

**City of Everett Other
Postemployment Benefits Plan**

GASB 45 Actuarial Valuation

as of

July 1, 2016

For the fiscal years ending

June 30, 2017

Delivered May 2017

TABLE OF CONTENTSLETTERSECTIONPAGE

I	PRINCIPAL RESULTS OF THE VALUATION	1
II	SUMMARY OF PLAN PROVISIONS	13
III	ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS	14

EXHIBITS

A	FINANCIAL STATEMENT DISCLOSURES	28
B	RECONCILIATION OF PLAN PARTICIPANTS	39
C	PROJECTED CASH FLOWS (OPEN GROUP)	40
D	PROJECTED CASH FLOWS (OPEN GROUP) - FUNDING	41
E	GLOSSARY OF TERMS	45

May 31, 2017

Personal and Confidential

Mr. Ryan J. Smith, CPA
Assistant City Auditor
City of Everett
484 Broadway
Everett, MA 02149

Dear Mr. Smith:

We have performed an actuarial valuation of the City of Everett Other Postemployment Benefits Plan for the fiscal year ending June 30, 2017. The figures presented in this report reflect the adoption, by the City of Everett, of Statement No. 45 of the Governmental Accounting Standards Board ("GASB 45") effective July 1, 2007.


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,



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

May 31, 2017

ACTUARIAL CERTIFICATION

This is to certify that Odyssey Advisors has conducted an actuarial valuation of certain benefit obligations of the City of Everett other postemployment benefit programs as of July 1, 2016 for the fiscal year ending June 30, 2017 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 Number 43 and 45 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 City and on participant claims or premium data provided by the City and/or vendors employed by the City.

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 43 and 45 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 City are reasonably related to the experience and expectations of the postemployment benefits programs.



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

SECTION I
PRINCIPAL RESULTS OF THE VALUATION

City of Everett
Assuming Pay-as-you-go Funding - 4.00% discount rate
Comparison of Plan Liabilities to Prior Valuation

	<u>July 1, 2016</u>	<u>July 1, 2015</u>
I. Present Value of Future Benefits		
A. Actives	214,547,824	305,051,932
B. Retirees/Disabled	<u>101,102,074</u>	<u>86,933,411</u>
C. Total	315,649,898	391,985,343
II. Present Value of Future Normal Cost	90,596,392	155,774,484
III. Actuarial Accrued Liability (Individual Entry Age Normal)		
A. Actives	123,951,432	149,277,448
B. Retirees/Disabled	<u>101,102,074</u>	<u>86,933,411</u>
C. Total	225,053,506	236,210,859
IV. Plan Assets	2,462,602	1,602,550
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	222,590,904	234,608,309
VI. Funded Ratio [IV. / III.]	1.09%	0.68%
VII. Annual Covered Payroll	N/A	64,230,000
VIII. UAAL as % of Covered Payroll	N/A	365.3%
IX. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	83,942,000	66,340,000
X. Number of Eligible Participants		
A. Actives	1,634	1,705
B. Retirees/Disabled	<u>1,083</u>	<u>1,069</u>
C. Total	2,717	2,774
	<u>June 30, 2017</u>	<u>June 30, 2016</u>
XI. Normal Cost	9,035,558	12,491,248
XII. Amortization of UAAL - 30 year flat dollar	7,610,360	7,299,152
XIII. Annual Required Contribution ('ARC') [XI. + XII.]	16,645,918	19,790,400
XIV. Interest on Net OPEB Obligation (Asset)	3,357,678	2,321,901
XV. Adjustment to Annual Required Contribution	(4,667,666)	(3,485,018)
XVI. Amortization of Actuarial (Gains) / Losses	6,203,017	6,304,717
XVII. Annual OPEB Expense [XIII. + XIV. + XV. + XVI.]	21,538,947	24,932,000
XVIII. Employer Share of Costs	7,065,440	6,550,759
XIX. Employer Payments (Withdrawals) to/from OPEB Trust	1,005,784	779,241
XX. Total Employer Contribution [XVIII. + XIX.]	8,071,224	7,330,000
XXI. Percentage of Annual OPEB Expense Contributed	37.5%	29.4%
XXII. Net OPEB Obligation (Asset) at Beginning of Year [IX.]	83,942,000	66,340,000
XXIII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVII. - XX.]	13,467,723	17,602,000
XXIV. Net OPEB Obligation (Asset) at End of Year [XXII. + XXIII.]	97,409,723	83,942,000
XXV. Discount Rate	4.00%	3.50%

SECTION I
PRINCIPAL RESULTS OF THE VALUATION
(continued)

City of Everett
Comparison of Plan Funding vs. Pay-as-you-go Funding

	<u>Pay-as-you-go Funding -</u> <u>4.00% discount rate</u>	<u>Plan Funding -6.50%</u> <u>discount rate</u>
I. Present Value of Future Benefits		
A. Actives	214,547,824	114,071,459
B. Retirees/Disabled	<u>101,102,074</u>	<u>78,474,481</u>
C. Total	315,649,898	192,545,940
II. Present Value of Future Normal Cost	90,596,392	36,749,534
III. Actuarial Accrued Liability (Individual Entry Age Normal)		
A. Actives	123,951,432	77,321,925
B. Retirees/Disabled	<u>101,102,074</u>	<u>78,474,481</u>
C. Total	225,053,506	155,796,406
IV. Plan Assets	2,462,602	2,462,602
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	222,590,904	153,333,804
VI. Funded Ratio [IV. / III.]	1.09%	1.58%
VII. Annual Covered Payroll	N/A	N/A
VIII. UAAL as % of Covered Payroll	N/A	N/A
IX. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	83,942,000	83,942,000
X. Number of Eligible Participants		
A. Actives	1,634	1,634
B. Retirees/Disabled	<u>1,083</u>	<u>1,083</u>
C. Total	2,717	2,717
For Fiscal Year Ending June 30, 2017		
XI. Normal Cost	9,035,558	4,486,272
XII. Amortization of UAAL - 30 year flat dollar	7,610,360	9,238,888
XIII. Annual Required Contribution ('ARC') [XI. + XII.]	16,645,918	13,725,160
XIV. Interest on Net OPEB Obligation (Asset)	3,357,678	5,456,230
XV. Adjustment to Annual Required Contribution	(4,667,666)	(6,035,740)
XVI. Amortization of Actuarial (Gains) / Losses	6,203,017	3,041,251
XVII. Annual OPEB Expense [XIII. + XIV. + XV. + XVI.]	21,538,947	16,186,901
XVIII. Employer Share of Costs	7,065,440	7,065,440
XIX. Employer Payments (Withdrawals) to/from OPEB Trust	1,005,784	8,395,900
XX. Total Employer Contribution [XVIII. + XIX.]	8,071,224	15,461,340
XXI. Percentage of Annual OPEB Expense Contributed	37.5%	95.5%
XXII. Net OPEB Obligation (Asset) at Beginning of Year [IX.]	83,942,000	83,942,000
XXIII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVII. - XX.]	13,467,723	725,561
XXIV. Net OPEB Obligation (Asset) at End of Year [XXII. + XXIII.]	97,409,723	84,667,561
XXV. Discount Rate	4.00%	6.50%

SECTION I
PRINCIPAL RESULTS OF THE VALUATION
(continued)

City of Everett
Assuming Pay-as-you-go Funding - 4.00% discount rate
Plan Liabilities as of July 1, 2016

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Excise Tax</u>	<u>Total</u>
I. Present Value of Future Benefits					
A. Actives	207,660,796	0	781,843	6,105,185	214,547,824
B. Retirees/Disabled	<u>98,712,029</u>	<u>0</u>	<u>1,589,034</u>	<u>801,011</u>	<u>101,102,074</u>
C. Total	306,372,825	0	2,370,877	6,906,196	315,649,898
II. Present Value of Future Normal Cost	86,810,540	0	233,058	3,552,794	90,596,392
III. Actuarial Accrued Liability (Individual Entry Age Normal)					
A. Actives	120,850,256	0	548,785	2,552,391	123,951,432
B. Retirees/Disabled	<u>98,712,029</u>	<u>0</u>	<u>1,589,034</u>	<u>801,011</u>	<u>101,102,074</u>
C. Total	219,562,285	0	2,137,819	3,353,402	225,053,506
IV. Plan Assets	2,402,928	0	23,365	36,309	2,462,602
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	217,159,357	0	2,114,454	3,317,093	222,590,904
VI. Annual Covered Payroll	N/A	N/A	N/A	N/A	N/A
VII. UAAL as % of Covered Payroll	N/A	N/A	N/A	N/A	N/A
VIII. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	81,893,848	0	797,378	1,250,774	83,942,000
IX. Number of Eligible Participants					
A. Actives	1,634	1,634	1,634	1,634	
B. Retirees/Disabled	<u>1,083</u>	<u>0</u>	<u>587</u>	<u>1,083</u>	
C. Total	2,717	1,634	2,221	2,717	
For Fiscal Year Ending June 30, 2017					
X. Normal Cost	8,701,268	0	28,613	305,677	9,035,558
XI. Amortization of UAAL - 30 year flat dollar	7,424,670	0	72,292	113,398	7,610,360
XII. Annual Required Contribution ('ARC') [X. + XI.]	16,125,938	0	100,905	419,075	16,645,918
XIII. Interest on Net OPEB Obligation (Asset)	3,275,753	0	31,894	50,031	3,357,678
XIV. Adjustment to Annual Required Contribution	(4,553,777)	0	(44,338)	(69,551)	(4,667,666)
XV. Amortization of Actuarial (Gains) / Losses	6,051,667	0	58,923	92,427	6,203,017
XVI. Annual OPEB Expense [XII. + XIII. + XIV. + XV.]	20,899,581	0	147,384	491,982	21,538,947
XVII. Employer Share of Costs	6,936,557	0	128,883	0	7,065,440
XVIII. Employer Payments (Withdrawals) to/from OPEB Trust	981,243	0	9,554	14,987	1,005,784
XIX. Total Employer Contribution [XVII. + XVIII.]	7,917,800	0	138,437	14,987	8,071,224
XX. Percentage of Annual OPEB Expense Contributed	37.9%	0.0%	93.9%	3.0%	37.5%
XXI. Net OPEB Obligation (Asset) at Beginning of Year [VIII.]	81,893,848	0	797,378	1,250,774	83,942,000
XXII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVI. - XIX.]	12,981,781	0	8,947	476,995	13,467,723
XXIII. Net OPEB Obligation (Asset) at End of Year [XXI. + XXII.]	94,875,629	0	806,325	1,727,769	97,409,723

SECTION I
PRINCIPAL RESULTS OF THE VALUATION
(continued)

City of Everett
Assuming Pay-as-you-go Funding - 4.00% discount rate
Plan Liabilities as of July 1, 2016

	City Employees and Retirees	Teacher Employees and Retirees	Non-Teacher School Employees and Retirees	Police Employees and Retirees	Fire Employees and Retirees	Water & Sewer Enterprise Employees and Retirees	Total
I. Present Value of Future Benefits							
A. Actives	50,506,813	76,951,270	26,994,754	31,645,186	27,101,404	1,348,397	214,547,824
B. Retirees/Disabled	27,048,237	33,133,468	9,508,833	14,842,973	15,244,777	1,323,786	101,102,074
C. Total	77,555,050	110,084,738	36,503,587	46,488,159	42,346,181	2,672,183	315,649,898
II. Present Value of Future Normal Cost	23,801,070	27,870,587	19,396,155	10,141,917	8,646,116	740,547	90,596,392
III. Actuarial Accrued Liability (Individual Entry Age Normal)							
A. Actives	26,705,743	49,080,683	7,598,599	21,503,269	18,455,288	607,850	123,951,432
B. Retirees/Disabled	27,048,237	33,133,468	9,508,833	14,842,973	15,244,777	1,323,786	101,102,074
C. Total	53,753,980	82,214,151	17,107,432	36,346,242	33,700,065	1,931,636	225,053,506
IV. Plan Assets	592,548	884,511	187,630	403,136	373,595	21,182	2,462,602
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	53,161,432	81,329,640	16,919,802	35,943,106	33,326,470	1,910,454	222,590,904
VI. Annual Covered Payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VII. UAAL as % of Covered Payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VIII. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	21,016,017	27,284,347	8,594,102	13,867,998	12,580,536	599,000	83,942,000
IX. Number of Eligible Participants							
A. Actives	484	564	344	124	107	11	1,634
B. Retirees/Disabled	278	377	123	127	163	15	1,083
C. Total	762	941	467	251	270	26	2,717

For Fiscal Year Ending June 30, 2017

X. Normal Cost	2,544,098	2,856,708	1,863,164	925,957	771,139	74,492	9,035,558
XI. Amortization of UAAL - 30 year flat dollar	1,817,730	2,780,137	578,501	1,229,076	1,139,595	65,321	7,610,360
XII. Annual Required Contribution ('ARC') [X. + XI.]	4,361,828	5,636,845	2,441,665	2,155,033	1,910,734	139,813	16,645,918
XIII. Interest on Net OPEB Obligation (Asset)	840,640	1,091,374	343,763	554,720	503,221	23,960	3,357,678
XIV. Adjustment to Annual Required Contribution	(1,168,614)	(1,517,170)	(477,882)	(771,141)	(699,552)	(33,307)	(4,667,666)
XV. Amortization of Actuarial (Gains) / Losses	1,481,589	2,266,020	471,522	1,001,790	928,855	53,241	6,203,017
XVI. Annual OPEB Expense [XII. + XIII. + XIV. + XV.]	5,515,443	7,477,069	2,779,068	2,940,402	2,643,258	183,707	21,538,947
XVII. Employer Share of Costs	1,869,968	2,193,362	748,411	941,402	1,218,306	93,991	7,065,440
XVIII. Employer Payments (Withdrawals) to/from OPEB Trust	240,230	367,422	76,455	162,435	150,609	8,633	1,005,784
XIX. Total Employer Contribution [XVII. + XVIII.]	2,110,198	2,560,784	824,866	1,103,837	1,368,915	102,624	8,071,224
XX. Percentage of Annual OPEB Expense Contributed	33.9%	29.3%	26.9%	32.0%	46.1%	51.2%	32.8%
XXI. Net OPEB Obligation (Asset) at Beginning of Year [VIII.]	21,016,017	27,284,347	8,594,102	13,867,998	12,580,536	599,000	83,942,000
XXII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVI. - XIX.]	3,405,245	4,916,285	1,954,202	1,836,565	1,274,343	81,083	13,467,723
XXIII. Net OPEB Obligation (Asset) at End of Year [XXI. + XXII.]	24,421,262	32,200,632	10,548,304	15,704,563	13,854,879	680,083	97,409,723

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

City of Everett

Detail of Plan Liabilities by Group and Dependency Status

Assuming Pay-as-you-go Funding - 4.00% discount rate

Plan Liabilities as of July 1, 2016

	<u>Present Value of Future Benefits</u>	<u>Actuarial Accrued Liability (Individual Entry Age Normal)</u>	<u>Normal Cost</u>
Actives			
Under Age 65			
A. Participants	35,598,554	21,511,903	1,319,995
B. Spouses	<u>27,519,178</u>	<u>16,686,721</u>	<u>1,030,488</u>
C. Total	63,117,732	38,198,624	2,350,483
Age 65 and Over			
A. Participants	88,088,336	49,630,876	3,906,064
B. Spouses	<u>63,341,756</u>	<u>36,121,932</u>	<u>2,779,011</u>
C. Total	151,430,092	85,752,808	6,685,075
Actives Total			
A. Participants	123,686,890	71,142,779	5,226,059
B. Spouses	<u>90,860,934</u>	<u>52,808,653</u>	<u>3,809,499</u>
C. Total	214,547,824	123,951,432	9,035,558
Retirees/Disabled			
Under Age 65			
A. Participants	5,510,587	5,510,587	0
B. Spouses	<u>5,760,804</u>	<u>5,760,804</u>	<u>0</u>
C. Total	11,271,391	11,271,391	0
Age 65 and Over			
A. Participants	60,348,603	60,348,603	<u>0</u>
B. Spouses	<u>29,482,080</u>	<u>29,482,080</u>	<u>0</u>
C. Total	89,830,683	89,830,683	0
Retirees/Disabled Total			
A. Participants	65,859,190	65,859,190	0
B. Spouses	<u>35,242,884</u>	<u>35,242,884</u>	<u>0</u>
C. Total	101,102,074	101,102,074	0
Total Population			
A. Participants	189,546,080	137,001,969	5,226,059
B. Spouses	<u>126,103,818</u>	<u>88,051,537</u>	<u>3,809,499</u>
C. Total	315,649,898	225,053,506	9,035,558

SECTION I
PRINCIPAL RESULTS OF THE VALUATION
(continued)

City of Everett
Assuming Funding over 30 years at 6.50% discount rate
Plan Liabilities as of July 1, 2016

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Excise Tax</u>	<u>Total</u>
I. Present Value of Future Benefits					
A. Actives	110,814,876	0	423,717	2,832,866	114,071,459
B. Retirees/Disabled	<u>76,642,066</u>	<u>0</u>	<u>1,280,844</u>	<u>551,571</u>	<u>78,474,481</u>
C. Total	187,456,942	0	1,704,561	3,384,437	192,545,940
II. Present Value of Future Normal Cost	35,361,056	0	94,478	1,294,000	36,749,534
III. Actuarial Accrued Liability (Individual Entry Age Normal)					
A. Actives	75,453,820	0	329,239	1,538,866	77,321,925
B. Retirees/Disabled	<u>76,642,066</u>	<u>0</u>	<u>1,280,844</u>	<u>551,571</u>	<u>78,474,481</u>
C. Total	152,095,886	0	1,610,083	2,090,437	155,796,406
IV. Plan Assets	2,404,109	0	25,450	33,043	2,462,602
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	149,691,777	0	1,584,633	2,057,394	153,333,804
VI. Annual Covered Payroll	N/A	N/A	N/A	N/A	N/A
VII. UAAL as % of Covered Payroll	N/A	N/A	N/A	N/A	N/A
VIII. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	81,893,848	0	797,378	1,250,774	83,942,000
IX. Number of Eligible Participants					
A. Actives	1,634	1,634	1,634	1,634	
B. Retirees/Disabled	<u>1,083</u>	<u>0</u>	<u>587</u>	<u>1,083</u>	
C. Total	2,717	1,634	2,221	2,717	
For Fiscal Year Ending June 30, 2017					
X. Normal Cost	4,335,310	0	13,877	137,085	4,486,272
XI. Amortization of UAAL - 30 year flat dollar	9,019,443	0	95,480	123,965	9,238,888
XII. Annual Required Contribution ('ARC') [X. + XI.]	13,354,753	0	109,357	261,050	13,725,160
XIII. Interest on Net OPEB Obligation (Asset)	5,323,100	0	51,830	81,300	5,456,230
XIV. Adjustment to Annual Required Contribution	(5,888,471)	0	(57,334)	(89,935)	(6,035,740)
XV. Amortization of Actuarial (Gains) / Losses	2,969,014	0	31,430	40,807	3,041,251
XVI. Annual OPEB Expense [XII. + XIII. + XIV. + XV.]	15,758,396	0	135,283	293,222	16,186,901
XVII. Employer Share of Costs	6,936,557	0	128,883	0	7,065,440
XVIII. Employer Payments (Withdrawals) to/from OPEB Trust	8,196,478	0	86,768	112,654	8,395,900
XIX. Total Employer Contribution [XVII. + XVIII.]	15,133,035	0	215,651	112,654	15,461,340
XX. Percentage of Annual OPEB Expense Contributed	96.0%	0.0%	159.4%	38.4%	95.5%
XXI. Net OPEB Obligation (Asset) at Beginning of Year [VIII.]	81,893,848	0	797,378	1,250,774	83,942,000
XXII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVI. - XIX.]	625,361	0	(80,368)	180,568	725,561
XXIII. Net OPEB Obligation (Asset) at End of Year [XXI. + XXII.]	82,519,209	0	717,010	1,431,342	84,667,561

SECTION I
PRINCIPAL RESULTS OF THE VALUATION
(continued)

City of Everett
Assuming Funding over 30 years at 6.50% discount rate
Plan Liabilities as of July 1, 2016

	City Employees and Retirees	Teacher Employees and Retirees	Non-Teacher School Employees and Retirees	Police Employees and Retirees	Fire Employees and Retirees	Water & Sewer Enterprise Employees and Retirees	Total
I. Present Value of Future Benefits							
A. Actives	26,853,621	40,913,692	14,352,655	16,825,212	14,409,359	716,920	114,071,459
B. Retirees/Disabled	20,994,588	25,717,887	7,380,667	11,520,976	11,832,853	1,027,510	78,474,481
C. Total	47,848,209	66,631,579	21,733,322	28,346,188	26,242,212	1,744,430	192,545,940
II. Present Value of Future Normal Cost	9,654,669	11,305,429	7,867,859	4,113,969	3,507,212	300,396	36,749,534
III. Actuarial Accrued Liability (Individual Entry Age Normal)							
A. Actives	16,659,262	30,616,935	4,740,069	13,413,916	11,512,561	379,182	77,321,925
B. Retirees/Disabled	20,994,588	25,717,887	7,380,667	11,520,976	11,832,853	1,027,510	78,474,481
C. Total	37,653,850	56,334,822	12,120,736	24,934,892	23,345,414	1,406,692	155,796,406
IV. Plan Assets	592,548	884,511	187,630	403,136	373,595	21,182	2,462,602
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	37,061,302	55,450,311	11,933,106	24,531,756	22,971,819	1,385,510	153,333,804
VI. Annual Covered Payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VII. UAAL as % of Covered Payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VIII. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	21,016,017	27,284,347	8,594,102	13,867,998	12,580,536	599,000	83,942,000
IX. Number of Eligible Participants							
A. Actives	484	564	344	124	107	11	1,634
B. Retirees/Disabled	278	377	123	127	163	15	1,083
C. Total	762	941	467	251	270	26	2,717
For Fiscal Year Ending June 30, 2017							
X. Normal Cost	1,263,177	1,418,393	925,085	459,750	382,881	36,986	4,486,272
XI. Amortization of UAAL - 30 year flat dollar	2,206,703	3,375,054	702,293	1,492,084	1,383,455	79,299	9,238,888
XII. Annual Required Contribution ("ARC") [X. + XI.]	3,469,880	4,793,447	1,627,378	1,951,834	1,766,336	116,285	13,725,160
XIII. Interest on Net OPEB Obligation (Asset)	1,366,040	1,773,484	558,615	901,421	817,735	38,935	5,456,230
XIV. Adjustment to Annual Required Contribution	(1,511,131)	(1,961,846)	(617,947)	(997,159)	(904,588)	(43,069)	(6,035,740)
XV. Amortization of Actuarial (Gains) / Losses	726,403	1,110,997	231,181	491,163	455,404	26,103	3,041,251
XVI. Annual OPEB Expense [XII. + XIII. + XIV. + XV.]	4,051,192	5,716,082	1,799,227	2,347,259	2,134,887	138,254	16,186,901
XVII. Employer Share of Costs	1,869,968	2,193,362	748,411	941,402	1,218,306	93,991	7,065,440
XVIII. Employer Payments (Withdrawals) to/from OPEB Trust	2,029,174	3,035,895	653,189	1,343,746	1,258,089	75,807	8,395,900
XIX. Total Employer Contribution [XVII. + XVIII.]	3,899,142	5,229,257	1,401,600	2,285,148	2,476,395	169,798	15,461,340
XX. Percentage of Annual OPEB Expense Contributed	96.2%	91.5%	77.9%	97.4%	116.0%	122.8%	95.5%
XXI. Net OPEB Obligation (Asset) at Beginning of Year [VIII.]	21,016,017	27,284,347	8,594,102	13,867,998	12,580,536	599,000	83,942,000
XXII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVI. - XIX.]	152,050	486,825	397,627	62,111	(341,508)	(31,544)	725,561
XXIII. Net OPEB Obligation (Asset) at End of Year [XXI. + XXII.]	21,168,067	27,771,172	8,991,729	13,930,109	12,239,028	567,456	84,667,561

Overview of GASB 43 and 45

GASB 43 requires retiree medical plans to disclose information about asset and liability levels and show historical contribution information. GASB 43 only applies in situations where a separate trust is established to prefund these benefits. GASB 45 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 43 and 45 apply to those benefits provided after retirement except for pension benefits such as medical insurance, 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 43 and 45 extend this practice to all other post-employment benefits.

Overview of GASB 43 and 45

(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 City, the present value is divided into three pieces: the part that is attributed to past years (the "Accrued Liability" or "Past Service Liability"), the part that is being earned this year (the "Normal Cost"), and the part that will be earned in future years (the "Future Service Liability").

Once the Accrued Liability and the Normal Cost have been calculated, the next step is to determine an annual contribution. This consists of two pieces:

- ✓ Normal Cost – because the benefits earned each year should be paid for each year
- ✓ Past Service Cost – a catch-up payment to fund the Accrued Liability over the next 10-30 years

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 City's financial statements as the Net OPEB Obligation. If you decide to fully fund the OPEB obligation 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 45 – How we got here:

The Plan adopted and implemented GASB 45 (“Accounting and Financial Reporting by Employers for Postemployment Benefits other than Pensions”) effective for the fiscal year ending June 30, 2008. GASB 45 is designed to recognize the Other Postemployment Benefits (“OPEB”) earned by employees throughout their working career vs. when they are actually paid in retirement – accrual accounting vs. “pay-as-you-go” accounting. When GASB 45 was adopted, there was an Unfunded Actuarial Accrued Liability (“UAAL”) or “past service liability” which reflected all benefits earned until the date of such adoption. To smooth the impact of transitioning to GASB 45 on your financial statement, the UAAL was amortized over a 30 year period using a flat dollar amortization. Additionally, each eligible active employee earns benefits each year representing benefits to be paid in retirement or a “Normal 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.

2. Summary of Results:

During the fiscal year ending June 30, 2017, the Plan saw an experience gain of \$7,033,569 or 3.06%. Plan experience was in line with expectation. This slight experience gain was mainly due to a decrease in the average number of years of service for active participants. The assumed rates of termination were changed to reflect updates by PERAC - the impact on Actuarial Accrued Liabilities was modest, but it significantly reduced the Normal Cost & the Present Value of Future Benefits for active participants. The actuarial experience gain is amortized into the annual OPEB costs over a 30-year period. The net impact of plan experience is a decrease in the annual OPEB cost.

Commentary on Plan Experience and Contribution Amounts
(continued)

3. **Balance Sheet Items**

	July 1, 2016	July 1, 2014
Actuarial Accrued Liability	\$225,053,506	\$236,210,859
Plan Assets	\$2,462,602	\$1,602,550
Unfunded Actuarial Accrued Liability	\$222,590,904	\$234,608,309
Funded %	1.09%	0.68%
Net OPEB Obligation	\$83,942,000	\$66,340,000

4. **Income Statement Items**

	June 30, 2017	June 30, 2015
Normal Cost	\$9,035,558	\$12,491,248
Amortization of UAAL	\$7,610,360	\$7,299,152
Interest on Net OPEB Obligation	\$3,357,678	\$2,321,901
Adjustment to Annual Required Contribution	\$(4,667,666)	\$(3,485,018)
Amortization of Actuarial (Gains)/Losses	\$6,203,017	\$6,304,717
Annual OPEB Expense	\$21,538,947	\$24,932,000
Employer Share of Costs Employer Contributions/(Withdrawals) to/from OPEB Trust	\$7,065,440	\$6,550,759
Total Employer Contribution	\$1,005,784	\$779,241
Discount Rate	4.00%	3.50%

Commentary on Plan Experience and Contribution Amounts
(continued)

5. **Implicit Subsidy:**

The implicit subsidy arises because pre-Medicare retirees 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 actually 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.

Valuation Date	<u>July 1, 2016</u>	<u>July 1, 2015</u>
Liability		
I. Actuarial Accrued Liability	225,053,506	N/A
II. Actuarial Accrued Liability (Excluding Implicit Subsidy)	<u>211,172,078</u>	<u>N/A</u>
III. Liability from Implicit Subsidy [I. - II.]	13,881,428	N/A
For Fiscal Year Ending	<u>June 30, 2017</u>	<u>June 30, 2016</u>
Payments		
IV. Employer Payments (Including Implicit Subsidy)	7,065,440	N/A
V. Actual Employer Payments	<u>6,574,287</u>	<u>N/A</u>
VI. Implicit Subsidy [IV. - V.]	491,153	N/A

6. **GASB 75 – Where we’re going:**

The Governmental Accounting Standards Board (“GASB”) issued GASB 75 “*Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*” on June 2, 2015 which will become effective for your 2018 fiscal year. This standard largely mirrors the GASB 68 standard for pension plans. The new standards require increased disclosures and will tie interest rates used in the valuation to the plan’s underlying investment and funding policy. This may increase the pressure on many entities to begin funding their OPEB liabilities. For more information, please review our white papers at www.GASB75.com or on our website.

SECTION II

SUMMARY OF PLAN PROVISIONS

<u>Effective Date</u>	July 1, 2007; GASB 45 is adopted.
<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>	Premiums for Medical insurance are 15% of underlying gross premiums (participants who retired prior to April 15, 2003 will keep the same percentage as the insurance at that time). Retirees contribute 15% of premiums for Life Insurance. Retirees shall pay 100% for dental coverage. Retired Teachers shall pay 10% to 15% (retired teachers receiving coverage via the GIC shall pay 10% if retired prior to July 1, 1990) for Medical & Life Insurance via the GIC depending upon their retirement date.
<u>Benefits Offered</u>	Comprehensive Medical & Dental Insurance offered through Blue Cross Blue Shield of Massachusetts, Harvard Pilgrim and Tufts as well as Group Term Life Insurance. Retired Teachers shall receive Medical & Dental Insurance as well as \$5,000 Group Term Life Insurance via the GIC.
<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 over a 30 year period.

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 valuation date.

SECTION IIIACTUARIAL 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.

Discount Rate

4.00% per annum (previously 3.50%)

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD
AND ACTUARIAL ASSUMPTIONS

(continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Employee Termination

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

Non-Public Safety Employees						
<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%

Public Safety Employees		
<u>Service</u>	<u>Male</u>	<u>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 for non-teachers

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

<u>Age</u>	<u>Male Non Public Safety</u>	<u>Female Non Public Safety</u>	<u>Public Safety</u>
45	0.00%	0.00%	1.00%
46	0.00%	0.00%	1.00%
47	0.00%	0.00%	1.00%
48	0.00%	0.00%	1.00%
49	0.00%	0.00%	1.00%
50	1.00%	1.50%	2.00%
51	1.00%	1.50%	2.00%
52	1.00%	2.50%	2.00%
53	1.00%	2.50%	5.00%
54	2.00%	2.50%	7.50%
55	2.00%	5.50%	15.00%
56	2.50%	6.50%	10.00%
57	2.50%	6.50%	10.00%
58	5.00%	6.50%	10.00%
59	6.50%	6.50%	15.00%
60	12.00%	5.00%	20.00%
61	20.00%	13.00%	20.00%
62	30.00%	15.00%	25.00%
63	25.00%	12.50%	25.00%
64	22.00%	18.00%	30.00%
65	40.00%	15.00%	100.00%
66	25.00%	20.00%	100.00%
67	25.00%	20.00%	100.00%
68	30.00%	25.00%	100.00%
69	30.00%	20.00%	100.00%
70	100.00%	100.00%	100.00%
71	100.00%	100.00%	100.00%
72	100.00%	100.00%	100.00%

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD
AND ACTUARIAL ASSUMPTIONS

(continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Retirement Rates for teachers

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

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

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD
AND ACTUARIAL ASSUMPTIONS

(continued)

C. 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>	<u>Public Safety</u>
20	0.01%	0.05%	0.20%
25	0.01%	0.06%	0.20%
30	0.01%	0.07%	0.21%
35	0.03%	0.10%	0.40%
40	0.07%	0.21%	0.71%
45	0.10%	0.30%	1.00%
50	0.13%	0.42%	1.10%
55	0.14%	0.50%	0.80%
60	0.12%	0.50%	0.80%

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 and dental 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 participants and 70% of female participants who elect retiree healthcare coverage for themselves would also elect coverage for a spouse upon retirement. It was further assumed that a male spouse is three years older than a female spouse and same sex spouses are assumed to be the same age. For current retirees, the actual census information was used.

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 43 and 45 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. 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 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

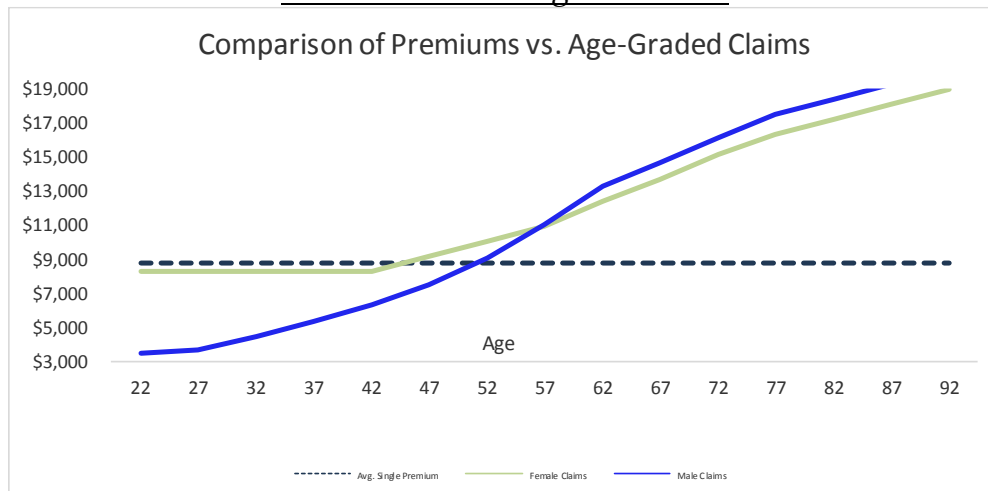
ACTUARIAL COST METHOD, ASSET VALUATION METHOD
AND ACTUARIAL ASSUMPTIONS

(continued)

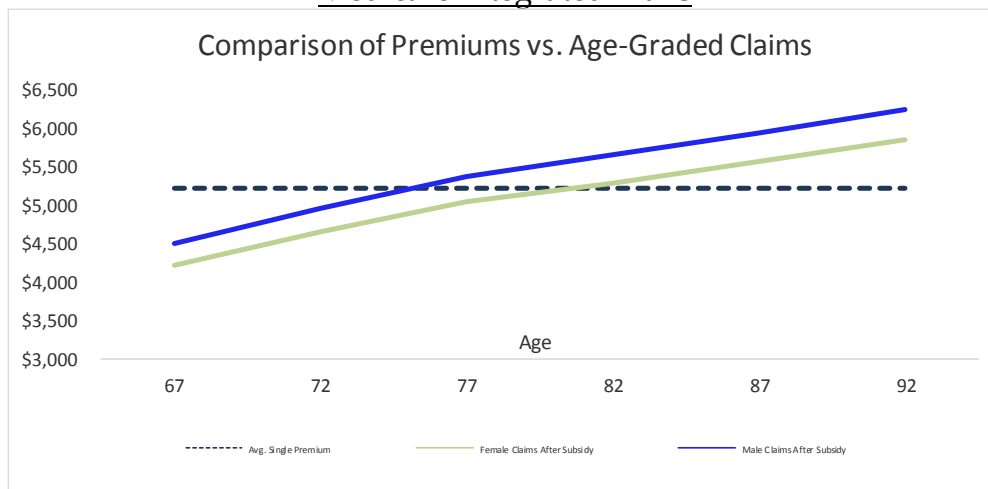
D. DEVELOPMENT OF REPRESENTATIVE MEDICAL PER CAPITA CLAIMS COSTS

For illustrative purposes, the charts below show the impact of the implicit cost described previously. You can see that individuals are expected to utilize more medical services with age while the underlying premiums are flat. As such, you will see that the age adjusted claims intersect the premium rates at approximately age 45 for females and age 50 for males on the Non-Medicare Integrated Plans and age 80 for females & age 75 for males on the Medicare Integrated Plans.

Non-Medicare Integrated Plans



Medicare Integrated Plans



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
Network Blue	5		205	210
Blue Care Elect	15		143	158
Harvard Pilgrim	18		710	728
Tufts Medicare Preferred	14	17		31
Managed Blue	14	6		20
Medex	192	156		348
Total	258	179	1,058	1,495

	Per Contract Costs (monthly) - FY 2017		
	Single	Two-Person	Family
Network Blue	647.70	0.00	1,729.72
Blue Care Elect	947.51	0.00	2,099.21
Harvard Pilgrim	707.64	0.00	1,918.00
Tufts Medicare Preferred	267.00	534.00	
Managed Blue	384.07	768.14	
Medex	455.80	911.60	

Gross Expected FY 2017 Incurred Premiums	27,591,280
Adjustment to reflect children's claims	(5,701,992)
Total Expected FY 2017 Incurred Premiums (adults only)	21,889,288

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	13,513	5,243
Average Age	12,113	5,243

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 (NON-GIC)

Age Bracket	Female Aging Factor	Male Aging Factor	Aged (F) Average Claims	Aged (M) Average Claims	Age Related Claims
24 & Under	1.312	0.549	8,291	3,469	231,558
25 to 29	1.312	0.591	8,291	3,735	1,510,477
30 to 34	1.312	0.712	8,291	4,499	2,140,172
35 to 39	1.312	0.850	8,291	5,371	1,502,926
40 to 44	1.312	1.000	8,291	6,319	1,999,555
45 to 49	1.456	1.193	9,200	7,539	2,331,962
50 to 54	1.599	1.441	10,104	9,106	1,853,266
55 to 59	1.740	1.753	10,995	11,077	2,141,394
60 to 64	1.968	2.102	12,436	13,283	1,784,775
65 to 69	2.168	2.316	13,700	14,635	945,340
70 & Over	2.396	2.557	15,140	16,158	<u>362,472</u>
Total					16,803,897

ALL RETIREES AND SPOUSES - NOT MEDICARE ELIGIBLE (NON-GIC)

Age Bracket	Female Aging Factor	Male Aging Factor	Aged (F) Average Claims	Aged (M) Average Claims	Age Related Claims
44 & Under	1.312	1.000	8,291	6,319	24,873
45 to 49	1.456	1.193	9,200	7,539	109,634
50 to 54	1.599	1.441	10,104	9,106	154,678
55 to 59	1.740	1.753	10,995	11,077	363,819
60 to 64	1.968	2.102	12,436	13,283	1,079,351
65 to 69	2.168	2.316	13,700	14,635	129,845
70 to 74	2.396	2.557	15,140	16,158	31,298
75 to 79	2.593	2.769	16,385	17,497	50,267
80 to 84	2.724	2.910	17,213	18,388	52,814
85 to 89	2.864	3.059	18,098	19,330	18,098
90 & Over	3.010	3.215	19,020	20,316	<u>20,316</u>
Total					2,034,993

ALL RETIREES AND SPOUSES - NOT MEDICARE ELIGIBLE (NON-GIC)

Age Bracket	Female Aging Factor	Male Aging Factor	Aged (F) Average Claims	Aged (M) Average Claims	Age Related Claims
65 to 69	2.168	2.316	5,243	5,243	461,384
70 to 74	2.396	2.557	5,243	5,243	571,487
75 to 79	2.593	2.769	5,243	5,243	581,973
80 to 84	2.724	2.910	5,243	5,243	571,487
85 to 89	2.864	3.059	5,243	5,243	435,169
90 & Over	3.010	3.215	5,243	5,243	<u>429,926</u>
Total					3,051,426
Grand Totals					21,890,316

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
Fallon Direct				0
Fallon Select	3			3
NHP Care	1			1
Unicare Basic w/ CIC	54		23	77
Unicare Basic w/o CIC				0
Unicare OME w/ CIC	67	89		156
Unicare OME w/o CIC				0
Tufts Medicare Preferred	2	2		4
Harvard Senior	10	4		14
Fallon Senior				0
Total	137	95	23	255

	GIC Plans for Retired Teachers		
	Single	Two-Person	Family
Per Contract Costs (monthly) - FY 2018			
Fallon Direct	552.70	0.00	1,326.60
Fallon Select	734.50	0.00	1,762.70
NHP Care	552.10		1,463.10
Unicare Basic w/ CIC	1,015.77		2,447.20
Unicare Basic w/o CIC	963.00		2,316.90
Unicare OME w/ CIC	339.81	679.62	
Unicare OME w/o CIC	329.50	659.00	
Tufts Medicare Preferred	300.00	600.00	
Harvard Senior	421.60	843.20	
Fallon Senior	335.00	670.00	

Gross Expected FY 2017 Incurred Premiums	2,408,263
Adjustment to reflect children's claims	(199,708)
Total Expected FY 2017 Incurred Premiums (adults only)	2,208,554

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	12,301	3,409
Average Age	13,231	4,020

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 (GIC)

Age Bracket	Number of		Female	Male	Aged (F)	Aged (M)	Age Related
	Females	Males	Aging Factor	Aging Factor	Average Claims	Average Claims	
24 & Under	0	0	1.312	0.549	7,547	3,158	0
25 to 29	0	0	1.312	0.591	7,547	3,399	0
30 to 34	0	0	1.312	0.712	7,547	4,095	0
35 to 39	0	0	1.312	0.850	7,547	4,889	0
40 to 44	0	0	1.312	1.000	7,547	5,752	0
45 to 49	0	0	1.456	1.193	8,375	6,862	0
50 to 54	0	0	1.599	1.441	9,197	8,289	0
55 to 59	0	0	1.740	1.753	10,008	10,083	0
60 to 64	0	0	1.968	2.102	11,320	12,091	0
65 to 69	0	0	2.168	2.316	12,470	13,322	0
70 & Over	0	0	2.396	2.557	13,782	14,708	0
Total	0	0					0

ALL RETIREES AND SPOUSES - NOT MEDICARE ELIGIBLE (GIC)

Age Bracket	Number of		Female	Male	Aged (F)	Aged (M)	Age Related
	Females	Males	Aging Factor	Aging Factor	Average Claims	Average Claims	
44 & Under	0	0	1.312	1.000	7,547	5,752	0
45 to 49	1	0	1.456	1.193	8,375	6,862	8,375
50 to 54	0	0	1.599	1.441	9,197	8,289	0
55 to 59	1	1	1.740	1.753	10,008	10,083	20,091
60 to 64	25	4	1.968	2.102	11,320	12,091	331,364
65 to 69	7	0	2.168	2.316	12,470	13,322	87,290
70 to 74	10	7	2.396	2.557	13,782	14,708	240,776
75 to 79	8	1	2.593	2.769	14,915	15,927	135,247
80 to 84	6	1	2.724	2.910	15,668	16,738	110,746
85 to 89	2	0	2.864	3.059	16,474	17,595	32,948
90 & Over	3	0	3.010	3.215	17,314	18,493	51,942
Total	63	14					1,018,779

ALL RETIREES AND SPOUSES - MEDICARE ELIGIBLE (GIC)

Age Bracket	Number of		Female	Male	Aged (F)	Aged (M)	Age Related
	Females	Males	Aging Factor	Aging Factor	Average Claims	Average Claims	
65 to 69	59	45	2.168	2.316	3,456	3,691	369,999
70 to 74	41	34	2.396	2.557	3,819	4,076	295,163
75 to 79	27	23	2.593	2.769	4,133	4,413	213,090
80 to 84	13	16	2.724	2.910	4,342	4,638	130,654
85 to 89	13	14	2.864	3.059	4,565	4,876	127,609
90 & Over	9	2	3.010	3.215	4,798	5,124	53,430
Total	162	134					1,189,945
Grand Totals	225	148					2,208,724

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 2017		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
Delta Dental	51.00		130.00

FY 2017 Expected Per Person Rate 612

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2016)

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

1. A DESCRIPTION OF THE RETIREE MEDICAL INSURANCE PROGRAM:

- a. Plan Type: Various Medical Insurance offerings via the Blue Cross Blue Shield of Massachusetts, Tufts and Harvard Pilgrim (retired teachers will receive coverage via the GIC).
- b. Administrator: City of Everett
- 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: Premiums for Medical Insurance are 15% of underlying gross premiums (participants who retired prior to April 15, 2003 will keep the same percentage as the insurance at that time). Retired teachers shall pay 10% to 15% (teachers who retired prior to July 1, 1990 pay 10%) for Medical Insurance via the GIC.

2. A DESCRIPTION OF THE RETIREE DENTAL INSURANCE PROGRAM:

- a. Plan Type: Comprehensive Dental Insurance
- b. Administrator: City of Everett
- c. Eligibility: Same as above
- d. Cost sharing: Employees will pay 100% of premiums in retirement.

3. A DESCRIPTION OF THE RETIREE LIFE INSURANCE PROGRAM:

- a. Plan Type: Group Term Life Insurance - \$5,000.
- b. Administrator: City of Everett
- c. Eligibility: Same as above
- d. Cost sharing: Retirees contribute 15% of premiums for Life Insurance. Retired teachers shall pay 10% to 15% (teachers who retired prior to July 1, 1990 pay 10%) via the GIC.

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2016)

(continued)

4. RETIREE MEDICAL AND LIFE INSURANCE CONTRIBUTIONS:

Group	Individual	Family
Medical	15% of Premiums. Retired teachers shall pay 10% to 15% (teachers who retired prior to July 1, 1990 pay 10%) via the GIC	15% of Premiums. Retired teachers shall pay 10% to 15% (teachers who retired prior to July 1, 1990 pay 10%) via the GIC
Dental	100%	100%
Life	15% of Premiums. Retired teachers shall pay 10% to 15% (teachers who retired prior to July 1, 1990 pay 10%) via the GIC	N/A

5. FUNDING POLICY

The contribution requirements of plan members and the City are established and may be amended through City ordinances. For the 2017 fiscal year, total City premiums plus implicit costs for the retiree medical program are \$7,065,440. The City is also projected to make a contribution to an OPEB Trust of \$1,005,784 for the 2017 fiscal year for a total contribution of \$8,071,224 .

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2016)

(continued)

6. ANNUAL OPEB COST AND NET OPEB OBLIGATION

The City's annual other postemployment benefit ("OPEB") cost (expense) is calculated based on the annual required contribution of the employer ("ARC"), an amount actuarially determined in accordance with the parameters of GASB Statement No. 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty (30) years. The following table shows the components of the City's annual OPEB costs for the fiscal year, the amount actually contributed to the plan and changes in the City's net OPEB obligation to the plan:

Annual Required Contribution	\$16,645,918
Interest on Net OPEB Obligation (Asset)	\$3,357,678
Adjustment to annual required contribution	(\$4,667,666)
Amortization of Actuarial (Gains) / Losses	\$6,203,017
Annual OPEB expense	\$21,538,947
Contributions made to pay benefits	\$7,065,440
Contributions made to OPEB Trust	\$1,005,784
Increase (Decrease) in net OPEB Obligation (Asset)	\$13,467,723
Net OPEB Obligation (Asset) – beginning of year	\$83,942,000
Net OPEB Obligation (Asset) – end of year	\$97,409,723

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2016)

(continued)

The City's annual OPEB cost, the percentage of the annual OPEB cost contributed to the plan, and the net OPEB obligation for the 2017 fiscal year and the three preceding years were as follows:

Fiscal Year Ended	Annual OPEB Cost	Expected Employer Payments	Percentage of OPEB Cost Contributed	Increase (Decrease) in Net OPEB Obligation (Asset)	Net OPEB Obligation (Asset)
06/30/2019 (est.)	\$24,472,879	\$8,599,672	35.1%	\$15,873,207	\$128,175,003
06/30/2018 (est.)	\$23,136,691	\$8,244,618	35.6%	\$14,892,073	\$112,301,796
06/30/2017	\$21,538,947	\$8,071,224	37.5%	\$13,467,723	\$97,409,723
06/30/2016	\$24,932,000	\$7,330,000	29.4%	\$17,602,000	\$83,942,000
06/30/2015	\$17,547,000	\$6,659,000	37.9%	\$10,888,000	\$66,340,000
06/30/2014	\$16,616,000	\$7,371,000	44.4%	\$9,245,000	\$55,452,000

Schedule of Funding Progress:

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	UAAL as a % of Covered Payroll
07/01/2018 (est.)	\$4,584,159	\$248,349,708	\$243,765,549	1.8%	N/A	N/A
07/01/2017 (est.)	\$3,583,462	\$236,247,263	\$232,663,801	1.5%	N/A	N/A
07/01/2016	\$2,462,602	\$225,053,506	\$222,590,904	1.1%	N/A	N/A
07/01/2015	\$1,602,550	\$236,210,859	\$234,608,309	0.7%	\$64,230,000	365.3%
07/01/2014	\$0	\$169,257,908	\$169,257,908	0.0%	\$62,359,191	271.4%
07/01/2013	\$0	\$161,490,260	\$161,490,260	0.0%	\$60,542,904	266.7%

EXHIBIT A

Financial Statement Disclosure
(As of July 1, 2016)
(continued)

	Fiscal Year Ending June 30, 2017						
	City Employees and Retirees	Teacher Employees and Retirees	Non-Teacher School Employees and Retirees	Police Employees and Retirees	Fire Employees and Retirees	Water & Sewer Enterprise Employees and Retirees	Total
OPEB Obligation (Asset) at beginning of year	21,016,017	27,284,347	8,594,102	13,867,998	12,580,536	599,000	83,942,000
Annual Required Contribution	4,361,828	5,636,845	2,441,665	2,155,033	1,910,734	139,813	16,645,918
Interest on Net OPEB Obligation	840,640	1,091,374	343,763	554,720	503,221	23,960	3,357,678
Adjustment to the ARC	(1,168,614)	(1,517,170)	(477,882)	(771,141)	(699,552)	(33,307)	(4,667,666)
Amortization of Actuarial (Gains)/Losses	1,481,589	2,266,020	471,522	1,001,790	928,855	53,241	6,203,017
Annual OPEB Cost	5,515,443	7,477,069	2,779,068	2,940,402	2,643,258	183,707	21,538,947
Expected Employer Contribution	1,869,968	2,193,362	748,411	941,402	1,218,306	93,991	7,065,440
Contribution (Withdrawal) to/from Trust Fund over 30 Years	240,230	367,422	76,455	162,435	150,609	8,633	1,005,784
Total Expected Employer Payments	2,110,198	2,560,784	824,866	1,103,837	1,368,915	102,624	8,071,224
Increase (Decrease) in OPEB Obligation (Asset)	3,405,245	4,916,285	1,954,202	1,836,565	1,274,343	81,083	13,467,723
OPEB Obligation (Asset) at end of year	24,421,262	32,200,632	10,548,304	15,704,563	13,854,879	680,083	97,409,723
AAL as of July 1, 2016	53,753,980	82,214,151	17,107,432	36,346,242	33,700,065	1,931,636	225,053,506
Plan Assets as of July 1, 2016	592,548	884,511	187,630	403,136	373,595	21,182	2,462,602
Unfunded Actuarial Liability as of July 1, 2016	53,161,432	81,329,640	16,919,802	35,943,106	33,326,470	1,910,454	222,590,904

EXHIBIT AFinancial Statement Disclosure

(As of July 1, 2016)

(continued)

7. FUNDED STATUS AND FUNDING PROGRESS

As of July 1, 2016, the most recent valuation date, the plan was 1.09% funded. The actuarial liability for benefits was \$225,053,506, and the actuarial value of assets was \$2,462,602, resulting in an unfunded actuarial accrued liability (UAAL) of \$222,590,904. The covered payroll (annual payroll of active employees covered by the plan) was \$ N/A and the ratio of the UAAL to the covered payroll was N/A.

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 annual required 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 actuarial accrued liabilities for benefits.

8. EFFECT OF 1% CHANGE IN HEALTHCARE TREND RATES

In the event that healthcare trend rates were 1% higher than forecast and employee contributions were to increase at the forecast rates, the Actuarial Accrued Liability would increase to \$286,106,730 or by 27.1% and the corresponding Normal Cost would increase to \$13,787,284 or by 52.6%. If such healthcare trend rates were 1% less than forecast and employee contributions were to increase at the forecast rate, the Actuarial Accrued Liability would decrease to \$182,018,027 or by 19.1% and the corresponding Normal Cost would decrease to \$6,128,414 or by 32.2%.

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2016)

(continued)

9. 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
 Investment Rate of Return: 4.00% 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
 Amortization of UAAL: Level dollar amortization over 30 years
 Remaining Amortization Period: 21 years at July 1, 2016

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2016)

(continued)

10. Remaining Amortization Bases

The initial Actuarial Accrued Liability as of the date GASB 45 was adopted is amortized as a component of the Annual Required Contribution ("ARC"). The Unfunded Actuarial Accrued Liability at transition was amortized over a 30 year period and a flat dollar amortization of the Unfunded Actuarial Accrued Liability at transition. For years subsequent to the initial adoption of GASB 45, cumulative gains/losses are amortized on a level dollar basis over a 30 year period. Gains and losses arise from experience and contribution deficiencies and excess contributions in relation to each year's ARC under GASB 45.

Changes in Unfunded Actuarial Liability Since Prior Valuation
--

Expected Unfunded Actuarial Liability

1. Actuarial Accrued Liability at prior valuation date	236,210,859
2. Actuarial Value of Assets at prior valuation date	<u>1,602,550</u>
3. Unfunded Actuarial Accrued Liability at prior valuation date [1. - 2.]	234,608,309
4. Normal Cost for prior periods	12,491,248
5. Employer Contributions for prior periods	(7,330,000)
6. Interest to current valuation date	<u>8,168,674</u>
7. Expected Unfunded Actuarial Accrued Liability before assumption changes [3. + 4. + 5. + 6.]	247,938,231

Net Actuarial (Gain) / Loss due to assumption changes

8. Actuarial Cost Method Change	N/A
9. Interest Rate Change	(19,651,369)
10. Mortality Assumption Change	<u>1,337,611</u>
11. Expected Unfunded Actuarial Accrued Liability including assumption changes [7. + 8. + 9. + 10.]	229,624,473

Actual Unfunded Actuarial Liability

12. Actuarial Accrued Liability at current valuation date	225,053,506
13. Actuarial Value of Assets at current valuation date	<u>2,462,602</u>
14. Unfunded Actuarial Accrued Liability at current valuation date [12. - 13.]	222,590,904

Net Actuarial (Gain) / Loss from Plan Experience [14. - 11.] (7,033,569)

15. Unfunded Actuarial Accrued Liability at current valuation date [14.]	222,590,904
16. Remaining Initial Unfunded to be amortized	<u>111,037,639</u>
17. Actuarial (Gain) / Loss to be amortized: [15. - 16.]	111,553,265

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2016)

(continued)

10. Remaining Amortization Bases (Continued)

Amortization of Initial Unfunded and Plan Experience under GASB 45						
Date Established	Description	Initial Amount	Initial Amortization Period	Remaining Balance at Valuation Date	Remaining Amortization Period	Annual Amortization Payment
July 1, 2007	GASB 45 Liability	137,107,329	30	111,037,639	21	7,610,360
July 1, 2016	Cumulative (Gain) / Loss	111,553,265	30	111,553,265	30	6,203,017
July 1, 2016	Adjustment to ARC	(83,942,000)	30	(83,942,000)	30	(4,667,667)

11. Recognition of OPEB trust assets

The State of Massachusetts has recently 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 45. To the best of our knowledge, City of Everett has established an irrevocable trust for the purposes of prefunding liabilities under GASB 45.

EXHIBIT AFinancial Statement Disclosure

(As of July 1, 2016)

(continued)

12. 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, 2019 (formerly December 31, 2017, but amended by Consolidated Appropriations Act) 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 2020 threshold amounts are \$11,850 for single coverage and \$30,950 for family coverage and a "kicker" amount of \$1,650 for single coverage and \$3,450 for family coverage.

The excise tax liability will vary significantly over time as it is highly leveraged with the basic threshold amount increased with general CPI and medical costs increasing with medical trend (generally higher). For purposes of the fiscal year ending June 30, 2017, the AAL for the excise tax is \$3,353,402 and the increase in annual OPEB Cost is \$491,982. Given your premiums through the 2017 fiscal year and the excise tax threshold, your average single premiums are \$5,952 below the excise tax threshold and your average family premiums are \$8,078 below the excise tax threshold. As more regulatory guidance becomes available, the calculation of the excise tax liability will evolve.

EXHIBIT B

Reconciliation of Plan Participation
(As of July 1, 2016)

ACTIVE EMPLOYEES

	<u>July 1, 2016</u>	<u>July 1, 2015</u>
A. Average Age at Hire	33.48	34.55
B. Average Service	8.88	9.61
C. Average Current Age	42.36	44.16

RETIRED EMPLOYEES & DEPENDENTS

	<u>July 1, 2016</u>	<u>July 1, 2015</u>
I. Retirees		
A. Under Age 65	101	99
B. Age 65 & Over	<u>631</u>	<u>656</u>
C. Total Retirees	732	755
II. Dependents of Retirees		
A. Under Age 65	92	76
B. Age 65 & Over	<u>259</u>	<u>238</u>
C. Total Retirees	351	314
III. Retirees & Dependents		
A. Under Age 65	193	175
B. Age 65 & Over	<u>890</u>	<u>894</u>
C. Total Retirees	1,083	1,069

EXHIBIT C

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

Total Medical, Dental & Life Insurance - Pay-as-you-go Funding - 4.00% discount rate											
Fiscal Year Ending	Valuation Date	I. Total Actuarial Accrued Liability ("AAL") as of	II. Plan Assets as of Valuation	III. Unfunded Accrued Actuarial Liability ("UAAAL")	IV. Funded Ratio [II. / I.]	V. OPEB Obligation (Asset) as of	VI. Normal Cost	VII. Expected Annual OPEB Expense	VIII.	IX. Excess	X. Total Employer Contribution [VIII. + IX.]
		Valuation Date	Date	[I. - II.]	Fiscal year end	Employer Share of Premiums / Claims			Employer Payments (beyond claims)		
June 30, 2017	July 1, 2016	225,053,506	2,462,602	222,590,904	1.09%	83,942,000	9,035,558	21,538,947	7,065,440	1,005,784	8,071,224
June 30, 2018	July 1, 2017	236,247,263	3,583,462	232,663,801	1.52%	97,409,723	10,094,591	23,136,691	7,401,157	843,461	8,244,618
June 30, 2019	July 1, 2018	248,349,708	4,584,159	243,765,549	1.85%	128,175,003	10,835,096	24,472,879	7,756,211	843,461	8,599,672
June 30, 2020	July 1, 2019	261,485,722	5,624,884	255,860,838	2.15%	145,119,354	11,561,613	25,834,324	8,046,512	843,461	8,889,973
June 30, 2021	July 1, 2020	275,600,804	6,707,238	268,893,566	2.43%	163,107,640	12,282,511	27,232,996	8,401,249	843,461	9,244,710
June 30, 2022	July 1, 2021	290,654,167	7,832,886	282,821,281	2.69%	182,193,771	12,992,176	28,662,193	8,732,601	843,461	9,576,062
June 30, 2023	July 1, 2022	306,700,307	9,003,560	297,696,747	2.94%	202,513,302	13,761,953	30,195,415	9,032,423	843,461	9,875,884
June 30, 2024	July 1, 2023	323,833,309	10,221,061	313,612,248	3.16%	224,060,710	14,492,181	31,738,424	9,347,555	843,461	10,191,016
June 30, 2025	July 1, 2024	342,066,167	11,487,262	330,578,905	3.36%	246,797,781	15,272,179	33,380,318	9,799,785	843,461	10,643,246
June 30, 2026	July 1, 2025	361,350,850	12,804,111	348,546,739	3.54%	270,686,321	16,064,383	35,082,005	10,350,004	843,461	11,193,465
June 30, 2027	July 1, 2026	381,655,529	14,173,634	367,481,895	3.71%	295,767,399	16,885,866	36,859,029	10,934,490	843,461	11,777,951
June 30, 2028	July 1, 2027	402,914,262	15,597,938	387,316,324	3.87%	321,925,752	17,635,643	38,612,050	11,610,236	843,461	12,453,697
June 30, 2029	July 1, 2028	424,960,630	17,079,214	407,881,416	4.02%	349,285,874	18,539,858	40,562,599	12,359,016	843,461	13,202,477
June 30, 2030	July 1, 2029	448,080,408	18,619,741	429,460,667	4.16%	377,781,628	19,467,063	42,584,209	13,244,994	843,461	14,088,455
June 30, 2031	July 1, 2030	472,125,931	20,221,889	451,904,042	4.28%	407,447,921	20,426,137	44,683,114	14,173,360	843,461	15,016,821
June 30, 2032	July 1, 2031	496,871,935	21,888,123	474,983,812	4.41%	438,531,061	21,453,745	46,897,373	14,970,772	843,461	15,814,233
June 30, 2033	July 1, 2032	522,797,625	23,621,006	499,176,619	4.52%	471,141,116	22,537,061	49,224,015	15,770,499	843,461	16,613,960
June 30, 2034	July 1, 2033	550,003,366	25,423,205	524,580,161	4.62%	505,393,510	23,677,750	51,669,106	16,573,250	843,461	17,416,711
June 30, 2035	July 1, 2034	579,056,624	27,297,492	551,759,132	4.71%	541,565,341	24,893,362	54,254,813	17,239,520	843,461	18,082,981
June 30, 2036	July 1, 2035	609,332,834	29,246,750	580,086,084	4.80%	579,928,092	26,167,247	56,975,572	17,769,359	843,461	18,612,820
June 30, 2037	July 1, 2036	641,778,441	31,273,978	610,504,463	4.87%	620,489,834	27,522,301	59,865,136	18,459,932	843,461	19,303,393
June 30, 2038	July 1, 2037	675,990,212	33,382,295	642,607,917	4.94%	655,751,970	28,905,270	55,260,215	19,154,619	843,461	19,998,080
June 30, 2039	July 1, 2038	712,304,041	35,574,945	676,729,096	4.99%	692,970,253	30,410,347	58,175,776	20,114,032	843,461	20,957,493
June 30, 2040	July 1, 2039	750,129,902	37,855,301	712,274,601	5.05%	732,113,985	32,011,858	61,266,019	21,278,827	843,461	22,122,288
June 30, 2041	July 1, 2040	790,005,618	40,226,871	749,778,747	5.09%	773,171,046	33,738,814	64,558,724	22,658,201	843,461	23,501,662
June 30, 2042	July 1, 2041	832,007,699	42,693,304	789,314,395	5.13%	816,080,456	35,583,689	68,045,882	24,293,010	843,461	25,136,471
June 30, 2043	July 1, 2042	876,019,230	45,258,394	830,760,836	5.17%	861,139,795	37,519,378	71,697,948	25,795,147	843,461	26,638,608
June 30, 2044	July 1, 2043	922,624,101	47,926,088	874,698,013	5.19%	908,635,504	39,598,867	75,579,810	27,240,639	843,461	28,084,100
June 30, 2045	July 1, 2044	971,670,673	50,700,490	920,970,183	5.22%	958,668,405	41,804,464	79,685,235	28,808,872	843,461	29,652,333
June 30, 2046	July 1, 2045	1,023,653,143	53,585,868	970,067,275	5.23%	1,011,528,884	44,125,651	84,007,738	30,303,798	843,461	31,147,259
June 30, 2047	July 1, 2046	1,078,501,258	56,586,661	1,021,914,597	5.25%	1,066,070,635	46,586,440	87,027,595	31,642,383	843,461	32,485,844
June 30, 2048	July 1, 2047	1,136,775,104	59,707,486	1,077,067,618	5.25%	1,123,889,369	49,110,941	91,753,766	33,091,570	843,461	33,935,031

EXHIBIT D

Projected Cash Flows (Open Group) – Funded Approach

Total Medical, Dental & Life Insurance - Funding over 30 years at 6.50% discount rate increasing at 0.00% per year											
Fiscal Year Ending	Valuation Date	I. Total Actuarial Accrued Liability ("AAL") as of Valuation Date	II. Plan Assets as of Valuation Date	III. Unfunded Accrued		V. OPEB Obligation (Asset) as of Fiscal year end	VI. Normal Cost	VII. Expected Annual OPEB Expense	VIII. Employer Share of Premiums / Claims	IX. Excess Employer Payments (beyond claims)	X. Total Employer Contribution [VIII. + IX.]
				Actuarial Liability ("UAAL") [I. - II.]	IV. Funded Ratio [II. / I.]						
June 30, 2017	July 1, 2016	155,796,406	2,462,602	153,333,804	1.58%	83,942,000	4,486,272	16,186,901	7,065,440	8,395,900	15,461,340
June 30, 2018	July 1, 2017	163,176,359	11,241,791	151,934,568	6.89%	84,667,561	5,092,771	16,840,562	7,401,157	8,395,900	15,797,057
June 30, 2019	July 1, 2018	171,324,252	20,591,627	150,732,625	12.02%	85,711,066	5,515,779	17,331,397	7,756,211	8,395,900	16,152,111
June 30, 2020	July 1, 2019	180,074,263	30,549,203	149,525,060	16.96%	86,890,352	5,924,469	17,816,741	8,046,512	8,395,900	16,442,412
June 30, 2021	July 1, 2020	189,519,086	41,154,021	148,365,065	21.71%	88,264,681	6,325,746	18,307,350	8,401,249	8,395,900	16,797,149
June 30, 2022	July 1, 2021	199,622,934	52,448,152	147,174,782	26.27%	89,774,882	6,715,954	18,795,721	8,732,601	8,395,900	17,128,501
June 30, 2023	July 1, 2022	210,444,430	64,476,402	145,968,028	30.64%	91,442,102	7,137,676	19,325,811	9,032,423	8,395,900	17,428,323
June 30, 2024	July 1, 2023	222,070,102	77,286,488	144,783,614	34.80%	93,339,590	7,534,265	19,845,737	9,347,555	8,395,900	17,743,455
June 30, 2025	July 1, 2024	234,525,795	90,929,230	143,596,565	38.77%	95,441,872	7,954,936	20,403,057	9,799,785	8,395,900	18,195,685
June 30, 2026	July 1, 2025	247,744,578	105,458,750	142,285,828	42.57%	97,649,244	8,379,086	20,970,686	10,350,004	8,395,900	18,745,904
June 30, 2027	July 1, 2026	261,688,536	120,932,689	140,755,847	46.21%	99,874,026	8,819,176	21,555,387	10,934,490	8,395,900	19,330,390
June 30, 2028	July 1, 2027	276,309,757	137,412,434	138,897,323	49.73%	102,099,023	9,205,730	22,086,566	11,610,236	8,395,900	20,006,136
June 30, 2029	July 1, 2028	291,474,282	154,963,362	136,510,920	53.17%	104,179,453	9,679,207	22,695,271	12,359,016	8,395,900	20,754,916
June 30, 2030	July 1, 2029	307,355,956	173,655,101	133,700,855	56.50%	106,119,808	10,163,856	23,310,355	13,244,994	8,395,900	21,640,894
June 30, 2031	July 1, 2030	323,824,543	193,561,803	130,262,740	59.77%	107,789,269	10,662,757	23,921,980	14,173,360	8,395,900	22,569,260
June 30, 2032	July 1, 2031	340,698,174	214,762,440	125,935,734	63.04%	109,141,989	11,197,614	24,548,817	14,970,772	8,395,900	23,366,672
June 30, 2033	July 1, 2032	358,357,920	237,341,119	121,016,801	66.23%	110,324,134	11,761,217	25,193,177	15,770,499	8,395,900	24,166,399
June 30, 2034	July 1, 2033	376,911,901	261,387,412	115,524,489	69.35%	111,350,912	12,353,292	25,855,793	16,573,250	8,395,900	24,969,150
June 30, 2035	July 1, 2034	396,708,503	286,996,714	109,711,789	72.34%	112,237,555	12,984,691	26,548,526	17,239,520	8,395,900	25,635,420
June 30, 2036	July 1, 2035	417,393,093	314,270,620	103,122,473	75.29%	113,150,661	13,645,582	27,272,383	17,769,359	8,395,900	26,165,259
June 30, 2037	July 1, 2036	439,721,684	343,317,330	96,404,354	78.08%	114,257,785	14,349,549	28,051,849	18,459,932	8,395,900	26,855,832
June 30, 2038	July 1, 2037	463,356,064	374,252,076	89,103,988	80.77%	115,453,802	15,063,205	28,807,817	19,154,619	8,395,900	27,550,519
June 30, 2039	July 1, 2038	488,553,733	407,197,581	81,356,152	83.35%	107,511,100	15,841,395	29,679,997	20,114,032	8,395,900	28,509,932
June 30, 2040	July 1, 2039	514,880,023	442,284,544	72,595,479	85.90%	98,881,165	16,669,658	30,658,526	21,278,827	8,395,900	29,674,727
June 30, 2041	July 1, 2040	542,648,809	479,652,159	62,996,650	88.39%	89,363,919	17,564,009	31,847,481	22,658,201	8,395,900	31,054,101
June 30, 2042	July 1, 2041	571,797,607	519,448,669	52,348,938	90.84%	78,753,106	18,519,773	33,107,591	24,293,010	8,395,900	32,688,910
June 30, 2043	July 1, 2042	602,220,782	561,831,952	40,388,830	93.29%	66,804,787	19,522,801	34,484,817	25,795,147	8,395,900	34,191,047
June 30, 2044	July 1, 2043	634,321,872	606,970,149	27,351,723	95.69%	53,645,810	20,600,089	35,847,481	27,240,639	8,395,900	35,636,539
June 30, 2045	July 1, 2044	668,116,730	655,042,329	13,074,401	98.04%	39,329,985	21,742,808	37,207,520	28,808,872	8,395,900	37,204,772
June 30, 2046	July 1, 2045	703,824,923	706,239,200	(2,414,277)	100.34%	23,722,733	22,943,732	38,607,591	30,303,798	(2,414,277)	27,889,521
June 30, 2047	July 1, 2046	741,477,000	749,666,283	(8,189,283)	101.10%	17,680,697	24,205,468	39,997,591	31,642,383	(8,189,283)	23,453,100
June 30, 2048	July 1, 2047	781,543,814	789,987,582	(8,443,768)	101.08%	19,990,564	25,520,556	41,407,591	33,091,570	(8,443,768)	24,647,802

EXHIBIT D

Projected Cash Flows (Open Group) – Funded Approach

Total Medical, Dental & Life Insurance - Funding over 30 years at 6.50% discount rate increasing at 2.75% per year											
Fiscal Year Ending	Valuation Date	I. Total Actuarial Accrued Liability ("AAL") as of Valuation Date	II. Plan Assets as of Valuation Date	III. Unfunded		V. OPEB Obligation (Asset) as of Fiscal year end	VI. Normal Cost	VII. Expected Annual OPEB Expense	VIII. Employer Share of Premiums / Claims	IX. Excess Employer Payments (beyond claims)	X. Total Employer Contribution [VIII. + IX.]
				Accrued Actuarial Liability ("UAAAL") [I. - II.]	IV. Funded Ratio [II. / I.]						
June 30, 2017	July 1, 2016	155,796,406	2,462,602	153,333,804	1.58%	83,942,000	4,486,272	16,186,901	7,065,440	6,419,800	13,485,240
June 30, 2018	July 1, 2017	163,176,359	9,213,153	153,963,206	5.65%	86,643,661	5,092,771	16,840,562	7,401,157	6,596,345	13,997,502
June 30, 2019	July 1, 2018	171,324,252	16,583,729	154,740,523	9.68%	89,486,721	5,515,779	17,331,397	7,756,211	6,777,744	14,533,955
June 30, 2020	July 1, 2019	180,074,263	24,619,614	155,454,649	13.67%	92,284,163	5,924,469	17,816,741	8,046,512	6,964,132	15,010,644
June 30, 2021	July 1, 2020	189,519,086	33,369,175	156,149,911	17.61%	95,090,260	6,325,746	18,307,350	8,401,249	7,155,646	15,556,895
June 30, 2022	July 1, 2021	199,622,934	42,884,063	156,738,871	21.48%	97,840,715	6,715,954	18,795,721	8,732,601	7,352,426	16,085,027
June 30, 2023	July 1, 2022	210,444,430	53,219,430	157,225,000	25.29%	100,551,409	7,137,676	19,325,811	9,032,423	7,554,618	16,587,041
June 30, 2024	July 1, 2023	222,070,102	64,434,164	157,635,938	29.02%	103,290,179	7,534,265	19,845,737	9,347,555	7,762,370	17,109,925
June 30, 2025	July 1, 2024	234,525,795	76,591,131	157,934,664	32.66%	106,025,991	7,954,936	20,403,057	9,799,785	7,975,835	17,775,620
June 30, 2026	July 1, 2025	247,744,578	89,757,441	157,987,137	36.23%	108,653,428	8,379,086	20,970,686	10,350,004	8,195,170	18,545,174
June 30, 2027	July 1, 2026	261,688,536	104,004,728	157,683,808	39.74%	111,078,940	8,819,176	21,555,387	10,934,490	8,420,537	19,355,027
June 30, 2028	July 1, 2027	276,309,757	119,409,447	156,900,310	43.22%	113,279,300	9,205,730	22,086,566	11,610,236	8,652,102	20,262,338
June 30, 2029	July 1, 2028	291,474,282	136,053,195	155,421,087	46.68%	115,103,528	9,679,207	22,695,271	12,359,016	8,890,035	21,249,051
June 30, 2030	July 1, 2029	307,355,956	154,023,045	153,332,911	50.11%	116,549,748	10,163,856	23,310,355	13,244,994	9,134,511	22,379,505
June 30, 2031	July 1, 2030	323,824,543	173,411,911	150,412,632	53.55%	117,480,598	10,662,757	23,921,980	14,173,360	9,385,710	23,559,070
June 30, 2032	July 1, 2031	340,698,174	194,318,931	146,379,243	57.04%	117,843,508	11,197,614	24,548,817	14,970,772	9,643,817	24,614,589
June 30, 2033	July 1, 2032	358,357,920	216,849,877	141,508,043	60.51%	117,777,736	11,761,217	25,193,177	15,770,499	9,909,022	25,679,521
June 30, 2034	July 1, 2033	376,911,901	241,117,590	135,794,311	63.97%	117,291,392	12,353,292	25,855,793	16,573,250	10,181,520	26,754,770
June 30, 2035	July 1, 2034	396,708,503	267,242,447	129,466,056	67.36%	116,392,415	12,984,691	26,548,526	17,239,520	10,461,512	27,701,032
June 30, 2036	July 1, 2035	417,393,093	295,352,856	122,040,237	70.76%	115,239,909	13,645,582	27,272,383	17,769,359	10,749,204	28,518,563
June 30, 2037	July 1, 2036	439,721,684	325,585,782	114,135,902	74.04%	101,645,498	14,349,549	28,051,849	18,459,932	11,044,807	29,504,739
June 30, 2038	July 1, 2037	463,356,064	358,087,311	105,268,753	77.28%	89,750,839	15,063,205	19,607,817	19,154,619	11,348,539	30,503,158
June 30, 2039	July 1, 2038	488,553,733	393,013,246	95,540,487	80.44%	76,648,202	15,841,395	19,879,997	20,114,032	11,660,624	31,774,656
June 30, 2040	July 1, 2039	514,880,023	430,529,750	84,350,273	83.62%	62,122,512	16,669,658	20,157,481	21,278,827	11,981,291	33,260,118
June 30, 2041	July 1, 2040	542,648,809	470,814,019	71,834,790	86.76%	45,920,770	17,564,009	20,443,288	22,658,201	12,310,777	34,968,978
June 30, 2042	July 1, 2041	571,797,607	514,055,011	57,742,596	89.90%	28,160,514	18,519,773	20,740,591	24,293,010	12,649,323	36,942,333
June 30, 2043	July 1, 2042	602,220,782	560,454,215	41,766,567	93.06%	8,885,988	19,522,801	21,032,070	25,795,147	12,997,179	38,792,326
June 30, 2044	July 1, 2043	634,321,872	610,226,471	24,095,401	96.20%	(2,841,245)	20,600,089	21,320,714	27,240,639	13,354,601	40,595,240
June 30, 2045	July 1, 2044	668,116,730	663,600,849	4,515,881	99.32%	(3,751,633)	21,742,808	21,597,520	28,808,872	4,515,881	33,324,753
June 30, 2046	July 1, 2045	703,824,923	711,370,848	(7,545,925)	101.07%	(1,244,643)	22,943,732	21,847,485	30,303,798	(7,545,925)	22,757,873
June 30, 2047	July 1, 2046	741,477,000	749,863,406	(8,386,406)	101.13%	1,382,344	24,205,468	25,762,967	31,642,383	(8,386,406)	23,255,977
June 30, 2048	July 1, 2047	781,543,814	789,995,154	(8,451,340)	101.08%		25,520,556	27,267,217	33,091,570	(8,451,340)	24,640,230

EXHIBIT D

Projected Cash Flows (Open Group) – Funded Approach

Total Medical, Dental & Life Insurance - Funding Annual Normal Cost - 4.00% discount rate

Fiscal Year	I. Total Actuarial Accrued Liability ("AAL")	II. Normal Cost	III. Employer Share of Premiums / Claims including "implicit cost"	IV. Funding Normal Cost beyond claims	V. Total Funding Costs [III. + IV.]	VI. Present	VII. Present	VIII. Present	IX. Plan Assets at Beginning of Year with Expected 4.00% Return	X. Unfunded Accrued Actuarial Liability ["UAAL"] [I. - IX.]	XI. Present Value at 2.75% of Unfunded Accrued Actuarial Liability ("UAAL")
						Value at 2.75% of Employer Share of Premiums / Claims including "implicit cost"	Value at 2.75% of Funding beyond claims	Value at 2.75% of Total Funding Costs [VI. + VII.]			
2017	225,053,506	9,035,558	7,065,440	1,970,118	9,035,558	7,065,440	1,970,118	9,035,558	2,462,602	222,590,904	222,590,904
2018	236,247,263	10,094,591	7,401,157	2,693,434	10,094,591	7,203,073	2,621,347	9,824,420	4,531,224	231,716,039	225,514,393
2019	248,349,708	10,835,096	7,756,211	3,078,885	10,835,096	7,346,593	2,916,284	10,262,877	7,405,907	240,943,801	228,219,157
2020	261,485,722	11,561,613	8,046,512	3,515,101	11,561,613	7,417,579	3,240,353	10,657,932	10,781,028	250,704,694	231,109,061
2021	275,600,804	12,282,511	8,401,249	3,881,262	12,282,511	7,537,313	3,482,135	11,019,448	14,727,370	260,873,434	234,046,706
2022	290,654,167	12,992,176	8,732,601	4,259,575	12,992,176	7,624,905	3,719,265	11,344,170	19,197,727	271,456,440	237,023,276
2023	306,700,307	13,761,953	9,032,423	4,729,530	13,761,953	7,675,617	4,019,083	11,694,700	24,225,211	282,475,096	240,043,075
2024	323,833,309	14,492,181	9,347,555	5,144,626	14,492,181	7,730,814	4,254,818	11,985,632	29,923,749	293,909,560	243,075,338
2025	342,066,167	15,272,179	9,799,785	5,472,394	15,272,179	7,887,909	4,404,765	12,292,674	36,265,325	305,800,842	246,141,041
2026	361,350,850	16,064,383	10,350,004	5,714,379	16,064,383	8,107,819	4,476,438	12,584,257	43,188,332	318,162,518	249,237,014
2027	381,655,529	16,885,866	10,934,490	5,951,376	16,885,866	8,336,432	4,537,317	12,873,749	50,630,244	331,025,285	252,372,984
2028	402,914,262	17,635,643	11,610,236	6,025,407	17,635,643	8,614,715	4,470,810	13,085,525	58,606,830	344,307,432	255,473,737
2029	424,960,630	18,539,858	12,359,016	6,180,842	18,539,858	8,924,871	4,463,399	13,388,270	66,976,510	357,984,120	258,512,647
2030	448,080,408	19,467,063	13,244,994	6,222,069	19,467,063	9,308,677	4,372,915	13,681,592	75,836,412	372,243,996	261,615,761
2031	472,125,931	20,426,137	14,173,360	6,252,777	20,426,137	9,694,540	4,276,882	13,971,422	85,091,937	387,033,994	264,730,198
2032	496,871,935	21,453,745	14,970,772	6,482,973	21,453,745	9,965,905	4,315,655	14,281,560	94,748,391	402,123,544	267,689,936
2033	522,797,625	22,537,061	15,770,499	6,766,562	22,537,061	10,217,300	4,383,881	14,601,181	105,021,300	417,776,325	270,666,518
2034	550,003,366	23,677,750	16,573,250	7,104,500	23,677,750	10,450,007	4,479,633	14,929,640	115,988,714	434,014,652	273,661,228
2035	579,056,624	24,893,362	17,239,520	7,653,842	24,893,362	10,579,185	4,696,848	15,276,033	127,732,763	451,323,861	276,958,912
2036	609,332,834	26,167,247	17,769,359	8,397,888	26,167,247	10,612,482	5,015,512	15,627,994	140,495,916	468,836,918	280,005,797
2037	641,778,441	27,522,301	18,459,932	9,062,369	27,522,301	10,729,846	5,267,507	15,997,353	154,513,641	487,264,800	283,222,941
2038	675,990,212	28,905,270	19,154,619	9,750,651	28,905,270	10,835,653	5,515,885	16,351,538	169,756,556	506,233,656	286,373,333
2039	712,304,041	30,410,347	20,114,032	10,296,315	30,410,347	11,073,856	5,668,675	16,742,531	186,297,469	526,006,572	289,594,893
2040	750,129,902	32,011,858	21,278,827	10,733,031	32,011,858	11,401,594	5,750,959	17,152,553	204,045,683	546,084,219	292,602,157
2041	790,005,618	33,738,814	22,658,201	11,080,613	33,738,814	11,815,755	5,778,297	17,594,052	222,940,541	567,065,077	295,712,014
2042	832,007,699	35,583,689	24,293,010	11,290,679	35,583,689	12,329,219	5,730,260	18,059,479	242,938,776	589,068,923	298,965,000
2043	876,019,230	37,519,378	25,795,147	11,724,231	37,519,378	12,741,202	5,791,043	18,532,245	263,947,006	612,072,224	302,325,707
2044	922,624,101	39,598,867	27,240,639	12,358,228	39,598,867	13,095,071	5,940,825	19,035,896	286,229,117	636,394,984	305,926,658
2045	971,670,673	41,804,464	28,808,872	12,995,592	41,804,464	13,478,296	6,080,017	19,558,313	310,036,510	661,634,163	309,547,048
2046	1,023,653,143	44,125,651	30,303,798	13,821,853	44,125,651	13,798,249	6,293,514	20,091,763	335,433,562	688,219,581	313,367,490
2047	1,078,501,258	46,566,440	31,642,383	14,924,057	46,566,440	14,022,139	6,613,510	20,635,649	362,672,757	715,828,501	317,215,259

EXHIBIT D

Projected Cash Flows (Open Group) – Funded Approach

Total Medical, Dental & Life Insurance - Pay-as-you-go Funding

Fiscal Year	Number of Retirees, Spouses & Surviving Spouses	Total Actuarial Accrued Liability ("AAL")	Present Value at 2.75% of Total Actuarial Accrued Liability ("AAL")	Employer Share of Premiums / Claims including "implicit cost"	Present Value at 2.75% of Employer Share of Premiums / Claims including "implicit cost"
2017	1,083	225,053,506	225,053,506	7,065,440	7,065,440
2018	1,132	236,247,263	229,924,344	7,401,157	7,203,073
2019	1,148	248,349,708	235,233,945	7,756,211	7,346,593
2020	1,157	261,485,722	241,047,420	8,046,512	7,417,579
2021	1,158	275,600,804	247,259,598	8,401,249	7,537,313
2022	1,158	290,654,167	253,785,848	8,732,601	7,624,905
2023	1,156	306,700,307	260,629,294	9,032,423	7,675,617
2024	1,151	323,833,309	267,823,514	9,347,555	7,730,814
2025	1,148	342,066,167	275,331,231	9,799,785	7,887,909
2026	1,148	361,350,850	283,069,192	10,350,004	8,107,819
2027	1,150	381,655,529	290,973,376	10,934,490	8,336,432
2028	1,157	402,914,262	298,959,600	11,610,236	8,614,715
2029	1,175	424,960,630	306,878,689	12,359,016	8,924,871
2030	1,191	448,080,408	314,914,138	13,244,994	9,308,677
2031	1,207	472,125,931	322,932,851	14,173,360	9,694,540
2032	1,224	496,871,935	330,763,066	14,970,772	9,965,905
2033	1,238	522,797,625	338,707,113	15,770,499	10,217,300
2034	1,250	550,003,366	346,796,119	16,573,250	10,450,007
2035	1,260	579,056,624	355,343,261	17,239,520	10,579,185
2036	1,271	609,332,834	363,914,869	17,769,359	10,612,482
2037	1,281	641,778,441	373,034,082	18,459,932	10,729,846
2038	1,289	675,990,212	382,403,595	19,154,619	10,835,653
2039	1,299	712,304,041	392,161,663	20,114,032	11,073,856
2040	1,311	750,129,902	401,933,658	21,278,827	11,401,594
2041	1,326	790,005,618	411,970,621	22,658,201	11,815,755
2042	1,342	832,007,699	422,261,593	24,293,010	12,329,219
2043	1,359	876,019,230	432,699,153	25,795,147	12,741,202
2044	1,377	922,624,101	443,522,208	27,240,639	13,095,071
2045	1,395	971,670,673	454,598,334	28,808,872	13,478,296
2046	1,410	1,023,653,143	466,100,682	30,303,798	13,798,249
2047	1,424	1,078,501,258	477,931,593	31,642,383	14,022,139
2048	1,437	1,136,775,104	490,272,808	33,091,570	14,271,862
2049	1,451	1,198,167,299	502,919,975	34,811,876	14,611,973
2050	1,464	1,263,461,331	516,132,904	36,483,845	14,903,909
2051	1,478	1,332,798,387	529,885,725	38,347,463	15,245,947
2052	1,491	1,406,413,567	544,188,022	40,504,497	15,672,532
2053	1,504	1,483,805,255	558,767,329	42,605,156	16,044,133
2054	1,517	1,565,518,655	573,760,329	44,970,125	16,481,486
2055	1,529	1,652,368,583	589,382,679	47,524,659	16,951,551
2056	1,540	1,743,127,091	605,114,641	50,125,390	17,400,686

EXHIBIT E**GLOSSARY**

AAI – Actuarial Accrued Liability. That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Normal Costs.

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.

Actuarial Value of Assets – The value of cash, investments, other assets and property belonging to an OPEB trust, pension fund or similar entity, as used by the actuary for the purpose of actuarial valuation. Some funds may be restricted for other purposes, and “smoothing” of investment gains and losses often make the actuarial value of assets different from the market value of assets.

Annual Required Contribution – Normal Cost plus an amortization of the funding shortfall over a period of no more than 30 years.

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

Discount Rate - The interest rate used to calculate present value of a series of future cash flows. Under GASB 45, the rate should be “long term expected yield on the investments that are expected to be used to pay benefits as they come due. These would be plan investments for a funded plan, the employer’s investments for a pay as you go plan [e.g. short term county investment pool], or a weighted average of expected plan and employer investments for a plan that is partially funded”.

FASB - Financial Accounting Standards Board. “Since 1973, the Financial Accounting Standards Board (FASB) has been the designated organization in the private sector for establishing standards of financial accounting and reporting”.

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.”

EXHIBIT E**GLOSSARY***(continued)*

GFOA – Government Finance Officers Association. “GFOA is the professional association of state/provincial and local finance officers in the United States and Canada, and has served the public finance profession since 1906. Approximately 16,000 GFOA members are dedicated to the sound management of government financial resources.”

Implicit Subsidy – “The difference between a premium rate charged to retirees for a particular benefit and the estimated rate that would have been applicable to those retirees if that benefit was acquired for them as a separate group.”

Irrevocable Contribution – “Irrevocably transferred assets to a qualifying trust, or equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the employer(s) or plan administrator. The preceding criteria preclude counting as [irrevocable] contributions (a) designations of net assets of a governmental or proprietary fund to be used for OPEB or (b) internal transfers of assets to a separate governmental or proprietary fund for the same purpose. Rather, such actions should be regarded as earmarking of employer assets.”

Level Dollar Amortization – Funding a shortfall in OPEB assets with equal dollar payments over a designated number of years (no more than 30 years). The present value of the level payments equals the present value of unfunded liabilities, the UAAL.

Level Percent of Payroll Amortization – Funding a shortfall in OPEB assets as a level percent of payroll over a designated number of years (no more than 30 years). The present value of the payments equals the present value of unfunded liabilities, the UAAL. Level percent of payroll typically has lower payments in the early years than level dollar amortization. When using level payroll amortization, employee count is assumed to be constant, and the payroll differences arise from overall wage trends.

EXHIBIT E**GLOSSARY***(continued)*

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

NOA - Net OPEB Asset. The amount recognized by an employer for contributions to an OPEB plan greater than OPEB expenses.

NOO - Net OPEB Obligation. The cumulative difference since the effective date of GASB Statement number 45 between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.

OPEB - Other Post Employment Benefits

OPEB Trust - An entity other than a pension or retirement system which manages OPEB assets. In many respects it is similar to a pension fund for OPEB. For reasons detailed in GASB 45, contributions to an OPEB trust should be irrevocable in order to obtain the most favorable accounting treatment.

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.

POB - Pension Obligation Bond. Generally yielding taxable interest, POBs are issued to help fund a previously unfunded or underfunded pension liability.

UAAL - Unfunded Accrued Actuarial Liability. Actuarial Accrued Liability minus the Actuarial Value of Assets.