

**Town of Hamilton Other
Postemployment Benefits Plan**

GASB 45 Actuarial Valuation

as of

July 1, 2011

For the fiscal years ending

June 30, 2012

June 30, 2013

June 30, 2014

Delivered July 2012

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LETTER

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July 18, 2012

Personal and Confidential

Ms. Deborah Nippes-Mena
Finance Director
Town of Hamilton
577 Bay Road, PO Box 429
Hamilton, MA 01936

Dear Ms. Nippes-Mena:

We have performed an actuarial valuation of the Town of Hamilton 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 Hamilton, 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 Hamilton
Assuming Pay-as-you-go funding - 4.00% discount rate
Comparison of Plan Liabilities to Prior Valuation**

	<u>July 1, 2011</u>	<u>July 1, 2008</u>
I. Present Value of Future Benefits		
A. Actives	5,264,645	4,142,796
B. Retirees/Disabled	3,082,205	1,849,909
C. Total	8,346,850	5,992,705
II. Present Value of Future Normal Cost	2,778,878	1,829,214
III. Actuarial Accrued Liability (Projected Unit Credit)		
A. Actives	2,485,767	2,313,582
B. Retirees/Disabled	3,082,205	1,849,909
C. Total	5,567,972	4,163,491
IV. Plan Assets	0	0
V. Unfunded Actuarial Accrued Liability ("UAAL")	5,567,972	4,163,491
VI. Funded Ratio	0.00%	0.00%
VII. Annual Covered Payroll	N/A	N/A
VIII. UAAL as % of Covered Payroll	N/A	N/A
IX. Net OPEB Obligation	816,419	0
X. Number of Covered Participants		
A. Actives	57	54
B. Retirees/Disabled	35	31
C. Total	92	85
	<u>June 30, 2012</u>	<u>June 30, 2009</u>
XI. Normal Cost	205,007	157,627
XII. Amortization of UAAL - 30 year flat dollar	231,514	231,514
XIII. Annual Required Contribution ('ARC') [XI. + XII.]	436,521	389,141
XIV. Interest on Net OPEB Obligation	32,657	0
XV. Adjustment to Annual Required Contribution	(70,604)	0
XVI. Amortization of Actuarial (Gains) / Losses	137,667	0
XVII. Annual OPEB Cost [XIII. + XIV. + XV. + XVI.]	536,241	389,141
XVIII. Expected Employer Contribution	147,697	105,089
XIX. Percentage of Annual OPEB Cost Contributed	27.5%	27.0%
XX. Net OPEB Obligation at Beginning of Year (IX.)	816,419	0
XXI. Increase in Net OPEB Obligations (XVII. - XVIII.)	388,544	284,052
XXII. Net OPEB Obligation at End of Year (XX. + XXI.)	1,204,963	284,052
XXIII. Discount Rate	4.00%	4.00%

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

**Town of Hamilton
Assuming Pay-as-you-go funding - 4.00% discount rate
Plan Liabilities as of July 1, 2011**

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Present Value of Future Benefits				
A. Actives	5,155,356	0	109,289	5,264,645
B. Retirees/Disabled	<u>2,866,314</u>	<u>0</u>	<u>215,891</u>	<u>3,082,205</u>
C. Total	8,021,670	0	325,180	8,346,850
II. Present Value of Future Normal Cost	2,727,904	0	50,974	2,778,878
III. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	2,427,452	0	58,315	2,485,767
B. Retirees/Disabled	<u>2,866,314</u>	<u>0</u>	<u>215,891</u>	<u>3,082,205</u>
C. Total	5,293,766	0	274,206	5,567,972
IV. Plan Assets	0	0	0	0
V. Unfunded Actuarial Accrued Liability ("UAAL")	5,293,766	0	274,206	5,567,972
VI. Annual Covered Payroll	N/A	N/A	N/A	N/A
VII. UAAL as % of Covered Payroll	N/A	N/A	N/A	N/A
VIII. Net OPEB Obligation	776,213	0	40,206	816,419
IX. Number of Covered Participants				
A. Actives	57	0	57	
B. Retirees/Disabled	<u>35</u>	<u>0</u>	<u>31</u>	
C. Total	92	0	88	
 For Fiscal Year Ending June 30, 2012				
X. Normal Cost	200,280	0	4,727	205,007
XI. Amortization of UAAL - 30 year flat dollar	220,113	0	11,401	231,514
XII. Annual Required Contribution ('ARC') [X. + XI.]	420,393	0	16,128	436,521
XIII. Interest on Net OPEB Obligation	31,048	0	1,609	32,657
XIV. Adjustment to Annual Required Contribution	(67,128)	0	(3,476)	(70,604)
XV. Amortization of Actuarial (Gains) / Losses	130,887	0	6,780	137,667
XVI. Annual OPEB Cost [XII. + XIII. + XIV. + XV.]	515,200	0	21,041	536,241
XVII. Expected Employer Contribution	133,887	0	13,810	147,697
XVIII. Contribution to Trust Fund	0	0	0	0
XIX. Total Employer Contribution	133,887	0	13,810	147,697
XVIII. Percentage of Annual OPEB Cost Contributed	26.0%	0.0%	65.6%	27.5%
XIX. Net OPEB Obligation at Beginning of Year (VIII.)	776,213	0	40,206	816,419
XX. Increase in Net OPEB Obligations (XVI. - XVII.)	381,313	0	7,231	388,544
XXI. Net OPEB Obligation at End of Year (XIX. + XX.)	1,157,526	0	47,437	1,204,963

SECTION I
PRINCIPAL RESULTS OF THE VALUATION
(continued)

Town of Hamilton
Plan Liabilities as of July 1, 2011 assuming pay-as-you-go

	General Government Employees and Retirees	Public Safety Employees and Retirees	Public Services Employees and Retirees	Joint Programs Employees and Retirees	Water Enterprise Employees and Retirees	Total
I. Present Value of Future Benefits						
A. Actives	1,055,367	2,424,128	1,172,406	317,875	294,869	5,264,645
B. Retirees/Disabled	<u>354,156</u>	<u>1,897,138</u>	<u>488,691</u>	<u>259,707</u>	<u>82,513</u>	<u>3,082,205</u>
C. Total	1,409,523	4,321,266	1,661,097	577,582	377,382	8,346,850
II. Present Value of Future Normal Cost	615,146	1,391,485	459,029	180,849	132,369	2,778,878
III. Actuarial Accrued Liability (Projected Unit Credit)						
A. Actives	440,221	1,032,643	713,377	137,026	162,500	2,485,767
B. Retirees/Disabled	<u>354,156</u>	<u>1,897,138</u>	<u>488,691</u>	<u>259,707</u>	<u>82,513</u>	<u>3,082,205</u>
C. Total	794,377	2,929,781	1,202,068	396,733	245,013	5,567,972
IV. Plan Assets	0	0	0	0	0	0
V. Unfunded Actuarial Accrued Liability ("UAAL")	794,377	2,929,781	1,202,068	396,733	245,013	5,567,972
VI. Annual Covered Payroll	N/A	N/A	N/A	N/A	N/A	N/A
VII. UAAL as % of Covered Payroll	N/A	N/A	N/A	N/A	N/A	N/A
VIII. Net OPEB Obligation	115,695	430,412	176,562	57,829	35,921	816,419
IX. Number of Covered Participants						
A. Actives	17	19	13	5	3	57
B. Retirees/Disabled	5	18	6	4	2	35
C. Total	22	37	19	9	5	92
For Fiscal Year Ending June 30, 2012						
X. Normal Cost	49,186	89,522	44,904	10,766	10,629	205,007
XI. Amortization of UAAL - 30 year flat dollar	49,003	112,608	46,145	14,467	9,291	231,514
XII. Annual Required Contribution ('ARC') [X. + XI.]	98,189	202,130	91,049	25,233	19,920	436,521
XIII. Interest on Net OPEB Obligation	4,628	17,217	7,062	2,313	1,437	32,657
XIV. Adjustment to Annual Required Contribution	<u>(10,005)</u>	<u>(37,223)</u>	<u>(15,269)</u>	<u>(5,001)</u>	<u>(3,106)</u>	<u>(70,604)</u>
XV. Amortization of Actuarial (Gains) / Losses	19,641	72,438	29,721	9,809	6,058	137,667
XVI. Annual OPEB Cost [XII. + XIII. + XIV. + XV.]	112,453	254,562	112,563	32,354	24,309	536,241
XVII. Expected Employer Contribution	22,739	73,174	23,656	21,315	6,813	147,697
XVIII. Contribution to Trust Fund	0	0	0	0	0	0
XIX. Total Employer Contribution	22,739	73,174	23,656	21,315	6,813	147,697
XX. Percentage of Annual OPEB Cost Contributed	20.2%	28.7%	21.0%	65.9%	28.0%	27.5%
XXI. Net OPEB Obligation at Beginning of Year (VIII.)	115,695	430,412	176,562	57,829	35,921	816,419

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

**Town of Hamilton
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, 2011**

	<u>Present Value of Future Benefits</u>	<u>Actuarial Accrued Liability (Projected Unit Credit)</u>	<u>Normal Cost</u>
Actives			
Under Age 65			
A. Participants	676,450	325,991	26,720
B. Spouses	<u>675,859</u>	<u>316,517</u>	<u>26,061</u>
C. Total	1,352,309	642,508	52,781
Age 65 and Over			
A. Participants	1,958,191	929,556	76,680
B. Spouses	<u>1,954,145</u>	<u>913,703</u>	<u>75,546</u>
C. Total	3,912,336	1,843,259	152,226
Actives Total			
A. Participants	2,634,641	1,255,547	103,400
B. Spouses	<u>2,630,004</u>	<u>1,230,220</u>	<u>101,607</u>
C. Total	5,264,645	2,485,767	205,007
Retirees/Disabled			
Under Age 65			
A. Participants	459,388	459,388	0
B. Spouses	<u>192,803</u>	<u>192,803</u>	<u>0</u>
C. Total	652,191	652,191	0
Age 65 and Over			
A. Participants	2,078,427	2,078,427	<u>0</u>
B. Spouses	<u>351,587</u>	<u>351,587</u>	<u>0</u>
C. Total	2,430,014	2,430,014	0
Retirees/Disabled Total			
A. Participants	2,537,815	2,537,815	0
B. Spouses	<u>544,390</u>	<u>544,390</u>	<u>0</u>
C. Total	3,082,205	3,082,205	0
Total Population			
A. Participants	5,172,456	3,793,362	103,400
B. Spouses	<u>3,174,394</u>	<u>1,774,610</u>	<u>101,607</u>
C. Total	8,346,850	5,567,972	205,007

SECTION I
PRINCIPAL RESULTS OF THE VALUATION
(continued)

Town of Hamilton
Assuming Plan Funding - 7.00% discount rate
Plan Liabilities as of July 1, 2011

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I. Present Value of Future Benefits				
A. Actives	2,459,546	0	50,906	2,510,452
B. Retirees/Disabled	<u>1,968,218</u>	<u>0</u>	<u>164,593</u>	<u>2,132,811</u>
C. Total	4,427,764	0	215,499	4,643,263
II. Present Value of Future Normal Cost	1,160,606	0	21,602	1,182,208
III. Actuarial Accrued Liability (Projected Unit Credit)				
A. Actives	1,298,940	0	29,304	1,328,244
B. Retirees/Disabled	<u>1,968,218</u>	<u>0</u>	<u>164,593</u>	<u>2,132,811</u>
C. Total	3,267,158	0	193,897	3,461,055
IV. Plan Assets	0	0	0	0
V. Unfunded Actuarial Accrued Liability ("UAAL")	3,267,158	0	193,897	3,461,055
VI. Annual Covered Payroll	N/A	N/A	N/A	N/A
VII. UAAL as % of Covered Payroll	N/A	N/A	N/A	N/A
VIII. Net OPEB Obligation	776,213	0	40,206	816,419
IX. Number of Covered Participants				
A. Actives	57	0	57	
B. Retirees/Disabled	<u>35</u>	<u>0</u>	<u>31</u>	
C. Total	92	0	88	

For Fiscal Year Ending June 30, 2012

X. Normal Cost	116,413	0	2,236	118,649
XI. Amortization of UAAL - 30 year flat dollar	340,443	0	17,174	357,617
XII. Annual Required Contribution ('ARC') [X. + XI.]	456,856	0	19,410	476,266
XIII. Interest on Net OPEB Obligation	54,335	0	2,814	57,149
XIV. Adjustment to Annual Required Contribution	(79,649)	0	(4,126)	(83,775)
XV. Amortization of Actuarial (Gains) / Losses	(17,906)	0	(1,461)	(19,367)
XVI. Annual OPEB Cost [XII. + XIII. + XIV. + XV.]	413,636	0	16,637	430,273
XVII. Expected Employer Contribution	133,887	0	13,810	147,697
XVIII. Contribution to Trust Fund	267,846	0	2,827	270,673
XIX. Total Employer Contribution	401,733	0	16,637	418,370
XX. Percentage of Annual OPEB Cost Contributed	97.1%	0.0%	100.0%	97.2%
XXI. Net OPEB Obligation at Beginning of Year (VIII.)	776,213	0	40,206	816,419
XXII. Increase in Net OPEB Obligations (XVI. - XVII.)	11,903	0	0	11,903
XXIII. Net OPEB Obligation at End of Year (XXI. + XXII.)	788,116	0	40,206	828,322

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

Town of Hamilton Plan Liabilities as of July 1, 2011 assuming funding 100% of the annual OPEB costs

	General Government Employees and Retirees	Public Safety Employees and Retirees	Public Services Employees and Retirees	Joint Programs Employees and Retirees	Water Enterprise Employees and Retirees	Total
I. Present Value of Future Benefits						
A. Actives	503,253	1,155,948	559,063	151,579	140,609	2,510,452
B. Retirees/Disabled	<u>280,849</u>	<u>1,247,926</u>	<u>364,987</u>	<u>169,724</u>	<u>69,325</u>	<u>2,132,811</u>
C. Total	784,102	2,403,874	924,050	321,303	209,934	4,643,263
II. Present Value of Future Normal Cost	261,700	591,974	195,283	76,938	56,313	1,182,208
III. Actuarial Accrued Liability (Projected Unit Credit)						
A. Actives	235,228	551,782	381,186	73,218	86,830	1,328,244
B. Retirees/Disabled	<u>258,558</u>	<u>1,269,372</u>	<u>366,020</u>	<u>173,391</u>	<u>65,470</u>	<u>2,132,811</u>
C. Total	493,786	1,821,154	747,206	246,609	152,300	3,461,055
IV. Plan Assets	0	0	0	0	0	0
V. Unfunded Actuarial Accrued Liability ("UAAL")	493,786	1,821,154	747,206	246,609	152,300	3,461,055
VI. Annual Covered Payroll	N/A	N/A	N/A	N/A	N/A	N/A
VII. UAAL as % of Covered Payroll	N/A	N/A	N/A	N/A	N/A	N/A
VIII. Net OPEB Obligation	115,695	430,412	176,562	57,829	35,921	816,419
IX. Number of Covered Participants						
A. Actives	17	19	13	5	3	57
B. Retirees/Disabled	5	18	6	4	2	35
C. Total	22	37	19	9	5	92
For Fiscal Year Ending June 30, 2012						
X. Normal Cost	28,467	51,811	25,988	6,231	6,152	118,649
XI. Amortization of UAAL - 30 year flat dollar	75,694	173,944	71,280	22,347	14,352	357,617
XII. Annual Required Contribution ("ARC") [X. + XI.]	104,161	225,755	97,268	28,578	20,504	476,266
XIII. Interest on Net OPEB Obligation	8,099	30,129	12,358	4,048	2,515	57,149
XIV. Adjustment to Annual Required Contribution	(11,872)	(44,167)	(18,117)	(5,934)	(3,685)	(83,775)
XV. Amortization of Actuarial (Gains) / Losses	(2,763)	(10,191)	(4,181)	(1,380)	(852)	(19,367)
XVI. Annual OPEB Cost [XII. + XIII. + XIV. + XV.]	97,625	201,526	87,328	25,312	18,482	430,273
XVII. Expected Employer Contribution	22,739	73,174	23,656	21,315	6,813	147,697
XVIII. Contribution to Trust Fund	38,616	142,424	58,436	19,286	11,911	270,673
XIX. Total Employer Contribution	61,355	215,598	82,092	40,601	18,724	418,370
XX. Percentage of Annual OPEB Cost Contributed	62.8%	107.0%	94.0%	160.4%	101.3%	97.2%
XXI. Net OPEB Obligation at Beginning of Year (VIII.)	115,695	430,412	176,562	57,829	35,921	816,419

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 5-30 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 \$231,514. 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 \$205,007. 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 \$388,544.

2. Plan Experience:

Plan experience was less favorable than expected. This is mainly due to two new young retirees who added approximately \$700,000 to plan liabilities along with medical premiums that increased more than expected. 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>	Elapsed time from date of hire to termination of service date.
<u>Participant Contributions</u>	45% of premiums for Medical Insurance & 25% of premiums for Life insurance. Participants shall pay 100% of premiums for Dental Insurance.
<u>Benefits Offered</u>	Comprehensive Medical & Dental Insurance offered through Blue Cross Blue Shield of Massachusetts and Group Term Life Insurance through American International Group.
<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	8.0%	7.0%
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 65% 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 65% 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

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>
Network Blue Options v.3	12		34	46
PPO Options v.3	4		1	5
Medex III	<u>22</u>			<u>22</u>
Total	38	0	35	73

	Per Contract Costs (monthly) - FY 2013		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
Network Blue Options v.3	551.66	0.00	1,448.30
PPO Options v.3	709.85	0.00	1,863.62
Medex III	535.41	1,070.82	

Gross Expected FY 2013 Incurred Premiums	868,130
Adjustment to reflect children's claims	<u>(146,079)</u>
Total Expected FY 2013 Incurred Premiums (adults only)	722,051

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 Medical Insurance offerings via the Blue Cross Blue Shield of Massachusetts.
- b. Administrator: Town of Hamilton
- 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: 45% of premiums for Medical

2. A DESCRIPTION OF THE DENTAL INSURANCE PROGRAM:

- a. Plan Type: Comprehensive Dental Insurance
- b. Administrator: Town of Hamilton
- c. Eligibility: Same as above
- d. Cost sharing: 50% of Premiums

3. A DESCRIPTION OF THE RETIREE LIFE INSURANCE PROGRAM:

- a. Plan Type: Group Term Life Insurance - \$15,000.
- b. Administrator: Town of Hamilton
- c. Eligibility: Same as above
- d. Cost sharing: 25% of Premiums

EXHIBIT A

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

4. RETIREE MEDICAL, DENTAL AND LIFE INSURANCE CONTRIBUTIONS:

Group	Individual	Family
Medical	45%	45%
Dental	100%	100%
Life	25%	N/A

5. FUNDING POLICY

The contribution requirements of plan members and the Town are established and may be amended through Town ordinances. The required contribution is based on the projected pay-as-you-go financing requirements. For the 2012 fiscal year, total Town premiums plus implicit costs for the retiree medical program are \$147,697.

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	\$436,521
Interest on net OPEB obligation	\$32,657
Adjustment to annual required contribution	(\$70,604)
Amortization of Actuarial (Gains) / Losses	\$137,667
Annual OPEB cost (expense)	\$536,241
Contributions made	\$147,697
Increase in net OPEB obligation	\$388,544
Net OPEB Obligation – beginning of year	\$816,419
Net OPEB Obligation – end of year	\$1,204,963

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	\$389,141	\$105,089	\$284,052
06/30/2010	\$408,046	\$139,646	\$268,400
06/30/2011	\$409,934	\$145,967	\$263,967
06/30/2012	\$536,237	\$147,696	\$388,541
06/30/2013 (est.)	\$590,426	\$159,292	\$431,134
06/30/2014 (est.)	\$639,878	\$173,297	\$466,581

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	\$4,163,491	\$4,163,491	0.0%	N/A	N/A
07/01/2009	\$0	\$4,389,005	\$4,389,005	0.0%	N/A	N/A
07/01/2010	\$0	\$4,620,759	\$4,620,759	0.0%	N/A	N/A
07/01/2011	\$0	\$5,567,974	\$5,567,974	0.0%	N/A	N/A
07/01/2012 (est.)	\$0	\$5,915,872	\$5,915,872	0.0%	N/A	N/A
07/01/2013 (est.)	\$0	\$6,309,571	\$6,309,571	0.0%	N/A	N/A

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2011)

(continued)

Fiscal Year Ending June 30, 2012						
	<u>General Government Employees and Retirees</u>	<u>Public Safety Employees and Retirees</u>	<u>Public Services Employees and Retirees</u>	<u>Joint Programs Employees and Retirees</u>	<u>Water Enterprise Employees and Retirees</u>	<u>Total</u>
OPEB obligation at beginning of year	115,695	430,412	176,562	57,829	35,921	816,419
Annual OPEB Cost	112,453	254,562	112,563	32,354	24,309	536,241
Expected Employer Payments	22,739	73,174	23,656	21,315	6,813	147,697
Increase in OPEB Obligation	89,714	181,388	88,907	11,039	17,496	388,544
OPEB obligation at end of year	205,409	611,800	265,469	68,868	53,417	1,204,963
APBO at beginning of year	794,377	2,929,781	1,202,068	396,733	245,013	5,567,972

Fiscal Year Ending June 30, 2013						
	<u>General Government Employees and Retirees</u>	<u>Public Safety Employees and Retirees</u>	<u>Public Services Employees and Retirees</u>	<u>Joint Programs Employees and Retirees</u>	<u>Water Enterprise Employees and Retirees</u>	<u>Total</u>
OPEB obligation at beginning of year	205,409	611,800	265,469	68,868	53,417	1,204,963
Annual OPEB Cost	123,817	280,284	123,937	35,623	26,765	590,426
Expected Employer Payments	28,165	90,632	29,300	26,400	8,438	182,935
Increase in OPEB Obligation	95,652	189,652	94,637	9,223	18,327	407,491
OPEB obligation at end of year	301,061	801,452	360,106	78,091	71,744	1,612,454
APBO at beginning of year	844,012	3,112,841	1,277,176	421,522	260,322	5,915,872

Fiscal Year Ending June 30, 2014						
	<u>General Government Employees and Retirees</u>	<u>Public Safety Employees and Retirees</u>	<u>Public Services Employees and Retirees</u>	<u>Joint Programs Employees and Retirees</u>	<u>Water Enterprise Employees and Retirees</u>	<u>Total</u>
OPEB obligation at beginning of year	301,061	801,452	360,106	78,091	71,744	1,612,454
Annual OPEB Cost	134,186	303,760	134,318	38,607	29,007	639,878
Expected Employer Payments	30,340	97,631	31,563	28,439	9,090	197,063
Increase in OPEB Obligation	103,846	206,129	102,755	10,168	19,917	442,815
OPEB obligation at end of year	404,907	1,007,581	462,861	88,259	91,661	2,055,269
APBO at beginning of year	900,181	3,319,999	1,362,172	449,574	277,646	6,309,571

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 0.00% funded. The actuarial liability for benefits was \$5,567,972, and the actuarial value of assets was \$ 0, resulting in an unfunded actuarial accrued liability (UAAL) of \$5,567,972. The covered payroll (annual payroll of active employees covered by the plan) was \$ N/A and the ratio of the UAAL to the covered payroll was N/A.

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

8. EFFECT OF 1% CHANGE IN HEALTHCARE TREND RATES

In the event that healthcare trend rates were 1% higher than forecast and employee contributions were to increase at the forecast rates, the Actuarial Accrued Liability would increase to \$7,557,801 or by 35.7% and the corresponding Normal Cost would increase to \$340,416 or by 66.1%. 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 \$4,043,003 or by 27.4% and the corresponding Normal Cost would decrease to \$138,398 or by 32.5%.

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	8.0%	7.0%
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.

Changes in Unfunded Actuarial Liability Since Prior Valuation
--

Expected Unfunded Actuarial Liability

1. Actuarial Accrued Liability at prior valuation date	4,163,491
2. Actuarial Value of Assets at prior valuation date	<u>0</u>
3. Unfunded Actuarial Accrued Liability at prior valuation date [1. - 2.]	4,163,491
4. Normal Cost for prior periods	472,881
5. Employer Contributions for prior periods	(390,702)
6. Interest to current valuation date	<u>546,873</u>
7. Expected Actuarial Accrued Liability [3. + 4. + 5. + 6.]	4,792,543

Actual Unfunded Actuarial Liability

8. Actuarial Accrued Liability at current valuation date	5,567,972
9. Actuarial Value of Assets at current valuation date	<u>0</u>
10. Unfunded Actuarial Accrued Liability at current valuation date [8. - 9.]	5,567,972

Net Actuarial (Gain) / Loss from Plan Experience [10. - 7.] 775,429

Contribution Deficiency or (Excess Contributions) 816,419

Total (Gain) or Loss to be amortized 1,591,848

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	4,163,491	30	3,931,749	27	231,514
July 1, 2011	Adjustment to ARC	(816,419)	15	(816,419)	15	(70,605)
July 1, 2011	Cumulative (Gain) / Loss	1,591,848	15	1,591,848	15	137,666
Total				4,707,178		298,575

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 Hamilton has not 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 Hamilton nor have we attempted to value the impact of prior Town of Hamilton 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, 2008</u>
A. Average Age at Hire	37.37	34.36
B. Average Service	11.08	13.82
C. Average Current Age	48.45	48.18

EXHIBIT C

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

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

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	Unfunded Accrued Actuarial Liability ("UAAL")
								816,419				
2012	5,567,974	205,005	231,514	32,657	(70,606)	137,667	536,237	1,204,959	147,696	0	0	5,567,974
2013	5,915,872	243,653	231,514	48,198	(104,207)	171,268	590,426	1,636,093	159,292	0	0	5,915,872
2014	6,309,571	275,859	231,514	65,444	(141,492)	208,553	639,878	2,102,674	173,297	0	0	6,309,571
2015	6,742,035	311,312	231,514	84,107	(181,843)	248,904	693,994	2,612,607	184,061	0	0	6,742,035
2016	7,221,994	349,795	231,514	104,505	(225,943)	293,004	752,875	3,169,423	196,059	0	0	7,221,994
2017	7,753,679	391,836	231,514	126,777	(274,098)	341,159	817,188	3,776,911	209,700	0	0	7,753,679
2018	8,341,647	433,009	231,514	151,076	(326,634)	393,695	882,660	4,436,649	222,922	0	0	8,341,647
2019	8,988,189	476,246	231,514	177,466	(383,690)	450,751	952,287	5,142,334	246,602	0	0	8,988,189
2020	9,687,344	524,461	231,514	205,693	(444,719)	511,780	1,028,729	5,909,017	262,046	0	0	9,687,344
2021	10,455,543	571,930	231,514	236,361	(511,022)	578,083	1,106,866	6,739,697	276,186	0	0	10,455,543
2022	11,296,737	623,757	231,514	269,588	(582,861)	649,922	1,191,920	7,629,177	302,440	0	0	11,296,737
2023	12,206,322	671,311	231,514	305,167	(659,785)	726,846	1,275,053	8,573,855	330,375	0	0	12,206,322
2024	13,181,341	724,049	231,514	342,954	(741,483)	808,544	1,365,578	9,575,155	364,298	0	0	13,181,341
2025	14,224,086	778,162	231,514	383,005	(828,076)	895,137	1,459,742	10,632,751	402,126	0	0	14,224,086
2026	15,335,133	836,295	231,514	425,310	(919,540)	986,601	1,560,180	11,749,381	443,550	0	0	15,335,133
2027	16,518,178	901,964	231,514	469,976	(1,016,108)	1,016,108	1,603,454	12,866,837	485,998	0	0	16,518,178
2028	17,611,510	963,790	231,514	514,673	(1,112,748)	1,112,748	1,709,977	14,049,817	526,997	0	0	17,611,510
2029	18,770,234	1,026,757	231,514	561,993	(1,215,054)	1,215,054	1,820,264	15,300,617	569,464	0	0	18,770,234
2030	19,996,627	1,093,083	231,514	612,024	(1,323,225)	1,323,225	1,936,621	16,632,695	604,543	0	0	19,996,627
2031	21,304,573	1,159,022	231,514	665,308	(1,438,426)	1,438,426	2,055,844	18,041,884	646,655	0	0	21,304,573
2032	22,689,617	1,230,900	231,514	721,675	(1,560,295)	1,560,295	2,184,089	19,536,170	689,803	0	0	22,689,617
2033	24,159,943	1,305,647	231,514	781,447	(1,689,524)	1,689,524	2,318,608	21,122,710	732,068	0	0	24,159,943
2034	25,722,862	1,379,160	231,514	844,908	(1,826,730)	1,826,730	2,455,582	22,807,712	770,580	0	0	25,722,862
2035	27,384,700	1,456,879	231,514	912,308	(1,972,453)	1,972,453	2,600,701	24,584,489	823,924	0	0	27,384,700
2036	29,138,363	1,537,631	231,514	983,380	(2,126,111)	2,126,111	2,752,525	26,449,381	887,633	0	0	29,138,363
2037	30,979,896	1,619,460	231,514	1,057,975	(2,287,391)	2,287,391	2,908,949	28,412,722	945,608	0	0	30,979,896
2038	32,919,897	1,704,744	231,514	1,136,509	(2,457,184)	2,457,184	3,072,767	30,469,874	1,015,615	0	0	32,919,897
2039	34,953,387	1,792,960	0	1,218,795	(2,635,091)	2,635,091	3,011,755	32,387,171	1,094,458	0	0	34,953,387
2040	37,077,963	1,884,301	0	1,295,486	(2,800,902)	2,800,902	3,179,787	34,393,866	1,173,092	0	0	37,077,963
2041	39,300,740	1,981,162	0	1,375,754	(2,974,444)	2,974,444	3,356,916	36,491,465	1,259,317	0	0	39,300,740
2042	41,623,487	2,084,251	0	1,459,658	(3,155,849)	3,155,849	3,543,909	38,691,313	1,344,061	0	0	41,623,487
2043	44,058,224	2,191,703	0	1,547,653	(3,346,095)	3,346,095	3,739,356	41,001,430	1,429,239	0	0	44,058,224

EXHIBIT D

Projected Cash Flows (Open Group) - Funded Approach

Total Medical, Dental & Life Insurance - Funding at 7.00% discount rate

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	Unfunded Accrued Actuarial Liability ("UAAL")
2012	3,461,055	101,187	357,617	57,149	(83,775)	(19,367)	412,811	810,860	147,696	270,674	0	3,461,055
2013	3,694,251	119,217	357,617	56,760	(83,204)	(19,938)	430,452	811,346	159,292	270,674	270,674	3,423,577
2014	3,953,147	135,314	357,617	56,794	(83,254)	(19,888)	446,583	813,958	173,297	270,674	560,295	3,392,852
2015	4,235,095	153,426	357,617	56,977	(83,522)	(19,620)	464,878	824,101	184,061	270,674	870,190	3,364,905
2016	4,547,610	173,370	357,617	57,687	(84,563)	(18,579)	485,532	842,900	196,059	270,674	1,201,777	3,345,833
2017	4,893,775	195,535	357,617	59,003	(86,492)	(16,650)	509,013	871,539	209,700	270,674	1,556,575	3,337,200
2018	5,276,888	217,376	357,617	61,007	(89,431)	(13,711)	532,858	910,801	222,922	270,674	1,936,209	3,340,679
2019	5,699,987	239,667	357,617	63,756	(93,459)	(9,683)	557,898	951,423	246,602	270,674	2,342,418	3,357,569
2020	6,155,417	265,456	357,617	66,599	(97,628)	(5,514)	586,530	1,005,233	262,046	270,674	2,777,061	3,378,356
2021	6,658,402	290,599	357,617	70,366	(103,149)	7	615,440	1,073,813	276,186	270,674	3,242,129	3,416,273
2022	7,213,421	318,736	357,617	75,166	(110,186)	7,044	648,377	1,149,076	302,440	270,674	3,739,752	3,473,669
2023	7,814,721	343,476	357,617	80,435	(117,909)	14,767	678,386	1,226,413	330,375	270,674	4,272,209	3,542,512
2024	8,460,452	370,700	357,617	85,848	(125,845)	22,703	711,023	1,302,464	364,298	270,674	4,841,938	3,618,514
2025	9,150,299	397,936	357,617	91,172	(133,649)	30,507	743,583	1,373,247	402,126	270,674	5,451,548	3,698,751
2026	9,883,498	427,132	357,617	96,127	(140,912)	37,770	777,734	1,436,757	443,550	270,674	6,103,830	3,779,668
2027	10,661,651	460,348	357,617	100,573	(147,429)	147,429	918,538	1,598,623	485,998	270,674	6,801,772	3,859,879
2028	11,380,521	491,849	357,617	111,903	(164,038)	164,038	961,369	1,762,321	526,997	270,674	7,548,570	3,831,951
2029	12,139,550	524,389	357,617	123,362	(180,835)	180,835	1,005,368	1,927,551	569,464	270,674	8,347,644	3,791,906
2030	12,941,088	559,150	357,617	134,928	(197,790)	197,790	1,051,695	2,104,029	604,543	270,674	9,202,653	3,738,435
2031	13,798,393	593,552	357,617	147,282	(215,899)	215,899	1,098,451	2,285,151	646,655	270,674	10,117,513	3,680,880
2032	14,707,459	631,613	357,617	159,960	(234,484)	234,484	1,149,190	2,473,864	689,803	270,674	11,096,413	3,611,046
2033	15,674,718	671,688	357,617	173,170	(253,848)	253,848	1,202,475	2,673,597	732,068	270,674	12,143,836	3,530,882
2034	16,707,341	710,903	357,617	187,151	(274,343)	274,343	1,255,671	2,888,014	770,580	270,674	13,264,579	3,442,762
2035	17,813,000	752,223	357,617	202,161	(296,345)	296,345	1,312,001	3,105,417	823,924	270,674	14,463,774	3,349,226
2036	18,983,189	795,366	357,617	217,379	(318,653)	318,653	1,370,362	3,317,472	887,633	270,674	15,746,912	3,236,277
2037	20,213,289	838,912	357,617	232,223	(340,412)	340,412	1,428,752	3,529,942	945,608	270,674	17,119,870	3,093,419
2038	21,514,053	884,138	357,617	247,096	(362,214)	362,214	1,488,851	3,732,504	1,015,615	270,674	18,588,935	2,925,118
2039	22,879,356	930,704	0	261,275	(382,999)	382,999	1,191,979	3,559,351	1,094,458	270,674	20,160,834	2,718,522
2040	24,305,694	978,282	0	249,154	(365,232)	365,232	1,227,436	3,343,021	1,173,092	270,674	21,842,766	2,462,928
2041	25,798,646	1,028,768	0	234,011	(343,034)	343,034	1,262,779	3,075,809	1,259,317	270,674	23,642,434	2,156,212
2042	27,357,864	1,082,849	0	215,306	(315,615)	315,615	1,298,155	2,759,229	1,344,061	270,674	25,568,078	1,789,786
2043	28,993,418	1,138,831	0	193,146	(283,130)	283,130	1,331,977	2,391,293	1,429,239	270,674	27,628,517	1,364,901

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."

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 E

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 E

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.