

**Town of Ipswich Other  
Postemployment Benefits Plan**

**GASB 45 Actuarial Valuation**

*as of*

July 1, 2011

For the fiscal years ending

June 30, 2012

June 30, 2013

Delivered January 2012

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January 20, 2012

*Personal and Confidential*

Ms. Rita Negri  
Finance Director  
Town of Ipswich  
25 Green Street  
Ipswich, MA 01938

Dear Ms. Negri:

We have performed an actuarial valuation of the Town of Ipswich Other Postemployment Benefits Plan for the fiscal year ending June 30, 2012. The figures presented in this report reflect the adoption, by the Town of Ipswich, 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, A.S.A., E.A., M.A.A.A.  
President & CEO

Enclosure

## SECTION I

### PRINCIPAL RESULTS OF THE VALUATION

#### Town of Ipswich Comparison of Plan Liabilities to Prior Valuation

	<u>July 1, 2011</u>	<u>July 1, 2009</u>
I. Actuarial Accrued Liability (Projected Unit Credit)		
A. Actives	16,419,754	12,608,878
B. Retirees/Disabled	<u>13,391,354</u>	<u>11,321,717</u>
C. Total	29,811,108	23,930,595
II. Plan Assets	252,794	0
III. Unfunded Actuarial Accrued Liability ("UAAL")	29,558,314	23,930,595
IV. Funded Ratio	0.85%	0.00%
V. Unrecognized Transition Obligation	19,040,709	19,429,550
VI. Annual Covered Payroll	23,426,188	23,032,308
VII. UAAL as % of Covered Payroll	126.20%	103.9%
VIII. Net OPEB Obligation	4,386,393	1,741,065
IX. Number of Covered Participants		
A. Actives	464	453
B. Retirees/Disabled	<u>208</u>	<u>159</u>
C. Total	672	612
<b>For the Fiscal Year Ending:</b>	<b><u>June 30, 2012</u></b>	<b><u>June 30, 2010</u></b>
X. Normal Cost	1,470,523	1,049,450
XI. Amortization of UAAL - 30 year flat dollar	1,121,178	1,121,178
XII. Annual Required Contribution ('ARC') [ X. + XI.]	2,591,701	2,170,628
XIII. Interest on Net OPEB Obligation	175,454	69,645
XIV. Adjustment to Annual Required Contribution	(379,342)	(98,570)
XV. Amortization of Actuarial (Gains) / Losses	475,836	0
XVI. Annual OPEB Cost [XII. + XIII. + XIV. + XV.]	2,863,649	2,141,703
XVII. Expected Employer Contribution	839,823	659,964
XVIII. Percentage of Annual OPEB Cost Contributed	29.3%	30.8%
XIX. Net OPEB Obligation at Beginning of Year (VIII.)	4,386,393	1,741,065
XX. Increase in Net OPEB Obligations (XVI. - XVII.)	2,023,826	1,481,739
XXI. Net OPEB Obligation at End of Year (XIX. + XX.)	6,410,219	3,222,804

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Town of Ipswich**  
**Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	16,402,346	0	17,408	16,419,754
B. Retirees/Disabled	<u>13,378,341</u>	<u>0</u>	<u>13,013</u>	<u>13,391,354</u>
C. Total	29,780,687	0	30,421	29,811,108
II. Plan Assets	252,598	0	196	252,794
III. Unfunded Actuarial Accrued Liability ("UAAL")	29,528,089	0	30,225	29,558,314
IV. Unrecognized Transition Obligation	19,021,278	0	19,431	19,040,709
V. Annual Covered Payroll	23,426,188	23,426,188	23,426,188	23,426,188
VI. UAAL as % of Covered Payroll	126.0%	0.0%	0.1%	126.2%
VII. Net OPEB Obligation	4,381,917	0	4,476	4,386,393
VIII. Number of Covered Participants				
A. Actives	464	0	464	
B. Retirees/Disabled	<u>208</u>	<u>0</u>	<u>43</u>	
C. Total	672	0	507	
<b>For Fiscal Year Ending June 30, 2012</b>				
IX. Normal Cost	1,469,140	0	1,383	1,470,523
X. Amortization of UAAL - 30 year flat dollar	1,120,034	0	1,144	1,121,178
XI. Annual Required Contribution ('ARC') [ IX. + X.]	2,589,174	0	2,527	2,591,701
XII. Interest on Net OPEB Obligation	175,275	0	179	175,454
XIII. Adjustment to Annual Required Contribution	(378,956)	0	(386)	(379,342)
XIV. Amortization of Actuarial (Gains) / Losses	475,351	0	485	475,836
XV. Annual OPEB Cost [XI. + XII. + XIII. + XIV.]	2,860,844	0	2,805	2,863,649
XVI. Expected Employer Contribution	838,959	0	864	839,823
XVII. Percentage of Annual OPEB Cost Contributed	29.3%	0.0%	30.8%	29.3%
XVIII. Net OPEB Obligation at Beginning of Year (VII.)	4,381,917	0	4,476	4,386,393
XIX. Increase in Net OPEB Obligations (XV. - XVI.)	2,021,885	0	1,941	2,023,826
XX. Net OPEB Obligation at End of Year (XVIII. + XIX.)	6,403,802	0	6,417	6,410,219

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Town of Ipswich**  
**General Government**  
**Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	12,000	0	6	12,006
B. Retirees/Disabled	<u>800,887</u>	<u>0</u>	<u>2,568</u>	<u>803,455</u>
C. Total	812,887	0	2,574	815,461
II. Plan Assets	14,586	0	22	14,608
III. Unfunded Actuarial Accrued Liability ("UAAL")	798,301	0	2,552	800,853
IV. Unrecognized Transition Obligation	519,201	0	1,644	520,845
V. Annual Covered Payroll	175,056	175,056	175,056	175,056
VI. UAAL as % of Covered Payroll	456.0%	0.0%	1.5%	457.5%
VII. Net OPEB Obligation	119,608	0	381	119,989
VIII. Number of Covered Participants				
A. Actives	3	0	3	
B. Retirees/Disabled	<u>16</u>	<u>0</u>	<u>7</u>	
C. Total	19	0	10	
<b>For Fiscal Year Ending June 30, 2012</b>				
IX. Normal Cost	3,899	0	2	3,901
X. Amortization of UAAL - 30 year flat dollar	30,572	0	96	30,668
XI. Annual Required Contribution ('ARC') [ IX. + X.]	34,471	0	98	34,569
XII. Interest on Net OPEB Obligation	4,784	0	15	4,799
XIII. Adjustment to Annual Required Contribution	(10,344)	0	(33)	(10,377)
XIV. Amortization of Actuarial (Gains) / Losses	12,975	0	41	13,016
XV. Annual OPEB Cost [XI. + XII. + XIII. + XIV.]	41,886	0	121	42,007
XVI. Expected Employer Contribution	53,949	0	324	54,273
XVII. Percentage of Annual OPEB Cost Contributed	128.8%	0.0%	267.8%	129.2%
XVIII. Net OPEB Obligation at Beginning of Year (VII.)	119,608	0	381	119,989
XIX. Increase in Net OPEB Obligations (XV. - XVI.)	(12,063)	0	(203)	(12,266)
XX. Net OPEB Obligation at End of Year (XVIII. + XIX.)	107,545	0	178	107,723

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Town of Ipswich**  
**Education**  
**Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	9,907,318	0	11,090	9,918,408
B. Retirees/Disabled	<u>7,558,239</u>	<u>0</u>	<u>10,239</u>	<u>7,568,478</u>
C. Total	17,465,557	0	21,329	17,486,886
II. Plan Assets	94,872	0	116	94,988
III. Unfunded Actuarial Accrued Liability ("UAAL")	17,370,685	0	21,213	17,391,898
IV. Unrecognized Transition Obligation	11,155,458	0	13,623	11,169,081
V. Annual Covered Payroll	15,446,470	15,446,470	15,446,470	15,446,470
VI. UAAL as % of Covered Payroll	112.5%	0.0%	0.1%	112.6%
VII. Net OPEB Obligation	2,569,874	0	3,138	2,573,012
VIII. Number of Covered Participants				
A. Actives	327	0	327	
B. Retirees/Disabled	<u>122</u>	<u>0</u>	<u>35</u>	
C. Total	449	0	362	

**For Fiscal Year Ending June 30, 2012**

IX. Normal Cost	939,768	0	900	940,668
X. Amortization of UAAL - 30 year flat dollar	656,869	0	802	657,671
XI. Annual Required Contribution ("ARC") [ IX. + X.]	1,596,637	0	1,702	1,598,339
XII. Interest on Net OPEB Obligation	102,795	0	126	102,921
XIII. Adjustment to Annual Required Contribution	(222,247)	0	(271)	(222,518)
XIV. Amortization of Actuarial (Gains) / Losses	278,780	0	340	279,120
XV. Annual OPEB Cost [XI. + XII. + XIII. + XIV.]	1,755,965	0	1,897	1,757,862
XVI. Expected Employer Contribution	487,840	0	528	488,368
XVII. Percentage of Annual OPEB Cost Contributed	27.8%	0.0%	27.8%	27.8%
XVIII. Net OPEB Obligation at Beginning of Year (VII.)	2,569,874	0	3,138	2,573,012
XIX. Increase in Net OPEB Obligations (XV. - XVI.)	1,268,125	0	1,369	1,269,494
XX. Net OPEB Obligation at End of Year (XVIII. + XIX.)	3,837,999	0	4,507	3,842,506

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Town of Ipswich**  
**Public Safety**  
**Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	3,099,709	0	2,386	3,102,095
B. Retirees/Disabled	<u>1,983,524</u>	<u>0</u>	<u>206</u>	<u>1,983,730</u>
C. Total	5,083,233	0	2,592	5,085,825
II. Plan Assets	27,612	0	14	27,626
III. Unfunded Actuarial Accrued Liability ("UAAL")	5,055,621	0	2,578	5,058,199
IV. Unrecognized Transition Obligation	3,246,721	0	1,656	3,248,377
V. Annual Covered Payroll	2,828,768	2,828,768	2,828,768	2,828,768
VI. UAAL as % of Covered Payroll	178.7%	0.0%	0.1%	178.8%
VII. Net OPEB Obligation	<b>747,945</b>	0	381	748,326
VIII. Number of Covered Participants				
A. Actives	49	0	49	
B. Retirees/Disabled	<u>30</u>	<u>0</u>	<u>1</u>	
C. Total	79	0	50	
<b>For Fiscal Year Ending June 30, 2012</b>				
IX. Normal Cost	229,487	0	150	229,637
X. Amortization of UAAL - 30 year flat dollar	191,177	0	97	191,274
XI. Annual Required Contribution ('ARC') [ IX. + X.]	420,664	0	247	420,911
XII. Interest on Net OPEB Obligation	29,918	0	15	29,933
XIII. Adjustment to Annual Required Contribution	(64,684)	0	(33)	(64,717)
XIV. Amortization of Actuarial (Gains) / Losses	81,137	0	41	81,178
XV. Annual OPEB Cost [XI. + XII. + XIII. + XIV.]	467,035	0	270	467,305
XVI. Expected Employer Contribution	122,285	0	6	122,291
XVII. Percentage of Annual OPEB Cost Contributed	26.2%	0.0%	2.2%	26.2%
XVIII. Net OPEB Obligation at Beginning of Year (VII.)	747,945	0	381	748,326
XIX. Increase in Net OPEB Obligations (XV. - XVI.)	344,750	0	264	345,014
XX. Net OPEB Obligation at End of Year (XVIII. + XIX.)	1,092,695	0	645	1,093,340



SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Town of Ipswich**  
**Finance**  
**Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	396,709	0	485	397,194
B. Retirees/Disabled	<u>481,731</u>	<u>0</u>	<u>0</u>	<u>481,731</u>
C. Total	878,440	0	485	878,925
II. Plan Assets	4,772	0	3	4,775
III. Unfunded Actuarial Accrued Liability ("UAAL")	873,668	0	482	874,150
IV. Unrecognized Transition Obligation	561,070	0	310	561,380
V. Annual Covered Payroll	751,968	751,968	751,968	751,968
VI. UAAL as % of Covered Payroll	116.2%	0.0%	0.1%	116.2%
VII. Net OPEB Obligation	<b>129,253</b>	0	71	129,324
VIII. Number of Covered Participants				
A. Actives	13	0	13	
B. Retirees/Disabled	<u>9</u>	<u>0</u>	<u>0</u>	
C. Total	22	0	13	
<b>For Fiscal Year Ending June 30, 2012</b>				
IX. Normal Cost	46,627	0	57	46,684
X. Amortization of UAAL - 30 year flat dollar	33,038	0	18	33,056
XI. Annual Required Contribution ("ARC") [ IX. + X.]	79,665	0	75	79,740
XII. Interest on Net OPEB Obligation	5,170	0	3	5,173
XIII. Adjustment to Annual Required Contribution	(11,178)	0	(6)	(11,184)
XIV. Amortization of Actuarial (Gains) / Losses	14,021	0	8	14,029
XV. Annual OPEB Cost [XI. + XII. + XIII. + XIV.]	87,678	0	80	87,758
XVI. Expected Employer Contribution	31,275	0	1	31,276
XVII. Percentage of Annual OPEB Cost Contributed	35.7%	0.0%	1.3%	35.6%
XVIII. Net OPEB Obligation at Beginning of Year (VII.)	129,253	0	71	129,324
XIX. Increase in Net OPEB Obligations (XV. - XVI.)	56,403	0	79	56,482
XX. Net OPEB Obligation at End of Year (XVIII. + XIX.)	185,656	0	150	185,806

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Town of Ipswich**  
**Electric**  
**Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	595,887	0	546	596,433
B. Retirees/Disabled	<u>1,277,567</u>	<u>0</u>	<u>0</u>	<u>1,277,567</u>
C. Total	1,873,454	0	546	1,874,000
II. Plan Assets	90,836	0	26	90,862
III. Unfunded Actuarial Accrued Liability ("UAAL")	1,782,618	0	520	1,783,138
IV. Unrecognized Transition Obligation	1,196,597	0	349	1,196,946
V. Annual Covered Payroll	1,036,797	1,036,797	1,036,797	1,036,797
VI. UAAL as % of Covered Payroll	171.9%	0.0%	0.1%	172.0%
VII. Net OPEB Obligation	<b>275,659</b>	0	80	275,739
VIII. Number of Covered Participants				
A. Actives	13	0	13	
B. Retirees/Disabled	<u>15</u>	<u>0</u>	<u>0</u>	
C. Total	28	0	13	
<b>For Fiscal Year Ending June 30, 2012</b>				
IX. Normal Cost	40,929	0	37	40,966
X. Amortization of UAAL - 30 year flat dollar	70,459	0	21	70,480
XI. Annual Required Contribution ("ARC") [ IX. + X.]	111,388	0	58	111,446
XII. Interest on Net OPEB Obligation	11,026	0	3	11,029
XIII. Adjustment to Annual Required Contribution	(23,839)	0	(7)	(23,846)
XIV. Amortization of Actuarial (Gains) / Losses	29,904	0	9	29,913
XV. Annual OPEB Cost [XI. + XII. + XIII. + XIV.]	128,479	0	63	128,542
XVI. Expected Employer Contribution	66,618	0	0	66,618
XVII. Percentage of Annual OPEB Cost Contributed	51.9%	0.0%	0.0%	51.8%
XVIII. Net OPEB Obligation at Beginning of Year (VII.)	275,659	0	80	275,739
XIX. Increase in Net OPEB Obligations (XV. - XVI.)	61,861	0	63	61,924
XX. Net OPEB Obligation at End of Year (XVIII. + XIX.)	337,520	0	143	337,663

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Town of Ipswich**  
**Public Works**  
**Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	812,047	0	974	813,021
B. Retirees/Disabled	<u>610,962</u>	<u>0</u>	<u>0</u>	<u>610,962</u>
C. Total	1,423,009	0	974	1,423,983
II. Plan Assets	7,730	0	5	7,735
III. Unfunded Actuarial Accrued Liability ("UAAL")	1,415,279	0	969	1,416,248
IV. Unrecognized Transition Obligation	908,893	0	622	909,515
V. Annual Covered Payroll	1,160,007	1,160,007	1,160,007	1,160,007
VI. UAAL as % of Covered Payroll	122.0%	0.0%	0.1%	122.1%
VII. Net OPEB Obligation	<b>209,381</b>	0	143	209,524
VIII. Number of Covered Participants				
A. Actives	23	0	23	
B. Retirees/Disabled	<u>7</u>	<u>0</u>	<u>0</u>	
C. Total	30	0	23	
<b>For Fiscal Year Ending June 30, 2012</b>				
IX. Normal Cost	73,800	0	82	73,882
X. Amortization of UAAL - 30 year flat dollar	53,519	0	37	53,556
XI. Annual Required Contribution ('ARC') [ IX. + X.]	127,319	0	119	127,438
XII. Interest on Net OPEB Obligation	8,375	0	6	8,381
XIII. Adjustment to Annual Required Contribution	(18,108)	0	(12)	(18,120)
XIV. Amortization of Actuarial (Gains) / Losses	22,714	0	16	22,730
XV. Annual OPEB Cost [XI. + XII. + XIII. + XIV.]	140,300	0	129	140,429
XVI. Expected Employer Contribution	34,207	0	2	34,209
XVII. Percentage of Annual OPEB Cost Contributed	24.4%	0.0%	1.6%	24.4%
XVIII. Net OPEB Obligation at Beginning of Year (VII.)	209,381	0	143	209,524
XIX. Increase in Net OPEB Obligations (XV. - XVI.)	106,093	0	127	106,220
XX. Net OPEB Obligation at End of Year (XVIII. + XIX.)	315,474	0	270	315,744

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Town of Ipswich**  
**Code Enforcement**  
**Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	187,214	0	189	187,403
B. Retirees/Disabled	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
C. Total	187,214	0	189	187,403
II. Plan Assets	1,017	0	1	1,018
III. Unfunded Actuarial Accrued Liability ("UAAL")	186,197	0	188	186,385
IV. Unrecognized Transition Obligation	119,576	0	121	119,697
V. Annual Covered Payroll	282,221	282,221	282,221	282,221
VI. UAAL as % of Covered Payroll	66.0%	0.0%	0.1%	66.0%
VII. Net OPEB Obligation	<b>27,547</b>	0	28	27,575
VIII. Number of Covered Participants				
A. Actives	5	0	5	
B. Retirees/Disabled	<u>0</u>	<u>0</u>	<u>0</u>	
C. Total	5	0	5	
<b>For Fiscal Year Ending June 30, 2012</b>				
IX. Normal Cost	18,381	0	17	18,398
X. Amortization of UAAL - 30 year flat dollar	7,041	0	7	7,048
XI. Annual Required Contribution ('ARC') [ IX. + X.]	25,422	0	24	25,446
XII. Interest on Net OPEB Obligation	1,102	0	1	1,103
XIII. Adjustment to Annual Required Contribution	(2,382)	0	(2)	(2,384)
XIV. Amortization of Actuarial (Gains) / Losses	2,988	0	3	2,991
XV. Annual OPEB Cost [XI. + XII. + XIII. + XIV.]	27,130	0	26	27,156
XVI. Expected Employer Contribution	295	0	0	295
XVII. Percentage of Annual OPEB Cost Contributed	1.1%	0.0%	0.0%	1.1%
XVIII. Net OPEB Obligation at Beginning of Year (VII.)	27,547	0	28	27,575
XIX. Increase in Net OPEB Obligations (XV. - XVI.)	26,835	0	26	26,861
XX. Net OPEB Obligation at End of Year (XVIII. + XIX.)	54,382	0	54	54,436

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Town of Ipswich**  
**Water**  
**Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	405,454	0	389	405,843
B. Retirees/Disabled	<u>303,116</u>	<u>0</u>	<u>0</u>	<u>303,116</u>
C. Total	708,570	0	389	708,959
II. Plan Assets	3,849	0	2	3,851
III. Unfunded Actuarial Accrued Liability ("UAAL")	704,721	0	387	705,108
IV. Unrecognized Transition Obligation	452,572	0	248	452,820
V. Annual Covered Payroll	749,809	749,809	749,809	749,809
VI. UAAL as % of Covered Payroll	94.0%	0.0%	0.1%	94.0%
VII. Net OPEB Obligation	<b>104,259</b>	0	57	104,316
VIII. Number of Covered Participants				
A. Actives	12	0	12	
B. Retirees/Disabled	<u>4</u>	<u>0</u>	<u>0</u>	
C. Total	16	0	12	
<b>For Fiscal Year Ending June 30, 2012</b>				
IX. Normal Cost	41,371	0	37	41,408
X. Amortization of UAAL - 30 year flat dollar	26,649	0	15	26,664
XI. Annual Required Contribution ('ARC') [ IX. + X.]	68,020	0	52	68,072
XII. Interest on Net OPEB Obligation	4,170	0	2	4,172
XIII. Adjustment to Annual Required Contribution	(9,017)	0	(5)	(9,022)
XIV. Amortization of Actuarial (Gains) / Losses	11,310	0	6	11,316
XV. Annual OPEB Cost [XI. + XII. + XIII. + XIV.]	74,483	0	55	74,538
XVI. Expected Employer Contribution	16,744	0	0	16,744
XVII. Percentage of Annual OPEB Cost Contributed	22.5%	0.0%	0.0%	22.5%
XVIII. Net OPEB Obligation at Beginning of Year (VII.)	104,259	0	57	104,316
XIX. Increase in Net OPEB Obligations (XV. - XVI.)	57,739	0	55	57,794
XX. Net OPEB Obligation at End of Year (XVIII. + XIX.)	161,998	0	112	162,110

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Town of Ipswich**  
**Sewer**  
**Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	252,159	0	342	252,501
B. Retirees/Disabled	<u>128,163</u>	<u>0</u>	<u>0</u>	<u>128,163</u>
C. Total	380,322	0	342	380,664
II. Plan Assets	2,066	0	2	2,068
III. Unfunded Actuarial Accrued Liability ("UAAL")	378,256	0	340	378,596
IV. Unrecognized Transition Obligation	242,916	0	218	243,134
V. Annual Covered Payroll	314,011	314,011	314,011	314,011
VI. UAAL as % of Covered Payroll	120.5%	0.0%	0.1%	120.6%
VII. Net OPEB Obligation	<b>55,960</b>	0	50	56,010
VIII. Number of Covered Participants				
A. Actives	5	0	5	
B. Retirees/Disabled	<u>2</u>	<u>0</u>	<u>0</u>	
C. Total	7	0	5	

**For Fiscal Year Ending June 30, 2012**

IX. Normal Cost	18,967	0	26	18,993
X. Amortization of UAAL - 30 year flat dollar	14,304	0	13	14,317
XI. Annual Required Contribution ('ARC') [ IX. + X.]	33,271	0	39	33,310
XII. Interest on Net OPEB Obligation	2,238	0	2	2,240
XIII. Adjustment to Annual Required Contribution	(4,840)	0	(4)	(4,844)
XIV. Amortization of Actuarial (Gains) / Losses	6,071	0	5	6,076
XV. Annual OPEB Cost [XI. + XII. + XIII. + XIV.]	36,740	0	42	36,782
XVI. Expected Employer Contribution	7,217	0	1	7,218
XVII. Percentage of Annual OPEB Cost Contributed	19.6%	0.0%	2.4%	19.6%
XVIII. Net OPEB Obligation at Beginning of Year (VII.)	55,960	0	50	56,010
XIX. Increase in Net OPEB Obligations (XV. - XVI.)	29,523	0	41	29,564
XX. Net OPEB Obligation at End of Year (XVIII. + XIX.)	85,483	0	91	85,574

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Town of Ipswich**  
**Planning & Development**  
**Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	284,792	0	335	285,127
B. Retirees/Disabled	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
C. Total	284,792	0	335	285,127
II. Plan Assets	1,547	0	2	1,549
III. Unfunded Actuarial Accrued Liability ("UAAL")	283,245	0	333	283,578
IV. Unrecognized Transition Obligation	181,900	0	214	182,114
V. Annual Covered Payroll	303,298	303,298	303,298	303,298
VI. UAAL as % of Covered Payroll	93.4%	0.0%	0.1%	93.5%
VII. Net OPEB Obligation	<b>41,904</b>	0	49	41,953
VIII. Number of Covered Participants				
A. Actives	5	0	5	
B. Retirees/Disabled	<u>0</u>	<u>0</u>	<u>0</u>	
C. Total	5	0	5	
<b>For Fiscal Year Ending June 30, 2012</b>				
IX. Normal Cost	22,116	0	25	22,141
X. Amortization of UAAL - 30 year flat dollar	10,711	0	13	10,724
XI. Annual Required Contribution ("ARC") [ IX. + X.]	32,827	0	38	32,865
XII. Interest on Net OPEB Obligation	1,676	0	2	1,678
XIII. Adjustment to Annual Required Contribution	(3,624)	0	(4)	(3,628)
XIV. Amortization of Actuarial (Gains) / Losses	4,546	0	5	4,551
XV. Annual OPEB Cost [XI. + XII. + XIII. + XIV.]	35,425	0	41	35,466
XVI. Expected Employer Contribution	694	0	0	694
XVII. Percentage of Annual OPEB Cost Contributed	2.0%	0.0%	0.0%	2.0%
XVIII. Net OPEB Obligation at Beginning of Year (VII.)	41,904	0	49	41,953
XIX. Increase in Net OPEB Obligations (XV. - XVI.)	34,731	0	41	34,772
XX. Net OPEB Obligation at End of Year (XVIII. + XIX.)	76,635	0	90	76,725

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Town of Ipswich**  
**Human Services**  
**Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	129,731	0	222	129,953
B. Retirees/Disabled	<u>51,911</u>	<u>0</u>	<u>0</u>	<u>51,911</u>
C. Total	181,642	0	222	181,864
II. Plan Assets	987	0	1	988
III. Unfunded Actuarial Accrued Liability ("UAAL")	180,655	0	221	180,876
IV. Unrecognized Transition Obligation	116,017	0	142	116,159
V. Annual Covered Payroll	55,563	55,563	55,563	55,563
VI. UAAL as % of Covered Payroll	325.1%	0.0%	0.4%	325.5%
VII. Net OPEB Obligation	<b>26,727</b>	0	33	26,760
VIII. Number of Covered Participants				
A. Actives	2	0	2	
B. Retirees/Disabled	<u>1</u>	<u>0</u>	<u>0</u>	
C. Total	3	0	2	

**For Fiscal Year Ending June 30, 2012**

IX. Normal Cost	7,140	0	12	7,152
X. Amortization of UAAL - 30 year flat dollar	6,831	0	8	6,839
XI. Annual Required Contribution ("ARC") [ IX. + X.]	13,971	0	20	13,991
XII. Interest on Net OPEB Obligation	1,069	0	1	1,070
XIII. Adjustment to Annual Required Contribution	(2,311)	0	(3)	(2,314)
XIV. Amortization of Actuarial (Gains) / Losses	2,899	0	4	2,903
XV. Annual OPEB Cost [XI. + XII. + XIII. + XIV.]	15,628	0	22	15,650
XVI. Expected Employer Contribution	3,894	0	1	3,895
XVII. Percentage of Annual OPEB Cost Contributed	24.9%	0.0%	4.5%	24.9%
XVIII. Net OPEB Obligation at Beginning of Year (VII.)	26,727	0	33	26,760
XIX. Increase in Net OPEB Obligations (XV. - XVI.)	11,734	0	21	11,755
XX. Net OPEB Obligation at End of Year (XVIII. + XIX.)	38,461	0	54	38,515



SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Town of Ipswich**  
**Library**  
**Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	319,326	0	444	319,770
B. Retirees/Disabled	<u>182,241</u>	<u>0</u>	<u>0</u>	<u>182,241</u>
C. Total	501,567	0	444	502,011
II. Plan Assets	2,724	0	2	2,726
III. Unfunded Actuarial Accrued Liability ("UAAL")	498,843	0	442	499,285
IV. Unrecognized Transition Obligation	320,357	0	284	320,641
V. Annual Covered Payroll	322,220	322,220	322,220	322,220
VI. UAAL as % of Covered Payroll	154.8%	0.0%	0.1%	155.0%
VII. Net OPEB Obligation	<b>73,800</b>	0	65	73,865
VIII. Number of Covered Participants				
A. Actives	7	0	7	
B. Retirees/Disabled	<u>2</u>	<u>0</u>	<u>0</u>	
C. Total	9	0	7	
<b>For Fiscal Year Ending June 30, 2012</b>				
IX. Normal Cost	26,655	0	38	26,693
X. Amortization of UAAL - 30 year flat dollar	18,864	0	17	18,881
XI. Annual Required Contribution ("ARC") [ IX. + X.]	45,519	0	55	45,574
XII. Interest on Net OPEB Obligation	2,952	0	3	2,955
XIII. Adjustment to Annual Required Contribution	(6,382)	0	(6)	(6,388)
XIV. Amortization of Actuarial (Gains) / Losses	8,006	0	7	8,013
XV. Annual OPEB Cost [XI. + XII. + XIII. + XIV.]	50,095	0	59	50,154
XVI. Expected Employer Contribution	13,941	0	1	13,942
XVII. Percentage of Annual OPEB Cost Contributed	27.8%	0.0%	1.7%	27.8%
XVIII. Net OPEB Obligation at Beginning of Year (VII.)	73,800	0	65	73,865
XIX. Increase in Net OPEB Obligations (XV. - XVI.)	36,154	0	58	36,212
XX. Net OPEB Obligation at End of Year (XVIII. + XIX.)	109,954	0	123	110,077

## 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, 2009. 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 \$1,121,178. 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 2012 fiscal year is \$1,470,523. The combined amortization charge and normal cost represent the Annual Required Contribution (“ARC”) for the plan for the 2012 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 2012 fiscal year beyond the “pay-as-you-go” costs is \$2,023,826.

### 2. Plan Experience:

Plan experience was less favorable than expected. This is mainly due to higher than expected increases in costs for the Medex 3 plan, identification of 8 retirees over age 65 without Medicare coverage, fewer terminations of employment than expected prior to retirement and earlier retirement than expected among those eligible to retire. The actuarial experience loss is amortized into the annual OPEB costs over a 15-year period (the segment of the actuarial loss reflecting OPEB costs in excess of employer contributions is offset by the ARC Adjustment). The net impact of the plan experience is an increase in the annual OPEB cost.

## 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 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.
<u>Credited Service</u>	Service shall be credited based on elapsed time from date of hire to termination of service date.
<u>Participant Contributions</u>	Retirees shall pay 50% of premiums for Medical & 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 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 15 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 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 Safety Male</u>	<u>Non Public</u>	
		<u>Safety Female</u>	<u>Public Safety</u>
0	15.00%	15.00%	1.50%
5	10.20%	10.20%	1.50%
10	5.40%	5.40%	1.50%
15	3.70%	3.70%	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

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%	8.5%
FY 2009	10.0%	8.0%
FY 2010	9.0%	7.5%
FY 2011	10.0%	0.0%
FY 2012	7.0%	6.5%
FY 2013	6.0%	6.0%
FY 2014	5.0%	5.5%
FY 2015	5.0%	5.0%

Participation Rate

It was assumed that 70% of the 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 70% of eligible employees would elect coverage upon retirement.

Percent Married

It was assumed that 80% of the 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 III

ACTUARIAL 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

Initial premiums were developed for the two classes of retirees (pre-65 and post-65). These premiums were developed using fully insured premium rates in conjunction with census data for the retired participants of the Town of Ipswich's medical benefit program.

The pre-65 fully insured premiums are blended rates based on the combined experience of active and pre-65 retired members. Therefore, there is an implicit employer subsidy for the non-Medicare eligible retirees as the average costs of providing healthcare benefits to retirees under age 65 is higher than the average cost of providing healthcare benefits to active employees. The true per-capita cost for the non-Medicare retirees is developed by adjusting the demographic differences between the actives and retirees to reflect this implicit rate subsidy for the retirees. For the Medicare eligible retirees, the premium rate will be used as the basis of the initial pre-capita cost without adjustment as the rate reflects the actual claim experience of the post-65 retiree group.

Age graded and sex distinct premiums are utilized in this valuation. The premiums developed by the preceding process are appropriate for the existing unique age and sex distribution. Over the future years covered by this valuation, the age and sex distribution will likely change. Therefore, the process "distributes" the average premium over all age/sex combinations and assigns a unique premium for each specific age/sex combination. The age/sex specific premiums more accurately reflect the healthcare utilization and cost at that age.

Based on guidance provided by GASB on issues related to Medicare Part D payments to State and Local Governments effective as of June 30, 2006, an employer should apply the measurement requirements of GASB Statement No. 45 to determine the actuarial accrued liabilities, the annual required contribution of the employer, and the annual OPEB cost without reduction for Retiree Drug Subsidy (RDS) payments. Therefore, the impact of the RDS that is part of Medicare Prescription Drug Improvement and Modernization Act of 2003 is not reflected in this report.

### 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>
BCBS HMO Options	132		178	310
BCBS PPO Options	10		13	23
BCBS Medex III	156			156
<b>Total</b>	298	0	191	489

	Per Contract Costs (monthly) - FY 2012		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
BCBS HMO Options	582.44	0.00	1,553.81
BCBS PPO Options	776.37	0.00	1,991.32
BCBS Medex III	504.53	1,009.06	

Gross Expected FY 2012 Non Medicare Incurred Premiums	5,589,814
Adjustment to reflect children's claims	(899,173)
Total Expected FY 2012 Non Medicare Incurred Premiums (adults only)	4,690,641

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

	<b>Employer <u>Primary</u></b>	<b>Medicare <u>Primary</u></b>
Age 65	9,955	6,054
Average Age	9,308	6,054



## EXHIBIT A

### Financial Statement Disclosure (As of July 1, 2011)

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 offerings via Blue Cross Blue Shield of Massachusetts and the MIIA Health Benefits Trust
- b. Administrator: Town of Ipswich
- c. Eligibility: An employee 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.
- d. Cost Sharing: 50% Participant paid.

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

- a. Plan Type: Comprehensive Dental via the MIIA Health Benefits Trust
- b. Administrator: Town of Ipswich
- 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 - \$1,000
- b. Administrator: Town of Ipswich
- c. Eligibility: Same as above
- d. Cost sharing: 50% Participant paid.

EXHIBIT A

Financial Statement Disclosure  
(As of July 1, 2011)  
(continued)

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

Group	Individual	Family
Medical	50%	50%
Dental	100%	100%
Life	50%	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 2012 fiscal year, total Town premiums plus implicit costs for the retiree medical program are \$839,823.



EXHIBIT A

Financial Statement Disclosure  
(As of July 1, 2011)  
(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	\$2,591,701
Interest on net OPEB obligation	\$175,454
Adjustment to annual required contribution	(\$379,342)
Amortization of Actuarial (Gains) / Losses	\$475,836
Annual OPEB cost (expense)	\$2,863,649
Contributions made	<u>\$839,823</u>
Increase in net OPEB obligation	\$2,023,826
Net OPEB Obligation – beginning of year	\$4,386,393
Net OPEB Obligation – end of year	\$6,410,219

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2011)

(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 2012 fiscal year and the three preceding years were as follows:

Fiscal Year Ended	Annual OPEB Cost	Expected Employer Payments	Increase in OPEB Obligation
06/30/2009	\$2,290,951	\$549,886	\$1,741,065
06/30/2010	\$2,141,703	\$659,964	\$1,481,739
06/30/2011	\$2,175,044	\$722,717	\$1,452,327
06/30/2012	\$2,863,649	\$839,823	\$2,023,826
06/30/2013 (est.)	\$3,014,212	\$905,366	\$2,108,846
06/30/2014 (est.)	\$3,179,928	\$978,097	\$2,201,831

**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
07/01/2008	\$0	\$21,551,689	\$21,551,689	0.00%	\$20,463,394	105.32%
07/01/2009	\$0	\$23,930,595	\$23,930,595	0.00%	\$23,032,308	103.90%
07/01/2010	\$0	\$25,292,880	\$25,292,880	0.00%	\$24,068,762	105.09%
07/01/2011	\$252,794	\$29,811,109	\$29,558,315	0.85%	\$23,426,188	126.20%
07/01/2012 (est.)	\$773,584	\$31,659,479	\$30,885,895	2.44%	\$24,128,974	128.00%
07/01/2013 (est.)	\$804,527	\$33,586,012	\$32,781,485	2.40%	\$24,852,843	131.90%

EXHIBIT A

Financial Statement Disclosure  
(As of July 1, 2011)  
(continued)

<b>Fiscal Year Ending June 30, 2012</b>												
	<u>General Government</u>	<u>Education</u>	<u>Public Safety</u>	<u>Public Works</u>	<u>Finance</u>	<u>Code Enforcement</u>	<u>Sewer</u>	<u>Water</u>	<u>Electric</u>	<u>Planning &amp; Development</u>	<u>Human Services</u>	<u>Total</u>
OPEB obligation at beginning of year	119,989	2,573,012	748,326	209,524	129,324	27,575	56,010	104,316	275,739	41,953	26,760	4,386,393
Annual OPEB Cost	42,007	1,757,862	467,305	140,429	87,758	27,156	36,782	74,538	128,542	35,466	15,650	2,863,649
Expected Employer Payments	54,273	488,368	122,291	34,209	31,276	295	7,218	16,744	66,618	694	3,895	839,823
Increase in OPEB Obligation	(12,266)	1,269,494	345,014	106,220	56,482	26,861	29,564	57,794	61,924	34,772	11,755	2,023,826
OPEB obligation at end of year	107,723	3,842,506	1,093,340	315,744	185,806	54,436	85,574	162,110	337,663	76,725	38,515	6,410,219
APBO at beginning of year	815,461	17,486,886	5,085,825	1,423,983	878,925	187,403	380,664	708,959	1,874,000	285,127	181,864	29,811,108

<b>Fiscal Year Ending June 30, 2013</b>												
	<u>General Government</u>	<u>Education</u>	<u>Public Safety</u>	<u>Public Works</u>	<u>Finance</u>	<u>Code Enforcement</u>	<u>Sewer</u>	<u>Water</u>	<u>Electric</u>	<u>Planning &amp; Development</u>	<u>Human Services</u>	<u>Total</u>
OPEB obligation at beginning of year	107,723	3,842,506	1,093,340	315,744		54,436	85,574	162,110	337,663	76,725	38,515	6,224,413
Annual OPEB Cost	44,215	1,850,286	491,875	147,812	92,372	28,584	38,716	78,457	135,300	37,331	16,473	3,014,212
Expected Employer Payments	58,509	526,482	131,835	36,879	33,717	318	7,781	18,051	71,817	748	4,199	905,366
Increase in OPEB Obligation	(14,294)	1,323,804	360,040	110,933	58,655	28,266	30,935	60,406	63,483	36,583	12,274	2,108,846
OPEB obligation at end of year	93,429	5,166,310	1,453,380	426,677	58,655	82,702	116,509	222,516	401,146	113,308	50,789	8,333,259
APBO at beginning of year	866,022	18,571,121	5,401,160	1,512,274	933,421	199,023	404,266	752,916	1,990,193	302,806	193,140	31,659,479

<b>Fiscal Year Ending June 30, 2014</b>												
	<u>General Government</u>	<u>Education</u>	<u>Public Safety</u>	<u>Public Works</u>	<u>Finance</u>	<u>Code Enforcement</u>	<u>Sewer</u>	<u>Water</u>	<u>Electric</u>	<u>Planning &amp; Development</u>	<u>Human Services</u>	<u>Total</u>
OPEB obligation at beginning of year	93,429	5,166,310	1,453,380	426,677	58,655	82,702	116,509	222,516	401,146	113,308	50,789	8,333,259
Annual OPEB Cost	46,648	1,952,011	518,917	155,938	97,450	30,155	40,845	82,770	142,739	39,383	17,379	3,179,928
Expected Employer Payments	63,209	568,776	142,426	39,842	36,426	344	8,406	19,501	77,586	808	4,536	978,097
Increase in OPEB Obligation	(16,561)	1,383,235	376,491	116,096	61,024	29,811	32,439	63,269	65,153	38,575	12,843	2,201,831
OPEB obligation at end of year	76,868	6,549,545	1,829,871	542,773	119,679	112,513	148,948	285,785	466,299	151,883	63,632	10,535,090
APBO at beginning of year	918,721	19,701,205	5,729,830	1,604,298	990,221	211,134	428,866	798,732	2,111,300	321,232	204,894	33,586,012

## EXHIBIT A

### Financial Statement Disclosure

(As of July 1, 2011)

(continued)

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

As of July 1, 2011, the most recent valuation date, the plan was 0.85% funded. The actuarial liability for benefits was \$29,811,108, and the actuarial value of assets was \$252,794, resulting in an unfunded actuarial accrued liability (UAAL) of \$29,558,314. The covered payroll (annual payroll of active employees covered by the plan) was \$ 23,426,188 and the ratio of the UAAL to the covered payroll was 126.2%.

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 \$40,758,351 or by 37.9% and the corresponding Normal Cost would increase to \$2,298,386 or by 56.3%. 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 \$21,189,402 or by 28.3% and the corresponding Normal Cost would decrease to \$854,727 or by 41.9%.

EXHIBIT A

Financial Statement Disclosure  
(As of July 1, 2011)  
(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%	8.5%
FY 2009	10.0%	8.0%
FY 2010	9.0%	7.5%
FY 2011	10.0%	0.0%
FY 2012	7.0%	6.5%
FY 2013	6.0%	6.0%
FY 2014	5.0%	5.5%
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 transition  
Remaining Amortization Period: 27 years at July 1, 2011

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2011)

(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 15 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	23,930,595
2. Actuarial Value of Assets at prior valuation date	<u>0</u>
3. Unfunded Actuarial Accrued Liability at prior valuation date [1. - 2.]	23,930,595
4. Normal Cost for prior periods	2,098,900
5. Employer Contributions for prior periods	<b>(1,382,681)</b>
6. Interest to current valuation date	<u>2,054,672</u>
7. Expected Actuarial Accrued Liability [3. + 4. + 5. + 6.]	26,701,486

*Actual Unfunded Actuarial Liability*

8. Actuarial Accrued Liability at current valuation date	29,811,108
9. Actuarial Value of Assets at current valuation date	<u>252,794</u>
10. Unfunded Actuarial Accrued Liability at current valuation date [8. - 9.]	29,558,314

*Net Actuarial (Gain) / Loss from Plan Experience [10. - 7.]* 2,856,828

*Contribution Deficiency or Excess Contributions* 2,645,328

*Total (Gain) or Loss to be amortized* 5,502,156

EXHIBIT A

Financial Statement Disclosure  
(As of July 1, 2011)  
(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 Adoption	20,162,942	30	19,040,707	27	1,121,178
July 1, 2011	Cumulative (Gain) / Loss	5,502,156	15	5,502,156	15	475,837
Total				24,542,863		1,597,015

**11. Recognition of OPEB trust assets**

The State of Massachusetts has recently passed legislation allowing municipal entities to establish a trust for Other Than 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 Ipswich has established an irrevocable trust for the purposes of prefunding liabilities under GASB 45.

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2011)

(continued)

**12. 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 Ipswich nor have we attempted to value the impact of prior Town of Ipswich employees currently working at other governmental entities in the State of Massachusetts.



EXHIBIT B

Reconciliation of Plan Participation  
(As of July 1, 2011)

**ACTIVE EMPLOYEES**

	<u>July 1, 2011</u>	<u>July 1, 2009</u>
<b>A. Average Age at Hire</b>	36.94	37.30
<b>B. Average Service</b>	10.32	9.45
<b>C. Average Current Age</b>	47.26	46.75

## EXHIBIT C

### Projected Cash Flows (Open Group)

Total Medical, Dental & Life Insurance											
Fiscal Year	Total APBO	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 at Beginning of year
2012	29,811,109	1,470,523	1,121,178	175,454	(379,342)	475,836	2,863,649	4,386,393	839,823	510,678	252,794
2013	31,659,479	1,540,131	1,121,178	256,409	(554,367)	650,861	3,014,212	6,410,219	905,366	0	773,584
2014	33,586,012	1,621,494	1,121,178	340,762	(736,745)	833,239	3,179,928	10,720,896	978,097	0	804,527
2015	35,598,586	1,704,867	1,121,178	428,836	(927,163)	1,023,657	3,351,375	13,028,930	1,043,341	0	836,708
2016	37,710,516	1,788,519	1,121,178	521,157	(1,126,766)	1,223,260	3,527,348	15,424,147	1,132,131	0	870,176
2017	39,901,580	1,869,254	1,121,178	616,966	(1,333,909)	1,430,403	3,703,892	17,921,111	1,206,928	0	904,983
2018	42,186,831	1,951,480	1,121,178	716,844	(1,549,850)	1,646,344	3,885,996	20,491,743	1,315,364	0	941,182
2019	44,535,863	2,055,066	1,121,178	819,670	(1,772,163)	1,868,657	4,092,408	23,175,021	1,409,130	0	978,829
2020	46,989,773	2,146,428	1,121,178	927,001	(2,004,218)	2,100,712	4,291,101	25,950,403	1,515,719	0	1,017,982
2021	49,525,302	2,260,494	1,121,178	1,038,016	(2,244,239)	2,340,733	4,516,182	28,857,342	1,609,243	0	1,058,701
2022	52,183,615	2,371,447	1,121,178	1,154,294	(2,495,636)	2,592,130	4,743,413	31,873,781	1,726,974	0	1,101,049
2023	54,941,822	2,476,651	1,121,178	1,274,951	(2,756,502)	2,852,996	4,969,274	34,992,830	1,850,225	0	1,145,091
2024	57,790,978	2,595,479	1,121,178	1,399,713	(3,026,244)	3,122,738	5,212,864	38,245,801	1,959,893	0	1,190,895
2025	60,764,220	2,721,492	1,121,178	1,529,832	(3,307,567)	3,404,061	5,468,996	41,610,862	2,103,935	0	1,238,531
2026	63,837,049	2,860,580	1,121,178	1,664,434	(3,598,584)	3,695,078	5,742,686	45,116,848	2,236,700	0	1,288,072
2027	67,039,519	2,995,967	1,121,178	1,804,674	(3,901,788)	3,901,788	5,921,819	48,661,526	2,377,141	0	1,339,595
2028	70,364,679	3,147,054	1,121,178	1,946,461	(4,208,337)	4,208,337	6,214,693	52,367,328	2,508,891	0	1,393,179
2029	73,843,738	3,298,712	1,121,178	2,094,693	(4,528,822)	4,528,822	6,514,583	56,206,024	2,675,887	0	1,448,906
2030	77,445,463	3,469,809	1,121,178	2,248,241	(4,860,799)	4,860,799	6,839,228	60,250,743	2,794,509	0	1,506,862
2031	81,245,844	3,643,077	1,121,178	2,410,030	(5,210,594)	5,210,594	7,174,285	64,482,620	2,942,408	0	1,567,136
2032	85,224,449	3,824,852	1,121,178	2,579,305	(5,576,575)	5,576,575	7,525,335	68,906,700	3,101,255	0	1,629,821
2033	89,386,197	4,010,138	1,121,178	2,756,268	(5,959,178)	5,959,178	7,887,584	73,534,604	3,259,680	0	1,695,014
2034	93,742,121	4,202,952	1,121,178	2,941,384	(6,359,407)	6,359,407	8,265,514	78,357,359	3,442,759	0	1,762,815
2035	98,282,622	4,403,869	1,121,178	3,134,294	(6,776,488)	6,776,488	8,659,341	83,363,024	3,653,676	0	1,833,328
2036	102,994,195	4,619,825	1,121,178	3,334,521	(7,209,387)	7,209,387	9,075,524	88,580,301	3,858,247	0	1,906,661
2037	107,906,219	4,843,403	1,121,178	3,543,212	(7,660,587)	7,660,587	9,507,793	94,025,795	4,062,299	0	1,982,927
2038	113,034,815	5,083,370	1,121,178	3,761,032	(8,131,522)	8,131,522	9,965,580	99,711,149	4,280,226	0	2,062,244
2039	118,391,859	5,336,322	0	3,988,446	(8,623,203)	8,623,203	9,324,768	104,530,865	4,505,052	0	2,144,734
2040	123,992,053	5,607,801	0	4,181,234	(9,040,020)	9,040,020	9,789,035	109,617,010	4,702,890	0	2,230,523
2041	129,892,843	5,888,187	0	4,384,681	(9,479,879)	9,479,879	10,272,868	114,957,849	4,932,029	0	2,319,744

EXHIBIT C

Projected Cash Flows (Open Group)  
(continued)

<b>Medical Insurance</b>												
Fiscal Year	Total APBO	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 at Beginning of year	
2012	29,780,687	1,469,140	1,120,034	175,275	(378,956)	475,351	2,860,844	4,381,917	838,959	510,157	252,598	
2013	31,627,301	1,538,738	1,120,034	256,152	(553,812)	650,207	3,011,319	8,510,629	904,492	0	772,798	
2014	33,552,008	1,620,079	1,120,034	340,425	(736,015)	832,410	3,176,933	10,710,353	977,209	0	803,712	
2015	35,562,673	1,703,436	1,120,034	428,414	(926,251)	1,022,646	3,348,279	13,016,204	1,042,428	0	835,864	
2016	37,672,628	1,787,077	1,120,034	520,648	(1,125,665)	1,222,060	3,524,154	15,409,176	1,131,182	0	869,302	
2017	39,861,664	1,867,812	1,120,034	616,367	(1,332,614)	1,429,009	3,700,608	17,903,855	1,205,929	0	904,078	
2018	42,144,856	1,950,044	1,120,034	716,154	(1,548,358)	1,644,753	3,882,627	20,472,179	1,314,303	0	940,246	
2019	44,491,820	2,053,615	1,120,034	818,887	(1,770,471)	1,866,866	4,088,931	23,153,104	1,408,006	0	977,861	
2020	46,943,627	2,144,986	1,120,034	926,124	(2,002,323)	2,098,718	4,287,539	25,926,125	1,514,518	0	1,016,982	
2021	49,477,059	2,259,037	1,120,034	1,037,045	(2,242,139)	2,338,534	4,512,511	28,830,671	1,607,965	0	1,057,670	
2022	52,133,256	2,369,985	1,120,034	1,153,227	(2,493,329)	2,589,724	4,739,641	31,844,707	1,725,605	0	1,099,986	
2023	54,889,351	2,475,208	1,120,034	1,273,788	(2,753,988)	2,850,383	4,965,425	34,961,380	1,848,752	0	1,143,997	
2024	57,736,440	2,594,042	1,120,034	1,398,455	(3,023,524)	3,119,919	5,208,926	38,211,995	1,958,311	0	1,189,771	
2025	60,707,651	2,720,062	1,120,034	1,528,480	(3,304,643)	3,401,038	5,464,971	41,574,732	2,102,234	0	1,237,378	
2026	63,778,498	2,859,150	1,120,034	1,662,989	(3,595,459)	3,691,854	5,738,568	45,078,425	2,234,875	0	1,286,891	
2027	66,979,036	2,994,544	1,120,034	1,803,137	(3,898,465)	3,898,465	5,917,715	48,620,958	2,375,182	0	1,338,386	
2028	70,302,334	3,145,632	1,120,034	1,944,838	(4,204,829)	4,204,829	6,210,504	52,324,667	2,506,795	0	1,391,945	
2029	73,779,600	3,297,296	1,120,034	2,092,987	(4,525,133)	4,525,133	6,510,317	56,161,340	2,673,644	0	1,447,648	
2030	77,379,619	3,468,389	1,120,034	2,246,454	(4,856,935)	4,856,935	6,834,877	60,204,099	2,792,118	0	1,505,581	
2031	81,178,376	3,641,657	1,120,034	2,408,164	(5,206,560)	5,206,560	7,169,855	64,434,092	2,939,862	0	1,565,835	
2032	85,155,453	3,823,431	1,120,034	2,577,364	(5,572,378)	5,572,378	7,520,829	68,856,369	3,098,552	0	1,628,502	
2033	89,315,774	4,008,720	1,120,034	2,754,255	(5,954,825)	5,954,825	7,883,009	73,482,562	3,256,816	0	1,693,679	
2034	93,670,385	4,201,535	1,120,034	2,939,302	(6,354,906)	6,354,906	8,260,871	78,303,698	3,439,735	0	1,761,466	
2035	98,209,688	4,402,457	1,120,034	3,132,148	(6,771,847)	6,771,847	8,654,639	83,307,846	3,650,491	0	1,831,968	
2036	102,920,187	4,618,414	1,120,034	3,332,314	(7,204,615)	7,204,615	9,070,762	88,523,702	3,854,906	0	1,905,291	
2037	107,831,258	4,841,997	1,120,034	3,540,948	(7,655,692)	7,655,692	9,502,979	93,967,874	4,058,807	0	1,981,549	
2038	112,959,025	5,081,966	1,120,034	3,758,715	(8,126,513)	8,126,513	9,960,715	99,651,997	4,276,592	0	2,060,861	
2039	118,315,356	5,334,920	0	3,986,080	(8,618,087)	8,618,087	9,321,000	104,471,710	4,501,287	0	2,143,348	
2040	123,914,948	5,606,397	0	4,178,868	(9,034,904)	9,034,904	9,785,265	109,557,968	4,699,007	0	2,229,136	
2041	129,815,232	5,886,784	0	4,382,319	(9,474,773)	9,474,773	10,269,103	114,899,032	4,928,039	0	2,318,358	

EXHIBIT C

Projected Cash Flows (Open Group)  
(continued)

<b>Dental Insurance</b>												
Fiscal Year	Total APBO	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 at Beginning of year	
2012	0	0	0	0	0	0	0	0	0	0	0	
2013	0	0	0	0	0	0	0	0	0	0	0	
2014	0	0	0	0	0	0	0	0	0	0	0	
2015	0	0	0	0	0	0	0	0	0	0	0	
2016	0	0	0	0	0	0	0	0	0	0	0	
2017	0	0	0	0	0	0	0	0	0	0	0	
2018	0	0	0	0	0	0	0	0	0	0	0	
2019	0	0	0	0	0	0	0	0	0	0	0	
2020	0	0	0	0	0	0	0	0	0	0	0	
2021	0	0	0	0	0	0	0	0	0	0	0	
2022	0	0	0	0	0	0	0	0	0	0	0	
2023	0	0	0	0	0	0	0	0	0	0	0	
2024	0	0	0	0	0	0	0	0	0	0	0	
2025	0	0	0	0	0	0	0	0	0	0	0	
2026	0	0	0	0	0	0	0	0	0	0	0	
2027	0	0	0	0	0	0	0	0	0	0	0	
2028	0	0	0	0	0	0	0	0	0	0	0	
2029	0	0	0	0	0	0	0	0	0	0	0	
2030	0	0	0	0	0	0	0	0	0	0	0	
2031	0	0	0	0	0	0	0	0	0	0	0	
2032	0	0	0	0	0	0	0	0	0	0	0	
2033	0	0	0	0	0	0	0	0	0	0	0	
2034	0	0	0	0	0	0	0	0	0	0	0	
2035	0	0	0	0	0	0	0	0	0	0	0	
2036	0	0	0	0	0	0	0	0	0	0	0	
2037	0	0	0	0	0	0	0	0	0	0	0	
2038	0	0	0	0	0	0	0	0	0	0	0	
2039	0	0	0	0	0	0	0	0	0	0	0	
2040	0	0	0	0	0	0	0	0	0	0	0	
2041	0	0	0	0	0	0	0	0	0	0	0	

EXHIBIT C

Projected Cash Flows (Open Group)  
(continued)

<b>Life Insurance</b>												
Fiscal Year	Total APBO	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 at Beginning of year	
								4,476				
2012	30,422	1,383	1,144	179	(386)	485	2,805	6,417	864	521	196	
2013	32,178	1,393	1,144	257	(555)	654	2,893	8,436	874	0	786	
2014	34,004	1,415	1,144	337	(730)	829	2,995	10,543	888	0	815	
2015	35,913	1,431	1,144	422	(912)	1,011	3,096	12,726	913	0	844	
2016	37,888	1,442	1,144	509	(1,101)	1,200	3,194	14,971	949	0	874	
2017	39,916	1,442	1,144	599	(1,295)	1,394	3,284	17,256	999	0	905	
2018	41,975	1,436	1,144	690	(1,492)	1,591	3,369	19,564	1,061	0	936	
2019	44,043	1,451	1,144	783	(1,692)	1,791	3,477	21,917	1,124	0	968	
2020	46,146	1,442	1,144	877	(1,895)	1,994	3,562	24,278	1,201	0	1,000	
2021	48,243	1,457	1,144	971	(2,100)	2,199	3,671	26,671	1,278	0	1,031	
2022	50,359	1,462	1,144	1,067	(2,307)	2,406	3,772	29,074	1,369	0	1,063	
2023	52,471	1,443	1,144	1,163	(2,514)	2,613	3,849	31,450	1,473	0	1,094	
2024	54,538	1,437	1,144	1,258	(2,720)	2,819	3,938	33,806	1,582	0	1,124	
2025	56,569	1,430	1,144	1,352	(2,924)	3,023	4,025	36,130	1,701	0	1,153	
2026	58,551	1,430	1,144	1,445	(3,125)	3,224	4,118	38,423	1,825	0	1,181	
2027	60,483	1,423	1,144	1,537	(3,323)	3,323	4,104	40,568	1,959	0	1,209	
2028	62,345	1,422	1,144	1,623	(3,508)	3,508	4,189	42,661	2,096	0	1,234	
2029	64,138	1,416	1,144	1,706	(3,689)	3,689	4,266	44,684	2,243	0	1,258	
2030	65,844	1,420	1,144	1,787	(3,864)	3,864	4,351	46,644	2,391	0	1,281	
2031	67,468	1,420	1,144	1,866	(4,034)	4,034	4,430	48,528	2,546	0	1,301	
2032	68,996	1,421	1,144	1,941	(4,197)	4,197	4,506	50,331	2,703	0	1,319	
2033	70,423	1,418	1,144	2,013	(4,353)	4,353	4,575	52,042	2,864	0	1,335	
2034	71,736	1,417	1,144	2,082	(4,501)	4,501	4,643	53,661	3,024	0	1,349	
2035	72,934	1,412	1,144	2,146	(4,641)	4,641	4,702	55,178	3,185	0	1,360	
2036	74,008	1,411	1,144	2,207	(4,772)	4,772	4,762	56,599	3,341	0	1,370	
2037	74,961	1,406	1,144	2,264	(4,895)	4,895	4,814	57,921	3,492	0	1,378	
2038	75,790	1,404	1,144	2,317	(5,009)	5,009	4,865	59,152	3,634	0	1,383	
2039	76,503	1,402	0	2,366	(5,116)	5,116	3,768	59,155	3,765	0	1,386	
2040	77,105	1,404	0	2,366	(5,116)	5,116	3,770	59,042	3,883	0	1,387	
2041	77,611	1,403	0	2,362	(5,106)	5,106	3,765	58,817	3,990	0	1,386	

## EXHIBIT D

### 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."

**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."

## EXHIBIT D

### **GLOSSARY**

*(continued)*

**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.

**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.

EXHIBIT D

**GLOSSARY**

*(continued)*

**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.