

City of Newburyport Other Postemployment Benefits Plan

GASB 45 Actuarial Valuation

as of

July 1, 2014

For the fiscal years ending

June 30, 2015

June 30, 2016

Delivered January 2016

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January 12, 2016

Personal and Confidential

Mr. Ethan Manning
Finance Director/City Auditor
City of Newburyport
City Hall
60 Pleasant Street
Newburyport, MA 01950

Dear Mr. Manning:

We have performed an actuarial valuation of the City of Newburyport Other Postemployment Benefits Plan for the fiscal year ending June 30, 2015. The figures presented in this report reflect the adoption, by the City of Newburyport, of Statement No. 45 of the Governmental Accounting Standards Board ("GASB 45") effective July 1, 2008.

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, taking into account 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

January 12, 2016

ACTUARIAL CERTIFICATION

This is to certify that Odyssey Advisors has conducted an actuarial valuation of certain benefit obligations of the City of Newburyport other postemployment benefit programs as of July 1, 2014 for the fiscal year ending June 30, 2015 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 Newburyport
Assuming Pay-as-you-go funding - 4.00% discount rate
Comparison of Plan Liabilities to Prior Valuation

	<u>July 1, 2014</u>	<u>July 1, 2012</u>
I. Present Value of Future Benefits		
A. Actives	59,327,959	52,392,769
B. Retirees/Disabled	<u>36,350,066</u>	<u>24,156,238</u>
C. Total	95,678,025	76,549,007
II. Present Value of Future Normal Cost	28,862,403	28,619,206
III. Actuarial Accrued Liability (Entry Age Normal)		
A. Actives	30,465,556	23,773,563
B. Retirees/Disabled	<u>36,350,066</u>	<u>24,156,238</u>
C. Total	66,815,622	47,929,801
IV. Plan Assets	25,000	0
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	66,790,622	47,929,801
VI. Funded Ratio [IV. / III.]	0.04%	0.00%
VII. Annual Covered Payroll	32,381,749	N/A
VIII. UAAL as % of Covered Payroll	206.30%	N/A
IX. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	22,544,102	15,905,529
X. Number of Eligible Participants		
A. Actives	540	602
B. Retirees/Disabled	493	442
C. Total	1,033	1,044
For Fiscal Year Ending June 30, 2015	<u>June 30, 2015</u>	<u>June 30, 2013</u>
XI. Normal Cost	2,525,540	2,195,028
XII. Amortization of UAAL - 30 year flat dollar	4,141,817	4,141,817
XIII. Annual Required Contribution ('ARC') [XI. + XII.]	6,667,357	6,336,845
XIV. Interest on Net OPEB Obligation (Asset)	901,764	636,222
XV. Adjustment to Annual Required Contribution	(1,253,585)	(884,440)
XVI. Amortization of Actuarial (Gains) / Losses	65,524	(1,163,042)
XVII. Annual OPEB Expense [XIII. + XIV. + XV. + XVI.]	6,381,060	4,925,585
XVIII. Employer Share of Costs	2,351,510	1,696,028
XIX. Employer Payments (Withdrawals) to/from OPEB Trust	450,000	0
XX. Total Employer Contribution [XVIII. + XIX.]	2,801,510	1,696,028
XXI. Percentage of Annual OPEB Expense Contributed	43.9%	34.4%
XXII. Net OPEB Obligation (Asset) at Beginning of Year [IX.]	22,544,102	15,905,529
XXIII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVII. - XX.]	3,579,550	3,229,557
XXIV. Net OPEB Obligation (Asset) at End of Year [XXII. + XXIII.]	26,123,652	19,135,086
XXV. Discount Rate	4.00%	4.00%

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

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

	<u>pay-as-you-go-4.00%</u> <u>discount rate</u>	<u>Plan Funding -7.00%</u> <u>discount rate</u>
I. Present Value of Future Benefits		
A. Actives	59,327,959	29,185,048
B. Retirees/Disabled	<u>36,350,066</u>	<u>26,993,137</u>
C. Total	95,678,025	56,178,185
II. Present Value of Future Normal Cost	28,862,403	10,646,702
III. Actuarial Accrued Liability (Entry Age Normal)		
A. Actives	30,465,556	18,538,346
B. Retirees/Disabled	<u>36,350,066</u>	<u>26,993,137</u>
C. Total	66,815,622	45,531,483
IV. Plan Assets	25,000	25,000
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	66,790,622	45,506,483
VI. Funded Ratio [IV. / III.]	0.04%	0.05%
VII. Annual Covered Payroll	32,381,749	32,381,749
VIII. UAAL as % of Covered Payroll	206.30%	140.50%
IX. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	22,544,102	22,544,102
X. Number of Eligible Participants		
A. Actives	540	540
B. Retirees/Disabled	<u>493</u>	<u>493</u>
C. Total	1,033	1,033
For Fiscal Year Ending June 30, 2015		
XI. Normal Cost	2,525,540	1,210,825
XII. Amortization of UAAL - 30 year flat dollar	4,141,817	5,351,625
XIII. Annual Required Contribution ('ARC') [XI. + XII.]	6,667,357	6,562,450
XIV. Interest on Net OPEB Obligation (Asset)	901,764	1,578,088
XV. Adjustment to Annual Required Contribution	(1,253,585)	(1,697,896)
XVI. Amortization of Actuarial (Gains) / Losses	65,524	(1,519,065)
XVII. Annual OPEB Expense [XIII. + XIV. + XV. + XVI.]	6,381,060	4,923,577
XVIII. Employer Share of Costs	2,351,510	2,351,510
XIX. Employer Payments (Withdrawals) to/from OPEB Trust	450,000	1,677,194
XX. Total Employer Contribution [XVIII. + XIX.]	2,801,510	4,028,704
XXI. Percentage of Annual OPEB Expense Contributed	43.9%	81.8%
XXII. Net OPEB Obligation (Asset) at Beginning of Year [IX.]	22,544,102	22,544,102
XXIII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVII. - XX.]	3,579,550	894,873
XXIV. Net OPEB Obligation (Asset) at End of Year [XXII. + XXIII.]	26,123,652	23,438,975
XXV. Discount Rate	4.00%	7.00%

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

City of Newburyport

Assuming pay-as-you-go - 4.00% discount rate Plan Liabilities as of July 1, 2014

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Excise Tax</u>	<u>Total</u>
I. Present Value of Future Benefits					
A. Actives	56,779,057	0	355,869	2,193,033	59,327,959
B. Retirees/Disabled	<u>35,216,817</u>	<u>0</u>	<u>839,990</u>	<u>293,259</u>	<u>36,350,066</u>
C. Total	91,995,874	0	1,195,859	2,486,292	95,678,025
II. Present Value of Future Normal Cost	27,201,403	0	126,071	1,534,929	28,862,403
III. Actuarial Accrued Liability (Entry Age Normal)					
A. Actives	29,577,654	0	229,798	658,104	30,465,556
B. Retirees/Disabled	<u>35,216,817</u>	<u>0</u>	<u>839,990</u>	<u>293,259</u>	<u>36,350,066</u>
C. Total	64,794,471	0	1,069,788	951,363	66,815,622
IV. Plan Assets	24,215	0	382	403	25,000
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	64,770,256	0	1,069,406	950,960	66,790,622
VI. Annual Covered Payroll	32,381,749	32,381,749	32,381,749	32,381,749	32,381,749
VII. UAAL as % of Covered Payroll	200.0%	0.0%	3.3%	2.9%	206.3%
VIII. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	21,862,150	0	360,955	320,997	22,544,102
IX. Number of Eligible Participants					
A. Actives	540	586	540	586	
B. Retirees/Disabled	<u>493</u>	<u>0</u>	<u>319</u>	<u>487</u>	
C. Total	1,033	586	859	1,073	
For Fiscal Year Ending June 30, 2015					
X. Normal Cost	2,408,519	0	14,244	102,777	2,525,540
XI. Amortization of UAAL - 30 year flat dollar	4,016,528	0	66,315	58,974	4,141,817
XII. Annual Required Contribution ('ARC') [X. + XI.]	6,425,047	0	80,559	161,751	6,667,357
XIII. Interest on Net OPEB Obligation (Asset)	874,486	0	14,437	12,841	901,764
XIV. Adjustment to Annual Required Contribution	(1,215,664)	0	(20,071)	(17,850)	(1,253,585)
XV. Amortization of Actuarial (Gains) / Losses	63,542	0	1,049	933	65,524
XVI. Annual OPEB Expense [XII. + XIII. + XIV. + XV.]	6,147,411	0	75,974	157,675	6,381,060
XVII. Employer Share of Costs	2,304,321	0	47,189	0	2,351,510
XVIII. Employer Payments (Withdrawals) to/from OPEB Trust	436,388	0	7,205	6,407	450,000
XIX. Total Employer Contribution [XVII. + XVIII.]	2,740,709	0	54,394	6,407	2,801,510
XX. Percentage of Annual OPEB Expense Contributed	44.6%	0.0%	71.6%	4.1%	43.9%
XXI. Net OPEB Obligation (Asset) at Beginning of Year [VIII.]	21,862,150	0	360,955	320,997	22,544,102
XXII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVI. - XIX.]	3,406,702	0	21,580	151,268	3,579,550
XXIII. Net OPEB Obligation (Asset) at End of Year [XXI. + XXII.]	25,268,852	0	382,535	472,265	26,123,652

SECTION I
PRINCIPAL RESULTS OF THE VALUATION
(continued)

City of Newburyport
Plan Liabilities as of July 1, 2014
Assuming maintain pay-as-you-go funding method

	General Government Employees and Retirees	School Employees and Retirees	Sewer Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Total
I. Present Value of Future Benefits					
A. Actives	24,885,111	31,439,633	1,451,478	1,551,737	59,327,959
B. Retirees/Disabled	<u>19,095,290</u>	<u>16,208,131</u>	<u>708,310</u>	<u>338,335</u>	<u>36,350,066</u>
C. Total	43,980,401	47,647,764	2,159,788	1,890,072	95,678,025
II. Present Value of Future Normal Cost	12,468,724	15,248,734	524,684	620,261	28,862,403
III. Actuarial Accrued Liability (Entry Age Normal)					
A. Actives	12,416,387	16,190,899	926,794	931,476	30,465,556
B. Retirees/Disabled	<u>19,095,290</u>	<u>16,208,131</u>	<u>708,310</u>	<u>338,335</u>	<u>36,350,066</u>
C. Total	31,511,677	32,399,030	1,635,104	1,269,811	66,815,622
IV. Plan Assets	10,384	12,112	1,040	1,464	25,000
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	31,501,293	32,386,918	1,634,064	1,268,347	66,790,622
VI. Annual Covered Payroll	10,579,926	20,497,432	572,104	732,288	32,381,749
VII. UAAL as % of Covered Payroll	297.7%	158.0%	285.6%	173.2%	206.3%
VIII. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	9,661,922	11,285,065	687,771	909,344	22,544,102
IX. Number of Eligible Participants					
A. Actives	190	326	11	13	540
B. Retirees/Disabled	<u>274</u>	<u>213</u>	<u>3</u>	<u>3</u>	<u>493</u>
C. Total	464	539	14	16	1,033
For Fiscal Year Ending June 30, 2015					
X. Normal Cost	1,015,281	1,395,028	56,661	58,570	2,525,540
XI. Amortization of UAAL - 30 year flat dollar	1,440,452	2,235,139	195,587	270,639	4,141,817
XII. Annual Required Contribution ("ARC") [X. + XI.]	2,455,733	3,630,167	252,248	329,209	6,667,357
XIII. Interest on Net OPEB Obligation (Asset)	386,477	451,403	27,511	36,373	901,764
XIV. Adjustment to Annual Required Contribution	(537,260)	(627,516)	(38,244)	(50,565)	(1,253,585)
XV. Amortization of Actuarial (Gains) / Losses	29,227	30,050	2,617	3,630	65,524
XVI. Annual OPEB Expense [XII. + XIII. + XIV. + XV.]	2,334,177	3,484,104	244,132	318,647	6,381,060
XVII. Employer Share of Costs	1,237,754	1,074,901	12,044	26,811	2,351,510
XVIII. Employer Payments (Withdrawals) to/from OPEB Trust	212,230	218,206	11,012	8,552	450,000
XIX. Total Employer Contribution [XVII. + XVIII.]	1,449,984	1,293,107	23,056	35,363	2,801,510
XX. Percentage of Annual OPEB Expense Contributed	53.0%	30.9%	4.9%	8.4%	36.9%
XXI. Net OPEB Obligation (Asset) at Beginning of Year [VIII.]	9,661,922	11,285,065	687,771	909,344	22,544,102
XXII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVI. - XIX.]	884,193	2,190,997	221,076	283,284	3,579,550
XXIII. Net OPEB Obligation (Asset) at End of Year [XXI. + XXII.]	10,546,115	13,476,062	908,847	1,192,628	26,123,652

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

City of Newburyport
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, 2014

	<u>Present Value of Future Benefits</u>	<u>Actuarial Accrued Liability (Entry Age Normal)</u>	<u>Normal Cost</u>
Actives			
Under Age 65			
A. Participants	9,040,269	4,499,506	366,373
B. Spouses	<u>7,200,467</u>	<u>3,725,019</u>	<u>278,802</u>
C. Total	16,240,736	8,224,525	645,175
Age 65 and Over			
A. Participants	25,090,608	12,733,326	1,105,776
B. Spouses	<u>17,996,615</u>	<u>9,507,705</u>	<u>774,589</u>
C. Total	43,087,223	22,241,031	1,880,365
Actives Total			
A. Participants	34,130,877	17,232,832	1,472,149
B. Spouses	<u>25,197,082</u>	<u>13,232,724</u>	<u>1,053,391</u>
C. Total	59,327,959	30,465,556	2,525,540
Retirees/Disabled			
Under Age 65			
A. Participants	3,110,200	3,110,200	0
B. Spouses	<u>1,947,258</u>	<u>1,947,258</u>	<u>0</u>
C. Total	5,057,458	5,057,458	0
Age 65 and Over			
A. Participants	22,667,396	22,667,396	0
B. Spouses	<u>8,625,212</u>	<u>8,625,212</u>	<u>0</u>
C. Total	31,292,608	31,292,608	0
Retirees/Disabled Total			
A. Participants	25,777,596	25,777,596	0
B. Spouses	<u>10,572,470</u>	<u>10,572,470</u>	<u>0</u>
C. Total	36,350,066	36,350,066	0
Total Population			
A. Participants	59,908,473	43,010,428	1,472,149
B. Spouses	<u>35,769,552</u>	<u>23,805,194</u>	<u>1,053,391</u>
C. Total	95,678,025	66,815,622	2,525,540

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

City of Newburyport

Assuming Funding over 30 years at 7.00% discount rate

Plan Liabilities as of July 1, 2014

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Excise Tax</u>	<u>Total</u>
I. Present Value of Future Benefits					
A. Actives	28,050,375	0	167,434	967,239	29,185,048
B. Retirees/Disabled	<u>26,201,178</u>	<u>0</u>	<u>619,289</u>	<u>172,670</u>	<u>26,993,137</u>
C. Total	54,251,553	0	786,723	1,139,909	56,178,185
II. Present Value of Future Normal Cost	10,044,444	0	42,915	559,343	10,646,702
III. Actuarial Accrued Liability (Entry Age Normal)					
A. Actives	18,005,931	0	124,519	407,896	18,538,346
B. Retirees/Disabled	<u>26,201,178</u>	<u>0</u>	<u>619,289</u>	<u>172,670</u>	<u>26,993,137</u>
C. Total	44,207,109	0	743,808	580,566	45,531,483
IV. Plan Assets	24,273	0	408	319	25,000
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	44,182,836	0	743,400	580,247	45,506,483
VI. Annual Covered Payroll	32,381,749	32,381,749	32,381,749	32,381,749	32,381,749
VII. UAAL as % of Covered Payroll	136.4%	0.0%	2.3%	1.8%	140.5%
VIII. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	21,862,150	0	360,955	320,997	22,544,102
IX. Number of Eligible Participants					
A. Actives	540	586	540	586	
B. Retirees/Disabled	<u>493</u>	<u>0</u>	<u>319</u>	<u>487</u>	
C. Total	1,033	586	859	1,073	
For Fiscal Year Ending June 30, 2015					
X. Normal Cost	1,154,097	0	6,063	50,665	1,210,825
XI. Amortization of UAAL - 30 year flat dollar	5,195,962	0	87,425	68,238	5,351,625
XII. Annual Required Contribution ('ARC') [X. + XI.]	6,350,059	0	93,488	118,903	6,562,450
XIII. Interest on Net OPEB Obligation (Asset)	1,530,351	0	25,267	22,470	1,578,088
XIV. Adjustment to Annual Required Contribution	(1,646,535)	0	(27,185)	(24,176)	(1,697,896)
XV. Amortization of Actuarial (Gains) / Losses	(1,474,880)	0	(24,816)	(19,369)	(1,519,065)
XVI. Annual OPEB Expense [XII. + XIII. + XIV. + XV.]	4,758,995	0	66,754	97,828	4,923,577
XVII. Employer Share of Costs	2,304,321	0	47,189	0	2,351,510
XVIII. Employer Payments (Withdrawals) to/from OPEB Trust	1,559,801	0	19,565	97,828	1,677,194
XIX. Total Employer Contribution [XVII. + XVIII.]	3,864,122	0	66,754	97,828	4,028,704
XX. Percentage of Annual OPEB Expense Contributed	81.2%	0.0%	100.0%	100.0%	81.8%
XXI. Net OPEB Obligation (Asset) at Beginning of Year [VIII.]	21,862,150	0	360,955	320,997	22,544,102
XXII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVI. - XIX.]	894,873	0	0	0	894,873
XXIII. Net OPEB Obligation (Asset) at End of Year [XXI. + XXII.]	22,757,023	0	360,955	320,997	23,438,975

SECTION I

PRINCIPAL RESULTS OF THE VALUATION (continued)

**City of Newburyport
Plan Liabilities as of July 1, 2014
Assuming Funding over 30 years at 7.00% discount rate**

	General Government Employees and Retirees	School Employees and Retirees	Sewer Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Total
I. Present Value of Future Benefits					
A. Actives	12,241,667	15,466,017	714,022	763,342	29,185,048
B. Retirees/Disabled	<u>14,179,940</u>	<u>12,035,970</u>	<u>525,983</u>	<u>251,244</u>	<u>26,993,137</u>
C. Total	26,421,607	27,501,987	1,240,005	1,014,586	56,178,185
II. Present Value of Future Normal Cost	4,599,436	5,624,921	193,544	228,801	10,646,702
III. Actuarial Accrued Liability (Entry Age Normal)					
A. Actives	7,555,394	9,852,191	563,956	566,805	18,538,346
B. Retirees/Disabled	<u>14,179,940</u>	<u>12,035,970</u>	<u>525,983</u>	<u>251,244</u>	<u>26,993,137</u>
C. Total	21,735,334	21,888,161	1,089,939	818,049	45,531,483
IV. Plan Assets	10,384	12,112	1,040	1,464	25,000
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	21,724,950	21,876,049	1,088,899	816,585	45,506,483
VI. Annual Covered Payroll	10,579,926	20,497,432	572,104	732,288	32,381,749
VII. UAAL as % of Covered Payroll	205.3%	106.7%	190.3%	111.5%	140.5%
VIII. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	9,661,922	11,285,065	687,771	909,344	22,544,102
IX. Number of Eligible Participants					
A. Actives	190	326	11	13	540
B. Retirees/Disabled	274	213	3	3	493
C. Total	464	539	14	16	1,033
For Fiscal Year Ending June 30, 2015					
X. Normal Cost	486,759	668,821	27,165	28,080	1,210,825
XI. Amortization of UAAL - 30 year flat dollar	1,861,202	2,888,014	252,717	349,692	5,351,625
XII. Annual Required Contribution ('ARC') [X. + XI.]	2,347,961	3,556,835	279,882	377,772	6,562,450
XIII. Interest on Net OPEB Obligation (Asset)	676,335	789,956	48,144	63,653	1,578,088
XIV. Adjustment to Annual Required Contribution	(727,682)	(849,928)	(51,799)	(68,487)	(1,697,896)
XV. Amortization of Actuarial (Gains) / Losses	(677,579)	(696,659)	(60,671)	(84,156)	(1,519,065)
XVI. Annual OPEB Expense [XII. + XIII. + XIV. + XV.]	1,619,035	2,800,204	215,556	288,782	4,923,577
XVII. Employer Share of Costs	1,237,754	1,074,901	12,044	26,811	2,351,510
XVIII. Employer Payments (Withdrawals) to/from OPEB Trust	800,640	806,271	40,149	30,134	1,677,194
XIX. Total Employer Contribution [XVII. + XVIII.]	2,038,394	1,881,172	52,193	56,945	4,028,704
XX. Percentage of Annual OPEB Expense Contributed	125.9%	67.2%	24.2%	19.7%	81.8%
XXI. Net OPEB Obligation (Asset) at Beginning of Year [VIII.]	9,661,922	11,285,065	687,771	909,344	22,544,102
XXII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVI. - XIX.]	(419,359)	919,032	163,363	231,837	894,873
XXIII. Net OPEB Obligation (Asset) at End of Year [XXI. + XXII.]	9,242,563	12,204,097	851,134	1,141,181	23,438,975

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, 2009. 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, 2015, the Plan saw an experience loss of \$13,820,360 or 26.09%. Plan experience was less favorable than expected. This was mainly due to the introduction of a new Actuarial Cost Method in preparation for GASB 75 (increasing disclosed liabilities by \$4 million), a more conservative mortality table, more accurate census data, the ACA excise tax, premiums increasing by more than the expected 11% increase and an increase in the number of retirees receiving coverage. The actuarial experience loss is amortized into the annual OPEB costs over a 30-year period. The net impact of plan experience is an increase in the annual OPEB cost. Please note there was a change in methodology to include spouses of retirees in the count.

Commentary on Plan Experience and Contribution Amounts
(continued)

3. **Balance Sheet Items**

	July 1, 2014	July 1, 2012
Actuarial Accrued Liability	\$66,815,622	\$47,929,801
Plan Assets	\$25,000	\$0
Unfunded Actuarial Accrued Liability	\$66,790,622	\$47,929,801
Funded %	0.04%	0.00%
Net OPEB Obligation	\$22,544,102	\$15,905,529

4. **Income Statement Items**

	June 30, 2015	June 30, 2013
Normal Cost	\$2,525,540	\$2,195,028
Amortization of UAAL	\$4,141,817	\$4,141,817
Interest on Net OPEB Obligation	\$901,764	\$636,222
Adjustment to Annual Required Contribution	\$(1,253,585)	\$(884,440)
Amortization of Actuarial (Gains)/Losses	\$65,524	\$(1,163,042)
Annual OPEB Expense	\$6,381,060	\$4,925,585
Employer Share of Costs Employer Contributions/(Withdrawals) to/from OPEB Trust	\$2,351,510	\$1,696,028
Total Employer Contribution	\$2,801,510	\$1,696,028
Discount Rate	4.00%	4.00%

Commentary on Plan Experience and Contribution Amounts
(continued)

5. **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 will largely mirror the GASB 68 standard for pension plans. The new standards will require increased disclosure 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. The final text of the GASB 75 was released on July 2, 2015 and we will be communicating more information about the new standard and the impact as more information becomes available.

SECTION II

SUMMARY OF PLAN PROVISIONS

<u>Effective Date</u>	July 1, 2008; 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>	Retirees shall pay 25% of premiums for Medical Insurance, 10% for Life Insurance and 100% for Dental Insurance.
<u>Benefits Offered</u>	Various Medical offerings via Blue Cross Blue Shield of Massachusetts as well as Dental and Group Term Life Insurance.
<u>Normal Retirement Date</u>	The normal retirement date is the first day of the month following a participant's 65th birthday.
<u>Early Retirement</u>	Early retirement is available for any participant who has attained benefit eligibility.

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

A. ACTUARIAL COST METHOD

The actuarial cost method used to calculate the costs and liabilities of the plan is the Individual Entry Age 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, each individual's annual normal cost is a level dollar amount. 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 a 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 III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD
AND ACTUARIAL ASSUMPTIONS

(continued)

C. ACTUARIAL ASSUMPTIONS

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

Pre- and Post-Retirement Mortality

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

Discount Rate

4.00% per annum (previously 4.00%)

Employee Termination

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

<u>Service</u>	<u>Non Public</u>		<u>Public</u> <u>Safety</u>
	<u>Safety</u> <u>Male</u>	<u>Safety</u> <u>Female</u>	
0	15.00%	15.00%	1.50%
5	7.60%	7.60%	1.50%
10	5.40%	5.40%	1.50%
15	3.30%	3.30%	0.00%
20	2.00%	2.00%	0.00%
25	1.00%	1.00%	0.00%
30	0.00%	0.00%	0.00%

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>Non Public Safety Male</u>	<u>Non Public Safety Female</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)

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 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.

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

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

	Number of Participants			
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>	<u>Total</u>
HMO Blue New England	149		290	439
PPO Blue Care Elect	33		71	104
Medex II	145	99		244
Total	327	99	361	787

	Per Contract Costs (monthly) - FY 2016		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
HMO Blue New England	698.07	0.00	1,829.04
PPO Blue Care Elect	782.24	0.00	2,049.69
Medex II	301.44	602.88	

Gross Expected FY 2016 Incurred Premiums	10,910,038
Adjustment to reflect children's claims	(1,919,891)
Total Expected FY 2016 Incurred Premiums (adults only)	8,990,147

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	11,941	3,617
Average Age	11,329	3,617

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

8,990,147 Active and Retired Claims (No Children)

ALL ACTIVE EMPLOYEES AND SPOUSES (non-GIC)

Age Bracket	Number of Females	Number of Males	Female Aging Factor	Male Aging Factor	Aged (F) Average Claims	Aged (M) Average Claims	Age Related Claims
24 & Under	3	3	1.312	0.549	7,326	3,066	31,176
25 to 29	33	15	1.312	0.591	7,326	3,300	291,258
30 to 34	36	24	1.312	0.712	7,326	3,976	359,160
35 to 39	43	43	1.312	0.850	7,326	4,746	519,096
40 to 44	53	46	1.312	1.000	7,326	5,584	645,142
45 to 49	56	61	1.456	1.193	8,130	6,662	861,662
50 to 54	64	56	1.599	1.441	8,929	8,047	1,022,088
55 to 59	68	57	1.740	1.753	9,716	9,789	1,218,661
60 to 64	27	49	1.968	2.102	10,989	11,738	871,865
65 to 69	4	6	2.168	2.316	12,106	12,933	126,022
70 & Over	4	3	2.396	2.557	13,379	14,278	96,350
Total	391	363					6,042,480

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

Age Bracket	Number of Females	Number of Males	Female Aging Factor	Male Aging Factor	Aged (F) Average Claims	Aged (M) Average Claims	Age Related Claims
44 & Under	1	2	1.312	1.000	7,326	5,584	18,494
45 to 49	0	1	1.456	1.193	8,130	6,662	6,662
50 to 54	9	4	1.599	1.441	8,929	8,047	112,549
55 to 59	15	11	1.740	1.753	9,716	9,789	253,419
60 to 64	37	32	1.968	2.102	10,989	11,738	782,209
65 to 69	8	10	2.168	2.316	12,106	12,933	226,178
70 to 74	4	5	2.396	2.557	13,379	14,278	124,906
75 to 79	2	3	2.593	2.769	14,479	15,462	75,344
80 to 84	3	1	2.724	2.910	15,211	16,249	61,882
85 to 89	2	1	2.864	3.059	15,993	17,081	49,067
90 & Over	0	0	3.010	3.215	16,808	17,953	0
Total	81	70					1,710,710

ALL RETIREES AND SPOUSES - MEDICARE ELIGIBLE (non-GIC)

Age Bracket	Number of Females	Number of Males	Female Aging Factor	Male Aging Factor	Aged (F) Average Claims	Aged (M) Average Claims	Age Related Claims
65 to 69	68	51	2.168	2.316	3,617	3,617	430,423
70 to 74	44	47	2.396	2.557	3,617	3,617	329,147
75 to 79	23	31	2.593	2.769	3,617	3,617	195,318
80 to 84	22	20	2.724	2.910	3,617	3,617	151,914
85 to 89	8	8	2.864	3.059	3,617	3,617	57,872
90 & Over	16	4	3.010	3.215	3,617	3,617	72,340
Total	181	161					1,237,014
Grand Totals	653	594					8,990,204

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 2016		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
Dental Plan	N/A		N/A
	FY 2016 Expected Per Person Rate		N/A

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2014)

The GASB Standards for accounting and financial reporting for postemployment benefits other than pensions requires 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: Comprehensive Medical & Medicare Supplement coverages through Blue Cross Blue Shield of Massachusetts.
- b. Administrator: City of Newburyport
- 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: 25% Participant paid.

2. A DESCRIPTION OF THE DENTAL INSURANCE PROGRAM:

- a. Plan Type: Comprehensive Dental
- b. Administrator: City of Newburyport
- c. Eligibility: Same as above
- d. Cost sharing: 100% Participant paid.

3. A DESCRIPTION OF THE RETIREE LIFE INSURANCE PROGRAM:

- a. Plan Type: Group Term Life Insurance - \$5,000
- b. Administrator: City of Newburyport
- c. Eligibility: Same as above
- d. Cost sharing: 10% Participant paid.

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2014)

(continued)

4. RETIREE MEDICAL AND LIFE INSURANCE CONTRIBUTIONS:

Group	Individual	Family
Medical	25%	25%
Dental	100%	100%
Life	10%	N/A

5. FUNDING POLICY

The contribution requirements of plan members and the City are established and may be amended through City ordinances. The City expects to contribute \$450,000 beyond the pay-as-you-go. For the 2015 fiscal year, total City premiums plus implicit costs for the retiree medical program are \$2,351,510. The City is also projected to make a contribution to an OPEB Trust of \$450,000 for the 2015 fiscal year for a total contribution of \$2,801,510 .

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2014)

(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	\$6,667,357
Interest on net OPEB Obligation (Asset)	\$901,764
Adjustment to annual required contribution	(\$1,253,585)
Amortization of Actuarial (Gains) / Losses	\$65,524
Annual OPEB expense	\$6,381,060
Contributions made to pay benefits	\$2,351,510
Contributions made to OPEB Trust	\$450,000
Increase (Decrease) in net OPEB Obligation (Asset)	\$3,579,550
Net OPEB Obligation (Asset) – beginning of year	\$22,544,102
Net OPEB Obligation (Asset) – end of year	\$26,123,652

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2014)

(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 2015 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)
06/30/2017 (est.)	\$7,004,548	\$2,542,590	36.3%	\$4,461,958	\$34,839,983
06/30/2016 (est.)	\$6,690,077	\$2,435,704	36.4%	\$4,254,373	\$30,378,025
06/30/2015	\$6,381,060	\$2,801,510	43.9%	\$3,579,550	\$26,123,652
06/30/2014	\$5,172,725	\$1,763,709	34.1%	\$3,409,016	\$22,544,102
06/30/2013	\$4,925,585	\$1,696,028	34.4%	\$3,229,557	\$19,135,086
06/30/2012	\$5,651,432	\$2,550,293	45.1%	\$3,101,139	\$15,905,529

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
07/01/2016 (est.)	\$494,010	\$72,721,908	\$72,227,898	0.7%	\$34,353,797	210.2%
07/01/2015 (est.)	\$475,010	\$69,669,240	\$69,194,230	0.7%	\$33,353,201	207.5%
07/01/2014	\$25,000	\$66,815,622	\$66,790,622	0.0%	\$32,381,749	206.3%
07/01/2013	\$0	\$52,951,842	\$52,951,842	0.0%	N/A	N/A
07/01/2012	\$0	\$50,365,955	\$50,365,955	0.0%	N/A	N/A
07/01/2011	\$0	\$47,929,801	\$47,929,801	0.0%	N/A	N/A

EXHIBIT A

Financial Statement Disclosure
(As of July 1, 2014)
(continued)

	Fiscal Year Ending June 30, 2015				Total
	General Government Employees and Retirees	School Employees and Retirees	Sewer Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	
OPEB Obligation (Asset) at beginning of year	9,661,922	11,285,065	687,771	909,344	22,544,102
Annual Required Contribution	2,455,733	3,630,167	252,248	329,209	6,667,357
Interest on Net OPEB Obligation	386,477	451,403	27,511	36,373	901,764
Adjustment to the ARC	(537,260)	(627,516)	(38,244)	(50,565)	(1,253,585)
Amortization of Actuarial (Gains)/Losses	29,227	30,050	2,617	3,630	65,524
Annual OPEB Cost	2,334,177	3,484,104	244,132	318,647	6,381,060
Expected Employer Contribution	1,237,754	1,074,901	12,044	26,811	2,351,510
Contribution (Withdrawal) to/from Trust Fund over 30 Years	212,230	218,206	11,012	8,552	450,000
Total Expected Employer Payments	1,449,984	1,293,107	23,056	35,363	2,801,510
Increase (Decrease) in OPEB Obligation (Asset)	884,193	2,190,997	221,076	283,284	3,579,550
OPEB Obligation (Asset) at end of year	10,546,115	13,476,062	908,847	1,192,628	26,123,652
AAL as of July 1, 2014	31,511,677	32,399,030	1,635,104	1,269,811	66,815,622
Plan Assets as of July 1, 2014	10,384	12,112	1,040	1,464	25,000
Unfunded Actuarial Liability as of July 1, 2014	31,501,293	32,386,918	1,634,064	1,268,347	66,790,622

	Fiscal Year Ending June 30, 2016				Total
	General Government Employees and Retirees	School Employees and Retirees	Sewer Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	
OPEB Obligation (Asset) at beginning of year	10,546,115	13,476,062	908,847	1,192,628	26,123,652
Annual Required Contribution	2,516,814	3,720,459	258,522	337,397	6,833,192
Interest on Net OPEB Obligation	447,842	523,077	31,879	42,148	1,044,946
Adjustment to the ARC	(622,566)	(727,152)	(44,316)	(58,594)	(1,452,628)
Amortization of Actuarial (Gains)/Losses	105,125	136,445	9,870	13,127	264,567
Annual OPEB Cost	2,447,215	3,652,829	255,955	334,078	6,690,077
Expected Employer Contribution	1,260,654	1,124,260	20,045	30,745	2,435,704
Contribution (Withdrawal) to/from Trust Fund over 30 Years	-	-	-	-	-
Total Expected Employer Payments	1,260,654	1,124,260	20,045	30,745	2,435,704
Increase (Decrease) in OPEB Obligation (Asset)	1,186,561	2,528,569	235,910	303,333	4,254,373
OPEB Obligation (Asset) at end of year	11,732,676	16,004,631	1,144,757	1,495,961	30,378,025
AAL as of July 1, 2015	32,857,505	33,782,755	1,704,937	1,324,043	69,669,240
Plan Assets as of July 1, 2015	217,331	235,124	12,311	10,244	475,010
Unfunded Actuarial Liability as of July 1, 2015	32,640,174	33,547,631	1,692,626	1,313,799	69,194,230

EXHIBIT AFinancial Statement Disclosure

(As of July 1, 2014)

(continued)

7. FUNDED STATUS AND FUNDING PROGRESS

As of July 1, 2014, the most recent valuation date, the plan was 0.04% funded. The actuarial liability for benefits was \$66,815,622, and the actuarial value of assets was \$25,000, resulting in an unfunded actuarial accrued liability (UAAL) of \$66,790,622. The covered payroll (annual payroll of active employees covered by the plan) was \$ 32,381,749 and the ratio of the UAAL to the covered payroll was 206.3%.

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 \$82,505,830 or by 23.5% and the corresponding Normal Cost would increase to \$3,592,748 or by 42.3%. 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 \$54,558,271 or by 18.3% and the corresponding Normal Cost would decrease to \$1,766,642 or by 30.0%.

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2014)

(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: Entry Age Normal
Investment Rate of Return: 4.00% per annum (previously 4.00%)
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: 2.50% per annum
Annual Compensation Increases: 3.00% per annum
Actuarial Value of Assets: Market Value
Amortization of UAAL: Level dollar amortization over 30 years at the last valuation
Remaining Amortization Period: 24 years at July 1, 2014

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2014)

(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
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Expected Unfunded Actuarial Liability

1. Actuarial Accrued Liability at prior valuation date	47,929,801
2. Actuarial Value of Assets at prior valuation date	<u>0</u>
3. Unfunded Actuarial Accrued Liability at prior valuation date [1. - 2.]	47,929,801
4. Normal Cost for prior periods	4,390,056
5. Employer Contributions for prior periods	(3,459,737)
6. Interest to current valuation date	<u>4,110,142</u>
7. Expected Unfunded Actuarial Accrued Liability [3. + 4. + 5. + 6.]	52,970,262

Actual Unfunded Actuarial Liability

8. Actuarial Accrued Liability at current valuation date	66,815,622
9. Actuarial Value of Assets at current valuation date	<u>25,000</u>
10. Unfunded Actuarial Accrued Liability at current valuation date [8. - 9.]	66,790,622

Net Actuarial (Gain) / Loss from Plan Experience [10. - 7.] 13,820,360

11. Unfunded Actuarial Accrued Liability at current valuation date [10.]	66,790,622
12. Remaining Initial Unfunded to be amortized	<u>65,676,136</u>
13. Actuarial (Gain) / Loss to be amortized: [11. - 12.]	1,114,486

EXHIBIT A

Financial Statement Disclosure
(As of July 1, 2014)
(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, 2008	GASB 45 Liability	74,485,260	30	65,676,136	24	4,141,817
July 1, 2014	Cumulative (Gain) / Loss	1,114,486	30	1,114,486	30	65,524
July 1, 2014	Adjustment to ARC	(22,544,102)	30	(22,544,102)	30	(1,253,584)
Total				44,246,520		2,953,757

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 Newburyport has established an irrevocable trust for the purposes of prefunding liabilities under GASB 45.

EXHIBIT AFinancial Statement Disclosure

(As of July 1, 2014)

(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, 2017 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 basic dollar amount for 2018 is \$10,200 for single coverage and \$27,500 for family coverage and the "kicker" amount for 2018 is \$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 amount increased with general CPI and medical costs increasing with medical trend (generally higher). For purposes of the fiscal year ending June 30, 2015, the AAL for the excise tax is \$951,363 and the increase in annual OPEB Cost is \$157,675. Given your premiums through the 2016 fiscal year and the excise tax threshold, your single premiums are within 60.18% of the excise tax and your family premiums are within 22.39% of the excise tax. As more regulatory guidance becomes available, the calculation of the excise tax liability will evolve.

EXHIBIT AFinancial Statement Disclosure

(As of July 1, 2014)

(continued)

13. Impact of Section 9A 1/2 of M.G.L. Chapter 32B

For employees who retire on or after January 1, 2011 whenever a retired employee or beneficiary receives a healthcare premium contribution from a governmental unit in a case where a portion of the retiree's creditable service is attributable to service in 1 or more other governmental units, the first governmental unit shall be reimbursed in full, in accordance with this paragraph, by the other governmental units for the portion of the premium contributions that corresponds to the percentage of the retiree's creditable service that is attributable to each governmental unit. The other governmental units shall be charged based on their own contribution rate or the contribution rate of the first employer, whichever is lower.

For purposes of the valuation we have not attempted to value the impact of prior governmental service at other entities in the State of Massachusetts for current employees of the City of Newburyport nor have we attempted to value the impact of prior City of Newburyport employees currently working at other governmental entities in the State of Massachusetts.

EXHIBIT B

Reconciliation of Plan Participation
(As of July 1, 2014)

ACTIVE EMPLOYEES

	<u>July 1, 2014</u>	<u>July 1, 2012</u>
A. Average Age at Hire	37.17	36.14
B. Average Service	9.71	9.12
C. Average Current Age	46.88	45.26

RETIRED EMPLOYEES & DEPENDENTS

	<u>July 1, 2014</u>	<u>July 1, 2012</u>
I. Retirees		
A. Under Age 65	72	88
B. Age 65 & Over	<u>275</u>	<u>324</u>
C. Total Retirees	347	412
II. Dependents of Retirees		
A. Under Age 65	40	27
B. Age 65 & Over	<u>106</u>	<u>3</u>
C. Total Retirees	146	30
III. Retirees & Dependents		
A. Under Age 65	112	115
B. Age 65 & Over	<u>381</u>	<u>327</u>
C. Total Retirees	493	442

EXHIBIT C

Projected Cash Flows (Open Group) - pay-as-you-go Approach

Total Medical, Dental & Life Insurance - pay-as-you-go - 4.00% discount rate

Fiscal Year	I. Total Actuarial Accrued Liability ("AAL") as of		III. Unfunded Accrued Actuarial Liability ("UAAL") [I. - II.]	IV. Normal Cost	V. Expected Amortization	VI. Interest on Net OPEB Obligation (Asset)	VII. Adjustment to ARC	VIII. Amortization of Actuarial (Gain) / Loss	IX. Expected	X. OPEB Obligation (Asset) as of June 30	XI. Employer Share of Premiums / Claims	XII. Excess Employer Payments (beyond claims)
	July 1	II. Plan Assets as of July 1							Annual OPEB Expense [IV. + V. + VI. + VII. + VIII.]			
2015	66,815,622	25,000	66,790,622	2,525,540	4,141,817	901,764	(1,253,585)	65,524	6,381,060	22,544,102	2,351,510	450,000
2016	69,669,240	475,010	69,194,230	2,691,375	4,141,817	1,044,946	(1,452,628)	264,567	6,690,077	30,378,025	2,435,704	0
2017	72,721,908	494,010	72,227,898	2,835,670	4,141,817	1,215,122	(1,689,197)	501,136	7,004,548	34,839,983	2,542,590	0
2018	75,935,588	513,770	75,421,818	2,974,322	4,141,817	1,393,599	(1,937,307)	749,246	7,321,677	39,449,724	2,711,936	0
2019	79,245,893	534,321	78,711,572	3,129,351	4,141,817	1,577,990	(2,193,636)	1,005,575	7,661,097	44,276,563	2,834,258	0
2020	82,715,541	555,694	82,159,847	3,292,809	4,141,817	1,771,063	(2,462,036)	1,273,975	8,017,628	49,395,453	2,898,738	0
2021	86,433,997	577,922	85,856,075	3,459,667	4,141,817	1,975,818	(2,746,676)	1,558,615	8,389,241	54,731,022	3,053,672	0
2022	90,313,593	601,039	89,712,554	3,632,192	4,141,817	2,189,241	(3,043,365)	1,855,304	8,775,189	60,325,073	3,181,138	0
2023	94,394,502	625,081	93,769,421	3,816,638	4,141,817	2,413,003	(3,354,428)	2,166,367	9,183,397	66,193,876	3,314,594	0
2024	98,692,408	650,084	98,042,324	4,007,410	4,141,817	2,647,755	(3,680,767)	2,492,706	9,608,921	72,308,808	3,493,989	0
2025	103,174,063	676,087	102,497,976	4,211,478	4,141,817	2,892,353	(4,020,794)	2,832,733	10,057,587	78,712,353	3,654,042	0
2026	107,880,759	703,130	107,177,629	4,409,176	4,141,817	3,148,495	(4,376,868)	3,188,807	10,511,427	85,388,508	3,835,272	0
2027	112,786,054	731,255	112,054,799	4,638,466	4,141,817	3,415,540	(4,748,102)	3,560,041	11,007,762	92,364,174	4,032,096	0
2028	117,919,967	760,505	117,159,462	4,877,968	4,141,817	3,694,567	(5,135,990)	3,947,929	11,526,291	99,673,942	4,216,523	0
2029	123,278,757	790,925	122,487,832	5,118,072	4,141,817	3,986,958	(5,542,457)	4,354,396	12,058,786	107,347,197	4,385,531	0
2030	128,935,304	822,562	128,112,742	5,368,690	4,141,817	4,293,888	(5,969,133)	4,781,072	12,616,334	115,360,239	4,603,292	0
2031	134,871,470	855,464	134,016,006	5,634,576	4,141,817	4,614,410	(6,414,706)	5,226,645	13,202,742	123,764,038	4,798,943	0
2032	141,135,387	889,683	140,245,704	5,910,694	4,141,817	4,950,562	(6,882,007)	5,693,946	13,815,012	132,575,191	5,003,859	0
2033	147,702,337	925,270	146,777,067	6,194,819	4,141,817	5,303,008	(7,371,958)	6,183,897	14,451,583	141,796,951	5,229,823	0
2034	154,444,173	962,281	153,481,892	6,501,962	4,141,817	5,671,878	(7,884,742)	6,696,681	15,127,596	151,482,672	5,441,875	0
2035	161,681,082	1,000,772	160,680,310	6,826,885	4,141,817	6,059,307	(8,423,324)	7,235,263	15,839,948	161,655,302	5,667,318	0
2036	169,316,750	1,040,803	168,275,947	7,162,267	4,141,817	6,466,212	(8,988,983)	7,800,922	16,582,235	172,393,045	5,844,492	0
2037	177,502,805	1,082,435	176,420,370	7,521,349	4,141,817	6,895,721	(9,586,064)	8,398,003	17,370,826	183,634,158	6,129,713	0
2038	186,004,949	1,125,732	184,879,217	7,896,912	4,141,817	7,345,366	(10,211,135)	9,023,074	18,196,034	195,360,469	6,469,723	0
2039	194,887,575	1,170,761	193,716,814	8,299,049	0	7,814,419	(10,863,187)	9,675,126	14,925,407	203,467,120	6,818,756	0
2040	204,247,598	1,217,591	203,030,007	8,722,177	0	8,138,686	(11,313,965)	10,125,904	15,672,802	211,958,560	7,181,362	0
2041	214,103,125	1,266,295	212,836,830	9,171,251	0	8,478,342	(11,786,138)	10,598,077	16,461,532	220,948,262	7,471,830	0
2042	224,402,973	1,316,947	223,086,026	9,648,856	0	8,837,931	(12,286,019)	11,097,958	17,298,726	230,447,329	7,799,659	0
2043	235,302,256	1,369,625	233,932,631	10,146,073	0	9,217,893	(12,814,223)	11,626,162	18,175,905	240,628,103	7,995,131	0
2044	247,056,325	1,424,410	245,631,915	10,674,432	0	9,625,124	(13,380,334)	12,192,273	19,111,495	251,484,627	8,254,971	0
2045	259,454,019	1,481,386	257,972,633	11,219,214	0	10,059,386	(13,984,019)	13,984,019	21,278,600	264,159,415	8,603,812	0
2046	272,651,295	1,540,641	271,110,654	11,796,850	0	10,566,377	(14,688,813)	14,688,813	22,363,227	277,608,667	8,913,975	0

EXHIBIT D

Projected Cash Flows (Open Group) – Funded Approach

Total Medical, Dental & Life Insurance - Funding over 30 years at 7.00% discount rate increasing at 0.00% per year

Fiscal Year	I. Total Actuarial Accrued Liability ("AAL") as of	II. Plan Assets as of July 1	III. Unfunded Accrued Actuarial Liability ("UAAL") [I. - II.]	IV. Normal Cost	V. Expected Amortization	VI. Interest on Net OPEB Obligation (Asset)	VII. Adjustment to ARC	VIII. Amortization of Actuarial (Gain) / Loss	IX. Expected Annual OPEB Expense [IV. + V. + VI. + VII. + VIII.]	X. OPEB Obligation (Asset) as of June 30	XI. Employer Share of Premiums / Claims	XII. Annual Funding / (Payments)
	July 1											
2015	45,531,483	25,000	45,506,483	1,210,825	5,351,625	1,578,088	(1,697,896)	(1,519,065)	4,923,577	22,544,102	2,351,510	1,677,194
2016	46,822,737	475,010	46,347,727	1,234,032	5,351,625	1,640,729	(1,765,292)	(1,451,669)	5,064,399	23,438,975	2,435,704	1,677,194
2017	48,814,540	2,185,455	46,629,085	1,298,982	5,351,625	1,707,334	(1,836,954)	(1,380,007)	5,199,024	24,390,476	2,542,590	1,677,194
2018	50,900,897	4,015,631	46,885,266	1,360,164	5,351,625	1,775,880	(1,910,705)	(1,306,256)	5,331,389	25,369,716	2,711,936	1,677,194
2019	53,017,564	5,973,919	47,043,645	1,429,928	5,351,625	1,841,839	(1,981,671)	(1,235,290)	5,469,485	26,311,975	2,834,258	1,677,194
2020	55,222,086	8,069,287	47,152,799	1,503,763	5,351,625	1,908,901	(2,053,824)	(1,163,137)	5,612,459	27,270,008	2,898,738	1,677,194
2021	57,595,913	10,311,331	47,284,582	1,578,725	5,351,625	1,981,458	(2,131,890)	(1,085,071)	5,761,729	28,306,535	3,053,672	1,677,194
2022	60,051,613	12,710,318	47,341,295	1,655,635	5,351,625	2,053,618	(2,209,529)	(1,007,432)	5,912,304	29,337,398	3,181,138	1,677,194
2023	62,631,510	15,277,234	47,354,276	1,739,293	5,351,625	2,127,396	(2,288,908)	(928,053)	6,070,965	30,391,370	3,314,594	1,677,194
2024	65,353,536	18,023,834	47,329,702	1,825,677	5,351,625	2,202,939	(2,370,185)	(846,776)	6,233,866	31,470,547	3,493,989	1,677,194
2025	68,181,831	20,962,696	47,219,135	1,918,191	5,351,625	2,277,326	(2,450,221)	(766,740)	6,401,536	32,533,230	3,654,042	1,677,194
2026	71,150,457	24,107,279	47,043,178	2,005,543	5,351,625	2,352,247	(2,530,830)	(686,131)	6,564,298	33,603,530	3,835,272	1,677,194
2027	74,242,086	27,471,983	46,770,103	2,108,908	5,351,625	2,425,876	(2,610,048)	(606,913)	6,741,570	34,655,362	4,032,096	1,677,194
2028	77,470,500	31,072,216	46,398,284	2,217,650	5,351,625	2,498,135	(2,687,793)	(529,168)	6,922,532	35,687,642	4,216,523	1,677,194
2029	80,834,999	34,924,465	45,910,534	2,326,013	5,351,625	2,570,152	(2,765,278)	(451,683)	7,102,585	36,716,457	4,385,531	1,677,194
2030	84,387,521	39,046,372	45,341,149	2,439,588	5,351,625	2,642,943	(2,843,594)	(373,367)	7,288,426	37,756,317	4,603,292	1,677,194
2031	88,103,954	43,456,812	44,647,142	2,560,446	5,351,625	2,713,498	(2,919,507)	(297,454)	7,479,167	38,764,257	4,798,943	1,677,194
2032	92,018,801	48,175,983	43,842,818	2,686,020	5,351,625	2,783,710	(2,995,049)	(221,912)	7,674,126	39,767,287	5,003,859	1,677,194
2033	96,135,965	53,225,496	42,910,469	2,814,718	5,351,625	2,853,226	(3,069,842)	(147,119)	7,871,370	40,760,360	5,229,823	1,677,194
2034	100,365,563	58,628,475	41,737,088	2,954,683	5,351,625	2,920,730	(3,142,472)	(74,489)	8,077,755	41,724,713	5,441,875	1,677,194
2035	104,908,821	64,409,662	40,499,159	3,102,824	5,351,625	2,987,838	(3,214,675)	(2,286)	8,291,845	42,683,399	5,667,318	1,677,194
2036	109,736,942	70,595,532	39,141,410	3,255,205	5,351,625	3,054,152	(3,286,022)	69,061	8,509,286	43,630,732	5,844,492	1,677,194
2037	114,924,762	77,214,413	37,710,349	3,418,799	5,351,625	3,123,284	(3,360,403)	143,442	8,740,569	44,618,332	6,129,713	1,677,194
2038	120,289,603	84,296,616	35,992,987	3,590,229	5,351,625	3,188,640	(3,430,721)	213,760	8,975,674	45,551,994	6,469,723	1,677,194
2039	125,881,185	91,874,573	34,006,612	3,774,025	0	3,246,653	(3,493,138)	276,177	9,261,894	46,380,751	6,818,756	1,677,194
2040	131,773,400	99,982,987	31,790,413	3,967,013	0	2,922,409	(3,144,278)	(72,683)	9,559,286	47,148,695	7,181,362	1,677,194
2041	137,984,818	108,658,990	29,325,828	4,172,141	0	2,563,443	(2,758,059)	(458,902)	9,859,674	48,000,000	7,471,830	1,677,194
2042	144,440,374	117,942,313	26,498,061	4,389,847	0	2,173,219	(2,338,209)	(878,752)	10,169,674	48,844,492	7,799,659	1,677,194
2043	151,245,272	127,875,469	23,369,803	4,616,118	0	1,747,812	(1,880,505)	(1,336,456)	10,509,674	49,683,332	7,995,131	1,677,194
2044	158,619,347	138,503,946	20,115,401	4,856,205	0	1,294,629	(1,392,916)	(1,824,045)	10,859,674	50,522,610	8,254,971	1,677,194
2045	166,397,718	149,876,416	16,521,302	5,103,417	0	808,182	(869,539)	869,539	11,219,674	51,372,817	8,603,812	1,677,194
2046	174,705,098	162,044,959	12,660,139	5,365,071	0	505,598	(543,982)	543,982	11,584,674	52,246,756	8,913,975	1,677,194

EXHIBIT D

Projected Cash Flows (Open Group) - Funded Approach

Total Medical, Dental & Life Insurance - Funding over 30 years at 7.00% discount rate and increasing at 2.50% per year

Fiscal Year	I. Total Actuarial Accrued Liability ("AAL") as of July 1	II. Plan Assets as of July 1	III. Unfunded Accrued Actuarial Liability ("UAAL") [I. - II.]	IV. Normal Cost	V. Expected Amortization	VI. Interest on Net OPEB Obligation (Asset)	VII. Adjustment to ARC	VIII. Amortization of Actuarial (Gain) / Loss	IX. Expected Annual OPEB Expense [IV. + V. + VI. + VII. + VIII.]	X. OPEB Obligation (Asset) as of June 30	XI. Employer Share of Premiums / Claims	XII. Annual Funding / (Payments)
2015	45,531,483	25,000	45,506,483	1,210,825	5,351,625	1,578,088	(1,697,896)	(1,519,065)	4,923,577	22,544,102	2,351,510	1,292,823
2016	46,822,737	475,010	46,347,727	1,234,032	5,351,625	1,640,729	(1,765,292)	(1,451,669)	5,064,399	23,823,346	2,435,704	1,325,144
2017	48,814,540	1,833,405	46,981,135	1,298,982	5,351,625	1,707,334	(1,836,954)	(1,380,007)	5,199,024	25,126,897	2,542,590	1,358,273
2018	50,900,897	3,320,016	47,580,881	1,360,164	5,351,625	1,775,880	(1,910,705)	(1,306,256)	5,331,389	26,425,058	2,711,936	1,392,230
2019	53,017,564	4,944,647	48,072,917	1,429,928	5,351,625	1,841,839	(1,981,671)	(1,235,290)	5,469,485	27,652,281	2,834,258	1,427,036
2020	55,222,086	6,717,808	48,504,278	1,503,763	5,351,625	1,908,901	(2,053,824)	(1,163,137)	5,612,459	28,860,472	2,898,738	1,462,712
2021	57,595,913	8,650,767	48,945,146	1,578,725	5,351,625	1,981,458	(2,131,890)	(1,085,071)	5,761,729	30,111,481	3,053,672	1,499,280
2022	60,051,613	10,755,601	49,296,012	1,655,635	5,351,625	2,053,618	(2,209,529)	(1,007,432)	5,912,304	31,320,258	3,181,138	1,536,762
2023	62,631,510	13,045,255	49,586,255	1,739,293	5,351,625	2,127,396	(2,288,908)	(928,053)	6,070,965	32,514,662	3,314,594	1,575,181
2024	65,353,536	15,533,604	49,819,932	1,825,677	5,351,625	2,202,939	(2,370,185)	(846,776)	6,233,866	33,695,852	3,493,989	1,614,561
2025	68,181,831	18,235,517	49,946,314	1,918,191	5,351,625	2,277,326	(2,450,221)	(766,740)	6,401,536	34,821,168	3,654,042	1,654,925
2026	71,150,457	21,166,928	49,983,529	2,005,543	5,351,625	2,352,247	(2,530,830)	(686,131)	6,564,298	35,913,737	3,835,272	1,696,298
2027	74,242,086	24,344,911	49,897,175	2,108,908	5,351,625	2,425,876	(2,610,048)	(606,913)	6,741,570	36,946,465	4,032,096	1,738,705
2028	77,470,500	27,787,760	49,682,740	2,217,650	5,351,625	2,498,135	(2,687,793)	(529,168)	6,922,532	37,917,234	4,216,523	1,782,173
2029	80,834,999	31,515,076	49,319,923	2,326,013	5,351,625	2,570,152	(2,765,278)	(451,683)	7,102,585	38,841,070	4,385,531	1,826,727
2030	84,387,521	35,547,858	48,839,663	2,439,588	5,351,625	2,642,943	(2,843,594)	(373,367)	7,288,426	39,731,397	4,603,292	1,872,395
2031	88,103,954	39,908,603	48,195,351	2,560,446	5,351,625	2,713,498	(2,919,507)	(297,454)	7,479,167	40,544,136	4,798,943	1,919,205
2032	92,018,801	44,621,410	47,397,391	2,686,020	5,351,625	2,783,710	(2,995,049)	(221,912)	7,674,126	41,305,155	5,003,859	1,967,185
2033	96,135,965	49,712,094	46,423,871	2,814,718	5,351,625	2,853,226	(3,069,842)	(147,119)	7,871,370	42,008,237	5,229,823	2,016,365
2034	100,365,563	55,208,306	45,157,257	2,954,683	5,351,625	2,920,730	(3,142,472)	(74,489)	8,077,755	42,633,419	5,441,875	2,066,774
2035	104,908,821	61,139,661	43,769,160	3,102,824	5,351,625	2,987,838	(3,214,675)	(2,286)	8,291,845	43,202,525	5,667,318	2,118,443
2036	109,736,942	67,537,880	42,199,062	3,255,205	5,351,625	3,054,152	(3,286,022)	69,061	8,509,286	44,811,786	5,844,492	2,171,404
2037	114,924,762	74,436,936	40,487,826	3,418,799	5,351,625	3,123,284	(3,360,403)	143,442	8,740,569	44,201,999	6,129,713	2,225,689
2038	120,289,603	81,873,211	38,416,392	3,590,229	5,351,625	3,188,640	(3,430,721)	213,760	8,975,674	44,587,166	6,469,723	2,281,331
2039	125,881,185	89,885,667	35,995,518	3,774,025	0	3,246,653	(3,493,138)	276,177	9,261,851	44,811,786	6,818,756	2,338,364
2040	131,773,400	98,516,028	33,257,372	3,967,013	0	2,922,409	(3,144,278)	(72,683)	9,537,928	39,518,560	7,181,362	2,396,823
2041	137,984,818	107,808,973	30,175,845	4,172,141	0	2,563,443	(2,758,059)	(458,902)	9,796,826	33,670,846	7,471,830	2,456,744
2042	144,440,374	117,812,345	26,628,029	4,389,847	0	2,173,219	(2,338,209)	(878,752)	9,988,074	27,316,665	7,799,659	2,518,163
2043	151,245,272	128,577,372	22,667,900	4,616,118	0	1,747,812	(1,880,505)	(1,336,456)	10,146,822	20,398,450	7,995,131	2,581,117
2044	158,619,347	140,158,905	18,460,442	4,856,205	0	1,294,629	(1,392,916)	(1,824,045)	10,280,799	13,020,482	8,254,971	2,645,645
2045	166,397,718	152,615,673	13,782,045	5,103,417	0	808,182	(869,539)	869,539	10,367,367	5,102,799	8,603,812	2,711,786

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		III. Employer Share of Premiums / Claims including "implicit cost"	IV. Funding Normal Cost beyond claims	V. Total Funding Costs [III. + IV.]	VI. Present Value at 4.00% of Employer Share of Premiums / Claims including "implicit cost"	VII. Present Value at 4.00% of Funding beyond claims	VIII. Present Value at 4.00% of Total Funding Costs [VI. + VII.]	IX. Plan Assets at Beginning of year	X. Unfunded Accrued Liability ["UAAL"] - IX.]	XI. Present Value at 4.00% of Unfunded Accrued Actuarial Liability ["UAAL"]
	2015	66,815,622	2,525,540	2,351,510	174,030	2,525,540	2,351,510	174,030	2,525,540	25,000	66,790,622
2016	69,669,240	2,691,375	2,435,704	255,671	2,691,375	2,342,023	245,838	2,587,861	200,030	69,469,210	66,797,317
2017	72,721,908	2,835,670	2,542,590	293,080	2,835,670	2,350,767	270,969	2,621,736	463,702	72,258,206	66,806,773
2018	75,935,588	2,974,322	2,711,936	262,386	2,974,322	2,410,901	233,260	2,644,161	775,330	75,160,258	66,817,196
2019	79,245,893	3,129,351	2,834,258	295,093	3,129,351	2,422,736	252,247	2,674,983	1,068,729	78,177,164	66,826,167
2020	82,715,541	3,292,809	2,898,738	394,071	3,292,809	2,382,551	323,898	2,706,449	1,406,571	81,308,970	66,830,046
2021	86,433,997	3,459,667	3,053,672	405,995	3,459,667	2,413,361	320,864	2,734,225	1,856,905	84,577,092	66,842,504
2022	90,313,593	3,632,192	3,181,138	451,054	3,632,192	2,417,403	342,764	2,760,167	2,337,176	87,976,417	66,854,846
2023	94,394,502	3,816,638	3,314,594	502,044	3,816,638	2,421,941	366,839	2,788,780	2,881,717	91,512,785	66,867,496
2024	98,692,408	4,007,410	3,493,989	513,421	4,007,410	2,454,830	360,723	2,815,553	3,499,030	95,193,378	66,881,605
2025	103,174,063	4,211,478	3,654,042	557,436	4,211,478	2,468,540	376,584	2,845,124	4,152,412	99,021,651	66,895,479
2026	107,880,759	4,409,176	3,835,272	573,904	4,409,176	2,491,320	372,797	2,864,117	4,875,944	103,004,815	66,909,964
2027	112,786,054	4,638,466	4,032,096	606,370	4,638,466	2,518,435	378,737	2,897,172	5,644,886	107,141,168	66,920,057
2028	117,919,967	4,877,968	4,216,523	661,445	4,877,968	2,532,334	397,247	2,929,581	6,477,051	111,442,916	66,929,727
2029	123,278,757	5,118,072	4,385,531	732,541	5,118,072	2,532,535	423,024	2,955,559	7,397,578	115,881,179	66,918,493
2030	128,935,304	5,368,690	4,603,292	765,398	5,368,690	2,556,045	424,998	2,981,043	8,426,022	120,509,282	66,914,527
2031	134,871,470	5,634,576	4,798,943	835,633	5,634,576	2,562,195	446,151	3,008,346	9,528,461	125,343,009	66,921,657
2032	141,135,387	5,910,694	5,003,859	906,835	5,910,694	2,568,847	465,545	3,034,392	10,745,232	130,390,155	66,938,817
2033	147,702,337	6,194,819	5,229,823	964,996	6,194,819	2,581,588	476,349	3,057,937	12,081,876	135,620,461	66,946,073
2034	154,444,173	6,501,962	5,441,875	1,060,087	6,501,962	2,582,945	503,162	3,086,107	13,530,147	140,914,026	66,883,775
2035	161,681,082	6,826,885	5,667,318	1,159,567	6,826,885	2,586,490	529,211	3,115,701	15,131,440	146,549,642	66,883,344
2036	169,316,750	7,162,267	5,844,492	1,317,775	7,162,267	2,564,759	578,284	3,143,043	16,896,265	152,420,485	66,887,230
2037	177,502,805	7,521,349	6,129,713	1,391,636	7,521,349	2,586,465	587,208	3,173,673	18,889,891	158,612,914	66,927,573
2038	186,004,949	7,896,912	6,469,723	1,427,189	7,896,912	2,624,937	579,048	3,203,985	21,037,123	164,967,826	66,931,791
2039	194,887,575	8,299,049	6,818,756	1,480,293	8,299,049	2,660,143	577,494	3,237,637	23,305,797	171,581,778	66,937,736
2040	204,247,598	8,722,177	7,181,362	1,540,815	8,722,177	2,693,850	577,986	3,271,836	25,718,322	178,529,276	66,969,331
2041	214,103,125	9,171,251	7,471,830	1,699,421	9,171,251	2,695,009	612,963	3,307,972	28,287,870	185,815,255	67,021,562
2042	224,402,973	9,648,856	7,799,659	1,849,197	9,648,856	2,705,051	641,332	3,346,383	31,118,806	193,284,167	67,034,152
2043	235,302,256	10,146,073	7,995,131	2,150,942	10,146,073	2,666,196	717,291	3,383,487	34,212,755	201,089,501	67,058,818
2044	247,056,325	10,674,432	8,254,971	2,419,461	10,674,432	2,646,968	775,804	3,422,772	37,732,207	209,324,118	67,120,075
2045	259,454,019	11,219,214	8,603,812	2,615,402	11,219,214	2,652,716	806,377	3,459,093	41,660,956	217,793,063	67,149,667

EXHIBIT D

Projected Cash Flows (Open Group) – Funded Approach

Total Medical, Dental & Life Insurance - pay-as-you-go

Fiscal Year	Number of Retirees, Spouses & Surviving Spouses	Total Actuarial Accrued Liability ("AAL")	Present Value at 4.00% of Total Actuarial Accrued Liability ("AAL")	Employer Share of Premiums / Claims including "implicit cost"	Present Value at 4.00% of Employer Share of Premiums / Claims including "implicit cost"
2015	493	66,815,622	66,815,622	2,351,510	2,351,510
2016	500	69,669,240	66,989,654	2,435,704	2,342,023
2017	503	72,721,908	67,235,492	2,542,590	2,350,767
2018	506	75,935,588	67,506,461	2,711,936	2,410,901
2019	511	79,245,893	67,739,721	2,834,258	2,422,736
2020	516	82,715,541	67,986,145	2,898,738	2,382,551
2021	521	86,433,997	68,310,043	3,053,672	2,413,361
2022	528	90,313,593	68,630,908	3,181,138	2,417,403
2023	534	94,394,502	68,973,138	3,314,594	2,421,941
2024	538	98,692,408	69,339,977	3,493,989	2,454,830
2025	543	103,174,063	69,700,700	3,654,042	2,468,540
2026	548	107,880,759	70,077,284	3,835,272	2,491,320
2027	555	112,786,054	70,445,837	4,032,096	2,518,435
2028	559	117,919,967	70,819,676	4,216,523	2,532,334
2029	561	123,278,757	71,190,410	4,385,531	2,532,535
2030	563	128,935,304	71,593,197	4,603,292	2,556,045
2031	564	134,871,470	72,008,980	4,798,943	2,562,195
2032	565	141,135,387	72,455,132	5,003,859	2,568,847
2033	564	147,702,337	72,910,027	5,229,823	2,581,588
2034	564	154,444,173	73,305,757	5,441,875	2,582,945
2035	563	161,681,082	73,789,135	5,667,318	2,586,490
2036	561	169,316,750	74,301,879	5,844,492	2,564,759
2037	560	177,502,805	74,898,265	6,129,713	2,586,465
2038	559	186,004,949	75,467,106	6,469,723	2,624,937
2039	558	194,887,575	76,029,828	6,818,756	2,660,143
2040	557	204,247,598	76,616,706	7,181,362	2,693,850
2041	557	214,103,125	77,224,692	7,471,830	2,695,009
2042	558	224,402,973	77,826,669	7,799,659	2,705,051
2043	557	235,302,256	78,468,001	7,995,131	2,666,196
2044	557	247,056,325	79,218,960	8,254,971	2,646,968
2045	556	259,454,019	79,994,518	8,603,812	2,652,716
2046	555	272,651,295	80,830,273	8,913,975	2,642,639
2047	555	286,929,750	81,791,603	9,263,283	2,640,572
2048	554	302,066,594	82,794,693	9,724,716	2,665,488
2049	555	317,713,756	83,734,124	10,206,747	2,690,009
2050	554	334,290,587	84,714,406	10,633,978	2,694,815
2051	554	351,931,502	85,754,699	11,053,569	2,693,409
2052	554	370,910,975	86,903,272	11,513,218	2,697,511
2053	554	390,416,749	87,955,205	11,933,037	2,688,339
2054	554	411,509,921	89,141,529	12,386,878	2,683,253

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.