

**Town of Norton Other  
Postemployment Benefits Plan**

**GASB 45 Actuarial Valuation**

*as of*

July 1, 2013

For the fiscal years ending

June 30, 2014

June 30, 2015

Delivered October 2014

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October 23, 2014

*Personal and Confidential*

Mr. James Puello  
Town Accountant  
Town of Norton  
70 E. Main Street  
Norton, MA 02766

Dear Mr. Puello:

We have performed an actuarial valuation of the Town of Norton Other Postemployment Benefits Plan for the fiscal year ending June 30, 2014. The figures presented in this report reflect the adoption, by the Town of Norton, 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, 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, A.S.A., E.A., M.A.A.A.  
President & CEO

**October 23, 2014**

ACTUARIAL CERTIFICATION

This is to certify that Odyssey Advisors has conducted an actuarial valuation of certain benefit obligations of the Town of Norton other postemployment benefit programs as of July 1, 2013 for the fiscal year ending June 30, 2014 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 Town and on participant claims or premium data provided by the Town and/or vendors employed by the Town.

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 Town are reasonably related to the experience and expectations of the postemployment benefits programs.

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

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

## SECTION I

### PRINCIPAL RESULTS OF THE VALUATION

#### Town of Norton Assuming Pay-as-you-go funding - 4.00% discount rate Comparison of Plan Liabilities to Prior Valuation

	<u>July 1, 2013</u>	<u>July 1, 2011</u>
I. Present Value of Future Benefits		
A. Actives	51,664,519	45,888,496
B. Retirees/Disabled	31,099,154	29,813,496
C. Total	82,763,673	75,701,992
II. Present Value of Future Normal Cost	27,775,735	24,347,345
III. Actuarial Accrued Liability (Projected Unit Credit)		
A. Actives	23,888,784	21,541,151
B. Retirees/Disabled	31,099,154	29,813,496
C. Total	54,987,938	51,354,647
IV. Plan Assets	41,052	1,000
V. Unfunded Actuarial Accrued Liability ("UAAL")	54,946,886	51,353,647
VI. Funded Ratio	0.07%	0.00%
VII. Annual Covered Payroll	27,113,884	22,909,558
VIII. UAAL as % of Covered Payroll	202.70%	224.2%
IX. Net OPEB Obligation	12,430,292	8,273,565
X. Number of Covered Participants		
A. Actives	441	433
B. Retirees/Disabled	346	326
C. Total	787	759
<b>For the Fiscal Year Ending:</b>	<b><u>June 30, 2014</u></b>	<b><u>June 30, 2012</u></b>
XI. Normal Cost	1,977,663	1,786,821
XII. Amortization of UAAL - 30 year flat dollar	1,994,323	1,994,323
XIII. Annual Required Contribution ('ARC') [ XI. + XII.]	3,971,986	3,781,144
XIV. Interest on Net OPEB Obligation	497,212	330,942
XV. Adjustment to Annual Required Contribution	(691,197)	(715,513)
XVI. Amortization of Actuarial (Gains) / Losses	1,296,894	454,389
XVII. Annual OPEB Cost [XIII. + XIV. + XV. + XVI.]	5,074,895	3,850,962
XVIII. Expected Employer Contribution	1,935,630	1,851,008
XIX. Contribution to Trust Fund over 30 Years	10,000	0
XX. Total Employer Contribution	1,945,630	1,851,008
XXI. Percentage of Annual OPEB Cost Contributed	38.3%	48.1%
XXII. Net OPEB Obligation at Beginning of Year (IX.)	12,430,292	8,273,565
XXIII. Increase in Net OPEB Obligations (XVII. - XX.)	3,129,265	1,999,954
XXIV. Net OPEB Obligation at End of Year (XXII. + XXIII.)	15,559,557	10,273,519
XXV. Discount Rate	4.00%	4.00%

## SECTION I

### PRINCIPAL RESULTS OF THE VALUATION

(continued)

#### Town of Norton

#### 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	51,664,519	24,996,601
B. Retirees/Disabled	31,099,154	23,032,528
C. Total	82,763,673	48,029,129
II. Present Value of Future Normal Cost	27,775,735	11,934,435
III. Actuarial Accrued Liability (Projected Unit Credit)		
A. Actives	23,888,784	13,062,166
B. Retirees/Disabled	31,099,154	23,032,528
C. Total	54,987,938	36,094,694
IV. Plan Assets	41,052	41,052
V. Unfunded Actuarial Accrued Liability ("UAAL")	54,946,886	36,053,642
VI. Funded Ratio	0.07%	0.11%
VII. Annual Covered Payroll	27,113,884	27,113,884
VIII. UAAL as % of Covered Payroll	202.70%	133.00%
IX. Net OPEB Obligation	12,430,292	12,430,292
X. Number of Covered Participants		
A. Actives	441	441
B. Retirees/Disabled	346	346
C. Total	787	787
<b>For Fiscal Year Ending June 30, 2014</b>		
XI. Normal Cost	1,977,663	1,000,249
XII. Amortization of UAAL - 30 year flat dollar	1,994,323	2,576,856
XIII. Annual Required Contribution ("ARC") [ XI. + XII.]	3,971,986	3,577,105
XIV. Interest on Net OPEB Obligation	497,212	870,121
XV. Adjustment to Annual Required Contribution	(691,197)	(936,181)
XVI. Amortization of Actuarial (Gains) / Losses	1,296,894	333,641
XVII. Annual OPEB Cost [XIII. + XIV. + XV. + XVI.]	5,074,895	3,844,686
XVIII. Expected Employer Contribution	1,935,630	1,935,630
XIX. Contribution over 30 Years increasing at .00% per yr	10,000	1,440,524
XX. Total Employer Contribution	1,945,630	3,376,154
XXI. Percentage of Annual OPEB Cost Contributed	38.3%	87.8%
XXII. Net OPEB Obligation at Beginning of Year (IX.)	12,430,292	12,430,292
XXIII. Increase in Net OPEB Obligations (XVII. - XVIII.)	3,129,265	468,532
XXIV. Net OPEB Obligation at End of Year (XXII. + XXIII.)	15,559,557	12,898,824
XXV. Discount Rate	4.00%	7.00%

## SECTION I

### PRINCIPAL RESULTS OF THE VALUATION

(continued)

#### Town of Norton

Assuming pay-as-you-go - 4.00% discount rate

Plan Liabilities as of July 1, 2013

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Excise Tax</u>	<u>Total</u>
I. Present Value of Future Benefits					
A. Actives	51,454,457	0	94,906	115,156	51,664,519
B. Retirees/Disabled	<u>30,643,430</u>	<u>0</u>	<u>143,251</u>	<u>312,473</u>	<u>31,099,154</u>
C. Total	82,097,887	0	238,157	427,629	82,763,673
II. Present Value of Future Normal Cost	27,634,312	0	41,814	99,609	27,775,735
III. Actuarial Accrued Liability (Projected Unit Credit)					
A. Actives	23,820,145	0	53,092	15,547	23,888,784
B. Retirees/Disabled	<u>30,643,430</u>	<u>0</u>	<u>143,251</u>	<u>312,473</u>	<u>31,099,154</u>
C. Total	54,463,575	0	196,343	328,020	54,987,938
IV. Plan Assets	40,665	0	148	239	41,052
V. Unfunded Actuarial Accrued Liability ("UAAL")	54,422,910	0	196,195	327,781	54,946,886
VI. Annual Covered Payroll	27,113,884	27,113,884	27,113,884	27,113,884	27,113,884
VII. UAAL as % of Covered Payroll	200.7%	0.0%	0.7%	1.2%	202.7%
VIII. Net OPEB Obligation @ Beginning of Fiscal Year	12,311,757	0	44,384	74,151	12,430,292
IX. Number of Eligible Participants					
A. Actives	441	441	441	441	
B. Retirees/Disabled	<u>346</u>	<u>0</u>	<u>171</u>	<u>346</u>	
C. Total	787	441	612	787	

#### For Fiscal Year Ending June 30, 2014

X. Normal Cost	1,970,344	0	3,802	3,517	1,977,663
XI. Amortization of UAAL - 30 year flat dollar	1,975,305	0	7,121	11,897	1,994,323
XII. Annual Required Contribution ("ARC") [ X. + XI.]	3,945,649	0	10,923	15,414	3,971,986
XIII. Interest on Net OPEB Obligation	492,470	0	1,776	2,966	497,212
XIV. Adjustment to Annual Required Contribution	<span style="color: red;">(684,606)</span>	0	<span style="color: red;">(2,468)</span>	<span style="color: red;">(4,123)</span>	<span style="color: red;">(691,197)</span>
XV. Amortization of Actuarial (Gains) / Losses	1,284,541	0	4,630	7,723	1,296,894
XVI. Annual OPEB Cost [XII. + XIII. + XIV. + XV.]	5,038,054	0	14,861	21,980	5,074,895
XVII. Expected Employer Contribution	1,930,259	0	5,371	0	1,935,630
XVIII. Contribution to Trust Fund over 30 Years	9,904	0	36	60	10,000
XIX. Total Employer Contribution	1,940,163	0	5,407	60	1,945,630
XX. Percentage of Annual OPEB Cost Contributed	38.5%	0.0%	36.4%	0.3%	38.3%
XXI. Net OPEB Obligation at Beginning of Year (VIII.)	12,311,757	0	44,384	74,151	12,430,292
XXII. Increase in Net OPEB Obligations (XVI. - XIX.)	3,097,891	0	9,454	21,920	3,129,265
XXIII. Net OPEB Obligation at End of Year (XXI. + XXII.)	15,409,648	0	53,838	96,071	15,559,557



## SECTION I

### PRINCIPAL RESULTS OF THE VALUATION

(continued)

**Town of Norton  
Plan Liabilities as of July 1, 2013  
Assuming maintain pay-as-you-go funding method**

	Town Employees and Retirees	Sewer Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Government Activities	Business-Type Activities	Total
I. Present Value of Future Benefits						
A. Actives	49,909,719	160,063	1,594,737	49,909,719	1,754,800	51,664,519
B. Retirees/Disabled	30,804,190	0	294,964	30,804,190	294,964	31,099,154
C. Total	80,713,909	160,063	1,889,701	80,713,909	2,049,764	82,763,673
II. Present Value of Future Normal Cost	27,002,403	63,542	709,790	27,002,403	773,332	27,775,735
III. Actuarial Accrued Liability (Projected Unit Credit)						
A. Actives	22,907,316	96,521	884,947	22,907,316	981,468	23,888,784
B. Retirees/Disabled	30,804,190	0	294,964	30,804,190	294,964	31,099,154
C. Total	53,711,506	96,521	1,179,911	53,711,506	1,276,432	54,987,938
IV. Plan Assets	40,098	73	881	40,098	954	41,052
V. Unfunded Actuarial Accrued Liability ("UAAL")	53,671,408	96,448	1,179,030	53,671,408	1,275,478	54,946,886
VI. Annual Covered Payroll	26,423,325	50,544	640,016	26,423,325	690,560	27,113,884
VII. UAAL as % of Covered Payroll	203.1%	190.8%	184.2%	203.1%	375.0%	202.7%
VIII. Net OPEB Obligation	12,088,911	39,363	302,018	12,088,911	341,381	12,430,292
IX. Number of Covered Participants						
A. Actives	428	1	12	428	13	441
B. Retirees/Disabled	343	0	3	343	3	346
C. Total	771	1	15	771	16	787
<b>For Fiscal Year Ending June 30, 2014</b>						
X. Normal Cost	1,907,267	7,629	62,767	1,907,267	70,396	1,977,663
XI. Amortization of UAAL - 30 year flat dollar	1,946,924	3,584	43,815	1,946,924	47,399	1,994,323
XII. Annual Required Contribution ("ARC") [ X. + XI.]	3,854,191	11,213	106,582	3,854,191	117,795	3,971,986
XIII. Interest on Net OPEB Obligation	483,557	1,574	12,081	483,557	13,655	497,212
XIV. Adjustment to Annual Required Contribution	(672,214)	(2,189)	(16,794)	(672,214)	(18,983)	(691,197)
XV. Amortization of Actuarial (Gains) / Losses	1,266,803	2,262	27,829	1,266,803	30,091	1,296,894
XVI. Annual OPEB Cost [XII. + XIII. + XIV. + XV.]	4,932,337	12,860	129,698	4,932,337	142,558	5,074,895
XVII. Expected Employer Contribution	1,912,109	0	23,521	1,912,109	23,521	1,935,630
XVIII. Contribution to Trust Fund over 30 Years	9,767	18	215	9,767	233	10,000
XIX. Total Employer Contribution	1,921,876	18	23,736	1,921,876	23,754	1,945,630
XX. Percentage of Annual OPEB Cost Contributed	38.8%	0.0%	18.1%	38.8%	18.1%	38.1%
XXI. Net OPEB Obligation at Beginning of Year (VIII.)	12,088,911	39,363	302,018	12,088,911	341,381	12,430,292
XXII. Increase in Net OPEB Obligations (XVI. - XIX.)	3,010,461	12,842	105,962	3,010,461	118,804	3,129,265
XXIII. Net OPEB Obligation at End of Year (XXI. + XXII.)	15,099,372	52,205	407,980	15,099,372	460,185	15,559,557

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

**Town of Norton**

**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, 2013**

	<u>Present Value of Future Benefits</u>	<u>Actuarial Accrued Liability (Projected Unit Credit)</u>	<u>Normal Cost</u>
<b>Actives</b>			
Under Age 65			
A. Participants	7,219,956	3,461,588	289,090
B. Spouses	<u>5,335,856</u>	<u>2,567,330</u>	<u>202,744</u>
C. Total	12,555,812	6,028,918	491,834
Age 65 and Over			
A. Participants	21,992,702	10,001,401	837,657
B. Spouses	<u>17,116,005</u>	<u>7,858,465</u>	<u>648,172</u>
C. Total	39,108,707	17,859,866	1,485,829
Actives Total			
A. Participants	29,212,658	13,462,989	1,126,747
B. Spouses	<u>22,451,861</u>	<u>10,425,795</u>	<u>850,916</u>
C. Total	51,664,519	23,888,784	1,977,663
<b>Retirees/Disabled</b>			
Under Age 65			
A. Participants	3,204,006	3,204,006	0
B. Spouses	<u>1,088,346</u>	<u>1,088,346</u>	<u>0</u>
C. Total	4,292,352	4,292,352	0
Age 65 and Over			
A. Participants	24,718,881	24,718,881	<u>0</u>
B. Spouses	<u>2,087,921</u>	<u>2,087,921</u>	<u>0</u>
C. Total	26,806,802	26,806,802	0
Retirees/Disabled Total			
A. Participants	27,922,887	27,922,887	0
B. Spouses	<u>3,176,267</u>	<u>3,176,267</u>	<u>0</u>
C. Total	31,099,154	31,099,154	0
<b>Total Population</b>			
A. Participants	57,135,545	41,385,876	1,126,747
B. Spouses	<u>25,628,128</u>	<u>13,602,062</u>	<u>850,916</u>
C. Total	82,763,673	54,987,938	1,977,663

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

**Town of Norton**  
**Assuming Funding over 30 years at 7.00% discount rate**  
**Plan Liabilities as of July 1, 2013**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Excise Tax</u>	<u>Total</u>
I. Present Value of Future Benefits					
A. Actives	24,910,797	0	43,486	42,318	24,996,601
B. Retirees/Disabled	<u>22,735,428</u>	<u>0</u>	<u>101,435</u>	<u>195,665</u>	<u>23,032,528</u>
C. Total	47,646,225	0	144,921	237,983	48,029,129
II. Present Value of Future Normal Cost	11,881,794	0	16,820	35,821	11,934,435
III. Actuarial Accrued Liability (Projected Unit Credit)					
A. Actives	13,029,003	0	26,666	6,497	13,062,166
B. Retirees/Disabled	<u>22,735,428</u>	<u>0</u>	<u>101,435</u>	<u>195,665</u>	<u>23,032,528</u>
C. Total	35,764,431	0	128,101	202,162	36,094,694
IV. Plan Assets	40,676	0	146	230	41,052
V. Unfunded Actuarial Accrued Liability ("UAAL")	35,723,755	0	127,955	201,932	36,053,642
VI. Annual Covered Payroll	27,113,884	27,113,884	27,113,884	27,113,884	27,113,884
VII. UAAL as % of Covered Payroll	131.8%	0.0%	0.5%	0.7%	133.0%
VIII. Net OPEB Obligation	12,311,757	0	44,384	74,151	12,430,292
IX. Number of Covered Participants					
A. Actives	441	441	441	441	
B. Retirees/Disabled	<u>346</u>	<u>0</u>	<u>171</u>	<u>346</u>	
C. Total	787	441	612	787	
<b>For Fiscal Year Ending June 30, 2014</b>					
X. Normal Cost	997,161	0	1,765	1,323	1,000,249
XI. Amortization of UAAL - 30 year flat dollar	2,553,278	0	9,145	14,433	2,576,856
XII. Annual Required Contribution ("ARC") [ X. + XI.]	3,550,439	0	10,910	15,756	3,577,105
XIII. Interest on Net OPEB Obligation	861,823	0	3,107	5,191	870,121
XIV. Adjustment to Annual Required Contribution	(927,253)	0	(3,343)	(5,585)	(936,181)
XV. Amortization of Actuarial (Gains) / Losses	330,588	0	1,184	1,869	333,641
XVI. Annual OPEB Cost [XII. + XIII. + XIV. + XV.]	3,815,597	0	11,858	17,231	3,844,686
XVII. Expected Employer Contribution	1,930,259	0	5,371	0	1,935,630
XVIII. Contribution over 30 Years increasing at 0.00% per year	1,416,806	0	6,487	17,231	1,440,524
XIX. Total Employer Contribution	3,347,065	0	11,858	17,231	3,376,154
XX. Percentage of Annual OPEB Cost Contributed	87.7%	0.0%	100.0%	100.0%	87.8%
XXI. Net OPEB Obligation at Beginning of Year (VIII.)	12,311,757	0	44,384	74,151	12,430,292
XXII. Increase in Net OPEB Obligations (XVI. - XVII.)	468,532	0	0	0	468,532
XXIII. Net OPEB Obligation at End of Year (XXI. + XXII.)	12,780,289	0	44,384	74,151	12,898,824

## SECTION I

### PRINCIPAL RESULTS OF THE VALUATION

(continued)

**Town of Norton  
Plan Liabilities as of July 1, 2013  
Assuming Funding over 30 years at 7.00% discount rate**

	Town Employees and Retirees	Sewer Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Government Activities	Business-Type Activities	Total
I. Present Value of Future Benefits						
A. Actives	24,147,584	77,443	771,574	24,147,584	849,017	24,996,601
B. Retirees/Disabled	<u>22,814,073</u>	<u>0</u>	<u>218,455</u>	<u>22,814,073</u>	<u>218,455</u>	<u>23,032,528</u>
C. Total	46,961,657	77,443	990,029	46,961,657	1,067,472	48,029,129
II. Present Value of Future Normal Cost	11,602,157	27,302	304,976	11,602,157	332,278	11,934,435
III. Actuarial Accrued Liability (Projected Unit Credit)						
A. Actives	12,525,508	52,777	483,881	12,525,508	536,658	13,062,166
B. Retirees/Disabled	<u>22,814,073</u>	<u>0</u>	<u>218,455</u>	<u>22,814,073</u>	<u>218,455</u>	<u>23,032,528</u>
C. Total	35,339,581	52,777	702,336	35,339,581	755,113	36,094,694
IV. Plan Assets	40,098	73	881	40,098	954	41,052
V. Unfunded Actuarial Accrued Liability ("UAAL")	35,299,483	52,704	701,455	35,299,483	754,159	36,053,642
VI. Annual Covered Payroll	26,423,325	50,544	640,016	26,423,325	690,560	27,113,884
VII. UAAL as % of Covered Payroll	133.6%	104.3%	109.6%	133.6%	213.9%	133.0%
VIII. Net OPEB Obligation	12,088,911	39,363	302,018	12,088,911	341,381	12,430,292
IX. Number of Covered Participants						
A. Actives	428	1	12	428	13	441
B. Retirees/Disabled	<u>343</u>	<u>0</u>	<u>3</u>	<u>343</u>	<u>3</u>	<u>346</u>
C. Total	771	1	15	771	16	787
<b>For Fiscal Year Ending June 30, 2014</b>						
X. Normal Cost	964,644	3,859	31,746	964,644	35,605	1,000,249
XI. Amortization of UAAL - 30 year flat dollar	2,515,612	4,631	56,613	2,515,612	61,244	2,576,856
XII. Annual Required Contribution (ARC) [ X. + XI.]	3,480,256	8,490	88,359	3,480,256	96,849	3,577,105
XIII. Interest on Net OPEB Obligation	846,224	2,755	21,142	846,224	23,897	870,121
XIV. Adjustment to Annual Required Contribution	(910,470)	(2,965)	(22,746)	(910,470)	(25,711)	(936,181)
XV. Amortization of Actuarial (Gains) / Losses	325,900	582	7,159	325,900	7,741	333,641
XVI. Annual OPEB Cost [XII. + XIII. + XIV. + XV.]	3,741,910	8,862	93,914	3,741,910	102,776	3,844,686
XVII. Expected Employer Contribution	1,912,109	0	23,521	1,912,109	23,521	1,935,630
XVIII. Contribution over 30 Years increasing at 0.00% per year	1,410,388	2,106	28,030	1,410,388	30,136	1,440,524
XIX. Total Employer Contribution	3,322,497	2,106	51,551	3,322,497	53,657	3,376,154
XX. Percentage of Annual OPEB Cost Contributed	88.8%	23.8%	54.9%	88.8%	78.7%	87.8%
XXI. Net OPEB Obligation at Beginning of Year (VIII.)	12,088,911	39,363	302,018	12,088,911	341,381	12,430,292
XXII. Increase in Net OPEB Obligations (XVI. - XIX.)	419,413	6,756	42,363	419,413	49,119	468,532
XXIII. Net OPEB Obligation at End of Year (XXI. + XXII.)	12,508,324	46,119	344,381	12,508,324	390,500	12,898,824

### 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 Town, 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 Town's financial statements as the OPEB liability. 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. Transition to GASB 45:

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. As part of this implementation, the Employer must recognize the Actuarial Accrued Liability for past service. Under GASB 45, this amount may be amortized over a period not to exceed thirty (30) years. 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. This approach yields an amortization charge of \$1,994,323. Additionally the Employer must recognize a “normal cost” which represents the annual accrual of benefits for current active employees toward their ultimate postemployment benefits. The normal cost for the 2014 fiscal year is \$1,977,663. The combined amortization charge and normal cost represent the Annual Required Contribution (“ARC”) for the plan for the 2014 fiscal year. As the Employer has chosen to continue their “pay-as-you-go” funding policy, this valuation must utilize a discount rate which represents earnings on short term investments. For this discount rate, we have used 4.00% per annum. The incremental cost of GASB 45 for the 2014 fiscal year beyond the “pay-as-you-go” costs is \$3,139,265 reduced by contributions to an OPEB Trust of \$10,000 for a net change in the OPEB liability of \$3,129,265 .

### 2. Plan Experience:

Plan experience was largely in line with expectation. This was mainly due to premiums increasing more slowly than the expected 11% increase. This was somewhat offset by the introduction of a more conservative mortality table and the inclusion of the ACA excise tax. Additionally, there was a method change to better reflect the recognition of the cumulative experience losses which caused the annual OPEB cost to increase by approximately \$800K. The net impact of plan experience is an increase in the annual OPEB cost.

## 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>Credited Service</u>	Elapsed time from date of hire to termination of service date.
<u>Participant Contributions</u>	Premiums for Medical and Life insurance are 25% of underlying gross premium. Retirees shall pay 100% for dental coverage.
<u>Benefits Offered</u>	Comprehensive Medical Insurance offered through Blue Cross Blue Shield of Massachusetts as well as Group Term Life Insurance. Retirees can purchase Dental Insurance via DMS or Altus Dental by paying 100% of the premiums.
<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 Projected Unit Credit Actuarial Cost Method. Under this method, the normal cost and actuarial accrued liability are both based on an accrual of projected benefits over the period for which benefits are accrued. The normal cost is the actuarial present value of one year's benefit accrual on this basis. 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.

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 to 2017 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>Non Public</u> <u>Safety 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 2008	11.0%	8.0%
FY 2009	10.0%	7.5%
FY 2010	9.0%	7.0%
FY 2011	8.0%	6.5%
FY 2012	7.0%	6.0%
FY 2013	6.0%	5.5%
FY 2014	5.0%	5.0%
FY 2015	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 husbands are three years older than their wives. For current retirees, the actual census information was used.

SECTION IIIACTUARIAL COST METHOD, ASSET VALUATION METHOD  
AND ACTUARIAL ASSUMPTIONS  
(continued)C. ACTUARIAL ASSUMPTIONS (continued)Compensation Increases

3.00% per year.

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			
	Single	Two-Person	Family	Total
BCBS Network Blue HMO	130		268	398
BCBS Network Blue HMO value				0
BCBS Blue Care Elect PPO	17		5	22
BCBS Blue Care Elect PPO value	1			1
Medex	110			110
Managed Blue for Seniors	159			159
<b>Total</b>	417	0	273	690

	Per Contract Costs (monthly) - FY 2015		
	Single	Two-Person	Family
BCBS Network Blue HMO	702.00	0.00	1,839.00
BCBS Network Blue HMO value	638.00	0.00	1,672.00
BCBS Blue Care Elect PPO	1,079.00	0.00	2,683.00
BCBS Blue Care Elect PPO value	1,003.00		2,494.00
Medex	420.00	840.00	
Managed Blue for Seniors	399.89	799.78	

Gross Expected FY 2015 Incurred Premiums	8,719,866
Adjustment to reflect children's claims	(1,430,460)
<b>Total Expected FY 2015 Incurred Premiums (adults only)</b>	<b>7,289,406</b>

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

	<u>Employer Primary</u>	<u>Medicare Primary</u>
Age 65	12,183	4,897
Average Age	11,110	4,897

**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**

7,289,406 Active and Retired Claims (No Children) - Including Administrative fees & trend

5,697 Average Per-Capita Claim (including Retention & Pooling)

**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	2	1.312	0.549	7,474	3,128	28,678
25 to 29	29	9	1.312	0.591	7,474	3,367	247,049
30 to 34	31	19	1.312	0.712	7,474	4,056	308,758
35 to 39	39	35	1.312	0.850	7,474	4,842	460,956
40 to 44	50	39	1.312	1.000	7,474	5,697	595,883
45 to 49	48	44	1.456	1.193	8,295	6,797	697,228
50 to 54	55	46	1.599	1.441	9,110	8,209	878,664
55 to 59	35	48	1.740	1.753	9,913	9,987	826,331
60 to 64	18	21	1.968	2.102	11,212	11,975	453,291
65 to 69	5	6	2.168	2.316	12,351	13,194	140,919
70 & Over	3	6	2.396	2.557	13,650	14,567	128,352
Total	316	275					4,766,109

**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	3	1	1.312	1.000	7,474	5,697	28,119
45 to 49	0	2	1.456	1.193	8,295	6,797	13,594
50 to 54	6	0	1.599	1.441	9,110	8,209	54,660
55 to 59	12	6	1.740	1.753	9,913	9,987	178,878
60 to 64	49	24	1.968	2.102	11,212	11,975	836,788
65 to 69	3	1	2.168	2.316	12,351	13,194	50,247
70 to 74	0	0	2.396	2.557	13,650	14,567	0
75 to 79	2	3	2.593	2.769	14,772	15,775	76,869
80 to 84	0	0	2.724	2.910	15,519	16,578	0
85 to 89	1	0	2.864	3.059	16,316	17,427	16,316
90 & Over	0	0	3.010	3.215	17,148	18,316	0
Total	76	37					1,255,471

**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	61	47	2.168	2.316	4,897	4,897	528,876
70 to 74	47	33	2.396	2.557	4,897	4,897	391,760
75 to 79	22	13	2.593	2.769	4,897	4,897	171,395
80 to 84	11	12	2.724	2.910	4,897	4,897	112,631
85 to 89	6	3	2.864	3.059	4,897	4,897	44,073
90 & Over	3	1	3.010	3.215	4,897	4,897	19,588
Total	150	109					1,268,323

Grand Totals 542 421 7,289,903



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 2015		
	Single	Two-Person	Family
Dental Plan	N/A		N/A
	FY 2015 Expected Per Person Rate		N/A

## EXHIBIT A

### Financial Statement Disclosure (As of July 1, 2013)

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: Various Medical Insurance offerings via the Blue Cross Blue Shield of Massachusetts
- b. Administrator: Town of Norton
- 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% of premiums

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

- a. Plan Type: Comprehensive Dental via Altus Dental & DMS
- b. Administrator: Town of Norton
- c. Eligibility: Same as above
- d. Cost sharing: 100% of premiums

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

- a. Plan Type: Group Term Life Insurance - \$2,000.
- b. Administrator: Town of Norton
- c. Eligibility: Same as above
- d. Cost sharing: 25% of premiums

EXHIBIT A

Financial Statement Disclosure  
 (As of July 1, 2013)  
 (continued)

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

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

**5. FUNDING POLICY**

The contribution requirements of plan members and the Town are established and may be amended through Town ordinances. The Town expects to contribute \$0 beyond the pay-as-you-go. For the 2014 fiscal year, total Town premiums plus implicit costs for the retiree medical program are \$1,935,630. The Town is also projected to make a contribution to an OPEB Trust of \$10,000 for the 2014 fiscal year for a total contribution of \$1,945,630 .

EXHIBIT A

Financial Statement Disclosure  
 (As of July 1, 2013)  
 (continued)

**6. ANNUAL OPEB COST AND NET OPEB OBLIGATION**

The Town'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 Town's annual OPEB costs for the fiscal year, the amount actually contributed to the plan and changes in the Town's net OPEB obligation to the plan:

Annual Required Contribution	\$3,971,986
Interest on net OPEB obligation	\$497,212
Adjustment to annual required contribution	(\$691,197)
Amortization of Actuarial (Gains) / Losses	\$1,296,894
Annual OPEB cost (expense)	\$5,074,895
Contributions made to pay benefits	\$1,935,630
Contributions made to OPEB Trust	\$10,000
Increase in net OPEB obligation	\$3,129,265
Net OPEB Obligation – beginning of year	\$12,430,292
Net OPEB Obligation – end of year	\$15,559,557

EXHIBIT A

Financial Statement Disclosure  
(As of July 1, 2013)  
(continued)

The Town's annual OPEB cost, the percentage of the annual OPEB cost contributed to the plan, and the net OPEB obligation for the 2014 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 in OPEB Obligation	Net OPEB Obligation
06/30/2016 (est.)	\$5,573,375	\$2,034,534	36.5%	\$3,538,841	\$22,477,463
06/30/2015 (est.)	\$5,319,932	\$1,940,867	36.5%	\$3,379,065	\$18,938,622
06/30/2014	\$5,074,895	\$1,945,630	38.3%	\$3,129,265	\$15,559,557
06/30/2013	\$4,112,134	\$1,955,361	47.6%	\$2,156,773	\$12,430,292
06/30/2012	\$3,850,962	\$1,851,008	48.1%	\$1,999,954	\$10,273,519
06/30/2011	\$3,540,312	\$1,759,535	49.7%	\$1,780,777	\$8,273,565

**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
07/01/2015 (est.)	\$53,226	\$59,683,347	\$59,629,798	0.1%	\$28,765,120	207.3%
07/01/2014 (est.)	\$51,179	\$57,231,170	\$57,179,683	0.1%	\$27,927,301	204.7%
07/01/2013	\$41,052	\$54,987,938	\$54,946,886	0.1%	\$27,113,884	202.7%
07/01/2012	\$1,000	\$53,342,080	\$53,341,080	0.0%	\$23,596,845	226.1%
07/01/2011	\$1,000	\$51,354,647	\$51,353,647	0.0%	\$22,909,558	224.2%
07/01/2010	\$0	\$52,437,664	\$52,437,664	0.0%	N/A	N/A

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2013)

(continued)

Fiscal Year Ending June 30, 2014						
	Town Employees and Retirees	Sewer Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Government Activities	Business-Type Activities	Total
OPEB obligation at beginning of year	12,088,911	39,363	302,018	12,088,911	341,381	12,430,292
Annual Required Contribution	3,854,191	11,213	106,582	3,854,191	117,795	3,971,986
Interest on Net OPEB Obligation	483,557	1,574	12,081	483,557	13,655	497,212
Adjustment to the ARC	(672,214)	(2,189)	(16,794)	(672,214)	(18,983)	(691,197)
Amortization of Actuarial (Gains)/Losses	1,266,803	2,262	27,829	1,266,803	30,091	1,296,894
Annual OPEB Cost	4,932,337	12,860	129,698	4,932,337	142,558	5,074,895
Expected Employer Contribution	1,912,109	-	23,521	1,912,109	23,521	1,935,630
Contribution to Trust Fund over 30 Years	9,767	18	215	9,767	233	10,000
Total Expected Employer Payments	1,921,876	18	23,736	1,921,876	23,754	1,945,630
Increase in OPEB Obligation	3,010,461	12,842	105,962	3,010,461	118,804	3,129,265
OPEB obligation at end of year	15,099,372	52,205	407,980	15,099,372	460,185	15,559,557
APBO as of July 1, 2013	53,711,506	96,521	1,179,911	53,711,506	1,276,432	54,987,938
Plan Assets as of July 1, 2013	40,098	73	881	40,098	954	41,052
Unfunded Actuarial Liability as of July 1, 2013	53,671,408	96,448	1,179,030	53,671,408	1,275,478	54,946,886

  

Fiscal Year Ending June 30, 2015						
	Town Employees and Retirees	Sewer Enterprise Employees and Retirees	Water Enterprise Employees and Retirees	Government Activities	Business-Type Activities	Total
OPEB obligation at beginning of year	15,099,372	52,205	407,980	15,099,372	460,185	15,559,557
Annual Required Contribution	3,970,503	11,551	109,798	3,970,503	121,349	4,091,852
Interest on Net OPEB Obligation	605,291	1,970	15,122	605,291	17,092	622,383
Adjustment to the ARC	(841,441)	(2,740)	(21,022)	(841,441)	(23,762)	(865,203)
Amortization of Actuarial (Gains)/Losses	1,436,138	2,700	32,062	1,436,138	34,762	1,470,900
Annual OPEB Cost	5,170,491	13,481	135,960	5,170,491	149,441	5,319,932
Expected Employer Contribution	1,917,171	18	23,678	1,917,171	23,696	1,940,867
Contribution to Trust Fund over 30 Years	-	-	-	-	-	-
Total Expected Employer Payments	1,917,171	18	23,678	1,917,171	23,696	1,940,867
Increase in OPEB Obligation	3,253,320	13,463	112,282	3,253,320	125,745	3,379,065
OPEB obligation at end of year	18,352,692	65,668	520,262	18,352,692	585,930	18,938,622
APBO as of July 1, 2014	55,902,666	100,459	1,228,045	55,902,666	1,328,504	57,231,170
Plan Assets as of July 1, 2014	49,991	90	1,098	49,991	1,188	51,179
Unfunded Actuarial Liability as of July 1, 2014	55,852,675	100,369	1,226,947	55,852,675	1,327,316	57,179,991

## EXHIBIT A

### Financial Statement Disclosure (As of July 1, 2013) (continued)

#### **7. FUNDED STATUS AND FUNDING PROGRESS**

As of July 1, 2013, the most recent valuation date, the plan was 0.07% funded. The actuarial liability for benefits was \$54,987,938, and the actuarial value of assets was \$41,052, resulting in an unfunded actuarial accrued liability (UAAL) of \$54,946,886. The covered payroll (annual payroll of active employees covered by the plan) was \$ 27,113,884 and the ratio of the UAAL to the covered payroll was 202.7%.

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 \$67,997,737 or by 23.7% and the corresponding Normal Cost would increase to \$2,744,312 or by 38.8%. 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 \$44,715,775 or by 18.7% and the corresponding Normal Cost would decrease to \$1,412,263 or by 28.6%.

EXHIBIT A

Financial Statement Disclosure  
 (As of July 1, 2013)  
 (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: Projected Unit Credit  
 Investment Rate of Return: 4.00% per annum (previously 4.00%)  
 Healthcare Trend Rates

<u>Year</u>	<u>Medical</u>	<u>Dental</u>
FY 2008	11.0%	8.0%
FY 2009	10.0%	7.5%
FY 2010	9.0%	7.0%
FY 2011	8.0%	6.5%
FY 2012	7.0%	6.0%
FY 2013	6.0%	5.5%
FY 2014	5.0%	5.0%
FY 2015	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, 2013



EXHIBIT A

Financial Statement Disclosure  
 (As of July 1, 2013)  
 (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.

<b>Changes in Unfunded Actuarial Liability Since Prior Valuation</b>
--

***Expected Unfunded Actuarial Liability***

1. Actuarial Accrued Liability at prior valuation date	51,354,647
2. Actuarial Value of Assets at prior valuation date	<u>1,000</u>
3. Unfunded Actuarial Accrued Liability at prior valuation date [1. - 2.]	51,353,647
4. Normal Cost for prior periods	3,573,642
5. Employer Contributions for prior periods	<b>(3,806,369)</b>
6. Interest to current valuation date	<u>4,334,296</u>
7. Expected Unfunded Actuarial Accrued Liability [3. + 4. + 5. + 6.]	55,455,216

***Actual Unfunded Actuarial Liability***

8. Actuarial Accrued Liability at current valuation date	54,987,938
9. Actuarial Value of Assets at current valuation date	<u>41,052</u>
10. Unfunded Actuarial Accrued Liability at current valuation date [8. - 9.]	54,946,886

***Net Actuarial (Gain) / Loss from Plan Experience [10. - 7.]*** **(508,330)**

11. Unfunded Actuarial Accrued Liability at current valuation date [10.]	54,946,886
12. Remaining Initial Unfunded to be amortized	<u>31,623,664</u>
13. Actuarial (Gain) / Loss to be amortized: [11. - 12.]	23,323,222

EXHIBIT A

Financial Statement Disclosure  
 (As of July 1, 2013)  
 (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	34,468,501	30	31,623,664	24	1,994,323
July 1, 2013	Cumulative (Gain) / Loss	23,323,222	30	23,323,222	30	1,296,894
July 1, 2013	Adjustment to ARC	(12,430,292)	30	(12,430,292)	30	(691,197)
Total				42,516,594		2,600,020

**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, Town of Norton has established an irrevocable trust for the purposes of prefunding liabilities under GASB 45.

EXHIBIT A

Financial Statement Disclosure  
(As of July 1, 2013)  
(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, 2014, the APBO for the excise tax is \$328,020 and the increase in annual OPEB Cost is \$21,980. As more regulatory guidance becomes available, the calculation of the excise tax liability will evolve.

EXHIBIT A

Financial Statement Disclosure  
(As of July 1, 2013)  
(continued)

**13. Impact of Section 9A1/2 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 Town of Norton nor have we attempted to value the impact of prior Town of Norton employees currently working at other governmental entities in the State of Massachusetts.

EXHIBIT B

Reconciliation of Plan Participation  
 (As of July 1, 2013)

**ACTIVE EMPLOYEES**

	<u>July 1, 2013</u>	<u>July 1, 2011</u>
A. Average Age at Hire	34.09	34.54
B. Average Service	10.58	10.58
C. Average Current Age	44.67	45.12

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	Total APBO as of July 1	Normal Cost	Expected Amortization	Interest on Net OPEB Obligation	Adjustment to ARC	Amortization of Actuarial (Gain) / Loss	Expected Annual OPEB Cost	OPEB Obligation as of June 30	Employer Share of Premiums / Claims	Excess Employer Payments (beyond claims)	Plan Assets as of July 1	Unfunded Accrued Actuarial Liability ("UAAAL")
2014	54,987,938	1,977,663	1,994,323	497,212	(691,197)	1,296,894	5,074,895	12,430,292	1,935,630	10,000	41,052	54,946,886
2015	57,231,170	2,097,529	1,994,323	622,383	(865,203)	1,470,900	5,319,932	15,559,557	1,940,867	0	51,179	57,179,683
2016	59,683,347	2,215,810	1,994,323	757,545	(1,053,099)	1,658,796	5,573,375	18,938,622	2,034,534	0	53,226	59,629,798
2017	62,259,208	2,328,286	1,994,323	899,098	(1,249,879)	1,855,576	5,827,404	22,477,463	2,097,175	0	55,355	62,203,514
2018	64,991,136	2,453,458	1,994,323	1,048,307	(1,457,301)	2,062,998	6,101,785	26,207,692	2,184,168	0	57,569	64,933,211
2019	67,871,373	2,575,933	1,994,323	1,205,012	(1,675,143)	2,280,840	6,380,965	30,125,309	2,310,039	0	59,872	67,811,127
2020	70,862,759	2,705,033	1,994,323	1,367,849	(1,901,511)	2,507,208	6,672,902	34,196,235	2,433,869	0	62,267	70,800,120
2021	73,979,280	2,841,540	1,994,323	1,537,411	(2,137,226)	2,742,923	6,978,971	38,435,268	2,581,553	0	64,758	73,914,153
2022	77,208,839	2,982,842	1,994,323	1,713,307	(2,381,749)	2,987,446	7,296,169	42,832,686	2,725,470	0	67,348	77,141,118
2023	80,564,859	3,134,937	1,994,323	1,896,136	(2,635,906)	3,241,603	7,631,093	47,403,385	2,854,305	0	70,042	80,494,440
2024	84,079,311	3,282,445	1,994,323	2,087,206	(2,901,524)	3,507,221	7,969,671	52,180,173	3,023,311	0	72,844	84,006,087
2025	87,712,734	3,441,689	1,994,323	2,285,061	(3,176,570)	3,782,267	8,326,770	57,126,533	3,211,240	0	75,758	87,636,593
2026	91,460,910	3,613,761	1,994,323	2,489,682	(3,461,024)	4,066,721	8,703,463	62,242,063	3,336,513	0	78,788	91,381,736
2027	95,407,685	3,790,231	1,994,323	2,704,360	(3,759,458)	4,365,155	9,094,611	67,609,013	3,526,717	0	81,940	95,325,357
2028	99,498,047	3,983,138	1,994,323	2,927,076	(4,069,066)	4,674,763	9,510,234	73,176,907	3,754,533	0	85,218	99,412,440
2029	103,715,717	4,196,268	1,994,323	3,157,305	(4,389,115)	4,994,812	9,953,593	78,932,608	3,966,965	0	88,627	103,626,700
2030	108,103,140	4,409,196	1,994,323	3,396,769	(4,722,008)	5,327,705	10,405,985	84,919,236	4,170,484	0	92,172	108,010,578
2031	112,676,193	4,638,618	1,994,323	3,646,189	(5,068,738)	5,674,435	10,884,827	91,154,737	4,401,949	0	95,859	112,579,944
2032	117,429,729	4,876,324	1,994,323	3,905,504	(5,429,224)	6,034,921	11,381,848	97,637,615	4,661,324	0	99,693	117,329,647
2033	122,351,345	5,138,444	1,994,323	4,174,326	(5,802,924)	6,408,621	11,912,790	104,358,139	4,858,355	0	103,681	122,247,275
2034	127,536,693	5,413,378	1,994,323	4,456,503	(6,195,192)	6,800,889	12,469,901	111,412,574	5,070,160	0	107,828	127,428,473
2035	132,995,197	5,695,721	1,994,323	4,752,493	(6,606,661)	7,212,358	13,048,234	118,812,315	5,281,159	0	112,141	132,882,657
2036	138,746,150	5,991,665	1,994,323	5,063,176	(7,038,556)	7,644,253	13,654,861	126,579,390	5,510,525	0	116,627	138,629,117
2037	144,796,489	6,298,565	1,994,323	5,388,949	(7,491,429)	8,097,126	14,287,534	134,723,726	5,740,858	0	121,292	144,674,784
2038	151,168,987	6,621,094	0	5,730,817	(7,966,675)	8,572,372	14,908,612	143,270,402	5,997,766	0	126,144	151,042,423
2039	157,864,008	6,964,677	0	6,009,209	(8,353,683)	8,959,380	15,579,583	150,230,244	6,273,113	0	131,190	157,732,393
2040	164,898,064	7,316,086	0	6,301,468	(8,759,965)	9,365,662	16,287,534	157,536,714	6,534,666	0	136,438	164,761,200
2041	172,306,962	7,693,903	0	6,609,012	(9,187,495)	9,793,192	17,039,991	165,225,299	6,801,586	0	141,896	172,164,641
2042	180,127,657	8,093,496	0	6,933,293	(9,638,294)	10,243,991	17,848,234	173,332,325	7,132,305	0	147,572	179,979,663
2043	188,332,613	8,512,036	0	7,273,300	(10,110,954)	10,716,651	18,703,033	181,832,506	7,429,322	0	153,475	188,178,716
2044	196,991,940	8,945,505	0	7,631,769	(10,609,277)	11,212,358	19,627,274	190,794,217	7,700,922	0	159,614	196,831,911
2045	206,165,983	9,404,631	0	7,986,822	(11,102,855)	11,764,253	17,391,453	199,670,569	8,054,605	0	165,999	205,999,579

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	Total APBO as of July 1	Normal Cost	Expected Amortization	Interest on Net OPEB Obligation	Adjustment to ARC	Amortization of Actuarial (Gain) / Loss	Expected Annual OPEB Cost	OPEB Obligation as of June 30	Employer Share of Premiums / Claims	Annual Funding / (Payments)	Plan Assets as of July 1	Unfunded Accrued Actuarial Liability ("UAAL")
2014	36,094,694	1,000,249	2,576,856	870,121	(936,181)	333,641	3,844,686	12,430,292	1,935,630	1,440,524	41,052	36,053,642
2015	37,402,737	1,065,983	2,576,856	902,918	(971,468)	368,928	3,944,734	12,898,824	1,940,867	1,440,524	51,179	37,351,558
2016	39,084,803	1,132,696	2,576,856	942,352	(1,013,896)	411,356	4,051,068	14,038,177	2,034,534	1,440,524	1,495,286	37,589,517
2017	40,855,774	1,195,639	2,576,856	982,673	(1,057,277)	454,737	4,154,512	14,654,990	2,097,175	1,440,524	3,040,480	37,815,294
2018	42,751,965	1,265,850	2,576,856	1,025,850	(1,103,732)	501,192	4,268,079	15,298,377	2,184,168	1,440,524	4,693,838	38,058,127
2019	44,762,403	1,335,006	2,576,856	1,070,887	(1,152,189)	549,649	4,382,450	15,930,264	2,310,039	1,440,524	6,462,931	38,299,472
2020	46,875,690	1,407,710	2,576,856	1,115,119	(1,199,779)	597,239	4,499,568	16,555,439	2,433,869	1,440,524	8,355,860	38,519,830
2021	49,084,003	1,484,255	2,576,856	1,158,881	(1,246,863)	644,323	4,620,064	17,153,426	2,581,553	1,440,524	10,381,294	38,702,709
2022	51,363,376	1,562,677	2,576,856	1,200,740	(1,291,901)	689,361	4,740,541	17,727,973	2,725,470	1,440,524	12,548,509	38,814,867
2023	53,733,927	1,647,209	2,576,856	1,240,959	(1,335,172)	732,632	4,865,496	18,298,640	2,854,305	1,440,524	14,867,429	38,866,498
2024	56,223,234	1,726,188	2,576,856	1,280,905	(1,378,152)	775,612	4,984,634	18,819,439	3,023,311	1,440,524	17,348,673	38,874,561
2025	58,791,234	1,810,378	2,576,856	1,317,361	(1,417,375)	814,835	5,105,502	19,273,177	3,211,240	1,440,524	20,003,604	38,787,630
2026	61,429,501	1,901,542	2,576,856	1,349,123	(1,451,548)	849,008	5,228,657	19,724,797	3,336,513	1,440,524	22,844,380	38,585,121
2027	64,216,839	1,993,745	2,576,856	1,380,736	(1,485,562)	883,022	5,352,716	20,110,272	3,526,717	1,440,524	25,884,011	38,332,828
2028	67,095,922	2,095,196	2,576,856	1,407,720	(1,514,594)	912,054	5,481,403	20,396,618	3,754,533	1,440,524	29,136,416	37,959,506
2029	70,042,842	2,208,950	2,576,856	1,427,764	(1,536,160)	933,620	5,615,457	20,604,586	3,966,965	1,440,524	32,616,489	37,426,353
2030	73,091,303	2,320,915	2,576,856	1,442,322	(1,551,823)	949,283	5,742,240	20,735,818	4,170,484	1,440,524	36,340,167	36,751,136
2031	76,256,563	2,441,433	2,576,856	1,451,508	(1,561,706)	959,166	5,872,210	20,765,555	4,401,949	1,440,524	40,324,503	35,932,060
2032	79,525,424	2,565,023	2,576,856	1,453,589	(1,563,946)	961,406	5,998,136	20,661,843	4,661,324	1,440,524	44,587,742	34,937,682
2033	82,877,583	2,703,449	2,576,856	1,446,330	(1,556,135)	953,595	6,129,541	20,492,505	4,858,355	1,440,524	49,149,408	33,728,175
2034	86,397,671	2,850,104	2,576,856	1,434,476	(1,543,381)	940,841	6,264,558	20,246,379	5,070,160	1,440,524	54,030,391	32,367,280
2035	90,089,683	2,999,705	2,576,856	1,417,247	(1,524,844)	922,304	6,397,110	19,921,806	5,281,159	1,440,524	59,253,042	30,836,641
2036	93,974,239	3,155,700	2,576,856	1,394,527	(1,500,399)	897,859	6,530,526	19,501,283	5,510,525	1,440,524	64,841,279	29,132,960
2037	98,052,282	3,316,399	2,576,856	1,365,090	(1,468,728)	866,188	6,661,858	18,981,759	5,740,858	1,440,524	70,820,693	27,231,589
2038	102,342,196	3,485,020	0	1,328,724	(1,429,600)	827,060	4,217,258	15,760,727	5,997,766	1,440,524	77,218,666	25,123,530
2039	106,840,600	3,664,988	0	1,103,251	(1,187,010)	584,470	4,171,679	12,218,769	6,273,113	1,440,524	84,064,497	22,776,103
2040	111,556,050	3,847,641	0	855,314	(920,250)	317,710	4,106,257	8,349,836	6,534,666	1,440,524	91,389,536	20,166,514
2041	116,519,941	4,044,155	0	584,489	(628,863)	26,323	4,031,755	4,139,481	6,801,586	1,440,524	99,227,328	17,292,613
2042	121,758,230	4,253,252	0	289,764	(311,763)	(290,777)	3,945,903	(487,445)	7,132,305	1,440,524	107,613,765	14,144,465
2043	127,227,813	4,473,011	0	(34,121)	36,711	3,053	4,483,841	(4,873,450)	7,429,322	1,440,524	116,587,253	10,640,560
2044	133,005,862	4,699,893	0	(341,141)	367,040	8,928	4,739,610	(9,275,286)	7,700,922	1,440,524	126,188,885	6,816,977
2045	139,143,515	4,940,145	0	(649,269)	698,562	8,928	5,002,943	(13,767,472)	8,054,605	1,440,524	136,462,631	2,680,884

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	Total APBO as of July 1	Normal Cost	Expected Amortization	Interest on Net OPEB Obligation	Adjustment to ARC	Amortization of Actuarial (Gain) / Loss	Expected Annual OPEB Cost	OPEB Obligation as of June 30	Employer Share of Premiums / Claims	Annual Funding / (Payments)	Plan Assets as of July 1	Unfunded Accrued Actuarial Liability ("UAAL")
2014	36,094,694	1,000,249	2,576,856	870,121	(936,181)	333,641	3,844,686	12,430,292	1,935,630	1,035,695	41,052	36,053,642
2015	37,402,737	1,065,983	2,576,856	902,918	(971,468)	368,928	3,944,734	13,303,653	1,940,867	1,061,587	1,079,620	36,323,117
2016	39,084,803	1,132,696	2,576,856	942,352	(1,013,896)	411,356	4,051,068	14,245,933	2,034,534	1,088,127	2,216,780	36,868,023
2017	40,855,774	1,195,639	2,576,856	982,673	(1,057,277)	454,737	4,154,512	15,174,340	2,097,175	1,115,330	3,460,082	37,395,692
2018	42,751,965	1,265,850	2,576,856	1,025,850	(1,103,732)	501,192	4,268,079	16,116,347	2,184,168	1,143,213	4,817,618	37,934,347
2019	44,762,403	1,335,006	2,576,856	1,070,887	(1,152,189)	549,649	4,382,450	17,057,045	2,310,039	1,171,793	6,298,064	38,464,339
2020	46,875,690	1,407,710	2,576,856	1,115,119	(1,199,779)	597,239	4,499,568	17,957,663	2,433,869	1,201,088	7,910,721	38,964,969
2021	49,084,003	1,484,255	2,576,856	1,158,881	(1,246,863)	644,323	4,620,064	18,822,274	2,581,553	1,231,115	9,665,559	39,418,444
2022	51,363,376	1,562,677	2,576,856	1,200,740	(1,291,901)	689,361	4,740,541	19,629,670	2,725,470	1,261,893	11,573,263	39,790,113
2023	53,733,927	1,647,209	2,576,856	1,240,959	(1,335,172)	732,632	4,865,496	20,382,848	2,854,305	1,293,440	13,645,284	40,088,643
2024	56,223,234	1,726,188	2,576,856	1,280,905	(1,378,152)	775,612	4,984,634	21,100,599	3,023,311	1,325,776	15,893,894	40,329,340
2025	58,791,234	1,810,378	2,576,856	1,317,361	(1,417,375)	814,835	5,105,502	21,736,146	3,211,240	1,358,920	18,332,243	40,458,991
2026	61,429,501	1,901,542	2,576,856	1,349,123	(1,451,548)	849,008	5,228,657	22,271,488	3,336,513	1,392,893	20,974,420	40,455,081
2027	64,216,839	1,993,745	2,576,856	1,380,736	(1,485,562)	883,022	5,352,716	22,770,739	3,526,717	1,427,715	23,835,522	40,381,317
2028	67,095,922	2,095,196	2,576,856	1,407,720	(1,514,594)	912,054	5,481,403	23,169,023	3,754,533	1,463,408	26,931,724	40,164,198
2029	70,042,842	2,208,950	2,576,856	1,427,764	(1,536,160)	933,620	5,615,457	23,432,485	3,966,965	1,499,993	30,280,353	39,762,489
2030	73,091,303	2,320,915	2,576,856	1,442,322	(1,551,823)	949,283	5,742,240	23,580,984	4,170,484	1,537,493	33,899,971	39,191,332
2031	76,256,563	2,441,433	2,576,856	1,451,508	(1,561,706)	959,166	5,872,210	23,615,247	4,401,949	1,575,930	37,810,462	38,446,101
2032	79,525,424	2,565,023	2,576,856	1,453,589	(1,563,946)	961,406	5,998,136	23,509,578	4,661,324	1,615,328	42,033,124	37,492,300
2033	82,877,583	2,703,449	2,576,856	1,446,330	(1,556,135)	953,595	6,129,541	23,231,062	4,858,355	1,655,711	46,590,771	36,286,812
2034	86,397,671	2,850,104	2,576,856	1,434,476	(1,543,381)	940,841	6,264,558	22,846,537	5,070,160	1,697,104	51,507,836	34,889,835
2035	90,089,683	2,999,705	2,576,856	1,417,247	(1,524,844)	922,304	6,397,110	22,343,831	5,281,159	1,739,532	56,810,489	33,279,194
2036	93,974,239	3,155,700	2,576,856	1,394,527	(1,500,399)	897,859	6,530,526	21,720,250	5,510,525	1,783,020	62,526,755	31,447,484
2037	98,052,282	3,316,399	2,576,856	1,365,090	(1,468,728)	866,188	6,661,858	20,957,231	5,740,858	1,827,596	68,686,648	29,365,634
2038	102,342,196	3,485,020	0	1,328,724	(1,429,600)	827,060	6,797,766	20,050,635	5,997,766	1,873,286	75,322,309	27,019,887
2039	106,840,600	3,664,988	0	1,103,251	(1,187,010)	584,470	6,971,679	16,396,841	6,273,113	1,920,118	82,468,157	24,372,443
2040	111,556,050	3,847,641	0	855,314	(920,250)	317,710	7,209,257	12,375,289	6,534,666	1,968,121	90,161,046	21,395,004
2041	116,519,941	4,044,155	0	584,489	(628,863)	26,323	7,453,755	7,978,759	6,801,586	2,017,324	98,440,440	18,079,501
2042	121,758,230	4,253,252	0	289,764	(311,763)	(290,777)	7,712,305	3,191,604	7,132,305	2,067,757	107,348,595	14,409,635
2043	127,227,813	4,473,011	0	(34,121)	36,711	3,053	8,053,841	4,031,755	7,429,322	2,119,451	116,930,754	10,297,059
2044	133,005,862	4,699,893	0	(341,141)	367,040	8,928	8,483,841	4,106,257	7,700,922	2,172,437	127,235,358	5,770,504



**EXHIBIT D**

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

<b>Total Medical, Dental &amp; Life Insurance - Funding Annual Normal Cost - 4.00% discount rate</b>											
<b>Fiscal Year</b>	<b>Total APBO</b>	<b>Normal Cost</b>	<b>Employer Share of Premiums / Claims including "implicit cost"</b>	<b>Funding Normal Cost beyond claims</b>	<b>Total Funding Costs</b>	<b>Present Value of Employer Share of Premiums / Claims including "implicit cost"</b>	<b>Present Value of Funding Normal Cost beyond claims</b>	<b>Present Value of Total Funding Costs</b>	<b>Plan Assets at Beginning of year</b>	<b>Unfunded Accrued Actuarial Liability ("UAAL")</b>	<b>Present Value of Unfunded Accrued Actuarial Liability ("UAAL")</b>
2014	54,987,938	1,977,663	1,935,630	42,033	1,977,663	1,935,630	42,033	1,977,663	41,052	54,946,886	54,946,886
2015	57,231,170	2,097,529	1,940,867	156,662	2,097,529	1,866,218	150,637	2,022,880	84,727	57,146,443	54,948,503
2016	59,683,347	2,215,810	2,034,534	181,276	2,215,810	1,881,041	167,600	2,062,317	244,778	59,438,569	54,954,298
2017	62,259,208	2,328,286	2,097,175	231,111	2,328,286	1,864,381	205,457	2,095,492	435,845	61,823,363	54,960,745
2018	64,991,136	2,453,458	2,184,168	269,290	2,453,458	1,867,036	230,190	2,136,326	684,390	64,306,746	54,969,676
2019	67,871,373	2,575,933	2,310,039	265,894	2,575,933	1,898,684	218,545	2,164,578	981,056	66,890,317	54,978,965
2020	70,862,759	2,705,033	2,433,869	271,164	2,705,033	1,923,522	214,305	2,194,686	1,286,192	69,576,567	54,987,372
2021	73,979,280	2,841,540	2,581,553	259,987	2,841,540	1,961,768	197,569	2,221,755	1,608,804	72,370,476	54,995,614
2022	77,208,839	2,982,842	2,725,470	257,372	2,982,842	1,991,474	188,059	2,248,846	1,933,143	75,275,696	55,003,214
2023	80,564,859	3,134,937	2,854,305	280,632	3,134,937	2,005,397	197,168	2,286,029	2,267,841	78,297,018	55,010,446
2024	84,079,311	3,282,445	3,023,311	259,134	3,282,445	2,042,441	175,062	2,301,575	2,639,187	81,440,124	55,018,030
2025	87,712,734	3,441,689	3,211,240	230,449	3,441,689	2,085,960	149,695	2,316,409	3,003,888	84,708,846	55,025,251
2026	91,460,910	3,613,761	3,336,513	277,248	3,613,761	2,083,976	173,168	2,361,224	3,354,493	88,106,417	55,031,008
2027	95,407,685	3,790,231	3,526,717	263,514	3,790,231	2,118,055	158,260	2,381,569	3,765,921	91,641,764	55,037,669
2028	99,498,047	3,983,138	3,754,533	228,605	3,983,138	2,168,149	132,014	2,396,754	4,180,072	95,317,975	55,043,756
2029	103,715,717	4,196,268	3,966,965	229,303	4,196,268	2,202,715	127,324	2,432,018	4,575,880	99,139,837	55,048,832
2030	108,103,140	4,409,196	4,170,484	238,712	4,409,196	2,226,656	127,450	2,465,368	4,988,218	103,114,922	55,053,900
2031	112,676,193	4,638,618	4,401,949	236,669	4,638,618	2,259,843	121,500	2,496,512	5,426,459	107,249,734	55,059,144
2032	117,429,729	4,876,324	4,661,324	215,000	4,876,324	2,300,961	106,130	2,515,961	5,880,186	111,549,543	55,063,991
2033	122,351,345	5,138,444	4,858,355	280,089	5,138,444	2,305,981	132,942	2,586,070	6,330,393	116,020,952	55,068,466
2034	127,536,693	5,413,378	5,070,160	343,218	5,413,378	2,313,955	156,640	2,657,173	6,863,698	120,672,995	55,073,580
2035	132,995,197	5,695,721	5,281,159	414,562	5,695,721	2,317,550	181,924	2,732,112	7,481,464	125,513,733	55,079,644
2036	138,746,150	5,991,665	5,510,525	481,140	5,991,665	2,325,196	203,020	2,806,336	8,195,285	130,550,865	55,086,641
2037	144,796,489	6,298,565	5,740,858	557,707	6,298,565	2,329,217	226,276	2,886,924	9,004,236	135,792,253	55,094,493
2038	151,168,987	6,621,094	5,997,766	623,328	6,621,094	2,339,857	243,174	2,963,185	9,922,112	141,246,875	55,103,439
2039	157,864,008	6,964,677	6,273,113	691,564	6,964,677	2,353,150	259,417	3,044,714	10,942,324	146,921,684	55,112,792
2040	164,898,064	7,316,086	6,534,666	781,420	7,316,086	2,356,984	281,850	3,138,404	12,071,581	152,826,483	55,122,867
2041	172,306,962	7,693,903	6,801,586	892,317	7,693,903	2,358,903	309,470	3,251,220	13,335,864	158,971,098	55,133,811
2042	180,127,657	8,093,496	7,132,305	961,191	8,093,496	2,378,463	320,536	3,339,654	14,761,616	165,366,041	55,145,849
2043	188,332,613	8,512,036	7,429,322	1,082,714	8,512,036	2,382,223	347,174	3,464,937	16,313,272	172,019,341	55,158,245
2044	196,991,940	8,945,505	7,700,922	1,244,583	8,945,505	2,374,338	383,728	3,618,921	18,048,517	178,943,423	55,171,598

EXHIBIT D

Projected Cash Flows (Open Group) - Funded Approach

<b>Total Medical, Dental &amp; Life Insurance - pay-as-you-go</b>					
<b>Fiscal Year</b>	<b>Number of Retirees, Spouses &amp; Surviving Spouses</b>	<b>Total Accumulated Postretirement Benefit Obligation ("APBO")</b>	<b>Present Value of Total Accumulated Postretirement Benefit Obligation ("APBO")</b>	<b>Employer Share of Premiums / Claims including "implicit cost"</b>	<b>Present Value of Employer Share of Premiums / Claims including "implicit cost"</b>
2014	370	54,987,938	54,987,938	1,935,630	1,935,630
2015	375	57,231,170	55,029,971	1,940,867	1,866,218
2016	379	59,683,347	55,180,609	2,034,534	1,881,041
2017	381	62,259,208	55,348,209	2,097,175	1,864,381
2018	384	64,991,136	55,554,695	2,184,168	1,867,036
2019	386	67,871,373	55,785,321	2,310,039	1,898,684
2020	389	70,862,759	56,003,868	2,433,869	1,923,522
2021	392	73,979,280	56,218,173	2,581,553	1,961,768
2022	396	77,208,839	56,415,742	2,725,470	1,991,474
2023	400	80,564,859	56,603,801	2,854,305	2,005,397
2024	404	84,079,311	56,800,970	3,023,311	2,042,441
2025	409	87,712,734	56,976,519	3,211,240	2,085,960
2026	414	91,460,910	57,126,215	3,336,513	2,083,976
2027	418	95,407,685	57,299,383	3,526,717	2,118,055
2028	421	99,498,047	57,457,643	3,754,533	2,168,149
2029	424	103,715,717	57,589,656	3,966,965	2,202,715
2030	425	108,103,140	57,717,150	4,170,484	2,226,656
2031	427	112,676,193	57,844,943	4,401,949	2,259,843
2032	429	117,429,729	57,966,616	4,661,324	2,300,961
2033	430	122,351,345	58,073,139	4,858,355	2,305,981
2034	429	127,536,693	58,206,082	5,070,160	2,313,955
2035	428	132,995,197	58,362,761	5,281,159	2,317,550
2036	427	138,746,150	58,544,685	5,510,525	2,325,196
2037	426	144,796,489	58,747,749	5,740,858	2,329,217
2038	425	151,168,987	58,974,268	5,997,766	2,339,857
2039	424	157,864,008	59,217,442	6,273,113	2,353,150
2040	423	164,898,064	59,476,956	6,534,666	2,356,984
2041	422	172,306,962	59,758,910	6,801,586	2,358,903
2042	421	180,127,657	60,068,516	7,132,305	2,378,463
2043	419	188,332,613	60,389,119	7,429,322	2,382,223
2044	418	196,991,940	60,736,293	7,700,922	2,374,338
2045	417	206,165,983	61,120,020	8,054,605	2,387,870
2046	416	215,817,094	61,520,376	8,446,558	2,407,758
2047	415	225,951,354	61,931,950	8,779,267	2,406,346
2048	413	236,675,888	62,376,425	9,169,652	2,416,681
2049	412	247,971,730	62,839,873	9,617,169	2,437,139
2050	411	259,831,518	63,312,814	10,065,613	2,452,675
2051	410	272,308,536	63,801,032	10,503,678	2,460,979
2052	409	285,468,152	64,311,816	10,957,674	2,468,604
2053	408	299,352,139	64,845,842	11,456,985	2,481,819

## EXHIBIT E

### GLOSSARY

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

**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.

**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.