

**Hamilton-Wenham Regional School  
District Other Postemployment  
Benefits Plan**

**GASB 75 Actuarial Valuation**

With a Valuation Date of July 1, 2017

As of the Measurement Date:  
July 1, 2017

As of the Measurement Date:  
July 1, 2018

For the Reporting Date:  
June 30, 2018

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For the Reporting Date:  
June 30, 2019

Delivered August 2018

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August 21, 2018

*Personal and Confidential*

Mr. Vincent Leone  
Director of Accounting & Payroll  
Hamilton-Wenham Regional School District  
5 School Street  
Wenham, MA 01984

Dear Mr. Leone:

We have performed an actuarial valuation of the Hamilton-Wenham Regional School District Other Postemployment Benefits Plan for the Reporting Date & fiscal year ending June 30, 2018 with a Measurement Date of July 1, 2017 and a Valuation Date of July 1, 2017. The figures presented in this report reflect the adoption, by the Hamilton-Wenham Regional School District, of Statement Nos. 74 and 75 of the Governmental Accounting Standards Board ("GASB 74/75") effective for the fiscal year ending June 30, 2017 and June 30, 2018 respectively.

The financial results of the actuarial valuation are summarized in the report. The Executive Summaries highlight the results of the valuation. Additional information summarizing census data, actuarial assumptions, claim rates and the methodology for developing them, as well as a glossary of selected terms used in this study, is also included in the report.

All costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures. In our opinion, the actuarial assumptions used are reasonable, reflecting the experience of the plan and reasonable expectations and, in combination, represent our best estimate of the anticipated experience under the plan.

We refer you to Section I of this report for a detailed summary and commentary on the results of the valuation and a comparison with the prior valuation. Section II is a summary of the plan provisions, and Section III describes the actuarial cost method and assumptions. Details for cost calculations, supporting data, and disclosures are provided in Exhibits A through C.

We will be pleased to answer any questions that you may have regarding this actuarial valuation report.

Very truly yours,

A handwritten signature in black ink, appearing to read 'P. Elmore', is written over a light gray horizontal line.

Parker E. Elmore, ASA, EA, FCA, MAAA  
President, CEO & Actuary

August 21, 2018

ACTUARIAL CERTIFICATION

This is to certify that Odyssey Advisors has conducted an actuarial valuation of certain benefit obligations of the Hamilton-Wenham Regional School District other postemployment benefit programs with a Valuation Date of July 1, 2017 with a Measurement Date of July 1, 2017 for the Reporting Date & fiscal year ending June 30, 2018 in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements Numbers 74 & 75 for the determination of the liability for postemployment benefits other than pensions.

The actuarial data is based on the plan of benefits verified by the District and on participant claims or premium data provided by the District and/or vendors employed by the District.

The actuarial computations made are for purposes of fulfilling plan accounting requirements. Determinations for purposes other than meeting financial accounting requirements may yield results significantly different than those reported here. As such, additional determinations may be needed for other purposes including determining the benefit security at termination and/or adequacy of the funding of an ongoing plan.

To the best of our knowledge, this report is complete and accurate and in our opinion represents the information necessary to comply with GASB Statements Number 74 and 75 with respect to the benefit obligations addressed. The signing actuaries are members of the Society of Actuaries, the American Academy of Actuaries and other professional actuarial organizations and meet their "General Qualification Standards for Statements of Actuarial Opinion" to render the actuarial opinion contained herein. Further, in our opinion, the assumptions as approved by the District are reasonably related to the experience and expectations of the postemployment benefits programs.



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Parker E. Elmore, ASA, EA, FCA, MAAA  
President, CEO & Actuary

## Executive Summary

### **GASB 74 and 75 Impact**

The District adopted GASB 74 for the fiscal year ending June 30, 2017 and GASB 75 for the fiscal year ending June 30, 2018. The adoption of GASB 74/75 introduces a new actuarial cost method and discount rate as well as new disclosures and methodologies for reporting plan liabilities and OPEB expenses. Significant changes have been made to the recognition of OPEB expenses, which makes the comparison of Net OPEB Expense in the current valuation to the expenses reported under GASB 45 misleading. The liability reported on the District's balance sheet is likely to increase dramatically as GASB 74/75 require the recognition of liabilities immediately rather than over a 30 year period as GASB 45 allowed.

### **What caused plan liabilities to change from FY 16 to FY 18?**

Plan experience was less favorable than expected - for the year ending on the Measurement Date of July 1, 2017, the Plan saw an experience loss of \$5,568,629 or 20.02% of the beginning Total OPEB Liability ("TOL"). This was mainly due to premiums increasing more than the expected 10% increase and due to updated teacher retirement assumptions (increasing liability by \$5 million). The experience loss on TOL is amortized into the net OPEB expense over time until fully recognized. Changes in assumptions increased disclosed liabilities by \$1.4 million.

Over the two year period, the TOL went from \$25,337,907 as of June 30, 2015 to \$34,952,280 as of July 1, 2017 for an increase of \$9,614,373. The Net OPEB Expense was \$2,983,862 for the fiscal year ending June 30, 2018. As this is the first year using GASB 75 methodology, there is no baseline for comparison. For a projection of future costs and liabilities refer to Exhibit D.

## Executive Summary

(continued)

### **Assumption changes**

A key assumption has changed since the prior valuation - the impact is detailed below.

- ✓ Due to the GASB 75 standards the discount rate was changed from 3.50% to 3.25% increasing the disclosed liability by \$1.4 million.
- ✓ Assumption changes caused Normal Cost to increase by \$98 thousand.

It is important to remember that actuarial assumptions or changes in such do not impact the actual cost of the Plan. Rather, they impact the timing of the recognition of such costs.

### **Key Drivers of Plan Liabilities**

Several key drivers of plan costs and liabilities are:

- ✓ Premiums for Post 65 (Medicare Integrated) plans - represent 79% of the total plan liabilities
- ✓ Age at which plan participants retire
- ✓ Percentage of plan participants who elect coverage for themselves and/or a spouse
- ✓ Medical care cost inflation rate – We currently assume medical costs increase at 5.0% per year
- ✓ Discount Rate (3.25%) – Higher discount rates yield lower liabilities and vice versa
- ✓ Cost Sharing - Under Massachusetts law you may charge retirees up to 50% of premiums for health insurance

Executive Summary  
(continued)

**What is Implicit Subsidy? How does it impact us?**

The implicit subsidy arises because retirees who are not eligible for Medicare are charged the same premium as active employees, even though their actual medical costs are higher on average. Consequently, a portion of the premiums being paid for active employees are being used to “subsidize” the premiums of retirees. Actuarial Standards of Practice and GASB standards require the liability associated with this implicit subsidy to be valued. The chart below shows a breakdown of how implicit cost impacts reported cash flows and liabilities.

<b>Impact of Implicit Subsidy</b>		
<b>Impact on Liability</b>	<b>As Of The Measurement Date</b>	
	<b><u>July 1, 2017</u></b>	<b><u>June 30, 2015</u></b>
I. Actuarial Accrued Liability	34,952,280	25,337,907
II. Actuarial Accrued Liability (Excluding Implicit Subsidy)	<u>32,216,476</u>	<u>N/A</u>
III. Liability from Implicit Subsidy [I. - II.]	2,735,804	N/A

  

<b>Impact on Payments</b>	<b>For The Fiscal Year Ending</b>	
	<b><u>June 30, 2018</u></b>	<b><u>June 30, 2016</u></b>
IV. Employer Payments (Including Implicit Subsidy)	868,691	694,549
V. Actual Employer Payments	<u>751,805</u>	<u>N/A</u>
VI. Implicit Subsidy [IV. - V.]	116,886	N/A



Executive Summary  
(continued)

**What are some key plan metrics?**

While an actuarial valuation under GASB 74/75 can be very complex with many variables, we find it helpful to look at several key metrics shown below to better allow you to manage your plan.

**Representative Plan Statistics**

	<u>July 1, 2017</u>	<u>June 30, 2015</u>
Total OPEB Liability	34,952,280	25,337,907
Per Eligible Active Plan Participant	64,886	43,383
Per Retiree/Spouse Plan Participant	76,818	61,822
Total Annual Service Cost (annual benefit accrual)	1,565,986	1,221,307
Per Eligible Active Plan Participant	5,068	3,829
Expected Employer Share of Retiree Costs	868,691	694,549
Per Retiree/Spouse Plan Participant	4,478	3,734
Net OPEB Liability as a % of Payroll	180.50%	137.10%
Average Annual Medical Plan Premium (Single Coverage)	6,183	5,962
Average Annual Medical Plan Premium (Family Coverage)	24,688	22,674

**Projected 2022 Excise Tax Thresholds**

Annual Medical Plan Premium (Single Coverage)	12,511
Annual Medical Plan Premium (Family Coverage)	32,676

Executive Summary  
(continued)

**Liabilities & Benefit Payments in today’s dollars**

With the growth of medical care costs over time, the nominal accrued liabilities (“TOL”) and benefit payments can appear daunting. However, it is important to remember that a dollar paid in the future is worth less than a dollar paid today.

Measurement Date	Number of Retirees, Spouses & Surviving Spouses	Present Value at 3.00% of Total OPEB Liability	Present Value at 3.00% of Employer Share of Premiums / Claims including "implicit cost"
July 1, 2017	194	34,952,280	868,691
July 1, 2022	240	39,354,418	1,066,963
July 1, 2027	266	43,434,504	1,278,589
July 1, 2032	288	47,685,551	1,447,713
July 1, 2037	298	51,829,489	1,565,125
July 1, 2042	301	56,856,083	1,726,831
July 1, 2047	308	62,401,225	1,840,847

A full projection of plan costs and liabilities in today’s dollars is shown in Exhibit E of this report.

**We have an “unfunded liability”. How do we fund it? Can we fund it?**

If you’re looking to fund your OPEB liability, there are a variety of manner to do so. The amount of funding in combination with your Investment Policy will impact the discount rate and disclosed liabilities. Below are a few sample funding options, but it’s important to develop a funding policy that fits your organization as each situation is different.

	Pay-as-you-go Funding	Full Funding Level Dollar	Full Funding increasing at 3.00% per year
<b>Net OPEB Liability</b>	\$34,952,280	\$21,722,024	\$21,722,024
<b>Required Trust Contribution</b>	\$0	\$1,094,000	\$813,600
<b>Discount Rate</b>	3.25%	6.50%	6.50%

## SECTION I

### PRINCIPAL RESULTS OF THE VALUATION

#### **Hamilton-Wenham Regional School District Assuming Pay-as-you-go Funding - 3.25% discount rate Comparison of Plan Liabilities to Prior Valuation**

	As of the Measurement Date	
	<u>July 1, 2017</u>	<u>June 30, 2015</u>
I. Present Value of Future Benefits		
A. Actives	35,050,726	27,630,867
B. Retirees/Disabled	<u>14,902,645</u>	<u>11,498,844</u>
C. Total	49,953,371	39,129,711
II. Present Value of Future Normal Cost	15,001,091	13,791,804
III. Total OPEB Liability (Individual Entry Age Normal)		
A. Actives	20,049,635	13,839,063
B. Retirees/Disabled	<u>14,902,645</u>	<u>11,498,844</u>
C. Total	34,952,280	25,337,907
IV. Fiduciary Net Position [Plan Assets]	0	0
V. Net OPEB Liability (Asset) [III. - IV.]	34,952,280	25,337,907
VI. Funded Ratio [IV. / III.]	0.00%	0.00%
VII. Annual Covered Payroll	19,359,089	18,483,408
VIII. Net OPEB Liability (Asset) as % of Covered Payroll	180.5%	137.1%
IX. Number of Eligible Participants		
A. Actives	309	319
B. Retirees/Disabled	<u>194</u>	<u>186</u>
C. Total	503	505
	<b><u>For the Reporting Date and Fiscal Year Ending</u></b>	
	<b><u>June 30, 2018</u></b>	<b><u>June 30, 2016</u></b>
X. Service Cost	1,565,986	1,221,307
XI. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	1,172,841	N/A
XII. Recognition of Deferred (Inflows)/Outflows from Plan Design Changes	0	N/A
XIII. Recognition of Deferred (Inflows)/Outflows from Expected & Actual Experience	1,113,726	N/A
XIV. Recognition of Deferred (Inflows)/Outflows from Changes in Assumptions	0	N/A
XV. Projected Earnings on OPEB Plan Investments	0	N/A
XVI. Recognition of Deferred (Inflows)/Outflows from Earnings on Investments	<u>0</u>	<u>N/A</u>
XVII. Financial Statement Expense [X.+XI.+XII.+XIII.+XIV.+XV.+XVI.]	3,852,553	N/A
XVII. Employer Share of Costs	(868,691)	(694,549)
XVIII. Employer (Payments)/Withdrawals to/from OPEB Trust	0	0
XIX. Total Employer Contribution [XVII. + XVIII.]	(868,691)	(694,549)
XX. Other Changes	<u>0</u>	<u>N/A</u>
XXI. Net OPEB Expense [XVII.+XIX.+XX.]	2,983,862	N/A
XXII. Discount Rate	3.25%	3.50%

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Hamilton-Wenham Regional School District**  
**Comparison of discount rates**

As of the July 1, 2017 Measurement Date

	<u>Pay-as-you-go Funding -</u> <u>3.25% discount rate</u>	<u>Funding - 6.50%</u> <u>discount rate</u>
I. Present Value of Future Benefits		
A. Actives	35,050,726	16,886,933
B. Retirees/Disabled	<u>14,902,645</u>	<u>9,925,862</u>
C. Total	49,953,371	26,812,795
II. Present Value of Future Normal Cost	15,001,091	5,090,771
III. Total OPEB Liability (Individual Entry Age Normal)		
A. Actives	20,049,635	11,796,162
B. Retirees/Disabled	<u>14,902,645</u>	<u>9,925,862</u>
C. Total	34,952,280	21,722,024
IV. Fiduciary Net Position [Plan Assets]	0	0
V. Net OPEB Liability (Asset) [III. - IV.]	34,952,280	21,722,024
VI. Funded Ratio [IV. / III.]	0.00%	0.00%
VII. Annual Covered Payroll	19,359,089	19,359,089
VIII. Net OPEB Liability (Asset) as % of Covered Payroll	180.5%	112.2%
IX. Number of Eligible Participants		
A. Actives	309	309
B. Retirees/Disabled	<u>194</u>	<u>194</u>
C. Total	503	503
<b>For the Reporting Date and Fiscal Year Ending June 30, 2018</b>		
X. Service Cost	1,565,986	692,938
XI. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	1,172,841	1,141,063
XII. Recognition of Deferred (Inflows)/Outflows from Plan Design Changes	0	0
XIII. Recognition of Deferred (Inflows)/Outflows from Expected & Actual Experience	1,113,726	1,113,726
XIV. Recognition of Deferred (Inflows)/Outflows from Changes in Assumptions	0	0
XV. Projected Earnings on OPEB Plan Investments	0	(34,996)
XVI. Recognition of Deferred (Inflows)/Outflows from Earnings on Investments	<u>0</u>	<u>0</u>
XVII. Financial Statement Expense [X.+XI.+XII.+XIII.+XIV.+XV.+XVI.]	3,852,553	2,912,731
XVIII. Employer Share of Costs	(868,691)	(868,691)
XIX. Employer (Payments)/Withdrawals to/from OPEB Trust	0	(1,094,000)
XX. Total Employer Contribution [XVIII. + XIX.]	(868,691)	(1,962,691)
XXI. Other Changes	0	0
XXII. Net OPEB Expense [XVII.+XX.+XXI.]	2,983,862	950,040

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

**Hamilton-Wenham Regional School District  
Plan Liabilities as of the July 1, 2017 Measurement Date  
Assuming Pay-as-you-go Funding - 3.25% discount rate**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Excise Tax</u>	<u>Total</u>
I. Present Value of Future Benefits					
A. Actives	34,348,080	0	141,041	561,605	35,050,726
B. Retirees/Disabled	<u>14,471,051</u>	<u>0</u>	<u>258,949</u>	<u>172,645</u>	<u>14,902,645</u>
C. Total	48,819,131	0	399,990	734,250	49,953,371
II. Present Value of Future Normal Cost	14,627,740	0	47,879	325,472	15,001,091
III. Total OPEB Liability					
A. Actives	19,720,340	0	93,162	236,133	20,049,635
B. Retirees/Disabled	<u>14,471,051</u>	<u>0</u>	<u>258,949</u>	<u>172,645</u>	<u>14,902,645</u>
C. Total	34,191,391	0	352,111	408,778	34,952,280
IV. Fiduciary Net Position [Plan Assets]	0	0	0	0	0
V. Net OPEB Liability (Asset) [III. - IV.]	34,191,391	0	352,111	408,778	34,952,280
VI. Annual Covered Payroll	19,359,089	19,359,089	19,359,089	19,359,089	19,359,089
VII. Net OPEB Liability (Asset) as % of Covered Payroll	176.6%	0.0%	1.8%	2.1%	180.5%
VIII. Number of Eligible Participants					
IX. A. Actives	309	0	309	309	
B. Retirees/Disabled	<u>194</u>	<u>0</u>	<u>123</u>	<u>194</u>	
C. Total	503	0	432	503	
<b>For the Reporting Date and Fiscal Year Ending June 30, 2018</b>					
X. Service Cost	1,528,127	0	6,062	31,797	1,565,986
XI. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	1,147,065	0	11,458	14,318	1,172,841
XII. Recognition of Deferred (Inflows)/Outflows from Plan Design Changes	0	0	0	0	0
XIII. Recognition of Deferred (Inflows)/Outflows from Expected & Actual Experience	1,089,481	0	11,220	13,025	1,113,726
XIV. Recognition of Deferred (Inflows)/Outflows from Changes in Assumptions	0	0	0	0	0
XV. Projected Earnings on OPEB Plan Investments	0	0	0	0	0
XVI. Recognition of Deferred (Inflows)/Outflows from Earnings on Investments	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
XVII. Financial Statement Expense [X.+XI.+XII.+XIII.+XIV.+XV.+XVI.]	3,764,673	0	28,740	59,140	3,852,553
XVIII. Employer Share of Costs	(857,352)	0	(11,339)	0	(868,691)
XIX. Employer (Payments)/Withdrawals to/from OPEB Trust	0	0	0	0	0
XX. Total Employer Contribution [XVIII. + XIX.]	(857,352)	0	(11,339)	0	(868,691)
XXI. Other Changes	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
XXII. Net OPEB Expense [XVII.+XX.+XXI.]	2,907,321	0	17,401	59,140	2,983,862

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Hamilton-Wenham Regional School District**  
**Plan Liabilities as of the July 1, 2017 Measurement Date**  
**Assuming Pay-as-you-go Funding - 3.25% discount rate**

	District Employees and Retirees	Total
I. Present Value of Future Benefits		
A. Actives	35,050,726	35,050,726
B. Retirees/Disabled	<u>14,902,645</u>	<u>14,902,645</u>
C. Total	49,953,371	49,953,371
II. Present Value of Future Normal Cost	15,001,091	15,001,091
III. Total OPEB Liability		
A. Actives	20,049,635	20,049,635
B. Retirees/Disabled	<u>14,902,645</u>	<u>14,902,645</u>
C. Total	34,952,280	34,952,280
IV. Fiduciary Net Position [Plan Assets]	0	0
V. Net OPEB Liability (Asset) [III. - IV.]	34,952,280	34,952,280
VI. Annual Covered Payroll	19,359,089	19,359,089
VII. Net OPEB Liability (Asset) as % of Covered Payroll	180.5%	180.5%
VIII. Number of Eligible Participants		
A. Actives	309	309
B. Retirees/Disabled	<u>194</u>	<u>194</u>
C. Total	503	503
<b>For the Reporting Date and Fiscal Year Ending June 30, 2018</b>		
IX. Service Cost	1,565,986	1,565,986
X. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	1,172,841	1,172,841
XI. Recognition of Deferred (Inflows)/Outflows from Plan Design Changes	0	0
XII. Recognition of Deferred (Inflows)/Outflows from Expected & Actual Experience	1,113,726	1,113,726
XIII. Recognition of Deferred (Inflows)/Outflows from Changes in Assumptions	0	0
XIV. Projected Earnings on OPEB Plan Investments	0	0
XV. Recognition of Deferred (Inflows)/Outflows from Earnings on Investments	<u>0</u>	<u>0</u>
XVI. Financial Statement Expense [IX.+X.+XI.+XII.+XIII.+XIV.+XV.]	3,852,553	3,852,553
XVII. Employer Share of Costs	<span style="color: red;">(868,691)</span>	<span style="color: red;">(868,691)</span>
XVIII. Employer (Payments)/Withdrawals to/from OPEB Trust	0	0
XIX. Total Employer Contribution [XVII. + XVIII.]	<span style="color: red;">(868,691)</span>	<span style="color: red;">(868,691)</span>
XX. Other Changes	<u>0</u>	<u>0</u>
XXI. Net OPEB Expense [XVI.+XIX.+XX.]	2,983,862	2,983,862

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

**Hamilton-Wenham Regional School District  
 Detail of Plan Liabilities by Group and Dependency Status  
 Assuming Pay-as-you-go Funding - 3.25% discount rate  
 Plan Liabilities as of the July 1, 2017 Measurement Date**

	<u>Present Value of Future Benefits</u>	<u>Total OPEB Liability (Individual Entry Age Normal)</u>	<u>Service Cost</u>
<b>Actives</b>			
Under Age 65			
A. Participants	5,204,789	4,605,732	311,053
B. Spouses	<u>2,105,782</u>	<u>1,900,635</u>	<u>123,417</u>
C. Total	7,310,571	6,506,367	434,470
Age 65 and Over			
A. Participants	21,310,479	8,166,734	681,823
B. Spouses	<u>6,429,676</u>	<u>5,376,534</u>	<u>449,693</u>
C. Total	27,740,155	13,543,268	1,131,516
Actives Total			
A. Participants	26,515,268	12,772,466	992,876
B. Spouses	<u>8,535,458</u>	<u>7,277,169</u>	<u>573,110</u>
C. Total	35,050,726	20,049,635	1,565,986
<b>Retirees/Disabled</b>			
Under Age 65			
A. Participants	796,248	796,248	0
B. Spouses	<u>11,849</u>	<u>11,849</u>	<u>0</u>
C. Total	808,097	808,097	0
Age 65 and Over			
A. Participants	13,509,342	13,509,342	0
B. Spouses	<u>585,206</u>	<u>585,206</u>	<u>0</u>
C. Total	14,094,548	14,094,548	0
Retirees/Disabled Total			
A. Participants	14,305,590	14,305,590	0
B. Spouses	<u>597,055</u>	<u>597,055</u>	<u>0</u>
C. Total	14,902,645	14,902,645	0
<b>Total Population</b>			
A. Participants	40,820,858	27,078,056	992,876
B. Spouses	<u>9,132,513</u>	<u>7,874,224</u>	<u>573,110</u>
C. Total	49,953,371	34,952,280	1,565,986

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

**Hamilton-Wenham Regional School District  
Plan Liabilities as of the July 1, 2017 Measurement Date  
Assuming Funding over 30 years at 6.50% discount rate**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Excise Tax</u>	<u>Total</u>
I. Present Value of Future Benefits					
A. Actives	16,570,582	0	66,467	249,884	16,886,933
B. Retirees/Disabled	<u>9,665,015</u>	<u>0</u>	<u>176,147</u>	<u>84,700</u>	<u>9,925,862</u>
C. Total	26,235,597	0	242,614	334,584	26,812,795
II. Present Value of Future Normal Cost	4,950,275	0	19,325	121,171	5,090,771
III. Total OPEB Liability (Individual Entry Age Normal)					
A. Actives	11,620,307	0	47,142	128,713	11,796,162
B. Retirees/Disabled	<u>9,665,015</u>	<u>0</u>	<u>176,147</u>	<u>84,700</u>	<u>9,925,862</u>
C. Total	21,285,322	0	223,289	213,413	21,722,024
IV. Fiduciary Net Position [Plan Assets]	0	0	0	0	0
V. Net OPEB Liability (Asset) [III. - IV.]	21,285,322	0	223,289	213,413	21,722,024
VI. Annual Covered Payroll	19,359,089	19,359,089	19,359,089	19,359,089	19,359,089
VII. Net OPEB Liability (Asset) as % of Covered Payroll	110.0%	0.0%	1.2%	1.1%	112.2%
VIII. Number of Eligible Participants					
A. Actives	309	0	309	309	
B. Retirees/Disabled	<u>194</u>	<u>0</u>	<u>123</u>	<u>194</u>	
C. Total	503	0	432	503	
<b>For the Reporting Date and Fiscal Year Ending June 30, 2018</b>					
IX. Service Cost	676,186	0	2,682	14,070	692,938
X. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	1,118,123	0	11,729	11,211	1,141,063
XI. Recognition of Deferred (Inflows)/Outflows from Plan Design Changes	0	0	0	0	0
XII. Recognition of Deferred (Inflows)/Outflows from Expected & Actual Experience	1,089,481	0	11,220	13,025	1,113,726
XIII. Recognition of Deferred (Inflows)/Outflows from Changes in Assumptions	0	0	0	0	0
XIV. Projected Earnings on OPEB Plan Investments	<u>(34,292)</u>	0	<u>(360)</u>	<u>(344)</u>	<u>(34,996)</u>
XV. Recognition of Deferred (Inflows)/Outflows from Earnings on Investments	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
XVI. Financial Statement Expense [IX.+X.+XI.+XII.+XIII.+XIV.+XV.]	2,849,498	0	25,271	37,962	2,912,731
XVII. Employer Share of Costs	<u>(857,352)</u>	0	<u>(11,339)</u>	0	<u>(868,691)</u>
XVIII. Employer (Payments)/Withdrawals to/from OPEB Trust	<u>(1,072,006)</u>	0	<u>(11,246)</u>	<u>(10,748)</u>	<u>(1,094,000)</u>
XIX. Total Employer Contribution [XVII. + XVIII.]	<u>(1,929,358)</u>	0	<u>(22,585)</u>	<u>(10,748)</u>	<u>(1,962,691)</u>
XX. Other Changes	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
XXI. Net OPEB Expense [XVI.+XIX.+XX.]	920,140	0	2,686	27,214	950,040



SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

**Hamilton-Wenham Regional School District  
Plan Liabilities as of the July 1, 2017 Measurement Date  
Assuming Funding over 30 years at 6.50% discount rate**

	District Employees and Retirees	Total
I. Present Value of Future Benefits		
A. Actives	16,886,933	16,886,933
B. Retirees/Disabled	9,925,862	9,925,862
C. Total	26,812,795	26,812,795
II. Present Value of Future Normal Cost	5,090,771	5,090,771
III. Total OPEB Liability		
A. Actives	11,796,162	11,796,162
B. Retirees/Disabled	9,925,862	9,925,862
C. Total	21,722,024	21,722,024
IV. Fiduciary Net Position [Plan Assets]	0	0
V. Net OPEB Liability (Asset) [III. - IV.]	21,722,024	21,722,024
VI. Annual Covered Payroll	19,359,089	19,359,089
VII. Net OPEB Liability (Asset) as % of Covered Payroll	112.2%	112.2%
VIII. Number of Eligible Participants		
A. Actives	309	309
B. Retirees/Disabled	194	194
C. Total	503	503
<b>For the Reporting Date and Fiscal Year Ending June 30, 2018</b>		
IX. Service Cost	692,938	692,938
X. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	1,141,063	1,141,063
XI. Recognition of Deferred (Inflows)/Outflows from Plan Design Changes	0	0
XII. Recognition of Deferred (Inflows)/Outflows from Expected & Actual Experience	1,113,726	1,113,726
XIII. Recognition of Deferred (Inflows)/Outflows from Changes in Assumptions	0	0
XIV. Projected Earnings on OPEB Plan Investments	(34,996)	(34,996)
XV. Recognition of Deferred (Inflows)/Outflows from Earnings on Investments	0	0
XVI. Financial Statement Expense [IX.+X.+XI.+XII.+XIII.+XIV.+XV.]	2,912,731	2,912,731
XVII. Employer Share of Costs	(868,691)	(868,691)
XVIII. Employer (Payments)/Withdrawals to/from OPEB Trust	(1,094,000)	(1,094,000)
XIX. Total Employer Contribution [XVII. + XVIII.]	(1,962,691)	(1,962,691)
XX. Other Changes	0	0
XXI. Net OPEB Expense [XVI.+XIX.+XX.]	950,040	950,040

## Overview of GASB 74 and 75

Before Statements 74 and 75, GASB statement 45 established the reporting standards for Other Postemployment Benefit (“OPEB”) plans. It was designed to recognize the Other Postemployment Benefits earned by employees throughout their working career vs. when they are paid in retirement – accrual accounting vs. “pay-as-you-go” accounting. Additionally, each eligible active employee earns benefits each year representing benefits to be paid in retirement or a “Service Cost”. These amounts are reflected in your financial statement each year so that OPEB benefits for an eligible employee shall be fully charged to the financial statement when that eligible employee terminates employment.

In 2012 GASB issued GASB Statements 67 and 68 to update and standardize the financial reporting of pension liabilities. This increased the transparency of pension liabilities by moving them to the balance sheet and made financial statement disclosures of pension liabilities more comparable between municipal entities. GASB Statements 74 and 75 are designed to have the same effect on OPEB plans.

GASB 74 and 75 require retiree medical plans to disclose information about asset and liability levels and show historical contribution information. GASB 74 only applies in situations where a separate trust is established to prefund these benefits. GASB 75 requires employers to perform periodic actuarial valuations to determine annual accounting costs and to keep a running tally of the extent to which these amounts are over or under funded.

GASB 74 and 75 apply to those benefits provided after retirement, except for pension benefits, such as medical, dental and life insurance. The philosophy behind the accounting standard is that these post-employment benefits are part of the compensation earned by employees in return for their services, and the cost of these benefits should be recognized while employees are providing those services, rather than after they have retired. This philosophy has already been applied for years to defined benefit pensions; GASB 74 and 75 extend this practice to all other post-employment benefits.

## Overview of GASB 74 and 75

(continued)

The process of determining the liability for OPEB benefits is based on many assumptions about future events. The key actuarial assumptions are:

**Turnover and retirement rates:** How likely is it that an employee will qualify for post-employment benefits and when will they start?

**Medical inflation and claims cost assumptions:** When an employee starts receiving post-employment benefits many years from now, how much will be paid each year for the benefits and how rapidly will the costs grow?

**Mortality assumption:** How long is a retiree likely to receive benefits?

**Discount rate assumption:** What is the present value of those future benefit payments in terms of today's dollars?

Since the liability is being recognized over the employee's whole career with the District, the present value is divided into three pieces: the part that is attributed to past years (the "Total OPEB Liability" or "Past Service Liability"), the part that is being earned this year (the "Service Cost"), and the part that will be earned in future years (the "Future Service Liability").

Once the Accrued Liability and the Service Cost have been calculated, the next step is to determine an actuarially determined contribution. This is an amount that if paid annually would fully prefund the benefits for current active and retired employees. This consists of two pieces:

- ✓ Service Cost – because the benefits earned by active employees each year should be paid for each year
- ✓ Past Service Cost – a catch-up payment to fund the Accrued Liability over a period of time determined by an actuary

The final step is to keep track going forward of how much of the contribution is actually paid. There is no requirement to actually fund these benefits, but the cumulative deficiency must be disclosed on the District's financial statements as the Net OPEB Liability (NOL). If you decide to fully fund the NOL this will appear in the financial statement as a Net OPEB Asset. In addition, the Discount Rate used to calculate the liabilities must reflect the expected investment income of whatever funds are set aside to prefund the benefits; if there is no prefunding then the Discount Rate will be much lower and the liabilities significantly higher than if the benefits are prefunded.

## Commentary on Plan Experience and Contribution Amounts

### 1. GASB 74/75 – How we got here:

GASB 74 and 75 were designed to recognize the Other Postemployment Benefits (“OPEB”) earned by employees throughout their working career vs. when they are paid in retirement – accrual accounting vs. “pay-as-you-go” accounting while increasing disclosures to better reflect the plan’s liabilities and future funding requirements. Additionally, each eligible active employee earns benefits each year representing benefits to be paid in retirement or a “Service Cost”. These amounts are reflected in your financial statement each year so that OPEB benefits for an eligible employee shall be fully charged to the financial statement when that eligible employee terminates employment. Additionally, GASB 74 and 75 require increased disclosures comparable to those required under GASB 67 and 68 and interest rates used in the valuation are more closely tied to the plan’s underlying investment and funding policy.

### 2. GASB 74 and 75 Impact

The District has adopted GASB 74 for the fiscal year ending June 30, 2017 and GASB 75 for the fiscal year ending June 30, 2018. The adoption of GASB 74/75 introduces a new actuarial cost method and discount rate as well as new disclosures and methodologies for reporting plan liabilities and OPEB expenses. Significant changes have been made to the recognition of OPEB expenses, making the comparison of Net OPEB Expense in the current valuation to the expenses reported under GASB 45 misleading. The liability reported on the District’s balance sheet will increase dramatically as GASB 74/75 require the recognition of liabilities immediately rather than recognizing liabilities (Net OPEB Obligation) over a 30 year period as GASB 45 allowed. Please keep these changes in mind when considering any comparison to previously reported liabilities and expenses.

Commentary on Plan Experience and Contribution Amounts  
(continued)

3. **Balance Sheet Items as of the Measurement Date**

	<b>July 1, 2017</b>	<b>June 30, 2015</b>
Total OPEB Liability	\$34,952,280	\$25,337,907
Fiduciary Net Position	\$0	\$0
Net OPEB Liability	\$34,952,280	\$25,337,907
Funded Ratio	0.00%	0.00%

4. **Income Statement Items as of the Fiscal Year Ending**

	<b>June 30, 2018</b>	<b>June 30, 2016</b>
Service Cost	\$1,565,986	\$1,221,307
Interest Expense	\$1,172,841	N/A
Recognition of (Inflow)/Outflow from Plan Design Changes	\$0	N/A
Recognition of (Inflow)/Outflow from Plan Experience	\$1,113,726	N/A
Recognition of (Inflow)/Outflow from Changes in Assumptions	\$0	N/A
Projected Investment Earnings	\$0	N/A
Recognition of (Inflow)/Outflow from Earnings on Investments	\$0	N/A
Financial Statement Expense	3,852,553	N/A
Employer Share of Costs	\$(868,691)	\$(694,549)
Employer Payments (Withdrawals) to/from Trust	\$0	\$0
Total Employer Payments	\$(868,691)	\$(694,549)
Other Changes	\$0	N/A
Net OPEB Expense	\$2,983,862	N/A
Interest Rate	3.25%	3.50%

## SECTION II

### SUMMARY OF PLAN PROVISIONS

<u>Effective Date</u>	GASB 45 is adopted July 1, 2008 GASB 74 is adopted for the fiscal year ending June 30, 2017 GASB 75 is adopted for the fiscal year ending June 30, 2018
<u>Plan Year</u>	July 1 through June 30.
<u>Eligibility</u>	An employee hired before April 2, 2012 shall become eligible to retire under this plan upon attainment of age 55 as an active member and completion of 10 years of service or an employee shall be able to retire with 20 years of service regardless of age. Those hired on or after April 2, 2012 shall be eligible to retire upon attainment of age 60 with 10 years of creditable service.
<u>Creditable Service</u>	Elapsed time from date of hire to termination of service date.
<u>Participant Contributions</u>	Medical Insurance is 40% participant paid. Life Insurance is 40% Participant paid.
<u>Benefits Offered</u>	Comprehensive Medical Insurance offered through Harvard Pilgrim and Group Term Life Insurance.
<u>Normal Retirement Date</u>	The normal retirement date is the first day of the month following a participant's 65th birthday.
<u>Early Retirement</u>	Early retirement is available for any participant who has attained benefit eligibility.

### SECTION III

#### ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

##### A. ACTUARIAL COST METHOD

The actuarial cost method used to calculate the costs and liabilities of the plan is the Individual Entry Age Normal Actuarial Cost Method. Under this method, the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement. The annual normal cost for each active member is a level percent of payroll. The actuarial accrued liability is the actuarial present value of the projected benefit times the ratio of past service to expected total service at retirement/termination.

Actuarial gains and losses are calculated each year and amortized into the OPEB expense. Gains and losses arising from plan design changes are recognized immediately. Gains and losses arising from differences between expected and actual investment returns are amortized over a five (5) year period. Gain and losses arising from differences between expected and actual plan experience and changes in actuarial assumptions are amortized over the remaining lifetime of all active and retired plan participants (5.00 years for the District for the 2018 fiscal year).

All employees who are plan participants on the valuation date are included in the actuarial valuation.

##### B. ASSET VALUATION METHOD

The actuarial value of assets is equal to the Market Value of the Plan's assets as of the measurement date.

### SECTION III

#### ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

#### C. ACTUARIAL ASSUMPTIONS

We used the following assumptions in this year's actuarial valuation:

##### Pre-Retirement Mortality

It is assumed that pre-retirement mortality is represented by the RP-2000 Employees Mortality Table projected generationally with scale BB and a base year 2009 for males and females

##### Post-Retirement Mortality

It is assumed that post-retirement mortality is represented by the RP-2000 Healthy Annuitant Mortality Table projected generationally with scale BB and a base year 2009 for males and females

##### Disabled Mortality

It is assumed that disabled mortality is represented by the RP-2000 Healthy Annuitant Table projected generationally with Scale BB and a base year 2012 for males and females

##### Mortality Experience Study

The mortality assumptions reflect PERAC's recent experience analysis published in 2014 (based on the years 2006-2011), updated to reflect data through January 1, 2015 for post-retirement mortality, and professional judgement. As such, mortality assumptions reflect observed current mortality as well as expected mortality improvements.

##### Discount Rate

3.25% per annum (previously 3.50%)

##### Long Term Rate of Return

6.50% (based on sample investment policy)



SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD  
AND ACTUARIAL ASSUMPTIONS

(continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Municipal Bond Rate

3.13% as of July 1, 2017 (source: S&P Municipal Bond 20-Year High Grade Index - SAPIHG)

Employee Termination

It was assumed that employees would terminate employment in accordance with the sample rates shown in the following table:

<b>Non-Public Safety Employees</b>						
<u>Age</u>	<u>0-4 Years of Service (Males)</u>	<u>0-4 Years of Service (Females)</u>	<u>5-9 Years of Service (Males)</u>	<u>5-9 Years of Service (Females)</u>	<u>10+ Years of Service (Males)</u>	<u>10+ Years of Service (Females)</u>
20	27.00%	27.00%	12.00%	12.00%	6.00%	6.00%
30	23.00%	23.00%	10.00%	10.00%	5.50%	5.50%
40	16.00%	16.00%	8.00%	8.00%	3.50%	3.50%
50	18.00%	18.00%	6.00%	6.00%	3.00%	3.00%
60	18.00%	18.00%	5.00%	5.00%	3.50%	3.50%

<b>Public Safety Employees</b>		
<u>Service</u>	<u>Public Safety Male</u>	<u>Public Safety Female</u>
0	9.00%	9.00%
5	6.00%	6.00%
10	3.50%	3.50%
15	2.00%	2.00%
20	1.50%	1.50%
25	1.50%	1.50%
30	1.50%	1.50%

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD  
AND ACTUARIAL ASSUMPTIONS

(continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Retirement Rates

It was assumed that the following percentage of eligible employees would retire each year:

<u>Age</u>	<u>Standard Male</u>	<u>Standard Female</u>	<u>Male Teachers</u>	<u>Female Teachers</u>
45	0.00%	0.00%	0.00%	0.00%
46	0.00%	0.00%	0.00%	0.00%
47	0.00%	0.00%	0.00%	0.00%
48	0.00%	0.00%	0.00%	0.00%
49	0.00%	0.00%	0.00%	0.00%
50	1.00%	1.50%	2.00%	1.50%
51	1.00%	1.50%	2.00%	1.50%
52	1.00%	2.50%	2.00%	1.50%
53	1.00%	2.50%	2.00%	1.50%
54	2.00%	2.50%	2.00%	2.00%
55	2.00%	5.50%	6.00%	5.00%
56	2.50%	6.50%	20.00%	15.00%
57	2.50%	6.50%	40.00%	35.00%
58	5.00%	6.50%	50.00%	35.00%
59	6.50%	6.50%	50.00%	35.00%
60	12.00%	5.00%	40.00%	35.00%
61	20.00%	13.00%	40.00%	35.00%
62	30.00%	15.00%	35.00%	35.00%
63	25.00%	12.50%	35.00%	35.00%
64	22.00%	18.00%	35.00%	35.00%
65	40.00%	15.00%	35.00%	35.00%
66	25.00%	20.00%	40.00%	35.00%
67	25.00%	20.00%	40.00%	30.00%
68	30.00%	25.00%	40.00%	30.00%
69	30.00%	20.00%	40.00%	30.00%
70	100.00%	100.00%	100.00%	100.00%
71	100.00%	100.00%	100.00%	100.00%
72	100.00%	100.00%	100.00%	100.00%

In the absence of census data specifying which employees are teachers it was assumed that two thirds of school employees are teachers. If available, actual census data was used.

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD  
AND ACTUARIAL ASSUMPTIONS

(continued)

Disability rates

It was assumed that the following percentage of eligible employees would become permanently disabled each year:

<u>Age</u>	<u>Standard</u>	<u>Teachers</u>
20	0.01%	0.05%
25	0.01%	0.06%
30	0.01%	0.07%
35	0.03%	0.10%
40	0.07%	0.21%
45	0.10%	0.30%
50	0.13%	0.42%
55	0.14%	0.50%
60	0.12%	0.50%

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD  
AND ACTUARIAL ASSUMPTIONS  
(continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Healthcare Trend

It was assumed that healthcare costs would increase in accordance with the trend rates in the following table:

<u>Year</u>	<u>Medical</u>	<u>Dental</u>
FY 2013	6.0%	5.5%
FY 2014	5.0%	5.0%
FY 2015	5.0%	5.0%
FY 2016	5.0%	5.0%
FY 2017	5.0%	5.0%
FY 2018	5.0%	5.0%
FY 2019	5.0%	5.0%
FY 2020+	5.0%	5.0%

Participation Rate

It was assumed that 80% of employees eligible to receive retirement benefits would enroll in the retiree medical plans upon retirement. For life insurance plans, it was assumed that 80% of eligible employees would elect coverage upon retirement.

Percent Married

It was assumed that 80% of male employees and 70% of female employees who elect retiree healthcare coverage for themselves would also elect coverage for a spouse upon retirement. If provided, the actual census information was used. Otherwise it was assumed that a male spouse is three years older than a female spouse and same sex spouses are assumed to be the same age.

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD  
AND ACTUARIAL ASSUMPTIONS  
(continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Compensation Increases

3.00% per year.

Open Group Forecast

It was assumed for projecting plan liabilities in future years that the active population would remain unchanged and that those who terminate employment or retire will be replaced with new employees with the demographics below:

**Open Group Forecast Population Demographics**

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	8.0%	5.0%
30	7.0%	14.0%
40	20.0%	19.0%
50	10.0%	10.0%
60	<u>3.0%</u>	<u>4.0%</u>
Total	48.0%	52.0%

Additional Comments

The values in this report reflect a closed group and do not reflect any new entrants after the valuation date.

For purposes of this valuation, retiree contributions were assumed to increase with the same trend rate as health care claims.

Medicare Part B Penalties are not reflected

Medicare Part B Reimbursement is not reflected

### SECTION III

#### ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

#### D. DEVELOPMENT OF REPRESENTATIVE MEDICAL PER CAPITA CLAIMS COSTS

As part of the Other Post-Employment Benefits Program, there are situations where the cost is borne partly or entirely on the retirees. In most cases, the premium that is used to split the cost is lower than the true cost of providing the medical benefits, for two reasons:

- ✓ The cost sharing program is usually a fixed amount such as a COBRA premium that does not take into account the age of the retiree and his/her dependents. Since medical costs generally increase with age, the cost sharing premium is often lower than the true cost of the medical benefits:
- ✓ The cost sharing premium is usually a blended rate that takes into account the cost of medical benefits for active employees as well as retirees. Medical costs are generally higher for retirees than for active employees of the same age. This means that, again, the cost sharing premium is often lower than the true cost of the medical benefits.

Because of these two factors, a retiree who is paying 100% of the cost sharing premium is most likely not paying 100% of the true cost of the medical benefits. This situation is known as an "implicit subsidy". GASB 74 and 75 require the plan sponsor to measure the liability for this subsidy; that is, the difference between the true cost of the medical benefits and the cost sharing premiums paid by the retiree. Actuarial Standard of Practice No. 6 ("ASOP 6") requires us to recognize this implicit subsidy while the plan sponsor may only pay the premiums billed by an insurance provider. To do this, our valuation consists of several steps:

First, we calculate the liability for the true cost of medical benefits expected to be received by retirees and their dependents. This liability is based on factors developed by actuaries that reflect how the cost of medical benefits varies by age and gender, as well as the other assumptions discussed on the prior page.

Next, we calculate the liability for the future premiums expected to be paid by the retiree for their own and their dependents' coverage. This liability is based on the current premium rates without adjustment for age or gender. It also is based on the terms of the retiree medical program - different retirees pay different percentages based on their union, date of retirement, age at retirement, and other factors.

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD  
AND ACTUARIAL ASSUMPTIONS  
(continued)

D. DEVELOPMENT OF REPRESENTATIVE MEDICAL PER CAPITA CLAIMS COSTS

**I. CLAIMS COSTS DEVELOPMENT - Based on Active & Retiree Incurred Claims & Premiums**

	Number of Participants			
	Single	Two-Person	Family	Total
Harvard Pilgrim HMO	86		87	173
Harvard Pilgrim POS	7		10	17
Harvard Pilgrim PPO			3	3
Harvard Senior	152			152
<b>Total</b>	245	0	100	345

	Per Contract Costs (monthly) - FY 2019		
	Single	Two-Person	Family
Harvard Pilgrim HMO	769.80		2,063.08
Harvard Pilgrim POS	1,002.40		2,686.44
Harvard Pilgrim PPO	1,201.76		3,220.78
Harvard Senior	390.27	780.54	

Gross Expected FY 2019 Incurred Premiums	4,182,664
Adjustment to reflect children's claims	(657,731)
<b>Total Expected FY 2019 Incurred Premiums (adults only)</b>	<b>3,524,933</b>

**II. PRE-65 AND POST-65 PER CAPITA RETIREE ANNUAL CLAIM COSTS**

	<u>Employer</u> <u>Primary</u>	<u>Medicare</u> <u>Primary</u>
Age 65	13,578	4,240
Average Age	10,081	4,683

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD  
AND ACTUARIAL ASSUMPTIONS  
(continued)

D. DEVELOPMENT OF REPRESENTATIVE MEDICAL PER CAPITA CLAIMS COSTS

**III. BREAKDOWN OF CLAIM COSTS**

**ALL ACTIVE EMPLOYEES AND SPOUSES**

Age Bracket	Aged (F) Average Claims	Aged (M) Average Claims
24 & Under	7,945	3,325
25 to 29	7,945	3,579
30 to 34	7,945	4,312
35 to 39	7,945	5,148
40 to 44	7,945	6,056
45 to 49	8,818	7,225
50 to 54	9,684	8,727
55 to 59	10,537	10,616
60 to 64	11,918	12,730
65 to 69	13,129	14,026
70 & Over	14,510	15,485

**ALL RETIREES AND SPOUSES - NOT  
MEDICARE ELIGIBLE**

Age Bracket	Aged (F) Average Claims	Aged (M) Average Claims
44 & Under	7,945	6,056
45 to 49	8,818	7,225
50 to 54	9,684	8,727
55 to 59	10,537	10,616
60 to 64	11,918	12,730
65 to 69	13,129	14,026
70 to 74	14,510	15,485
75 to 79	15,703	16,769
80 to 84	16,497	17,623
85 to 89	17,344	18,525
90 & Over	18,229	19,470

**ALL RETIREES AND SPOUSES - MEDICARE  
ELIGIBLE**

Age Bracket	Aged (F) Average Claims	Aged (M) Average Claims
65 to 69	4,100	4,380
70 to 74	4,531	4,836
75 to 79	4,904	5,236
80 to 84	5,151	5,503
85 to 89	5,416	5,785
90 & Over	5,692	6,080



SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD  
AND ACTUARIAL ASSUMPTIONS

(continued)

E. DEVELOPMENT OF REPRESENTATIVE DENTAL PER CAPITA CLAIMS COSTS

I. **CLAIMS COSTS DEVELOPMENT - with Active & Retiree Incurred Premiums**

	Per Contract Costs (monthly) - FY 2019		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
<b>Dental Plan</b>	N/A		N/A

FY 2019 Expected Per Person Rate                      N/A

## EXHIBIT A

### Financial Statement Disclosure (As of the July 1, 2017 Measurement Date)

The GASB Standards for accounting and financial reporting for postemployment benefits other than pensions require the following disclosures in the financial statements related to the retiree medical, dental and life insurance benefits;

#### **1. A DESCRIPTION OF THE RETIREE MEDICAL INSURANCE PROGRAM:**

- a. Plan Type: Various offerings from Harvard Pilgrim.
- b. Administrator: Hamilton-Wenham Regional School District
- c. Eligibility: An employee hired before April 2, 2012 shall become eligible to retire under this plan upon attainment of age 55 as an active member and completion of 10 years of service or an employee shall be able to retire with 20 years of service regardless of age. Those hired on or after April 2, 2012 shall be eligible to retire upon attainment of age 60 with 10 years of creditable service.
- d. Cost Sharing: 40% Participant paid.

#### **2. A DESCRIPTION OF THE RETIREE DENTAL INSURANCE PROGRAM:**

- a. Plan Type: Not Offered
- b. Administrator: N/A
- c. Eligibility: N/A
- d. Cost sharing: N/A

#### **3. A DESCRIPTION OF THE RETIREE LIFE INSURANCE PROGRAM:**

- a. Plan Type: Group Term Life Insurance - \$5,000
- b. Administrator: Hamilton-Wenham Regional School District
- c. Eligibility: Same as above
- d. Cost sharing: 40% Participant paid.

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**4. RETIREE MEDICAL AND LIFE INSURANCE CONTRIBUTIONS:**

Group	Individual	Family
Medical	40%	40%
Dental	N/A	N/A
Life	40%	N/A

**5. FUNDING POLICY**

The contribution requirements of plan members and the District are established and may be amended through District ordinances. For the year ending on the June 30, 2018 Reporting Date total District premiums plus implicit costs for the retiree medical program were \$868,691. The District also made a contribution to an OPEB Trust of \$0 for a total contribution during the period of \$868,691.

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**6. INVESTMENT POLICY**

The District has not established a formal Investment Policy. The chart below shows the development of a long-term rate of return on assets that could be used for funded periods if the Investment Policy below were adopted.

<b>Investment Target Allocation &amp; Expected Long-Term Real Rate of Return</b>			
<b>Asset Class</b>	<b>Target Allocation</b>	<b>Asset Class</b>	<b>Long-Term Expected Real Rate of Return</b>
Domestic Equity - Large Cap	20.00%	Domestic Equity - Large Cap	4.00%
Domestic Equity - Small/Mid Cap	10.00%	Domestic Equity - Small/Mid Cap	6.00%
International Equity - Developed Market	15.00%	International Equity - Developed Market	4.50%
International Equity-Emerging Market	10.00%	International Equity-Emerging Market	7.00%
Domestic Fixed Income	30.00%	Domestic Fixed Income	2.00%
International Fixed Income	10.00%	International Fixed Income	3.00%
Alternatives	5.00%	Alternatives	6.50%
Real Estate	0.00%	Real Estate	6.25%
Cash	0.00%	Cash	0.00%
<b>Total</b>	<b>100.00%</b>		
		I. Real Rate of Return	4.00%
		II. Inflation Assumption	2.75%
		III. Total Nominal Return [I. + II.]	6.75%
		IV. Investment Expense	0.25%
		V. Net Investment Return [III.-IV.]	6.50%

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**7. ACTUARIALLY DETERMINED CONTRIBUTION (ADC)**

The District's Actuarially Determined Contribution (ADC) is an amount actuarially determined in accordance with the parameters of GASB Statement No. 74/75 which represents a level of funding that, if paid on an ongoing basis, is projected to cover the service cost each year and amortize any unfunded actuarial liabilities (or funding excess). The following table shows the components of the District's annual ADC for the fiscal year and the amount actually contributed to the plan:

<b>Actuarially Determined Contribution - Deficiency / (Excess)</b>	
<b><u>For the Fiscal Year Ending June 30, 2018</u></b>	
I. Service Cost	1,565,986
II. 30 year level flat dollar amortization of NOL at 3.25%	<u>1,783,386</u>
III. Actuarial Determined Contribution [I. + II.]	3,349,372
IV. Contributions in relation to the actuarially determined contribution	<u>(868,691)</u>
V. Contribution deficiency / (excess) [III. + IV.]	<u>2,480,681</u>
Covered employee payroll	19,359,089
Contributions as a % of covered employee payroll	4.49%

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**8. FUNDED STATUS AND FUNDING PROGRESS**

As of the July 1, 2017 Measurement Date, the plan was 0.00% funded. The Total OPEB Liability (TOL) for benefits was \$34,952,280, and the Fiduciary Net Position was \$ 0, resulting in a Net OPEB Liability (NOL) of \$34,952,280. The covered payroll (annual payroll of active employees covered by the plan) was \$ 19,359,089 and the ratio of the NOL to the covered payroll was 180.5%.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the actuarially determined contribution of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented in the required supplementary information following the financial statements, presents multiyear trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the Total OPEB Liabilities for benefits.

Fiscal Year	Measurement Date	Fiduciary Net Position	Total OPEB Liability	Net OPEB Liability	Funded Ratio	Covered Payroll	NOL as a % of Covered Payroll
2020	07/01/2019 (est.)	\$0	\$38,907,851	\$38,907,851	0.0%	\$20,538,058	189.4%
2019	07/01/2018 (est.)	\$0	\$36,822,416	\$36,822,416	0.0%	\$19,939,862	184.7%
2018	07/01/2017	\$0	\$34,952,280	\$34,952,280	0.0%	\$19,359,089	180.6%
2017	07/01/2016	\$0	\$26,769,929	\$26,769,929	0.0%	\$19,037,910	140.6%
2016	07/01/2015	\$0	\$25,337,907	\$25,337,907	0.0%	\$18,483,408	137.1%
2015	07/01/2014	\$0	\$26,986,951	\$26,986,951	0.0%	\$18,430,154	146.4%

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

9. FIDUCIARY NET POSITION

<b>Statement of Fiduciary Net Position</b>		
<b>July 1, 2017 and July 1, 2018</b>		
	<u>July 1, 2018 (Projected)</u>	<u>July 1, 2017</u>
<b>Assets</b>		
I. Cash and cash equivalents	0	0
<u>Receivables &amp; Prepaid expenses:</u>		
II. Contributions	0	0
III. Investment Income	0	0
IV. Receivables from brokers for unsettled trades	0	0
V. Prepaid expenses	<u>0</u>	<u>0</u>
VI. Total Receivables [II.+III.+IV.+V.]	<u>0</u>	<u>0</u>
<u>OPEB Trust Investments:</u>		
VII. Fixed Income	0	0
VIII. Stocks	0	0
IX. Cash and cash equivalents	0	0
X. Real estate	0	0
XI. Alternative investments	<u>0</u>	<u>0</u>
XII. Total Investments [VII.+VIII.+IX.+X.+XI.]	<u>0</u>	<u>0</u>
Invested securities lending cash collateral	0	0
Capital assets, net of accumulated depreciation	0	0
<b>Total Assets</b>	0	0
<b>Liabilities</b>		
XIII. Accrued expenses and benefits payable	0	0
XIV. Securities lending cash collateral	0	0
XV. Payable to brokers for unsettled trades	<u>0</u>	<u>0</u>
<b>XVI. Total liabilities [XIII.+XIV.+XV.]</b>	<u>0</u>	<u>0</u>
<b>XVII. Net Position restricted for OPEB [XII.-XVI.]</b>	0	0

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**9. FIDUCIARY NET POSITION (CONTINUED)**

<b>Statement of Changes in Fiduciary Net Position</b>	
	<b>Fiscal Year Ending</b>
	<b>June 30, 2017</b>
<b>Additions</b>	
<u>Contributions</u>	
Employer Contributions to OPEB Trust	0
Total Contributions	0
<u>Investment Income / (loss)</u>	
Interest	0
Dividends	0
Equity fund income, net	0
Net increase in fair value of investments	0
Securities lending income	0
Less investment expenses:	
Direct investment expense	0
Securities lending management fees	0
Securities lending borrower rebates	0
Net investment income	0
Other income	0
<b>Total Additions</b>	<b>0</b>
<b>Deductions</b>	
Service benefits	0
Disability benefits	0
Death benefits	0
Refunds	0
Administrative expenses	0
<b>Total deductions</b>	<b>0</b>
<b>Net increase (decrease)</b>	<b>0</b>
<b>Net Position restricted for OPEB</b>	
As of July 1, 2016	0
As of June 30, 2017	0



EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**10. OPEB LIABILITY, OPEB EXPENSE AND ADC**

	<b>Fiscal Year Ending June 30, 2018</b>	
	<b>District Employees and</b>	<b>Total</b>
	<b>Retirees</b>	
I. Total OPEB Liability	34,952,280	34,952,280
II. Fiduciary Net Position as of July 1, 2017	-	-
III. Net OPEB Liability (Asset) [I. - II.]	34,952,280	34,952,280
IV. Service Cost	1,565,986	1,565,986
V. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	1,172,841	1,172,841
VI. Recognition of Deferred (Inflows)/Outflows from Plan Design Changes	-	-
VII. Recognition of Deferred (Inflows)/Outflows from Plan Experience	1,113,726	1,113,726
VIII. Recognition of Deferred (Inflows)/Outflows from Changes in Assumptions	-	-
IX. Projected Earnings on OPEB Plan Investments	-	-
X. Recognition of Deferred (Inflows)/Outflows from Earnings on Investments	-	-
XI. Financial Statement Expense [IV. + V. + VI. + VII. + VIII. + IX. + X.]	3,852,553	3,852,553
XII. Employer Share of Costs	(868,691)	(868,691)
XIII. Employer (Payments) Withdrawals to/from OPEB Trust	-	-
XIV. Total Employer Contribution [XII. + XIII.]	(868,691)	(868,691)
XV. Net OPEB Expense [XI. + XIV.]	2,983,862	2,983,862
XVI. Actuarial Determined Contribution (ADC)	3,349,372	3,349,372
XVII. Total Expected Contribution	868,691	868,691
XVIII. Percentage of ADC Contributed [XVII. / XVI.]	26%	26%

	<b>Fiscal Year Ending June 30, 2019</b>	
	<b>District Employees and</b>	<b>Total</b>
	<b>Retirees</b>	
I. Total OPEB Liability	36,822,416	36,822,416
II. Fiduciary Net Position as of July 1, 2018	-	-
III. Net OPEB Liability (Asset) [I. - II.]	36,822,416	36,822,416
IV. Service Cost	1,685,696	1,685,696
V. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	1,236,796	1,236,796
VI. Recognition of Deferred (Inflows)/Outflows from Plan Design Changes	-	-
VII. Recognition of Deferred (Inflows)/Outflows from Plan Experience	1,113,726	1,113,726
VIII. Recognition of Deferred (Inflows)/Outflows from Changes in Assumptions	-	-
IX. Projected Earnings on OPEB plan investments	-	-
X. Recognition of Deferred (Inflows)/Outflows from Earnings on Investments	-	-
XI. Financial Statement Expense [IV. + V. + VI. + VII. + VIII. + IX. + X.]	4,036,218	4,036,218
XII. Employer Share of Costs	(913,041)	(913,041)
XIII. Employer (Payments) Withdrawals to/from OPEB Trust	-	-
XIV. Total Employer Contribution [XII. + XIII.]	(913,041)	(913,041)
XV. Net OPEB Expense [XI. + XIV.]	3,123,177	3,123,177
XVI. Actuarial Determined Contribution (ADC)	3,564,503	3,564,503
XVII. Total Expected Contribution	913,041	913,041
XVIII. Percentage of ADC Contributed [XVII. / XVI.]	26%	26%

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**11. OPEB LIABILITY, OPEB EXPENSE AND DEFERRED INFLOW/OUTFLOW**

<b>Source of Deferred Inflow/Outflow</b>		
	<b>For the Reporting Date</b>	
	<b>June 30, 2018</b>	<b>June 30, 2019</b>
I. Deferred (Inflow)/Outflow from Actual vs. Expected Experience	4,454,903	3,341,177
II. Deferred (Inflow)/Outflow from Investment Experience	0	0
III. Deferred (Inflow)/Outflow from Changes in Benefit Terms	0	0
IV. Deferred (Inflow)/Outflow from Changes in Assumptions	0	0

<b>Change in Deferred Inflow/Outflow</b>		
	<b>For the period ending on the Measurement Date</b>	
	<b>July 1, 2017</b>	<b>July 1, 2018</b>
I. Deferred Outflow at the beginning of the period	0	4,454,903
II. Deferred Outflow created during the period	5,568,629	0
III. Deferred Outflow recognized during the period	1,113,726	1,113,726
IV. Change in Deferred Outflow (III. - II.)	4,454,903	1,113,726
V. Deferred Outflow at end of the period (I. - IV.)	4,454,903	3,341,177
VI. Deferred Inflow at the beginning of the period	0	0
VII. Deferred Inflow created during the period	0	0
VIII. Deferred Inflow recognized during the period	0	0
IX. Change in Deferred Inflow (VIII. - VII.)	0	0
X. Deferred Inflow at end of the period (VI. - IX.)	0	0

<b>Net OPEB Liability</b>		
	<b>For the period ending on the Measurement Date</b>	
	<b>July 1, 2017</b>	<b>July 1, 2018</b>
I. Net OPEB Liability at beginning of period	27,819,845	34,952,280
II. Net OPEB Expense - Excluding Payments	2,311,921	2,738,827
III. Total Employer Contributions	(748,115)	(868,691)
IV. Net OPEB Expense - Before Recognition of Deferred (Inflow)/Outflow (II. + III.)	1,563,806	1,870,136
V. Deferred Outflow created during the period	5,568,629	0
VI. Deferred Inflow created during the period	0	0
VII. Net OPEB Liability at end of period (I. + IV. + V + VI)	34,952,280	36,822,416

<b>Net OPEB Expense</b>		
	<b>For the period ending on the Measurement Date</b>	
	<b>July 1, 2017</b>	<b>July 1, 2018</b>
I. Service Cost	1,375,144	1,565,986
II. Interest on Total OPEB Liability, Service Cost, and Payments	936,777	1,172,841
III. Projected Investment Income	0	0
IV. Recognition of Deferred (Inflow)/Outflow	0	1,113,726
V. Financial Statement Expense [I. + II. + III. + IV. ]	2,311,921	3,852,553
VI. Benefit Payments	(748,115)	(868,691)
VII. Contributions to Trust	0	0
VIII. Total Employer Payments [VI. + VII. ]	(748,115)	(868,691)
IX. Total Net OPEB Expense under GASB 75 (V. + VIII. )	1,563,806	2,983,862

Measurement Date July 1, 2017 July 1, 2018

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**12. EFFECT OF 1% CHANGE IN HEALTHCARE TREND**

In the event that healthcare trend rates were 1% higher than forecast and employee contributions were to increase at the forecast rates, the Total OPEB Liability as of the July 1, 2017 Measurement Date would increase to \$47,066,739 or by 34.7% and the Net OPEB Liability would increase to \$47,066,739 or by 34.7%. The corresponding Service Cost would increase to \$2,419,432 or by 54.5%. If such healthcare trend rates were 1% less than forecast and employee contributions were to increase at the forecast rate, the Total OPEB Liability would decrease to \$25,699,674 or by 26.5% and the Net OPEB Liability would decrease to \$25,699,674 or by 26.5%. The corresponding Service Cost would decrease to \$956,826 or by 38.9%.

**Impact of a 1% Change in the Healthcare Trend Rate as of the July 1, 2017 Measurement Date**

	<u>1% Decrease (4.00%)</u>	<u>Current Trend Rate (5.00%)</u>	<u>1% Increase (6.00%)</u>
I. Total OPEB Liability	25,699,674	34,952,280	47,066,739
II. Fiduciary Net Position	<u>0</u>	<u>0</u>	<u>0</u>
III. Net OPEB Liability (Asset) [I.-II.]	25,699,674	34,952,280	47,066,739
IV. Service Cost	956,826	1,565,986	2,419,432

**Impact of a 1% Change in the Healthcare Trend Rate as of the July 1, 2018 Measurement Date**

	<u>1% Decrease (4.00%)</u>	<u>Current Trend Rate (5.00%)</u>	<u>1% Increase (6.00%)</u>
I. Total OPEB Liability	27,071,333	36,822,416	49,589,531
II. Fiduciary Net Position	<u>0</u>	<u>0</u>	<u>0</u>
III. Net OPEB Liability (Asset) [I.-II.]	27,071,333	36,822,416	49,589,531
IV. Service Cost	1,029,844	1,685,696	2,604,559

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**13. EFFECT OF 1% CHANGE IN DISCOUNT RATES**

As of the July 1, 2017 Measurement Date, if the discount rate were 1% higher than what was used in this valuation, the Total OPEB Liability would decrease to \$29,776,421 or by 14.8% and the Net OPEB Liability would decrease to \$29,776,421 or by 14.8%. The corresponding Service Cost would decrease to \$1,201,122 or by 23.3%. If the discount rate were 1% lower than was used in this valuation, the Total OPEB Liability would increase to \$41,617,426 or by 19.1% and the Net OPEB Liability would increase to \$41,617,426 or by 19.1%. The corresponding Service Cost would increase to \$2,068,116 or by 32.1%.

**Impact of a 1% Change in the Discount Rate as of the July 1, 2017 Measurement Date**

	<u>1% Decrease (2.25%)</u>	<u>Current Discount Rate (3.25%)</u>	<u>1% Increase (4.25%)</u>
I. Total OPEB Liability	41,617,426	34,952,280	29,776,421
II. Fiduciary Net Position	0	0	0
III. Net OPEB Liability (Asset) [I.-II.]	41,617,426	34,952,280	29,776,421
IV. Service Cost	2,068,116	1,565,986	1,201,122

**Impact of a 1% Change in the Discount Rate as of the July 1, 2018 Measurement Date**

	<u>1% Decrease (2.25%)</u>	<u>Current Discount Rate (3.25%)</u>	<u>1% Increase (4.25%)</u>
I. Total OPEB Liability	43,844,183	36,822,416	31,369,620
II. Fiduciary Net Position	0	0	0
III. Net OPEB Liability (Asset) [I.-II.]	43,844,183	36,822,416	31,369,620
IV. Service Cost	2,226,211	1,685,696	1,292,941

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**14. ACTUARIAL METHODS AND ASSUMPTIONS**

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

Actuarial Cost Method: Individual Entry Age Normal  
Discount Rate: 3.25% per annum (previously 3.50%)  
Healthcare Trend Rates

<u>Year</u>	<u>Medical</u>	<u>Dental</u>
FY 2013	6.0%	5.5%
FY 2014	5.0%	5.0%
FY 2015	5.0%	5.0%
FY 2016	5.0%	5.0%
FY 2017	5.0%	5.0%
FY 2018	5.0%	5.0%
FY 2019	5.0%	5.0%
FY 2020+	5.0%	5.0%

General Inflation Assumption: 2.75% per annum  
Annual Compensation Increases: 3.00% per annum  
Actuarial Value of Assets: Market Value

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**15. RECOGNITION OF OPEB TRUST ASSETS**

The State of Massachusetts has passed legislation allowing municipal entities to establish a Trust for Other Postemployment Benefits (“OPEB”) under M.G.L. Chapter 32B, Section 20 for purposes of accumulating assets to pre-fund the liabilities under GASB 75. This legislation was amended effective November 9, 2016 to clarify who may adopt such a Trust and provide guidance on the ongoing operation of such a Trust. To the best of our knowledge, Hamilton-Wenham Regional School District has not established an irrevocable trust for the purposes of prefunding liabilities under GASB 74/75.

**16. OPEB EXPENSE DEVELOPMENT**

<b>Components of the District's OPEB Expenses for the Fiscal Year Ending June 30, 2018</b>	
<b>Description</b>	<b>Amount</b>
I. Service Cost	1,565,986
II. Interest on Total OPEB Liability (Asset), Service Cost, and Benefit Payments	1,172,841
III. Deferred (Inflows)/Outflows from Plan Design Changes*	0
IV. Deferred (Inflows)/Outflows from Plan Experience**	1,113,726
V. Deferred (Inflows)/Outflows from Changes of Assumptions**	0
VI. Projected earnings on OPEB plan investments	0
VII. Deferred (Inflows)/Outflows from Earnings on Plan Investments***	0
VIII. Total Employer Contributions	(868,691)
IX. OPEB Plan administrative expense	0
X. Other changes in fiduciary net position	0
<b>XI. Net OPEB expense [I.+II.+III.+IV.+V.+VI.+VII.+VIII.+IX.+ X.]</b>	<b>2,983,862</b>

\* Recognized Immediately

\*\* Amortized over 5 years

\*\*\* Amortized over 5 years

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**17. CHANGES IN NET OPEB LIABILITY**

<b>Changes in Net OPEB Liability</b>			
	<b>Increase (Decrease)</b>		
	<b>Total OPEB Liability</b>	<b>Plan Fiduciary Net Position</b>	<b>Net OPEB Liability</b>
<b>I. Balances at July 1, 2016 GASB 45</b>	26,769,929	0	26,769,929
<b>II. Change in Assumptions for GASB 75</b>	<u>1,049,916</u>	<u>0</u>	<u>1,049,916</u>
<b>III. Balances at July 1, 2016 GASB 75 [I. + II.]</b>	<b>27,819,845</b>	0	27,819,845
<b>Changes for the year:</b>			
IV. Service Cost	1,375,144	0	1,375,144
V. Interest on Total OPEB Liability, Service Cost, and Benefit Payments	936,777	0	936,777
VI. Changes in Benefit terms *	0	0	0
VII. Change in assumptions **	0	0	0
VIII. Differences between actual and expected experience **	5,568,629	0	5,568,629
IX. Net Investment Income	0	0	0
X. Employer Contributions to Trust	0	748,115	(748,115)
XI. Benefit Payments Withdrawn from Trust	0	(748,115)	748,115
XII. Benefit payments excluding Implicit Cost	N/A	0	N/A
XIII. Implicit Cost amount	N/A	0	N/A
XIV. Total Benefit payments including Implicit Cost [XII. + XIII.]	(748,115)	0	(748,115)
XV. Administrative expense	0	0	0
XVI. Other Charges	0	0	0
<b>XVII. Net Changes [IV.+V.+VI.+VII.+VIII.+IX.+X.+XI.+XIV.+XV.+XVI.]</b>	<b>7,132,435</b>	<b>0</b>	<b>7,132,435</b>
<b>XVII. Balances at July 1, 2017 [III.+XVII.]</b>	<b>34,952,280</b>	<b>0</b>	<b>34,952,280</b>

\* Recognized Immediately

\*\* Amortized over 5 years

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**18. MONEY WEIGHTED RATE OF RETURN**

<b>Determination of Beginning &amp; Ending Balances of OPEB Plan Investments for Purposes of Calculating the Annual Money-Weighted Rate of Return</b>		
	<b>Assets as of July 1, 2016</b>	<b>Assets as of July 1, 2017</b>
<b>Assets</b>		
Cash and cash equivalents	0	0
Receivables:		
Investment income	0	0
Receivables from brokers for unsettled trades	0	0
Investments		
Fixed income	0	0
Stocks	0	0
Cash and cash equivalents	0	0
Real estate	0	0
Alternative investments	0	0
Invested securities lending cash collateral	0	0
<b>Liabilities</b>		
Securities lending cash collateral	0	0
Payable to brokers for unsettled trades	0	0
<b>Total OPEB plan investments</b>	<b>0</b>	<b>0</b>



EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**18. MONEY WEIGHTED RATE OF RETURN (CONTINUED)**

	Plan Investments / Net External	Periods Invested	Period Weight
I. Beginning value - July 1, 2016	0	12	1.0000
Monthly net external cash flows:			
July	0	11	0.9167
August	0	10	0.8333
September	0	9	0.7500
October	0	8	0.6667
November	0	7	0.5833
December	0	6	0.5000
January	0	5	0.4167
February	0	4	0.3333
March	0	3	0.2500
April	0	2	0.1667
May	0	1	0.0833
<u>June</u>	<u>0</u>	0	0.0000
II. Total net external cash flow	0		
III. Earnings and increase in fair value	0		
IV. Ending value - June 30, 2017 [I.+II.+III.]	0		
Money Weighted Rate of Return	N/A		
Asset Value - June 30, 2017	0		

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**19. PLAN CASH FLOWS**

<b>Aggregate External (Noninvestment Cash Flows)</b>	
<b><u>July 1, 2017</u></b>	
<b>Additions</b>	
<u>Contributions</u>	
Member contributions	0
Employer contributions	0
Other income	0
<b>Deductions</b>	
Service benefits	0
Disability benefits	0
Death benefits	0
Refunds	0
Administrative expenses	0
Beginning balances of noninvestment-related assets and liabilities	
Contribution receivable	0
Prepaid expenses	0
Accrued expenses & benefits payable	0
Ending balances of noninvestment-related assets and liabilities	
Contribution receivable	0
Prepaid expenses	0
Accrued expenses & benefits payable	0
Change in capital assets - depreciation	0
Aggregate external cash flows	0

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**19. PLAN CASH FLOWS (CONTINUED)**

<b>Reconciliation of Beginning &amp; Ending Balances of OPEB Plan Investments, Aggregate External Cash Flows, and Net Investment Income</b>	
	<b><u>June 30, 2017</u></b>
I. Total OPEB plan investments on July 1, 2016	0
II. Aggregate external cash flows	0
III. Net investment income	<u>0</u>
IV. Total OPEB plan investments on July 1, 2017 [I.+II.+III.]	<u><u>0</u></u>

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**20. PLAN PROJECTION DISCLOSURES**

<b>Projection of Contributions using a July 1, 2017 Valuation Date</b>							
<b>Fiscal Year</b>	<b>I. Payroll for current employees</b>	<b>II. Payroll for future employees</b>	<b>III. Total employee payroll [I.+II.]</b>	<b>IV. Contributions from current employees</b>	<b>V. Employer Payments for current plan members</b>	<b>VI. Employer Payments for future employees</b>	<b>VII. Total Payments [IV.+V.+VI.]</b>
2018	19,359,089	0	19,359,089	0	868,691	0	868,691
2019	17,095,295	2,844,567	19,939,862	0	913,041	0	913,041
2020	15,455,775	5,082,283	20,538,058	0	975,651	0	975,651
2021	14,102,550	7,051,650	21,154,200	0	1,052,267	0	1,052,267
2022	12,980,967	8,807,859	21,788,826	0	1,140,423	0	1,140,423
2023	12,021,435	10,421,056	22,442,491	0	1,236,903	0	1,236,903
2024	11,163,312	11,952,454	23,115,766	0	1,352,975	0	1,352,975
2025	10,422,085	13,387,154	23,809,239	0	1,438,428	0	1,438,428
2026	9,694,636	14,828,880	24,523,516	0	1,531,500	0	1,531,500
2027	9,029,833	16,229,388	25,259,221	0	1,621,246	0	1,621,246
2028	8,366,200	17,650,798	26,016,998	0	1,718,317	0	1,718,317
2029	7,587,820	19,209,688	26,797,508	0	1,780,903	16,524	1,797,427
2030	6,961,730	20,639,703	27,601,433	0	1,845,914	42,258	1,888,172
2031	6,443,396	21,986,080	28,429,476	0	1,912,344	78,599	1,990,943
2032	5,918,928	23,363,432	29,282,360	0	2,002,921	125,457	2,128,378
2033	5,370,117	24,790,714	30,160,831	0	2,073,706	181,783	2,255,489
2034	4,852,695	26,212,961	31,065,656	0	2,171,731	228,417	2,400,148
2035	4,416,355	27,581,271	31,997,626	0	2,215,191	280,985	2,496,176
2036	4,055,182	28,902,373	32,957,555	0	2,295,247	339,484	2,634,731
2037	3,698,089	30,248,193	33,946,282	0	2,310,826	390,434	2,701,260
2038	3,332,076	31,632,594	34,964,670	0	2,380,956	445,834	2,826,790
2039	3,024,751	32,988,859	36,013,610	0	2,450,639	522,858	2,973,497
2040	2,748,048	34,345,970	37,094,018	0	2,443,613	628,210	3,071,823
2041	2,506,474	35,700,365	38,206,839	0	2,453,294	760,630	3,213,924
2042	2,225,579	37,127,465	39,353,044	0	2,483,825	920,033	3,403,858
2043	1,965,073	38,568,562	40,533,635	0	2,510,935	1,104,665	3,615,600
2044	1,715,272	40,034,372	41,749,644	0	2,506,090	1,260,335	3,766,425
2045	1,513,824	41,488,309	43,002,133	0	2,500,716	1,430,704	3,931,420
2046	1,341,428	42,950,769	44,292,197	0	2,490,902	1,617,343	4,108,245
2047	1,174,324	44,446,639	45,620,963	0	2,482,407	1,790,415	4,272,822
2048	975,308	46,014,284	46,989,592	0	2,493,265	1,974,954	4,468,219
2049	810,046	47,589,234	48,399,280	0	2,502,147	2,184,286	4,686,433
2050	671,597	49,179,661	49,851,258	0	2,480,032	2,420,285	4,900,317
2051	532,086	50,814,710	51,346,796	0	2,436,976	2,680,579	5,117,555
2052	420,771	52,466,429	52,887,200	0	2,398,588	2,965,867	5,364,455
2053	336,452	54,137,364	54,473,816	0	2,362,638	3,280,175	5,642,813
2054	251,832	55,856,198	56,108,030	0	2,267,584	3,594,393	5,861,977
2055	183,371	57,607,900	57,791,271	0	2,217,759	3,926,535	6,144,294
2056	131,384	59,393,625	59,525,009	0	2,181,986	4,280,521	6,462,507
2057	87,543	61,223,216	61,310,759	0	2,130,870	4,645,753	6,776,623

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**Projection of Contributions using a July 1, 2017 Valuation Date (Continued)**

Fiscal Year	I. Payroll for current employees	II. Payroll for future employees	III. Total employee payroll [I.+II.]	IV. Contributions from current employees	V. Employer Payments for current plan members	VI. Employer Payments for future employees	VII. Total Payments [IV.+V.+VI.]
2058	52,615	63,097,467	63,150,082	0	2,087,533	5,026,537	7,114,070
2059	30,371	65,014,213	65,044,584	0	2,040,048	5,432,183	7,472,231
2060	19,548	66,976,374	66,995,922	0	1,998,226	5,865,847	7,864,073
2061	11,955	68,993,845	69,005,800	0	1,946,413	6,329,124	8,275,537
2062	5,676	71,070,298	71,075,974	0	1,889,497	6,822,852	8,712,349
2063	3,444	73,204,809	73,208,253	0	1,833,202	7,350,382	9,183,584
2064	1,741	75,402,760	75,404,501	0	1,772,753	7,899,443	9,672,196
2065	415	77,666,221	77,666,636	0	1,649,682	8,475,653	10,125,335
2066	157	79,996,478	79,996,635	0	1,584,795	9,080,562	10,665,357
2067	0	82,396,534	82,396,534	0	1,518,545	9,708,510	11,227,055
2068	0	84,868,430	84,868,430	0	1,450,875	10,362,501	11,813,376
2069	0	87,414,483	87,414,483	0	1,382,692	11,045,032	12,427,724
2070	0	90,036,917	90,036,917	0	1,313,680	11,760,072	13,073,752
2071	0	92,738,025	92,738,025	0	1,256,566	12,510,189	13,766,755
2072	0	95,520,166	95,520,166	0	1,202,743	13,226,591	14,499,334
2073	0	98,385,771	98,385,771	0	1,147,295	14,123,167	15,270,462
2074	0	101,337,344	101,337,344	0	1,090,177	14,993,603	16,083,780
2075	0	104,377,464	104,377,464	0	1,032,169	15,903,719	16,935,888
2076	0	107,508,788	107,508,788	0	973,199	16,855,286	17,828,485
2077	0	110,734,052	110,734,052	0	913,734	17,850,297	18,764,031
2078	0	114,056,074	114,056,074	0	854,127	18,889,537	19,743,664
2079	0	117,477,756	117,477,756	0	794,649	19,973,408	20,768,057
2080	0	121,002,089	121,002,089	0	735,597	21,107,600	21,843,197
2081	0	124,632,152	124,632,152	0	677,121	22,296,348	22,973,469
2082	0	128,371,117	128,371,117	0	619,530	23,542,801	24,162,331
2083	0	132,222,251	132,222,251	0	563,287	24,851,739	25,415,026
2084	0	136,188,919	136,188,919	0	508,969	26,228,016	26,736,985
2085	0	140,274,587	140,274,587	0	457,102	27,673,627	28,130,729
2086	0	144,482,825	144,482,825	0	408,040	29,190,886	29,598,926
2087	0	148,817,310	148,817,310	0	362,214	30,784,853	31,147,067
2088	0	153,281,829	153,281,829	0	320,368	32,457,651	32,778,019
2089	0	157,880,284	157,880,284	0	282,192	34,212,824	34,495,016
2090	0	162,616,693	162,616,693	0	248,022	36,055,351	36,303,373
2091	0	167,495,194	167,495,194	0	217,150	37,990,729	38,207,879
2092	0	172,520,050	172,520,050	0	189,443	40,024,666	40,214,109
2093	0	177,695,652	177,695,652	0	164,559	42,162,582	42,327,141
2094	0	183,026,522	183,026,522	0	142,248	44,411,397	44,553,645
2095	0	188,517,318	188,517,318	0	122,144	46,776,493	46,898,637
2096	0	194,172,838	194,172,838	0	104,113	49,263,703	49,367,816

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Financial Statement Disclosure  
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(continued)

**20. PLAN PROJECTION DISCLOSURES (CONTINUED)**

Projection of OPEB Plan's Fiduciary Net Position using a July 1, 2017 Valuation Date								
Fiscal Year	I. Projected Beginning Fiduciary Net Position	II. Portion of Employer Contributions for Current Plan Members	III. Total Projected Benefit Payments	IV. Projected Administrative Expense	V. Total Contributions to Trust	VI. Contributions to Trust for Current Plan Members	VII. Projected Investment Earnings	VIII. Projected Ending Fiduciary Net Position for Current Plan Members
2018	0	868,691	868,691	0	0	0	0	0
2019	0	913,041	913,041	0	0	0	0	0
2020	0	975,651	975,651	0	0	0	0	0
2021	0	1,052,267	1,052,267	0	0	0	0	0
2022	0	1,140,423	1,140,423	0	0	0	0	0
2023	0	1,236,903	1,236,903	0	0	0	0	0
2024	0	1,352,975	1,352,975	0	0	0	0	0
2025	0	1,438,428	1,438,428	0	0	0	0	0
2026	0	1,531,500	1,531,500	0	0	0	0	0
2027	0	1,621,246	1,621,246	0	0	0	0	0
2028	0	1,718,317	1,718,317	0	0	0	0	0
2029	0	1,780,903	1,797,427	0	0	0	0	0
2030	0	1,845,914	1,888,172	0	0	0	0	0
2031	0	1,912,344	1,990,943	0	0	0	0	0
2032	0	2,002,921	2,128,378	0	0	0	0	0
2033	0	2,073,706	2,255,489	0	0	0	0	0
2034	0	2,171,731	2,400,148	0	0	0	0	0
2035	0	2,215,191	2,496,176	0	0	0	0	0
2036	0	2,295,247	2,634,731	0	0	0	0	0
2037	0	2,310,826	2,701,260	0	0	0	0	0
2038	0	2,380,956	2,826,790	0	0	0	0	0
2039	0	2,450,639	2,973,497	0	0	0	0	0
2040	0	2,443,613	3,071,823	0	0	0	0	0
2041	0	2,453,294	3,213,924	0	0	0	0	0
2042	0	2,483,825	3,403,858	0	0	0	0	0
2043	0	2,510,935	3,615,600	0	0	0	0	0
2044	0	2,506,090	3,766,425	0	0	0	0	0
2045	0	2,500,716	3,931,420	0	0	0	0	0
2046	0	2,490,902	4,108,245	0	0	0	0	0
2047	0	2,482,407	4,272,822	0	0	0	0	0
2048	0	2,493,265	4,468,219	0	0	0	0	0
2049	0	2,502,147	4,686,433	0	0	0	0	0
2050	0	2,480,032	4,900,317	0	0	0	0	0
2051	0	2,436,976	5,117,555	0	0	0	0	0
2052	0	2,398,588	5,364,455	0	0	0	0	0
2053	0	2,362,638	5,642,813	0	0	0	0	0
2054	0	2,267,584	5,861,977	0	0	0	0	0
2055	0	2,217,759	6,144,294	0	0	0	0	0
2056	0	2,181,986	6,462,507	0	0	0	0	0
2057	0	2,130,870	6,776,623	0	0	0	0	0

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**Projection of OPEB Plan's Fiduciary Net Position using a July 1, 2017 Valuation Date (Continued)**

Fiscal Year	I. Projected Beginning Fiduciary Net Position	II. Portion of Employer Contributions for Current Plan Members		III. Total Projected Benefit Payments	IV. Projected Administrative Expense	V. Total Contributions to Trust	VI. Contributions to Trust for Current Plan Members	VII. Projected Investment Earnings	VIII. Projected Ending Fiduciary Net Position for Current Plan Members
2058	0	2,087,533		7,114,070	0	0	0	0	0
2059	0	2,040,048		7,472,231	0	0	0	0	0
2060	0	1,998,226		7,864,073	0	0	0	0	0
2061	0	1,946,413		8,275,537	0	0	0	0	0
2062	0	1,889,497		8,712,349	0	0	0	0	0
2063	0	1,833,202		9,183,584	0	0	0	0	0
2064	0	1,772,753		9,672,196	0	0	0	0	0
2065	0	1,649,682		10,125,335	0	0	0	0	0
2066	0	1,584,795		10,665,357	0	0	0	0	0
2067	0	1,518,545		11,227,055	0	0	0	0	0
2068	0	1,450,875		11,813,376	0	0	0	0	0
2069	0	1,382,692		12,427,724	0	0	0	0	0
2070	0	1,313,680		13,073,752	0	0	0	0	0
2071	0	1,256,566		13,766,755	0	0	0	0	0
2072	0	1,202,743		14,499,334	0	0	0	0	0
2073	0	1,147,295		15,270,462	0	0	0	0	0
2074	0	1,090,177		16,083,780	0	0	0	0	0
2075	0	1,032,169		16,935,888	0	0	0	0	0
2076	0	973,199		17,828,485	0	0	0	0	0
2077	0	913,734		18,764,031	0	0	0	0	0
2078	0	854,127		19,743,664	0	0	0	0	0
2079	0	794,649		20,768,057	0	0	0	0	0
2080	0	735,597		21,843,197	0	0	0	0	0
2081	0	677,121		22,973,469	0	0	0	0	0
2082	0	619,530		24,162,331	0	0	0	0	0
2083	0	563,287		25,415,026	0	0	0	0	0
2084	0	508,969		26,736,985	0	0	0	0	0
2085	0	457,102		28,130,729	0	0	0	0	0
2086	0	408,040		29,598,926	0	0	0	0	0
2087	0	362,214		31,147,067	0	0	0	0	0
2088	0	320,368		32,778,019	0	0	0	0	0
2089	0	282,192		34,495,016	0	0	0	0	0
2090	0	248,022		36,303,373	0	0	0	0	0
2091	0	217,150		38,207,879	0	0	0	0	0
2092	0	189,443		40,214,109	0	0	0	0	0
2093	0	164,559		42,327,141	0	0	0	0	0
2094	0	142,248		44,553,645	0	0	0	0	0
2095	0	122,144		46,898,637	0	0	0	0	0
2096	0	104,113		49,367,816	0	0	0	0	0

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Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**20. PLAN PROJECTION DISCLOSURES (CONTINUED)**

**Actuarial Present Values of Projected Benefit Payments using a July 1, 2017 Valuation Date**

Fiscal Year	Projected Beginning Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments	Present Value of Unfunded Benefit Payments	Present Value of Benefit Payments using Single Discount Rate
2018	0	868,691	0	868,691	0	868,691	868,691
2019	0	913,041	0	913,041	0	885,348	885,348
2020	0	975,651	0	975,651	0	917,364	917,364
2021	0	1,052,267	0	1,052,267	0	959,394	959,394
2022	0	1,140,423	0	1,140,423	0	1,008,232	1,008,232
2023	0	1,236,903	0	1,236,903	0	1,060,361	1,060,361
2024	0	1,352,975	0	1,352,975	0	1,124,687	1,124,687
2025	0	1,438,428	0	1,438,428	0	1,159,454	1,159,454
2026	0	1,531,500	0	1,531,500	0	1,197,033	1,197,033
2027	0	1,621,246	0	1,621,246	0	1,228,745	1,228,745
2028	0	1,718,317	0	1,718,317	0	1,262,815	1,262,815
2029	0	1,780,903	0	1,780,903	0	1,269,113	1,269,113
2030	0	1,845,914	0	1,845,914	0	1,275,543	1,275,543
2031	0	1,912,344	0	1,912,344	0	1,281,366	1,281,366
2032	0	2,002,921	0	2,002,921	0	1,301,352	1,301,352
2033	0	2,073,706	0	2,073,706	0	1,306,477	1,306,477
2034	0	2,171,731	0	2,171,731	0	1,326,735	1,326,735
2035	0	2,215,191	0	2,215,191	0	1,312,239	1,312,239
2036	0	2,295,247	0	2,295,247	0	1,318,424	1,318,424
2037	0	2,310,826	0	2,310,826	0	1,287,112	1,287,112
2038	0	2,380,956	0	2,380,956	0	1,285,950	1,285,950
2039	0	2,450,639	0	2,450,639	0	1,283,441	1,283,441
2040	0	2,443,613	0	2,443,613	0	1,240,945	1,240,945
2041	0	2,453,294	0	2,453,294	0	1,208,073	1,208,073
2042	0	2,483,825	0	2,483,825	0	1,186,010	1,186,010
2043	0	2,510,935	0	2,510,935	0	1,162,590	1,162,590
2044	0	2,506,090	0	2,506,090	0	1,125,152	1,125,152
2045	0	2,500,716	0	2,500,716	0	1,088,686	1,088,686
2046	0	2,490,902	0	2,490,902	0	1,051,522	1,051,522
2047	0	2,482,407	0	2,482,407	0	1,016,152	1,016,152
2048	0	2,493,265	0	2,493,265	0	989,641	989,641
2049	0	2,502,147	0	2,502,147	0	963,043	963,043
2050	0	2,480,032	0	2,480,032	0	925,580	925,580
2051	0	2,436,976	0	2,436,976	0	881,924	881,924
2052	0	2,398,588	0	2,398,588	0	841,704	841,704
2053	0	2,362,638	0	2,362,638	0	803,942	803,942
2054	0	2,267,584	0	2,267,584	0	748,194	748,194
2055	0	2,217,759	0	2,217,759	0	709,560	709,560
2056	0	2,181,986	0	2,181,986	0	676,940	676,940
2057	0	2,130,870	0	2,130,870	0	641,031	641,031



EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**20. PLAN PROJECTION DISCLOSURES (CONTINUED)**

**Actuarial Present Values of Projected Benefit Payments using a July 1, 2017 Valuation Date (Continued)**

Fiscal Year	Projected Beginning Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments	Present Value of Unfunded Benefit Payments	Present Value of Benefit Payments using Single Discount Rate
2058	0	2,087,533	0	2,087,533	0	608,946	608,946
2059	0	2,040,048	0	2,040,048	0	577,045	577,045
2060	0	1,998,226	0	1,998,226	0	548,072	548,072
2061	0	1,946,413	0	1,946,413	0	517,668	517,668
2062	0	1,889,497	0	1,889,497	0	487,289	487,289
2063	0	1,833,202	0	1,833,202	0	458,431	458,431
2064	0	1,772,753	0	1,772,753	0	429,869	429,869
2065	0	1,649,682	0	1,649,682	0	387,892	387,892
2066	0	1,584,795	0	1,584,795	0	361,333	361,333
2067	0	1,518,545	0	1,518,545	0	335,727	335,727
2068	0	1,450,875	0	1,450,875	0	311,037	311,037
2069	0	1,382,692	0	1,382,692	0	287,429	287,429
2070	0	1,313,680	0	1,313,680	0	264,801	264,801
2071	0	1,256,566	0	1,256,566	0	245,606	245,606
2072	0	1,202,743	0	1,202,743	0	227,955	227,955
2073	0	1,147,295	0	1,147,295	0	210,851	210,851
2074	0	1,090,177	0	1,090,177	0	194,277	194,277
2075	0	1,032,169	0	1,032,169	0	178,360	178,360
2076	0	973,199	0	973,199	0	163,070	163,070
2077	0	913,734	0	913,734	0	148,462	148,462
2078	0	854,127	0	854,127	0	134,568	134,568
2079	0	794,649	0	794,649	0	121,400	121,400
2080	0	735,597	0	735,597	0	108,970	108,970
2081	0	677,121	0	677,121	0	97,265	97,265
2082	0	619,530	0	619,530	0	86,293	86,293
2083	0	563,287	0	563,287	0	76,079	76,079
2084	0	508,969	0	508,969	0	66,658	66,658
2085	0	457,102	0	457,102	0	58,049	58,049
2086	0	408,040	0	408,040	0	50,247	50,247
2087	0	362,214	0	362,214	0	43,251	43,251
2088	0	320,368	0	320,368	0	37,094	37,094
2089	0	282,192	0	282,192	0	31,683	31,683
2090	0	248,022	0	248,022	0	27,002	27,002
2091	0	217,150	0	217,150	0	22,924	22,924
2092	0	189,443	0	189,443	0	19,392	19,392
2093	0	164,559	0	164,559	0	16,334	16,334
2094	0	142,248	0	142,248	0	13,691	13,691
2095	0	122,144	0	122,144	0	11,400	11,400
2096	0	104,113	0	104,113	0	9,422	9,422

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**21. CHANGES TO NET OPEB EXPENSE**

Deferred (Inflows)/Outflows in OPEB Expense arising from the recognition of the effects of differences between expected & actual experience								
Fiscal Year	Differences between actual & expected experience		<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
	Recognition Period (years)							
2010								
2011								
2012								
2013								
2014								
2015								
2016								
2017								
2018	5,568,629	5.00	1,113,726	1,113,726	1,113,726	1,113,726	1,113,725	0
2019								
Net increase (decrease) in OPEB expense			1,113,726	1,113,726	1,113,726	1,113,726	1,113,725	0

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**21. CHANGES TO NET OPEB EXPENSE (CONTINUED)**

Deferred (Inflows)/Outflows in OPEB Expense arising from the recognition of the effects of Changes in Assumptions								
Fiscal Year	Differences from changes in		<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
	Actuarial Assumptions	Recognition Period (years)						
2010								
2011								
2012								
2013								
2014								
2015								
2016								
2017								
2018	0	5.00	0	0	0	0	0	0
2019								
Net increase (decrease) in OPEB expense			0	0	0	0	0	0

EXHIBIT A

Financial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)

**21. CHANGES TO NET OPEB EXPENSE (CONTINUED)**

<b>Deferred (Inflows)/Outflows in OPEB Expense arising from the recognition of differences between Projected &amp; Actual Earnings on OPEB Plan Investments</b>									
<b>Fiscal Year</b>	<b>Differences</b>		<b><u>2018</u></b>	<b><u>2019</u></b>	<b><u>2020</u></b>	<b><u>2021</u></b>	<b><u>2022</u></b>	<b><u>2023</u></b>	
	<b><u>between actual &amp; expected earnings</u></b>	<b><u>Recognition Period (years)</u></b>							
2010									
2011									
2012									
2013									
2014									
2015									
2016									
2017									
2018	0	5.00	0	0	0	0	0	0	0
2019									
Net increase (decrease) in OPEB expense			0	0	0	0	0	0	0

EXHIBIT AFinancial Statement Disclosure  
(As of the July 1, 2017 Measurement Date)  
(continued)**22. Impact of Patient Protection and Affordable Care Act ("PPACA") Excise Tax**

Under the Patient Protection and Affordable Care Act ("PPACA"), an excise tax will be imposed for tax years beginning after December 31, 2021 (formerly December 31, 2017, but amended by Congressional Legislation) for high cost employer sponsored health coverage. The law specifies a 40% excise tax, to be paid by the provider of such coverage, of the excess value beyond a basic dollar amount plus an additional "kicker" for qualified retirees or those engaged in a high risk profession. The projected 2022 threshold amounts are \$12,511 for single coverage and \$32,676 for family coverage and a "kicker" amount of \$1,650 for single coverage and \$3,450 for family coverage.

For the fiscal year ending June 30, 2018, the TOL for the excise tax is \$408,778 and the increase in OPEB Expense is \$59,140. Given your premiums through the 2019 fiscal year and the excise tax threshold your average single premiums are \$6,328 below the excise tax threshold and your average family premiums are \$7,988 below the excise tax threshold. As more regulatory guidance becomes available, the calculation of the excise tax liability will evolve.

EXHIBIT B

Required Supplementary Information  
(As of the July 1, 2017 Measurement Date)

Notes to Required Supplementary Information:

Valuation Date:	Actuarially Determined Contribution was calculated as of July 1, 2017.
Actuarial Cost Method:	Individual Entry Age Normal
Asset-Valuation Method:	Market Value of Assets as of the Measurement Date, July 1, 2017.
<u>Actuarial Assumptions:</u>	
Investment Rate of Return:	6.50%, net of OPEB plan investment expense, including inflation.
Municipal Bond Rate	3.13% as of July 1, 2017 (source: S&P Municipal Bond 20-Year High Grade Index – SAPIHG)
Single Equivalent Discount Rate:	3.25%, net of OPEB plan investment expense, including inflation.
Inflation:	2.75% as of July 1, 2017 and for future periods
Salary Increases:	3.00% annually as of July 1, 2017 and for future periods
Cost of Living Adjustment:	Not Applicable
Pre-Retirement Mortality:	RP-2000 Employees Mortality Table projected generationally with scale BB and a base year 2009 for males and females
Post-Retirement Mortality:	RP-2000 Healthy Annuitant Mortality Table projected generationally with scale BB and a base year 2009 for males and females

## EXHIBIT B

### Required Supplementary Information (As of the July 1, 2017 Measurement Date) (continued)

#### Notes to Required Supplementary Information (Continued):

Disabled Mortality: RP-2000 Healthy Annuitant Table projected generationally with Scale BB and a base year 2012 for males and females

#### Plan Membership

Plan Membership: At July 1, 2017, OPEB plan membership consisted of the following

Inactive employees or beneficiaries currently receiving benefits:	194
Active Employees:	<u>309</u>
Total:	503

#### Changes in Assumptions: Effective July 1, 2017

- Discount rate is 3.25% previously 3.50%

EXHIBIT B

Required Supplementary Information  
(As of the July 1, 2017 Measurement Date)  
(continued)

Notes to Required Supplementary Information (Continued):

<b>Deferred Outflows of Resources and Deferred Inflows of Resources Arising between Expected &amp; Actual Experience</b>					
<b>Fiscal Year</b>	<b>Experience Losses</b>	<b>Experience Gains</b>	<b>Amounts recognized in OPEB Expense through June 30, 2018</b>	<b>Balances at June 30, 2018</b>	
				<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
2009				0	0
2010				0	0
2011				0	0
2012				0	0
2013				0	0
2014				0	0
2015				0	0
2016				0	0
2017				0	0
2018	5,568,629	0	1,113,726	4,454,903	0
<b>Total</b>				<b>4,454,903</b>	<b>0</b>



EXHIBIT B

Required Supplementary Information  
(As of the July 1, 2017 Measurement Date)  
(continued)

Notes to Required Supplementary Information (Continued):

<b>Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Changes of Assumptions</b>					
<b>Fiscal Year</b>	<b>Increase in the Total OPEB Liability</b>	<b>Decrease in the Total OPEB Liability</b>	<b>Amounts recognized in OPEB Expense through June 30, 2018</b>	<b>Balances at June 30, 2018</b>	
				<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
2009				0	0
2010				0	0
2011				0	0
2012				0	0
2013				0	0
2014				0	0
2015				0	0
2016				0	0
2017				0	0
2018	0	0	0	0	0
<b>Total</b>				0	0

EXHIBIT B

Required Supplementary Information  
(As of the July 1, 2017 Measurement Date)  
(continued)

Notes to Required Supplementary Information (Continued):

<b>Deferred Outflows of Resources and Deferred Inflows of Resources between Projected &amp; Actual Earnings on OPEB Plan Investments</b>					
<b>Fiscal Year</b>	<b>Increase in the Total OPEB Liability</b>	<b>Decrease in the Total OPEB Liability</b>	<b>Amounts recognized in OPEB Expense through June 30, 2018</b>	<b>Balances at June 30, 2018</b>	
				<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
2009				0	0
2010				0	0
2011				0	0
2012				0	0
2013				0	0
2014				0	0
2015				0	0
2016				0	0
2017				0	0
2018	0	0	0	0	0
<b>Total</b>				0	0

EXHIBIT B

Required Supplementary Information  
(As of the July 1, 2017 Measurement Date)  
(continued)

Notes to Required Supplementary Information (Continued):

<b>OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources related to OPEB as of June 30, 2018</b>		
	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
I. Differences between actual & expected experience	4,454,903	0
II. Changes of assumptions	0	0
III. Net difference between projected & actual earnings on OPEB plan investments	<u>0</u>	<u>0</u>
IV. Total [I.+II.+III.]	4,454,903	0
<b>Year ended June 30:</b>		
	2019	1,113,726
	2020	1,113,726
	2021	1,113,726
	2022	1,113,725
	2023	0
	Thereafter	0

EXHIBIT BRequired Supplementary Information  
(As of the July 1, 2017 Measurement Date)  
(continued)Notes to Required Supplementary Information (Continued):Contributions:

The contribution requirements of plan members and the District are established and may be amended through District ordinances. The District contributed \$0 beyond the pay-as-you-go cost for the period ending on the June 30, 2018 Reporting Date. For the year ending on the June 30, 2018 Reporting Date total District premiums plus implicit costs for the retiree medical program were \$868,691 .

EXHIBIT C

Reconciliation of Plan Participation  
(As of the July 1, 2017 Valuation Date)

**ACTIVE EMPLOYEES**

	<u>July 1, 2017</u>	<u>June 30, 2015</u>
<b>A. Average Age at Hire</b>	37.14	37.70
<b>B. Average Service</b>	<u>9.32</u>	<u>8.57</u>
<b>C. Average Current Age</b>	46.46	46.27

**RETIRED EMPLOYEES & DEPENDENTS**

	<u>July 1, 2017</u>	<u>June 30, 2015</u>
<b>I. Retirees</b>		
<b>A. Under Age 65</b>	28	24
<b>B. Age 65 &amp; Over</b>	<u>159</u>	<u>151</u>
<b>C. Total Retirees</b>	187	175
<b>II. Dependents of Retirees</b>		
<b>A. Under Age 65</b>	1	5
<b>B. Age 65 &amp; Over</b>	<u>6</u>	<u>6</u>
<b>C. Total Retirees</b>	7	11
<b>III. Retirees &amp; Dependents</b>		
<b>A. Under Age 65</b>	29	29
<b>B. Age 65 &amp; Over</b>	<u>165</u>	<u>157</u>
<b>C. Total Retirees</b>	194	186

EXHIBIT D

Projected Cash Flows (Open Group) – Pay-as-you-go Funding Approach

**Total Medical & Life Insurance - Pay-as-you-go Funding - 3.25% discount rate**

For the Fiscal Year	Measurement Date	I. Total OPEB Liability ("TOL") as of Measurement Date	II. Fiduciary Net Position as of Measurement Date with expected 6.50% return		III. Net OPEB Liability (Asset) [I. - II.]	IV. Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Premiums / Claims	VII. Excess Employer Payments (beyond claims)	VIII. Total Employer Payments [VI. + VII.]
2018	July 1, 2017	34,952,280	0	34,952,280	0.00%	1,565,986	868,691	0	868,691	
2019	July 1, 2018	36,822,416	0	36,822,416	0.00%	1,685,696	913,041	0	913,041	
2020	July 1, 2019	38,907,851	0	38,907,851	0.00%	1,792,408	975,651	0	975,651	
2021	July 1, 2020	41,066,649	0	41,066,649	0.00%	1,884,658	1,052,267	0	1,052,267	
2022	July 1, 2021	43,306,539	0	43,306,539	0.00%	1,980,752	1,140,423	0	1,140,423	
2023	July 1, 2022	45,622,557	0	45,622,557	0.00%	2,077,281	1,236,903	0	1,236,903	
2024	July 1, 2023	48,008,966	0	48,008,966	0.00%	2,175,667	1,352,975	0	1,352,975	
2025	July 1, 2024	50,461,884	0	50,461,884	0.00%	2,275,757	1,438,428	0	1,438,428	
2026	July 1, 2025	53,008,009	0	53,008,009	0.00%	2,376,983	1,531,500	0	1,531,500	
2027	July 1, 2026	55,618,442	0	55,618,442	0.00%	2,495,922	1,621,246	0	1,621,246	
2028	July 1, 2027	58,372,341	0	58,372,341	0.00%	2,614,849	1,718,317	0	1,718,317	
2029	July 1, 2028	61,224,731	0	61,224,731	0.00%	2,720,949	1,797,427	0	1,797,427	
2030	July 1, 2029	64,253,721	0	64,253,721	0.00%	2,846,876	1,888,172	0	1,888,172	
2031	July 1, 2030	67,526,647	0	67,526,647	0.00%	2,974,699	1,990,943	0	1,990,943	
2032	July 1, 2031	70,894,125	0	70,894,125	0.00%	3,109,424	2,128,378	0	2,128,378	
2033	July 1, 2032	74,292,534	0	74,292,534	0.00%	3,254,856	2,255,489	0	2,255,489	
2034	July 1, 2033	77,782,705	0	77,782,705	0.00%	3,410,511	2,400,148	0	2,400,148	
2035	July 1, 2034	81,487,754	0	81,487,754	0.00%	3,570,356	2,496,176	0	2,496,176	
2036	July 1, 2035	85,419,196	0	85,419,196	0.00%	3,739,862	2,634,731	0	2,634,731	
2037	July 1, 2036	89,327,509	0	89,327,509	0.00%	3,918,126	2,701,260	0	2,701,260	
2038	July 1, 2037	93,609,823	0	93,609,823	0.00%	4,106,454	2,826,790	0	2,826,790	
2039	July 1, 2038	98,225,174	0	98,225,174	0.00%	4,300,811	2,973,497	0	2,973,497	
2040	July 1, 2039	103,041,066	0	103,041,066	0.00%	4,514,121	3,071,823	0	3,071,823	
2041	July 1, 2040	108,136,276	0	108,136,276	0.00%	4,744,527	3,213,924	0	3,213,924	
2042	July 1, 2041	113,512,391	0	113,512,391	0.00%	4,993,979	3,403,858	0	3,403,858	
2043	July 1, 2042	119,044,011	0	119,044,011	0.00%	5,258,823	3,615,600	0	3,615,600	
2044	July 1, 2043	124,866,632	0	124,866,632	0.00%	5,538,663	3,766,425	0	3,766,425	
2045	July 1, 2044	131,000,376	0	131,000,376	0.00%	5,831,257	3,931,420	0	3,931,420	
2046	July 1, 2045	137,479,719	0	137,479,719	0.00%	6,137,498	4,108,245	0	4,108,245	
2047	July 1, 2046	144,273,892	0	144,273,892	0.00%	6,461,149	4,272,822	0	4,272,822	
2048	July 1, 2047	151,464,151	0	151,464,151	0.00%	6,805,870	4,468,219	0	4,468,219	
2049	July 1, 2048	159,266,571	0	159,266,571	0.00%	7,164,683	4,686,433	0	4,686,433	

EXHIBIT E

Projected Cash Flows (Open Group) – Funded Approach

**Total Medical & Life Insurance - 6.50% discount rate increasing at 0.00% per year**

For the Fiscal Year	Measurement Date	I. Total OPEB Liability ("TOL") as of Measurement Date	II. Fiduciary Net Position as of Measurement Date with expected 6.50% return		III. Net OPEB Liability (Asset) ("NOL") [I. - II.]	IV Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Premiums / Claims	VII. Annual Funding / (Payments)	VIII. Total Employer Payments [VI. + VII.]
2018	July 1, 2017	21,722,024	0	21,722,024	0.00%	692,938	868,691	1,094,000	1,962,691	
2019	July 1, 2018	22,950,845	1,128,995	21,821,850	4.92%	746,656	913,041	1,094,000	2,007,041	
2020	July 1, 2019	24,269,335	2,331,375	21,937,960	9.61%	794,619	975,651	1,094,000	2,069,651	
2021	July 1, 2020	25,657,852	3,611,910	22,045,942	14.08%	835,490	1,052,267	1,094,000	2,146,267	
2022	July 1, 2021	27,096,606	4,975,679	22,120,927	18.36%	878,710	1,140,423	1,094,000	2,234,423	
2023	July 1, 2022	28,580,363	6,428,093	22,152,270	22.49%	921,519	1,236,903	1,094,000	2,330,903	
2024	July 1, 2023	30,103,124	7,974,914	22,128,210	26.49%	965,127	1,352,975	1,094,000	2,446,975	
2025	July 1, 2024	31,656,760	9,622,279	22,034,481	30.40%	1,009,905	1,438,428	1,094,000	2,532,428	
2026	July 1, 2025	33,268,535	11,376,722	21,891,813	34.20%	1,055,015	1,531,500	1,094,000	2,625,500	
2027	July 1, 2026	34,918,398	13,245,204	21,673,194	37.93%	1,108,353	1,621,246	1,094,000	2,715,246	
2028	July 1, 2027	36,654,763	15,235,138	21,419,625	41.56%	1,161,917	1,718,317	1,094,000	2,812,317	
2029	July 1, 2028	38,450,598	17,354,417	21,096,181	45.13%	1,207,200	1,797,427	1,094,000	2,891,427	
2030	July 1, 2029	40,357,502	19,611,449	20,746,053	48.59%	1,261,243	1,888,172	1,094,000	2,982,172	
2031	July 1, 2030	42,417,309	22,015,188	20,402,121	51.90%	1,316,060	1,990,943	1,094,000	3,084,943	
2032	July 1, 2031	44,536,878	24,575,170	19,961,708	55.18%	1,373,775	2,128,378	1,094,000	3,222,378	
2033	July 1, 2032	46,665,709	27,301,551	19,364,158	58.50%	1,436,543	2,255,489	1,094,000	3,349,489	
2034	July 1, 2033	48,845,539	30,205,147	18,640,392	61.84%	1,503,928	2,400,148	1,094,000	3,494,148	
2035	July 1, 2034	51,142,537	33,297,477	17,845,060	65.11%	1,573,093	2,496,176	1,094,000	3,590,176	
2036	July 1, 2035	53,585,939	36,590,808	16,995,131	68.28%	1,646,625	2,634,731	1,094,000	3,728,731	
2037	July 1, 2036	56,005,725	40,098,206	15,907,519	71.60%	1,724,019	2,701,260	1,094,000	3,795,260	
2038	July 1, 2037	58,665,770	43,833,585	14,832,185	74.72%	1,805,821	2,826,790	1,094,000	3,920,790	
2039	July 1, 2038	61,534,486	47,811,763	13,722,723	77.70%	1,890,087	2,973,497	1,094,000	4,067,497	
2040	July 1, 2039	64,525,004	52,048,523	12,476,481	80.66%	1,982,662	3,071,823	1,094,000	4,165,823	
2041	July 1, 2040	67,695,284	56,560,672	11,134,612	83.55%	2,082,640	3,213,924	1,094,000	4,307,924	
2042	July 1, 2041	71,040,391	61,366,111	9,674,280	86.38%	2,191,144	3,403,858	1,094,000	4,497,858	
2043	July 1, 2042	74,474,724	66,483,903	7,990,821	89.27%	2,306,380	3,615,600	1,094,000	4,709,600	
2044	July 1, 2043	78,068,496	71,934,352	6,134,144	92.14%	2,428,128	3,766,425	1,094,000	4,860,425	
2045	July 1, 2044	81,854,158	77,739,080	4,115,078	94.97%	2,555,264	3,931,420	1,094,000	5,025,420	
2046	July 1, 2045	85,851,921	83,921,115	1,930,806	97.75%	2,688,234	4,108,245	1,094,000	5,202,245	
2047	July 1, 2046	90,046,320	90,504,983	(458,663)	100.51%	2,828,794	4,272,822	(458,663)	3,814,159	
2048	July 1, 2047	94,489,789	95,914,472	(1,424,683)	101.51%	2,978,597	4,468,219	(1,424,683)	3,043,536	
2049	July 1, 2048	99,300,332	100,678,656	(1,378,324)	101.39%	3,134,317	4,686,433	(1,378,324)	3,308,109	

EXHIBIT E

Projected Cash Flows (Open Group) – Funded Approach

**Total Medical & Life Insurance - 6.50% discount rate and increasing at 3.00% per year**

For the Fiscal Year	Measurement Date	I. Total OPEB Liability ("TOL") as of Measurement Date	II. Fiduciary Net Position as of Measurement Date with expected 6.50% return	III. Net OPEB Liability (Asset) ("NOL") [I. - II.]	IV Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Premiums / Claims	VII. Annual Funding / (Payments)	VIII. Total Employer Payments [VI. + VII.]
2018	July 1, 2017	21,722,024	0	21,722,024	0.00%	692,938	868,691	813,600	1,682,291
2019	July 1, 2018	22,950,845	839,626	22,111,219	3.66%	746,656	913,041	838,008	1,751,049
2020	July 1, 2019	24,269,335	1,759,016	22,510,319	7.25%	794,619	975,651	863,148	1,838,799
2021	July 1, 2020	25,657,852	2,764,111	22,893,741	10.77%	835,490	1,052,267	889,042	1,941,309
2022	July 1, 2021	27,096,606	3,861,259	23,235,347	14.25%	878,710	1,140,423	915,713	2,056,136
2023	July 1, 2022	28,580,363	5,057,246	23,523,117	17.69%	921,519	1,236,903	943,184	2,180,087
2024	July 1, 2023	30,103,124	6,359,322	23,743,802	21.13%	965,127	1,352,975	971,480	2,324,455
2025	July 1, 2024	31,656,760	7,775,234	23,881,526	24.56%	1,009,905	1,438,428	1,000,624	2,439,052
2026	July 1, 2025	33,268,535	9,313,257	23,955,278	27.99%	1,055,015	1,531,500	1,030,643	2,562,143
2027	July 1, 2026	34,918,398	10,982,230	23,936,168	31.45%	1,108,353	1,621,246	1,061,562	2,682,808
2028	July 1, 2027	36,654,763	12,791,595	23,863,168	34.90%	1,161,917	1,718,317	1,093,409	2,811,726
2029	July 1, 2028	38,450,598	14,751,434	23,699,164	38.36%	1,207,200	1,797,427	1,126,211	2,923,638
2030	July 1, 2029	40,357,502	16,872,514	23,484,988	41.81%	1,261,243	1,888,172	1,159,997	3,048,169
2031	July 1, 2030	42,417,309	19,166,331	23,250,978	45.19%	1,316,060	1,990,943	1,194,797	3,185,740
2032	July 1, 2031	44,536,878	21,645,159	22,891,719	48.60%	1,373,775	2,128,378	1,230,641	3,359,019
2033	July 1, 2032	46,665,709	24,322,102	22,343,607	52.12%	1,436,543	2,255,489	1,267,560	3,523,049
2034	July 1, 2033	48,845,539	27,211,146	21,634,393	55.71%	1,503,928	2,400,148	1,305,587	3,705,735
2035	July 1, 2034	51,142,537	30,327,221	20,815,316	59.30%	1,573,093	2,496,176	1,344,755	3,840,931
2036	July 1, 2035	53,585,939	33,686,262	19,899,677	62.86%	1,646,625	2,634,731	1,385,098	4,019,829
2037	July 1, 2036	56,005,725	37,305,274	18,700,451	66.61%	1,724,019	2,701,260	1,426,651	4,127,911
2038	July 1, 2037	58,665,770	41,202,404	17,463,366	70.23%	1,805,821	2,826,790	1,469,451	4,296,241
2039	July 1, 2038	61,534,486	45,397,017	16,137,469	73.77%	1,890,087	2,973,497	1,513,535	4,487,032
2040	July 1, 2039	64,525,004	49,909,774	14,615,230	77.35%	1,982,662	3,071,823	1,558,941	4,630,764
2041	July 1, 2040	67,695,284	54,762,718	12,932,566	80.90%	2,082,640	3,213,924	1,605,709	4,819,633
2042	July 1, 2041	71,040,391	59,979,368	11,061,023	84.43%	2,191,144	3,403,858	1,653,880	5,057,738
2043	July 1, 2042	74,474,724	65,584,812	8,889,912	88.06%	2,306,380	3,615,600	1,703,496	5,319,096
2044	July 1, 2043	78,068,496	71,605,813	6,462,683	91.72%	2,428,128	3,766,425	1,754,601	5,521,026
2045	July 1, 2044	81,854,158	78,070,919	3,783,239	95.38%	2,555,264	3,931,420	1,807,239	5,738,659
2046	July 1, 2045	85,851,921	85,010,578	841,343	99.02%	2,688,234	4,108,245	1,861,456	5,969,701
2047	July 1, 2046	90,046,320	92,457,267	(2,410,947)	102.68%	2,828,794	4,272,822	(2,410,947)	1,861,875
2048	July 1, 2047	94,489,789	95,978,920	(1,489,131)	101.58%	2,978,597	4,468,219	(1,489,131)	2,979,088
2049	July 1, 2048	99,300,332	100,680,784	(1,380,452)	101.39%	3,134,317	4,686,433	(1,380,452)	3,305,981



**EXHIBIT E**

**Projected Cash Flows (Open Group) – Funded Approach**

**Hamilton-Wenham Regional School District  
OPEB Projection of Funding Annual Service Cost and Impact on Unfunded Obligation**

**Total Medical, Dental & Life Insurance - Funding Annual Service Cost - 3.25% discount rate**

Measurement Date	I. Total OPEB		III. Employer	IV. Funding	V. Total	VI. Present	VII. Present	VIII. Present	IX. Fiduciary	X. Net OPEB	XI. Present
	Liability	Service Cost	Share of Premiums / Claims including "implicit cost"	Service Cost beyond claims	Funding Costs [III. + IV.]	Value at 3.00% of Employer Share of Premiums / Claims including "implicit cost"	Value at 3.00% of Funding Service Cost beyond claims	Value at 3.00% of Total Funding Costs [VI. + VII.]	Net Position at Beginning of year	Liability (Asset) [I. - IX.]	Value at 3.00% of Net OPEB Liability (Asset)
July 1, 2017	34,952,280	1,565,986	868,691	697,295	1,565,986	868,691	697,295	1,565,986	0	34,952,280	34,952,280
July 1, 2018	36,822,416	1,685,696	913,041	772,655	1,685,696	886,448	750,150	1,636,598	697,295	36,125,121	35,072,933
July 1, 2019	38,907,851	1,792,408	975,651	816,757	1,792,408	919,645	769,872	1,689,517	1,492,612	37,415,239	35,267,451
July 1, 2020	41,066,649	1,884,658	1,052,267	832,391	1,884,658	962,973	761,756	1,724,729	2,357,879	38,708,770	35,424,008
July 1, 2021	43,306,539	1,980,752	1,140,423	840,329	1,980,752	1,013,251	746,621	1,759,872	3,266,901	40,039,638	35,574,700
July 1, 2022	45,622,557	2,077,281	1,236,903	840,378	2,077,281	1,066,963	724,917	1,791,880	4,213,404	41,409,153	35,719,899
July 1, 2023	48,008,966	2,175,667	1,352,975	822,692	2,175,667	1,133,095	688,992	1,822,087	5,190,718	42,818,248	35,859,609
July 1, 2024	50,461,884	2,275,757	1,438,428	837,329	2,275,757	1,169,574	680,825	1,850,399	6,182,108	44,279,776	36,003,510
July 1, 2025	53,008,009	2,376,983	1,531,500	845,483	2,376,983	1,208,980	667,432	1,876,412	7,220,356	45,787,653	36,145,196
July 1, 2026	55,618,442	2,495,922	1,621,246	874,676	2,495,922	1,242,550	670,366	1,912,916	8,300,501	47,317,941	36,265,262
July 1, 2027	58,372,341	2,614,849	1,718,317	896,532	2,614,849	1,278,589	667,104	1,945,693	9,444,943	48,927,398	36,406,579
July 1, 2028	61,224,731	2,720,949	1,797,427	923,522	2,720,949	1,298,500	667,172	1,965,672	10,648,436	50,576,295	36,537,392
July 1, 2029	64,253,721	2,846,876	1,888,172	958,704	2,846,876	1,324,326	672,416	1,996,742	11,918,032	52,335,689	36,707,199
July 1, 2030	67,526,647	2,974,699	1,990,943	983,756	2,974,699	1,355,735	669,890	2,025,625	13,264,072	54,262,575	36,950,173
July 1, 2031	70,894,125	3,109,424	2,128,378	981,046	3,109,424	1,407,109	648,587	2,055,696	14,678,910	56,215,215	37,164,880
July 1, 2032	74,292,534	3,254,856	2,255,489	999,367	3,254,856	1,447,713	641,456	2,089,169	16,137,021	58,155,513	37,327,811
July 1, 2033	77,782,705	3,410,511	2,400,148	1,010,363	3,410,511	1,495,693	629,625	2,125,318	17,660,841	60,121,864	37,465,958
July 1, 2034	81,487,754	3,570,356	2,496,176	1,074,180	3,570,356	1,510,228	649,897	2,160,125	19,245,181	62,242,573	37,657,780
July 1, 2035	85,419,196	3,739,862	2,634,731	1,105,131	3,739,862	1,547,627	649,148	2,196,775	20,944,829	64,474,367	37,871,896
July 1, 2036	89,327,509	3,918,126	2,701,260	1,216,866	3,918,126	1,540,491	693,962	2,234,453	22,730,667	66,596,842	37,979,248
July 1, 2037	93,609,823	4,106,454	2,826,790	1,279,664	4,106,454	1,565,125	708,519	2,273,644	24,686,280	68,923,543	38,161,295
July 1, 2038	98,225,174	4,300,811	2,973,497	1,327,314	4,300,811	1,598,401	713,497	2,311,898	26,768,248	71,456,926	38,411,619
July 1, 2039	103,041,066	4,514,121	3,071,823	1,442,298	4,514,121	1,603,161	752,725	2,355,886	28,965,530	74,075,536	38,659,467
July 1, 2040	108,136,276	4,744,527	3,213,924	1,530,603	4,744,527	1,628,469	775,544	2,404,013	31,349,208	76,787,068	38,907,374
July 1, 2041	113,512,391	4,993,979	3,403,858	1,590,121	4,993,979	1,674,473	782,234	2,456,707	33,898,660	79,613,731	39,164,680
July 1, 2042	119,044,011	5,258,823	3,615,600	1,643,223	5,258,823	1,726,831	784,812	2,511,643	36,590,487	82,453,524	39,380,262
July 1, 2043	124,866,632	5,538,663	3,766,425	1,772,238	5,538,663	1,746,471	821,777	2,568,248	39,422,901	85,443,731	39,619,808
July 1, 2044	131,000,376	5,831,257	3,931,420	1,899,837	5,831,257	1,769,882	855,286	2,625,168	42,476,383	88,523,993	39,852,533
July 1, 2045	137,479,719	6,137,498	4,108,245	2,029,253	6,137,498	1,795,618	886,939	2,682,557	45,756,702	91,723,017	40,089,998
July 1, 2046	144,273,892	6,461,149	4,272,822	2,188,327	6,461,149	1,813,156	928,609	2,741,765	49,273,048	95,000,844	40,313,263
July 1, 2047	151,464,151	6,805,870	4,468,219	2,337,651	6,805,870	1,840,847	963,081	2,803,928	53,062,749	98,401,402	40,540,075

EXHIBIT E

Projected Cash Flows (Open Group) – Funded Approach

**Total Medical & Life Insurance - Pay-as-you-go Funding**

Measurement Date	Number of Retirees, Spouses & Surviving Spouses	Total OPEB Liability	Present Value at 3.00% of Total OPEB Liability	Employer Share of Premiums / Claims including "implicit cost"	Present Value at 3.00% of Employer Share of Premiums / Claims including "implicit cost"
July 1, 2017	194	34,952,280	34,952,280	868,691	868,691
July 1, 2018	208	36,822,416	35,749,918	913,041	886,448
July 1, 2019	218	38,907,851	36,674,381	975,651	919,645
July 1, 2020	227	41,066,649	37,581,801	1,052,267	962,973
July 1, 2021	234	43,306,539	38,477,299	1,140,423	1,013,251
July 1, 2022	240	45,622,557	39,354,418	1,236,903	1,066,963
July 1, 2023	247	48,008,966	40,206,753	1,352,975	1,133,095
July 1, 2024	253	50,461,884	41,030,130	1,438,428	1,169,574
July 1, 2025	257	53,008,009	41,845,012	1,531,500	1,208,980
July 1, 2026	263	55,618,442	42,626,905	1,621,246	1,242,550
July 1, 2027	266	58,372,341	43,434,504	1,718,317	1,278,589
July 1, 2028	270	61,224,731	44,230,048	1,797,427	1,298,500
July 1, 2029	275	64,253,721	45,066,267	1,888,172	1,324,326
July 1, 2030	279	67,526,647	45,982,361	1,990,943	1,355,735
July 1, 2031	284	70,894,125	46,869,368	2,128,378	1,407,109
July 1, 2032	288	74,292,534	47,685,551	2,255,489	1,447,713
July 1, 2033	292	77,782,705	48,471,610	2,400,148	1,495,693
July 1, 2034	295	81,487,754	49,301,431	2,496,176	1,510,228
July 1, 2035	297	85,419,196	50,174,775	2,634,731	1,547,627
July 1, 2036	298	89,327,509	50,942,230	2,701,260	1,540,491
July 1, 2037	298	93,609,823	51,829,489	2,826,790	1,565,125
July 1, 2038	298	98,225,174	52,800,871	2,973,497	1,598,401
July 1, 2039	298	103,041,066	53,776,360	3,071,823	1,603,161
July 1, 2040	299	108,136,276	54,791,759	3,213,924	1,628,469
July 1, 2041	300	113,512,391	55,840,575	3,403,858	1,674,473
July 1, 2042	301	119,044,011	56,856,083	3,615,600	1,726,831
July 1, 2043	303	124,866,632	57,899,999	3,766,425	1,746,471
July 1, 2044	305	131,000,376	58,974,936	3,931,420	1,769,882
July 1, 2045	306	137,479,719	60,089,189	4,108,245	1,795,618
July 1, 2046	307	144,273,892	61,222,101	4,272,822	1,813,156
July 1, 2047	308	151,464,151	62,401,225	4,468,219	1,840,847
July 1, 2048	309	159,266,571	63,704,581	4,686,433	1,874,513
July 1, 2049	311	167,490,365	65,042,712	4,900,317	1,902,975
July 1, 2050	312	176,162,009	66,417,701	5,117,555	1,929,453
July 1, 2051	314	185,320,808	67,835,737	5,364,455	1,963,631
July 1, 2052	315	194,995,843	69,298,285	5,642,813	2,005,362
July 1, 2053	316	205,208,662	70,803,642	5,861,977	2,022,572
July 1, 2054	318	216,050,751	72,373,315	6,144,294	2,058,234
July 1, 2055	319	227,477,259	73,981,554	6,462,507	2,101,776
July 1, 2056	320	239,518,057	75,628,676	6,776,623	2,139,743

EXHIBIT F**GLOSSARY**

**Accrual Accounting** - A system of accounting in which revenues are recorded when earned and outlays are recorded when goods are received or services performed, even though the actual receipt of revenues and payment for goods or services may occur, in whole or in part, at a different time.

**Actuarially Determined Contribution** - Amount of funding required annually to fully fund plan benefits. Determined by the actuary using a consistent methodology.

**Amortization** - Allows the recognition of liability over a fixed period of time.

**Cash Basis Accounting** - A system of accounting in which revenues are recorded when received and outlays are recorded when payment is made.

**Deferred Inflows/Outflows of Resources** - Amounts arising from experience gains and losses that have not been recognized into the OPEB Expense, but will be recognized in the future.

**Discount Rate** - The interest rate used to calculate the present value of future cash flows. Under GASB 75, the rate should be the expected long term rate of return on investments for a plan that is being fully funded, the 20 year municipal bond index for a pay-as-you-go plan, and a blend of the two rates for a plan that is being partially funded.

**Fiduciary Net Position** - The value of cash, investments, other assets and property belonging to an OPEB trust.

**GASB - Government Accounting Standards Board.** "The Governmental Accounting Standards Board (GASB) was organized in 1984 by the Financial Accounting Foundation (FAF) to establish standards of financial accounting and reporting for state and local governmental entities. Its standards guide the preparation of external financial reports of those entities."

**Implicit Subsidy** - The liability that arises because retirees who are not eligible for Medicare are charged the same premium as active employees even though their actual medical costs are higher on average.

**Irrevocable Contribution** - The transfer of assets to a qualified trust in which assets may only be withdrawn for the purpose of providing retiree other post employment benefits.

EXHIBIT F**GLOSSARY***(continued)*

**Net OPEB Liability (NOL)** - Total OPEB Liability less the Fiduciary Net Position.

**Other Post Employment Benefits (OPEB)** - Benefits that an employee will begin to receive at the start of retirement. This does not include pension benefits paid to the retired employee.

**OPEB Trust** - An entity which holds assets for the sole purpose of funding OPEB. All contributions and earning within this entity must be irrevocable and protected from creditors.

**Pay-as-you-go funding** - Paying benefits (such as pensions or OPEB) on a cash basis, with no money set aside for future liabilities which are already incurred.

**Service Cost** - The actuarially determined present value contribution needed to fund benefits which are earned for employee service rendered during the current year. Service cost depends on many factors, including the interest rate used to discount future cashflows, and expected inflation.

**Total OPEB Liability (TOL)** - That portion, as determined by the Individual Entry Age Normal Actuarial Cost Method, of the Actuarial Present Value of benefits and expenses which are not provided for by future Service Costs.