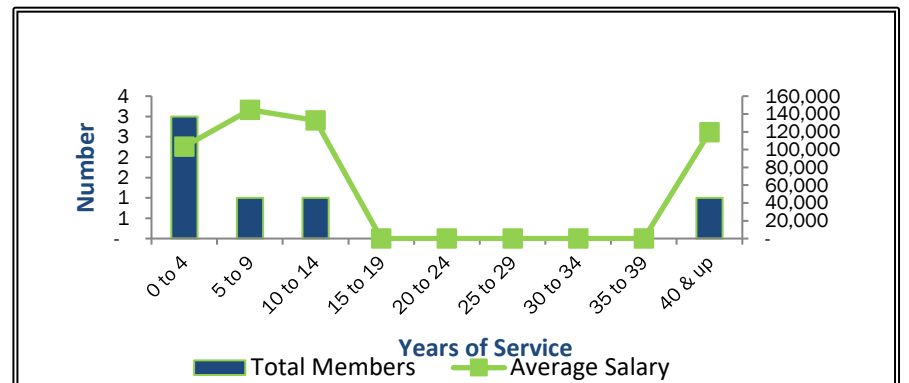
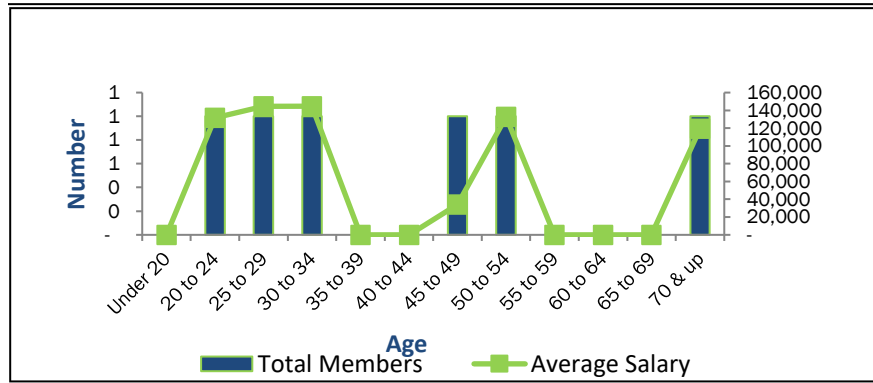
55% of the General employee disabilities are job-related.

Retirement Rates: 100% at age 65.

SECTION 7 - PLAN MEMBER INFORMATION

EXHIBIT 7.1 - ACTIVE MEMBERS BY AGE and YEARS OF SERVICE AS OF JULY 1, 2017

Age	Years of Service										Total	Total Salary	Average Salary
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up				
Under 20	-	-	-	-	-	-	-	-	-	-	-	-	-
20 to 24	1	-	-	-	-	-	-	-	-	-	1	131,478	131,478
25 to 29	1	-	-	-	-	-	-	-	-	-	1	144,560	144,560
30 to 34	-	1	-	-	-	-	-	-	-	-	1	144,648	144,648
35 to 39	-	-	-	-	-	-	-	-	-	-	-	-	-
40 to 44	-	-	-	-	-	-	-	-	-	-	-	-	-
45 to 49	1	-	-	-	-	-	-	-	-	-	1	34,098	34,098
50 to 54	-	-	1	-	-	-	-	-	-	-	1	132,629	132,629
55 to 59	-	-	-	-	-	-	-	-	-	-	-	-	-
60 to 64	-	-	-	-	-	-	-	-	-	-	-	-	-
65 to 69	-	-	-	-	-	-	-	-	-	-	-	-	-
70 & up	-	-	-	-	-	-	-	-	1	-	1	119,498	119,498
Total	3	1	1	-	-	-	-	-	1	-	6	706,910	117,818
Total Salary	310,136	144,648	132,629	-	-	-	-	-	119,498	-	-	-	-
Average Salary	103,379	144,648	132,629	-	-	-	-	-	119,498	-	-	-	-
Average Age: 42.3										Average Service: 11.5			



SECTION 7 - PLAN MEMBER INFORMATION

EXHIBIT 7.2 - RETIRED MEMBERS, COVERED SPOUSES and SURVIVORS AS OF JULY 1, 2017

Age	Non-Medicare Plans		Medicare Plans		Total
	Blue Care Elect Preferred	HMO Blue	Medex		
Under 40	0	0	0	0	0
40 to 44	0	0	0	0	0
45 to 49	0	0	0	0	0
50 to 54	0	0	0	0	0
55 to 59	0	0	0	0	0
60 to 64	1	0	0	0	1
65 to 69	0	0	0	0	0
70 to 74	0	0	0	0	0
75 to 79	0	0	2	0	2
80 to 84	0	0	0	0	0
85 to 89	0	0	0	0	0
90+	0	0	0	0	0
Total	1	0	2	0	3
Covered Spouses	0	0	2	0	2
Average Age:					73.0

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.*

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.

SECTION 8 - GLOSSARY OF TERMS

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.

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

SECTION 8 - GLOSSARY OF TERMS

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, 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, the long-term expected rate of return on OPEB plan investments is 6.75%; the municipal bond rate is 3.5%, based on the Bond Buyer 20-Bond GO Index published on June 27, 2019. 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 6.75%.

APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

Table 1: Projection of Contributions

Year	Projected Payroll			Projected Contributions			
	Payroll for Current Plan Members (a)	Payroll for Future Plan Members (b)	Total Payroll (c) = (a) + (b)	Employer Contributions (Benefit Payments) (d)	Employer Contributions (OPEB Trust) (e)	Employer Contributions Related to Payroll of Future Employees (f) = (b) * 1.21%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2019	665,185	-	665,185	6,974	29,000	-	35,974
2020	635,024	53,442	688,466	8,109	20,000	648	27,461
2021	609,616	102,946	712,562	9,003	20,000	1,249	27,754
2022	588,178	149,324	737,502	9,379	20,000	1,812	27,567
2023	575,125	188,190	763,315	10,727	20,000	2,283	28,444
2024	564,532	225,499	790,031	11,532	20,000	2,736	28,796
2025	556,178	261,504	817,682	12,627	20,000	3,173	29,454
2026	549,877	296,424	846,301	13,484	20,000	3,597	29,887
2027	545,467	330,455	875,922	13,766	20,000	4,010	29,756
2028	542,613	363,966	906,579	15,188	20,000	4,416	30,772
2029	541,216	397,093	938,309	16,167	20,000	4,818	31,349
2030	541,050	430,100	971,150	17,077	20,000	5,219	31,858
2031	542,070	463,070	1,005,140	38,429	20,000	5,619	52,810
2032	373,222	667,098	1,040,320	39,440	20,000	8,094	51,346
2033	375,683	701,048	1,076,731	41,468	20,000	8,506	52,962
2034	379,414	735,003	1,114,417	17,687	20,000	8,918	28,769
2035	383,661	769,761	1,153,422	17,221	20,000	9,340	27,881
2036	388,439	805,353	1,193,792	17,587	20,000	9,772	27,815
2037	393,677	841,898	1,235,575	17,340	20,000	10,215	27,125
2038	399,379	879,441	1,278,820	16,878	20,000	10,671	26,207
2039	385,659	937,920	1,323,579	17,251	20,000	11,380	25,871
2040	391,949	977,955	1,369,904	17,301	20,000	11,866	25,435
2041	398,728	1,019,123	1,417,851	17,730	20,000	12,365	25,365
2042	406,018	1,061,458	1,467,476	17,763	20,000	12,879	24,884
2043	413,824	1,105,014	1,518,838	17,899	20,000	13,408	24,491
2044	422,156	1,149,841	1,571,997	18,552	20,000	13,952	24,600
2045	430,769	1,196,248	1,627,017	19,252	20,000	14,515	24,737
2046	439,667	1,244,296	1,683,963	20,322	20,000	15,098	25,224
2047	448,642	1,294,260	1,742,902	21,404	20,000	15,704	25,700
2048	457,684	1,346,220	1,803,904	22,750	20,000	16,334	26,416
2049	466,787	1,400,254	1,867,041	23,975	20,000	16,990	26,985
2050	475,958	1,456,429	1,932,387	26,197	20,000	17,672	28,525

Lynnfield Center Water District Postemployment Benefits Other Than Pensions
 Financial Reporting and Disclosures Under GASB 74 and GASB 75 as of June 30, 2019

APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

Table 1: Projection of Contributions

Year	Projected Payroll			Projected Contributions			
	Payroll for Current Plan Members (a)	Payroll for Future Plan Members (b)	Total Payroll (c) = (a) + (b)	Employer Contributions (Benefit Payments) (d)	Employer Contributions (OPEB Trust) (e)	Employer Contributions Related to Payroll of Future Employees (f) = (b) * 1.21%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2051	485,219	1,514,802	2,000,021	28,150	20,000	18,380	29,770
2052	494,572	1,575,450	2,070,022	67,631	20,000	19,116	68,515
2053	293,113	1,849,360	2,142,473	71,966	20,000	22,439	69,527
2054	298,763	1,918,697	2,217,460	75,287	20,000	23,280	72,007
2055	304,479	1,990,592	2,295,071	62,704	20,000	24,153	58,551
2056	135,635	2,239,763	2,375,398	65,849	20,000	27,176	58,673
2057	138,226	2,320,311	2,458,537	69,270	20,000	28,153	61,117
2058	140,858	2,403,728	2,544,586	60,657	20,000	29,166	51,491
2059	-	2,633,647	2,633,647	62,480	20,000	31,955	50,525
2060	-	2,725,825	2,725,825	66,001	20,000	33,074	52,927
2061	-	2,821,229	2,821,229	25,532	20,000	34,231	11,301
2062	-	2,919,972	2,919,972	26,795	20,000	35,429	11,366
2063	-	3,022,171	3,022,171	28,528	20,000	36,669	11,859
2064	-	3,127,947	3,127,947	27,962	20,000	37,953	10,009
2065	-	3,237,425	3,237,425	29,997	20,000	39,281	10,716
2066	-	3,350,735	3,350,735	30,212	20,000	40,656	9,556
2067	-	3,468,011	3,468,011	32,086	20,000	42,079	10,007
2068	-	3,589,391	3,589,391	33,884	20,000	43,552	10,332
2069	-	3,715,020	3,715,020	33,824	20,000	45,076	8,748
2070	-	3,845,046	3,845,046	37,095	20,000	46,654	10,441
2071	-	3,979,623	3,979,623	37,892	20,000	48,287	9,605
2072	-	4,118,910	4,118,910	40,538	20,000	49,977	10,561
2073	-	4,263,072	4,263,072	44,044	20,000	51,726	12,318
2074	-	4,412,280	4,412,280	44,276	20,000	53,536	10,740
2075	-	4,566,710	4,566,710	47,912	20,000	55,410	12,502
2076	-	4,726,545	4,726,545	49,053	20,000	57,349	11,704
2077	-	4,891,974	4,891,974	50,777	20,000	59,357	11,420
2078	-	5,063,193	5,063,193	53,447	20,000	61,434	12,013
2079	-	5,240,405	5,240,405	52,606	20,000	63,584	9,022
2080	-	5,423,819	5,423,819	54,039	20,000	65,810	8,229
2081	-	5,613,653	5,613,653	53,513	20,000	68,113	5,400
2082	-	5,810,131	5,810,131	52,422	20,000	70,497	1,925

Lynnfield Center Water District Postemployment Benefits Other Than Pensions
 Financial Reporting and Disclosures Under GASB 74 and GASB 75 as of June 30, 2019

APPENDIX A - CALCULATION OF SINGLE DISCOUNT RATE

Table 1: Projection of Contributions

Year	Projected Payroll			Projected Contributions			
	Payroll for Current Plan Members (a)	Payroll for Future Plan Members (b)	Total Payroll (c) = (a) + (b)	Employer Contributions (Benefit Payments) (d)	Employer Contributions (OPEB Trust) (e)	Employer Contributions Related to Payroll of Future Employees (f) = (b) * 1.21%	Portion of Employer Contributions for Current Plan Members (g) = (d) + (e) - (f)
2083	-	6,013,486	6,013,486	52,150	20,000	72,964	-
2084	-	6,223,958	6,223,958	48,931	20,000	75,518	-
2085	-	6,441,797	6,441,797	45,837	20,000	78,161	-
2086	-	6,667,260	6,667,260	42,645	20,000	80,897	-

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)
2019	117,382	35,974	6,974	-	6,605	152,987
2020	152,987	27,461	8,109	-	10,980	183,319
2021	183,319	27,754	9,003	-	13,007	215,077
2022	215,077	27,567	9,379	-	15,132	248,397
2023	248,397	28,444	10,727	-	17,365	283,479
2024	283,479	28,796	11,532	-	19,717	320,460
2025	320,460	29,454	12,627	-	22,199	359,486
2026	359,486	29,887	13,484	-	24,819	400,708
2027	400,708	29,756	13,766	-	27,587	444,285
2028	444,285	30,772	15,188	-	30,515	490,384
2029	490,384	31,349	16,167	-	33,613	539,179
2030	539,179	31,858	17,077	-	36,893	590,853
2031	590,853	52,810	38,429	-	40,368	645,602
2032	645,602	51,346	39,440	-	43,980	701,488
2033	701,488	52,962	41,468	-	47,738	760,720
2034	760,720	28,769	17,687	-	51,723	823,525
2035	823,525	27,881	17,221	-	55,948	890,133
2036	890,133	27,815	17,587	-	60,429	960,790
2037	960,790	27,125	17,340	-	65,184	1,035,759
2038	1,035,759	26,207	16,878	-	70,229	1,115,317
2039	1,115,317	25,871	17,251	-	75,575	1,199,512
2040	1,199,512	25,435	17,301	-	81,242	1,288,888
2041	1,288,888	25,365	17,730	-	87,258	1,383,781
2042	1,383,781	24,884	17,763	-	93,646	1,484,548
2043	1,484,548	24,491	17,899	-	100,429	1,591,569
2044	1,591,569	24,600	18,552	-	107,635	1,705,252
2045	1,705,252	24,737	19,252	-	115,290	1,826,027
2046	1,826,027	25,224	20,322	-	123,422	1,954,351
2047	1,954,351	25,700	21,404	-	132,064	2,090,711
2048	2,090,711	26,416	22,750	-	141,247	2,235,624
2049	2,235,624	26,985	23,975	-	151,006	2,389,640
2050	2,389,640	28,525	26,197	-	161,379	2,553,347
2051	2,553,347	29,770	28,150	-	172,406	2,727,373
2052	2,727,373	68,515	67,631	-	184,128	2,912,385

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)
2053	2,912,385	69,527	71,966	-	196,504	3,106,450
2054	3,106,450	72,007	75,287	-	209,575	3,312,745
2055	3,312,745	58,551	62,704	-	223,470	3,532,062
2056	3,532,062	58,673	65,849	-	238,172	3,763,058
2057	3,763,058	61,117	69,270	-	253,731	4,008,636
2058	4,008,636	51,491	60,657	-	270,274	4,269,744
2059	4,269,744	50,525	62,480	-	287,804	4,545,593
2060	4,545,593	52,927	66,001	-	306,386	4,838,905
2061	4,838,905	11,301	25,532	-	326,146	5,150,820
2062	5,150,820	11,366	26,795	-	347,160	5,482,551
2063	5,482,551	11,859	28,528	-	369,510	5,835,392
2064	5,835,392	10,009	27,962	-	393,283	6,210,722
2065	6,210,722	10,716	29,997	-	418,573	6,610,014
2066	6,610,014	9,556	30,212	-	445,479	7,034,837
2067	7,034,837	10,007	32,086	-	474,106	7,486,864
2068	7,486,864	10,332	33,884	-	504,568	7,967,880
2069	7,967,880	8,748	33,824	-	536,986	8,479,790
2070	8,479,790	10,441	37,095	-	571,486	9,024,622
2071	9,024,622	9,605	37,892	-	608,207	9,604,542
2072	9,604,542	10,561	40,538	-	647,295	10,221,860
2073	10,221,860	12,318	44,044	-	688,905	10,879,039
2074	10,879,039	10,740	44,276	-	733,203	11,578,706
2075	11,578,706	12,502	47,912	-	780,368	12,323,664
2076	12,323,664	11,704	49,053	-	830,587	13,116,902
2077	13,116,902	11,420	50,777	-	884,063	13,961,608
2078	13,961,608	12,013	53,447	-	941,010	14,861,184
2079	14,861,184	9,022	52,606	-	1,001,659	15,819,259
2080	15,819,259	8,229	54,039	-	1,066,254	16,839,703
2081	16,839,703	5,400	53,513	-	1,135,056	17,926,646
2082	17,926,646	1,925	52,422	-	1,208,344	19,084,493
2083	19,084,493	-	52,150	-	1,286,443	20,318,786
2084	20,318,786	-	48,931	-	1,369,867	21,639,722
2085	21,639,722	-	45,837	-	1,459,134	23,053,019
2086	23,053,019	-	42,645	-	1,554,640	24,565,014

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)
2087	24,565,014	-	38,416	-	1,656,842	26,183,440
2088	26,183,440	-	34,661	-	1,766,212	27,914,991
2089	27,914,991	-	30,356	-	1,883,237	29,767,872
2090	29,767,872	-	26,111	-	2,008,450	31,750,211
2091	31,750,211	-	21,799	-	2,142,404	33,870,816
2092	33,870,816	-	18,219	-	2,285,665	36,138,262
2093	36,138,262	-	14,958	-	2,438,828	38,562,132
2094	38,562,132	-	12,117	-	2,602,535	41,152,550
2095	41,152,550	-	9,680	-	2,777,470	43,920,340
2096	43,920,340	-	7,613	-	2,964,366	46,877,093
2097	46,877,093	-	5,896	-	3,164,005	50,035,202
2098	50,035,202	-	4,518	-	3,377,224	53,407,908
2099	53,407,908	-	3,394	-	3,604,919	57,009,433
2100	57,009,433	-	2,501	-	3,848,052	60,854,984
2101	60,854,984	-	1,828	-	4,107,650	64,960,806
2102	64,960,806	-	1,291	-	4,384,811	69,344,326
2103	69,344,326	-	898	-	4,680,712	74,024,140
2104	74,024,140	-	614	-	4,996,609	79,020,135
2105	79,020,135	-	413	-	5,333,845	84,353,567
2106	84,353,567	-	273	-	5,693,857	90,047,151
2107	90,047,151	-	178	-	6,078,177	96,125,150
2108	96,125,150	-	114	-	6,488,444	102,613,480
2109	102,613,480	-	72	-	6,926,407	109,539,815
2110	109,539,815	-	46	-	7,393,936	116,933,705
2111	116,933,705	-	27	-	7,893,024	124,826,702
2112	124,826,702	-	17	-	8,425,802	133,252,487
2113	133,252,487	-	10	-	8,994,543	142,247,020
2114	142,247,020	-	5	-	9,601,674	151,848,689
2115	151,848,689	-	3	-	10,249,786	162,098,472
2116	162,098,472	-	2	-	10,941,647	173,040,117
2117	173,040,117	-	-	-	11,680,208	184,720,325

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)
2020	152,987	8,109	8,109	-	7,848	-	7,848
2021	183,319	9,003	9,003	-	8,163	-	8,163
2022	215,077	9,379	9,379	-	7,966	-	7,966
2023	248,397	10,727	10,727	-	8,535	-	8,535
2024	283,479	11,532	11,532	-	8,595	-	8,595
2025	320,460	12,627	12,627	-	8,816	-	8,816
2026	359,486	13,484	13,484	-	8,819	-	8,819
2027	400,708	13,766	13,766	-	8,434	-	8,434
2028	444,285	15,188	15,188	-	8,717	-	8,717
2029	490,384	16,167	16,167	-	8,692	-	8,692
2030	539,179	17,077	17,077	-	8,601	-	8,601
2031	590,853	38,429	38,429	-	18,131	-	18,131
2032	645,602	39,440	39,440	-	17,432	-	17,432
2033	701,488	41,468	41,468	-	17,169	-	17,169
2034	760,720	17,687	17,687	-	6,860	-	6,860
2035	823,525	17,221	17,221	-	6,257	-	6,257
2036	890,133	17,587	17,587	-	5,986	-	5,986
2037	960,790	17,340	17,340	-	5,529	-	5,529
2038	1,035,759	16,878	16,878	-	5,041	-	5,041
2039	1,115,317	17,251	17,251	-	4,827	-	4,827
2040	1,199,512	17,301	17,301	-	4,535	-	4,535
2041	1,288,888	17,730	17,730	-	4,353	-	4,353
2042	1,383,781	17,763	17,763	-	4,085	-	4,085
2043	1,484,548	17,899	17,899	-	3,856	-	3,856
2044	1,591,569	18,552	18,552	-	3,744	-	3,744
2045	1,705,252	19,252	19,252	-	3,640	-	3,640
2046	1,826,027	20,322	20,322	-	3,599	-	3,599
2047	1,954,351	21,404	21,404	-	3,551	-	3,551
2048	2,090,711	22,750	22,750	-	3,536	-	3,536
2049	2,235,624	23,975	23,975	-	3,491	-	3,491
2050	2,389,640	26,197	26,197	-	3,573	-	3,573
2051	2,553,347	28,150	28,150	-	3,597	-	3,597

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)
2052	2,727,373	67,631	67,631	-	8,094	-	8,094
2053	2,912,385	71,966	71,966	-	8,069	-	8,069
2054	3,106,450	75,287	75,287	-	7,907	-	7,907
2055	3,312,745	62,704	62,704	-	6,169	-	6,169
2056	3,532,062	65,849	65,849	-	6,069	-	6,069
2057	3,763,058	69,270	69,270	-	5,981	-	5,981
2058	4,008,636	60,657	60,657	-	4,906	-	4,906
2059	4,269,744	62,480	62,480	-	4,734	-	4,734
2060	4,545,593	66,001	66,001	-	4,684	-	4,684
2061	4,838,905	25,532	25,532	-	1,698	-	1,698
2062	5,150,820	26,795	26,795	-	1,669	-	1,669
2063	5,482,551	28,528	28,528	-	1,664	-	1,664
2064	5,835,392	27,962	27,962	-	1,528	-	1,528
2065	6,210,722	29,997	29,997	-	1,536	-	1,536
2066	6,610,014	30,212	30,212	-	1,449	-	1,449
2067	7,034,837	32,086	32,086	-	1,442	-	1,442
2068	7,486,864	33,884	33,884	-	1,426	-	1,426
2069	7,967,880	33,824	33,824	-	1,334	-	1,334
2070	8,479,790	37,095	37,095	-	1,370	-	1,370
2071	9,024,622	37,892	37,892	-	1,311	-	1,311
2072	9,604,542	40,538	40,538	-	1,314	-	1,314
2073	10,221,860	44,044	44,044	-	1,337	-	1,337
2074	10,879,039	44,276	44,276	-	1,259	-	1,259
2075	11,578,706	47,912	47,912	-	1,277	-	1,277
2076	12,323,664	49,053	49,053	-	1,224	-	1,224
2077	13,116,902	50,777	50,777	-	1,187	-	1,187
2078	13,961,608	53,447	53,447	-	1,171	-	1,171
2079	14,861,184	52,606	52,606	-	1,079	-	1,079
2080	15,819,259	54,039	54,039	-	1,039	-	1,039
2081	16,839,703	53,513	53,513	-	963	-	963
2082	17,926,646	52,422	52,422	-	884	-	884
2083	19,084,493	52,150	52,150	-	824	-	824

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)
2084	20,318,786	48,931	48,931	-	724	-	724
2085	21,639,722	45,837	45,837	-	636	-	636
2086	23,053,019	42,645	42,645	-	554	-	554
2087	24,565,014	38,416	38,416	-	467	-	467
2088	26,183,440	34,661	34,661	-	395	-	395
2089	27,914,991	30,356	30,356	-	324	-	324
2090	29,767,872	26,111	26,111	-	261	-	261
2091	31,750,211	21,799	21,799	-	204	-	204
2092	33,870,816	18,219	18,219	-	160	-	160
2093	36,138,262	14,958	14,958	-	123	-	123
2094	38,562,132	12,117	12,117	-	93	-	93
2095	41,152,550	9,680	9,680	-	70	-	70
2096	43,920,340	7,613	7,613	-	51	-	51
2097	46,877,093	5,896	5,896	-	37	-	37
2098	50,035,202	4,518	4,518	-	27	-	27
2099	53,407,908	3,394	3,394	-	19	-	19
2100	57,009,433	2,501	2,501	-	13	-	13
2101	60,854,984	1,828	1,828	-	9	-	9
2102	64,960,806	1,291	1,291	-	6	-	6
2103	69,344,326	898	898	-	4	-	4
2104	74,024,140	614	614	-	2	-	2
2105	79,020,135	413	413	-	2	-	2
2106	84,353,567	273	273	-	1	-	1
2107	90,047,151	178	178	-	1	-	1
2108	96,125,150	114	114	-	-	-	-
2109	102,613,480	72	72	-	-	-	-
2110	109,539,815	46	46	-	-	-	-
2111	116,933,705	27	27	-	-	-	-
2112	124,826,702	17	17	-	-	-	-
2113	133,252,487	10	10	-	-	-	-
2114	142,247,020	5	5	-	-	-	-
2115	151,848,689	3	3	-	-	-	-

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		Actuarial Present Value of Projected Benefit Payments			Present Value of Benefit Payments Using the Single Discount Rate (g)
		Projected Benefit Payments (b)	"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)	
2116	162,098,472	2	2	-	-	-	-
2117	173,040,117	-	-	-	-	-	-

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

Year	Differences between Expected and Actual Experience		Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
2018	\$	(34,161)	8.44	(4,048)	(4,048)	(4,048)	(4,048)	(4,048)	(4,048)	(4,048)	(4,048)	(1,777)	-
2019	\$	-		-	-	-	-	-	-	-	-	-	-
Net Increase (Decrease) in OPEB Expense				(4,048)	(4,048)	(4,048)	(4,048)	(4,048)	(4,048)	(4,048)	(4,048)	(1,777)	-

Year	Changes of Assumptions		Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
2018	\$	13,611	8.44	1,613	1,613	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	2,891	1,270
Net Increase (Decrease) in OPEB Expense				1,613	4,504	4,504	4,504	4,504	4,504	4,504	4,504	3,598	1,270

Year	Differences between Projected and Actual Earnings on OPEB Plan Investments		Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
2018	\$	3,166	5	633	633	633	633	634	-	-	-	-	-
2019	\$	2,199	5	-	440	440	440	440	439	-	-	-	-
Net Increase (Decrease) in OPEB Expense				633	1,073	1,073	1,073	1,074	439	-	-	-	-