



**A Postretirement Welfare Benefit  
GASB 45 Actuarial Valuation  
As of July 1, 2011**

For:

**Town of East Longmeadow,  
MA**

Prepared by:  
The USI Consulting Group

August 30, 2013



August 30, 2013

Town of East Longmeadow  
60 Center Square  
East Longmeadow, MA 01028

**RE: July 1, 2011 Actuarial Valuation of Postretirement Welfare Benefits**

We enclose the report covering the actuarial valuation of the postretirement medical and life insurance plans for the employees of the Town of East Longmeadow, MA as of July 1, 2011. The numbers presented in this report reflect the adoption, by the Town of East Longmeadow, MA, of the Statement of Governmental Accounting Standard No. 45 (GASB 45).

The financial results of the actuarial valuation are summarized in the report. The Executive Summary highlights the results of the valuation, including the calculation of the Annual OPEB Cost (expense) for the fiscal year beginning July 1, 2011, which is based on a 30 year amortization of the UAAL as of July 1, 2011.

Additional information summarizing census information, actuarial assumptions, and the methodology for developing them, as well as a glossary of selected terms used in this study, are also included in the report.

All calculations are made in accordance with our understanding of the provisions of the Statement of Governmental Accounting Standards Board No. 45 (GASB 45). We believe this report provides all of the information your auditor requires. We would appreciate a copy of the footnote to your financial statement related to the postretirement benefits.

Respectfully submitted,

**USI Consulting Group**

A handwritten signature in black ink, appearing to read "Robert W. Webb".

Robert W. Webb, FSA, EA, MAAA  
Vice President and Actuary

A handwritten signature in black ink, appearing to read "John Sheaves".  
John Sheaves  
Senior Actuarial Consultant



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## Section I

# Executive Summary

The section presents the results of the July 1, 2011 valuation. The first section provides a brief summary of the valuation results. The Executive Summary Detail provides a more detailed development of the expenses and liabilities. Items I through IV show the development of the Annual Required Contribution (ARC). Items V through VIII show the calculation of the Annual OPEB Cost. Item X provides a brief summary of the key assumptions used in developing the plan's costs and liabilities.

**EXECUTIVE SUMMARY**

**Introduction**

This report details the development of the Annual OPEB Cost for the Fiscal Year ending June 30, 2012. Estimated June 30, 2012 and June 30, 2013 disclosures are included in Section III.

The liabilities developed in this report are only valid for purposes of meeting employer accounting requirements as required by Statement of Governmental Accounting Standards Number 45 (GASB 45). Liabilities developed for other purposes could be significantly different than those shown in this report.

**Summary of Results**

The Actuarial Accrued Liability and Normal Cost are calculated as of the valuation date. The Annual OPEB Cost and Expected Benefit Payments are for the year beginning on the valuation date. Additional detail is developed in the exhibits included in this actuarial valuation report.

**Fiscal Year Ending June 30, 2012**

<i>Beginning of Year Net OPEB Obligation (NOO)</i>	\$14,041,756
<i>Actuarial Accrued Liability (AAL)</i>	\$44,362,650
<i>Actuarial Value of Assets</i>	\$0
<i>Unfunded Actuarial Accrued Liability (UAAL)</i>	\$44,362,650
<i>Annual Required Contribution (30 year amortization)</i>	\$4,761,653
<i>Annual OPEB Cost</i>	\$4,654,891
<i>Expected Benefit Payments</i>	\$922,693

**Fiscal Year Ending June 30, 2013**

<i>Beginning of Year Net OPEB Obligation (NOO)</i>	\$17,773,954
<i>Actuarial Accrued Liability (AAL)</i>	\$47,864,313
<i>Actuarial Value of Assets</i>	\$0
<i>Unfunded Actuarial Accrued Liability (UAAL)</i>	\$47,864,313
<i>Annual Required Contribution (30 year amortization)</i>	\$5,042,191
<i>Annual OPEB Cost</i>	\$4,888,818
<i>Expected Benefit Payments</i>	\$1,020,939

**Economic Assumptions**

The employer, with the approval of the auditor, is responsible for selecting the economic assumptions as of the disclosure date. The following table details the selected economic assumptions for the current fiscal year:

<b><u>Assumption Selection Date</u></b>	<b><u>July 1, 2011</u></b>
<i>Funding Interest Rate*</i>	4.00%
<i>2011 Medical Trend Rates</i>	6.39%
<i>Ultimate Medical Trend Rate</i>	5.00%
<i>Year Ultimate Trend Rates Reached</i>	2020
<i>Annual Payroll Increase</i>	2.50%

\* Reflects current funding policy (assumes no funding).

**Changes included in current valuation**

The plan experienced an actuarial gain due to favorable demographic changes and health care cost increases less than assumed. The gain was increased some more due to changes in actuarial assumptions, which included an update to the mortality assumption to reflect future anticipated improvements in mortality and an update to the medicare integration percentage. The impact of these gains are shown in appendix II.

The new Health Care Reform Law is not expected to have a significant impact on the plan costs other than the provision for a "High Cost Plan Excise Tax", which is effective in 2018. This provision of the law is described in more detail in Section IV. The impact on plan liabilities is shown in Appendix II in Section V.

**Accounting for Postretirement Benefits**

This report provides the information needed to prepare the footnote in your financial statements related to your postretirement benefit plans. The unfunded actuarial accrued liability and the ARC are developed in the Executive Summary Detail included in this section. For this Fiscal Year / Valuation Report, Section III presents the disclosure information based on estimated contributions made.

**Actuarial Certification**

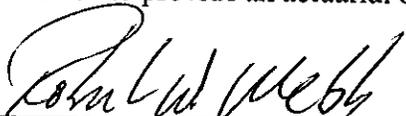
The financial results of the actuarial valuation are summarized in this report. The valuation has been prepared as of July 1, 2011. The detail charts included in this Executive Summary highlight the results of the valuation. Additional information summarizing the census, actuarial assumptions, plan provisions, and a glossary of selected terms used in this study are also included in this report.

The valuation is based on the July 1, 2013 census data and plan information as provided by the employer. We have reviewed both the census and financial data for reasonableness, but have not completed an independent audit of the information.

All costs, liabilities, and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures. The calculations are consistent and undertaken with our understanding of Statement of Governmental Accounting Standards Number 45 (GAS 45). In our opinion, the actuarial assumptions are reasonable, taking in account the experience of the plan and reasonable expectations and, individually represent our best estimate of the anticipated experience under the plan.

We have no relationship with the employer or the plan that would objectively impair, or appear to impair, our ability to perform the work detailed in this report.

We certify that we are members of the American Academy of Actuaries and meet its Qualification Standards to provide an actuarial opinion in accordance with GASB 45.



Robert W. Webb, FSA, EA, MAAA  
Vice President and Actuary



Adeniyi Olayinka, ASA, MAAA  
Associate Vice President and Actuary

**EXECUTIVE SUMMARY DETAIL**  
**GASB 45 LIABILITIES, ANNUAL REQUIRED CONTRIBUTION AND ANNUAL OPEB COST**  
**JULY 1, 2011 RESULTS**

<i>I. Present value of Future benefits</i>		
A. Retirees/Disableds		\$18,418,679
B. Active Employees		<u>\$60,430,251</u>
C. Total		\$78,848,930
<i>II. Actuarial Accrued Liability</i>		
A. Retirees/Disableds		\$18,418,679
B. Active Employees		<u>\$25,943,971</u>
C. Total		\$44,362,650
<i>III. Actuarial Assets</i>		\$0
<i>IV. Unfunded Actuarial Accrued Liability (UAAL)</i>		\$44,362,650
<i>V. Annual Required Contribution (ARC)</i>		
A. Normal Cost		\$2,565,677
B. Supplemental Cost		\$2,030,580
C. Compound Interest to Year End		<u>\$165,396</u>
D. Annual Required Contribution		\$4,761,653
		<i>[A. + B. + C.]</i>
<i>VI. Net OPEB Obligation</i>		\$14,041,756
<i>VII. Interest on net OPEB Obligation</i>		\$561,670
<i>VIII. Adjustment to ARC</i>		(\$668,432)
<i>IX. Annual OPEB Cost (Expense)</i>		\$4,654,891
		<i>[V.D. + VII. + VIII.]</i>
<i>X. Expected Benefit Payments</i>		
A. Retirees/Disableds		\$834,669
B. Active Employees		<u>\$88,024</u>
C. Total		\$922,693

**EXECUTIVE SUMMARY DETAIL**  
**GASB 45 LIABILITIES, ANNUAL REQUIRED CONTRIBUTION AND ANNUAL OPEB COST**  
**JULY 1, 2012 RESULTS**

<i>I. Present value of Future benefits</i>	
A. Retirees/Disableds	\$18,304,063
B. Active Employees	<u>\$62,757,675</u>
C. Total	\$81,061,738
<i>II. Actuarial Accrued Liability</i>	
A. Retirees/Disableds	\$18,304,063
B. Active Employees	<u>\$29,560,250</u>
C. Total	\$47,864,313
<i>III. Actuarial Assets</i>	\$0
<i>IV. Unfunded Actuarial Accrued Liability (UAAL)</i>	\$47,864,313
<i>V. Annual Required Contribution (ARC)</i>	
A. Normal Cost	\$2,629,819
B. Supplemental Cost	\$2,238,075
C. Compound Interest to Year End	<u>\$174,297</u>
D. Annual Required Contribution [A. + B. + C.]	\$5,042,191
<i>VI. Net OPEB Obligation</i>	\$17,773,954
<i>VII. Interest on net OPEB Obligation</i>	\$710,958
<i>VIII. Adjustment to ARC</i>	(\$864,331)
<i>IX. Annual OPEB Cost (Expense)</i> <i>[V.D. + VII. + VIII.]</i>	\$4,888,818
<i>X. Expected Benefit Payments</i>	
A. Retirees/Disableds	\$916,192
B. Active Employees	<u>\$104,747</u>
C. Total	\$1,020,939

## Section II

# Census Information

**This section details statistics related to the participants in the postretirement benefit plan.**

**CENSUS INFORMATION - A.**

**EMPLOYEE COUNTS**

*As of July 1, 2013*

	<u>Actives</u>	<u>Retirees</u>	<u>Total</u>
Male	150	83	233
Female	<u>260</u>	<u>130</u>	<u>390</u>
Total	410	213	623

**COUNTS BY AGE AND ELIGIBILITY STATUS**

**ACTIVE EMPLOYEES :**

<u>Age</u>	<u>Currently Eligible to Retire</u>	<u>Not Currently Eligible to Retire</u>	<u>Total</u>
29 and under	0	23	23
30 - 34	0	35	35
35 - 39	0	49	49
40 - 44	1	42	43
45 - 49	10	39	49
50 - 54	17	54	71
55 - 59	42	21	63
60 - 64	38	10	48
65 and over	25	4	29
Total	132	277	410

**CURRENT RETIREES:**

<u>Age</u>	<u>Retirees</u>	<u>Spouse</u>	<u>Total</u>
54 and under	2	2	4
55 - 59	17	8	25
60 - 64	29	10	39
65 - 69	37	5	42
70 - 74	40	1	41
75 - 79	24	1	25
80 and over	64	0	64
Total	213	27	240

CENSUS INFORMATION – B.

AVERAGE AGE AND SERVICE

As of July 1, 2013

ACTIVE EMPLOYEES:

A. Average Age at Hire

Males	34.3
Females	38.8
Total	37.2

B. Average Service

Males	11.8
Females	11.9
Total	11.8

C. Average Current Age

Males	46.1
Females	50.7
Total	49.0

CURRENT RETIREES

D. Average Current Age

Males	73.1
Females	74.4
Total	73.9

**Section III**

**Financial Statement Disclosure**

This section provides the required information and notes to the Financial Statements for the fiscal years ending June 30, 2012 and June 30, 2013.

**FINANCIAL STATEMENT DISCLOSURE**

The GASB standard on accounting for postretirement benefits other than pensions requires the following disclosures in the financial statements with regard to the retiree benefit liability:

**1.) A BRIEF DESCRIPTION OF THE RETIREE MEDICAL/DRUG, LIFE and DENTAL INSURANCE PLANS:**

**a. Plan Types:**

**Medical**

The Town participates in the Scantic Valley Regional Health Trust. Medical and prescription drug benefits are provided to eligible retirees. Retirees have their choice of a variety of plans offered by Anthem Blue Cross Blue Shield of Massachusetts, Health New England, Tufts Health Plan, and Blue Care Elect.

**b. Eligibility:**

Police and Fire: Age 45 with 10 years of service, or any age with 20 years of service.

All Others: Age 55 with 10 years of service, or any age with 20 years of service.

**c. Benefit/Cost Sharing:**

The Town covers 70% of the health premium for all plans except the Blue Care Elect PPO and the Medicare plans, for which they pay 50%.

**d. Spouse Benefit:**

Yes, the Town provides medical coverage for spouses. Spouses pay the same percentage as retirees.

**e. Surviving Spouse Benefit:**

Yes, the Town provides medical coverage for surviving spouses. Surviving spouses pay the same percentage of the medical premium as they would if the retiree were still alive.

**f. Annual Medical Premiums:**

As of July 1, 2013:

**Blue Cross Blue Shield**

Individual: \$ 6,754.32

Family: \$ 16,749.72

**Health New England**

Individual: \$ 5,913.12

Family: \$ 16,981.44

**Tufts HMO**

Individual: \$ 7,368.00

Family: \$ 18,420.00

**Blue Care Elect PPO**

Individual: \$ 17,112.00

Family: \$ 41,760.00

**Medicare Plans**

Medex III: \$ 5,542.20 per person covered

Managed Blue for Seniors: \$ 4,965.12 per person covered

HNE Mediwrap: \$ 4,539.12 per person covered

**FINANCIAL STATEMENT DISCLOSURE (cont.)**

**2.) GASB 45 DISCLOSURE REQUIREMENTS – ESTIMATED**

A. Annual OPEB Cost and Net OPEB Obligation	7/1/2011 - 6/30/2012	7/1/2012 - 6/30/2013
1. Annual Required Contribution (ARC)	\$4,761,653	\$5,042,191
2. Interest on net OPEB Obligation	\$561,670	\$710,958
3. Adjustment to ARC	(\$668,432)	(\$864,331)
4. Annual OPEB Cost (Expense)	\$4,654,891	\$4,888,818
5. Contribution made (assumed middle of year) *	(\$922,693)	(\$1,020,939)
6. Increase in net OPEB Obligation	\$3,732,198	\$3,867,879
7. Net OPEB Obligation - beginning of year	<u>\$14,041,756</u>	<u>\$17,773,954</u>
8. Net OPEB Obligation - end of year	\$17,773,954	\$21,641,833

\* Contribution made was assumed to equal Expected Benefit Payments

The annual OPEB Cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for fiscal years ending 2012 / 2013 are as follows:

Fiscal Year Ending	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation	Covered Payroll	OPEB Cost % of Pay
6/30/2012	\$4,654,891	19.8%	\$17,773,954	N/A	N/A
6/30/2013	\$4,888,818	20.9%	\$21,641,833	N/A	N/A

**B. Funded Status and Funding Progress**

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (AAL) (b - a) / c)
12/31/2007	\$0	\$61,704,179	\$61,704,179	0.0%	N/A	N/A
12/31/2009	\$0	\$93,937,482	\$93,937,482	0.0%	N/A	N/A
7/1/2011	\$0	\$44,362,650	\$44,362,650	0.0%	N/A	N/A

**C. Methods and Assumptions**

- Interest Rate	4.00%
- 2011 Medical Trend Rates	6.39%
- Ultimate Medical Trend Rate	5.00%
- Year Ultimate Trend Rates Reached	2020
- Actuarial Cost Method	Entry Age Normal
- The remaining amortization period at 06/30/2012	24.39
- Annual Payroll Increase	2.50%

## Section IV

# Actuarial Assumptions And Methodology

The following pages detail the assumptions used in the calculations.

**ACTUARIAL ASSUMPTIONS AND METHODOLOGY**

1. **Funding Interest Rate:** An interest rate of 4.00% was used.
  
2. **Mortality:** For healthy participants: the mortality rates are from the RP-2000 Combined Fully Generational mortality table with projection scale AA.  
 For disabled participants: the mortality rates are from the RP-2000 Combined mortality table set forward 3 years for males.

3. **Retirement Rates:**

<u>Age</u>	<u>Group 1</u> <u>Male</u>	<u>Female</u>	<u>Group 4</u> <u>Unisex</u>
45-49	0%	0%	1.0%
50-51	1.0%	1.5%	2.0%
52	1.0%	2.0%	2.0%
53	1.0%	2.5%	5.0%
54	2.0%	2.5%	7.5%
55	2.0%	5.5%	15.0%
56-57	2.5%	6.5%	10.0%
58	5.0%	6.5%	10.0%
59	6.5%	6.5%	15.0%
60	12.0%	5.0%	20.0%
61	20.0%	13.0%	20.0%
62	30.0%	15.0%	25.0%
63	25.0%	12.5%	25.0%
64	22.0%	18.0%	30.0%
65	40.0%	15.0%	100.0%
66-67	25.0%	20.0%	100.0%
68	30.0%	25.0%	100.0%
69	30.0%	20.0%	100.0%
70+	100.0%	100.0%	100.0%

**Teachers**

<u>Age</u>	<u>&lt;20</u>	<u>20-29</u>	<u>30+</u>
50	0.0% / 0.0%	1.0% / 1.5%	2.0% / 2.0%
55	3.0% / 2.0%	3.0% / 3.0%	6.0% / 6.0%
60	15.0% / 20.0%	20.0% / 16.0%	50.0% / 35.0%
62	20.0% / 25.0%	30.0% / 30.0%	40.0% / 35.0%
65	40.0% / 30.0%	40.0% / 30.0%	50.0% / 35.0%
70	100.0% / 100.0%	100.0% / 100.0%	100.0% / 100.0%

**ACTUARIAL ASSUMPTIONS AND METHODOLOGY (cont.)**

4. **Disability Rates:**

	<u>Group 1 and 2</u>		<u>Group 4</u>	<u>Teachers</u>
<u>Age</u>	<u>Rate</u>	<u>Rate</u>	<u>Rate</u>	<u>Rate</u>
20	0.01%	0.10%	0.00%	0.00%
25	0.02%	0.20%	0.01%	0.01%
30	0.03%	0.30%	0.01%	0.01%
35	0.06%	0.30%	0.01%	0.01%
40	0.10%	0.30%	0.01%	0.01%
45	0.15%	1.00%	0.03%	0.03%
50	0.19%	1.25%	0.05%	0.05%
55	0.24%	1.20%	0.08%	0.08%
60	0.28%	0.85%	0.10%	0.10%

5. **Termination Rates:**

<u>Service</u>	<u>Group 1 &amp; 2</u>	<u>Group 4</u>
0	15.0%	1.50%
1	12.0%	1.5%
2	10.0%	1.5%
3	9.0%	1.5%
4	8.0%	1.5%
5	7.6%	1.5%
6	7.5%	1.5%
7	6.7%	1.5%
8	6.3%	1.5%
9	5.9%	1.5%
10	5.4%	1.5%
11	5.0%	0.0%
12	4.6%	0.0%
13	4.1%	0.0%
14	3.7%	0.0%
15	3.3%	0.0%
16-20	2.0%	0.0%
21-29	1.0%	0.0%
30+	0.0%	0.0%

**Teachers (Male / Female)**

<u>Age</u>	<u>Years of Service</u>		
	<u>0</u>	<u>5</u>	<u>10+</u>
20	12.0% / 10.0%	4.5% / 9.0%	1.0% / 5.0%
30	11.4% / 12.0%	4.5% / 9.0%	1.0% / 5.0%
40	9.7% / 11.0%	5.4% / 6.5%	1.7% / 2.9%
50	10.0% / 8.2%	4.8% / 4.2%	2.2% / 2.1%

**ACTUARIAL ASSUMPTIONS AND METHODOLOGY (cont.)**

6. **Health Care Trend Rates:** It was assumed that health care costs would increase in accordance with the trend rates in the following table:

<u>Year</u>	<u>Medical Rates</u>
2011	6.39%
2012	0.00%
2013	8.25%
2014	7.75%
2015	7.25%
2016	6.75%
2017	6.25%
2018	5.75%
2019	5.25%
2020+	5.00%

7. **Participation Rate:** It was assumed that 100% of the current active employees covered under the active plan on the day before retirement would enroll in the retiree medical plan upon retirement.
8. **Medicare Election:** It was assumed that 85% of the current active employees and current retirees under age 65 will be eligible for Medicare and will elect a Medicare Plan.
9. **Percent Married:** It was assumed that 65% of the male and female employees who elect retiree health care coverage for themselves would also elect coverage for their spouse upon retirement. It was assumed that male spouses are three years older than their wives and female spouses are three years younger than the retiree. For current retirees, actual census information was used.
10. **Actuarial Value of Assets:** N/A
11. **Administrative Expenses:** Included in premiums used.
12. **Participant Salary Increases:** 3.00% annually
13. **Payroll Growth Rate:** 2.50% annually

**ACTUARIAL ASSUMPTIONS AND METHODOLOGY (cont.)**

14. **Per Capita Claims Cost:** Per Capita Claim Costs were developed by applying morbidity aging factors to the average premium rates reflecting the demographic characteristics of the insured group. Below are the annual per capita claim costs used:

<u>Age</u>	<u>Male</u>	<u>Female</u>
45	4,416.64	5,544.63
50	5,302.35	6,116.57
55	6,438.29	6,680.57
60	7,764.87	7,443.15
64	8,670.44	8,118.36
65	4,196.93	3,929.20
70	4,634.35	4,342.11
75	5,117.01	4,794.61
80	5,379.08	5,035.94

15. **High Cost Plan Excise Tax:**

Effective in 2018. The law apply a 40% tax to the cost of plan benefits in excess of statutory thresholds, which are \$10,200 for single coverage and \$27,500 for family coverage for Medicare eligible retirees. An additional \$1,650 and \$3,450 are added for single and family coverage respectively, for retirees who are between ages 55 and 65. We assume the thresholds will start to increase in 2018 at the rate of 3.4%. The plan costs for pre 65 and post 65 benefits are based on the plans' premium costs adjusted for aging and trended at the health care trend rates shown above.

**ACTUARIAL ASSUMPTIONS AND METHODOLOGY (cont.)**

**ACTUARIAL COST METHOD**

An Actuarial Cost Method develops an orderly allocation of the actuarial present value of benefits payments over the working lifetime of the participants in the plan. The actuarial present value of benefits allocated to a particular fiscal year is called the Normal Cost. The actuarial present value of benefits allocated to all periods prior to a valuation date is called the Actuarial Accrued Liability. The Unfunded Actuarial Accrued Liability is amortized over future years in accordance with the employer's established accounting policy.

**Projected Unit Credit Actuarial Cost Method:** The projected benefits of each individual included in the actuarial valuation are allocated by a consistent formula to valuation years. The actuarial present value of benefits allocated to a valuation year is called the Normal Cost. The Actuarial Percent Value of benefits allocated to all periods prior to a valuation year is called the Actuarial Accrued Liability. Projected benefits are calculated by projecting the current per capita claims cost into the future based on the applicable health care trend rates. The projected benefits are allocated to valuation years by a straight pro-ration based on expected years of employment. The Unfunded Actuarial Accrued Liability is amortized over future years in accordance with the employer's established accounting policy.

The amortization of the unfunded actuarial accrued liability may be determined in level dollar amounts or as a level percentage of projected payroll of active plan members. The total unfunded actuarial accrued liability may be amortized as one amount, or components of the total may be separately amortized. The equivalent single amortization period for all components combined may not exceed the maximum acceptable period of 30 years.

**ADDITIONAL COMMENTS**

The values in this GASB 45 valuation represent a closed group and do not reflect new entrants after the census collection date.

I

Section V  
Appendices

APPENDIX - I.

ACTIVE EMPLOYEE BY AGE AND SERVICE

AS OF JULY 1, 2013

Age	Service									Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
0 - 19	0	0	0	0	0	0	0	0	0	0
20 - 24	3	1	0	0	0	0	0	0	0	4
25 - 29	18	0	1	0	0	0	0	0	0	19
30 - 34	16	13	6	0	0	0	0	0	0	35
35 - 39	18	21	8	2	0	0	0	0	0	49
40 - 44	12	15	7	8	1	0	0	0	0	43
45 - 49	12	16	6	7	8	0	0	0	0	49
50 - 54	14	22	10	8	6	9	2	0	0	71
55 - 59	9	12	17	11	4	3	5	2	0	63
60 - 64	3	7	12	11	9	1	1	2	2	48
65 - 69	1	3	4	7	3	3	0	0	1	22
70 - 74	0	0	0	0	0	0	2	0	0	2
75 - 79	0	0	1	1	0	0	0	0	1	3
80 - 84	0	0	0	0	0	0	0	1	1	2
85 and Over	0	0	0	0	0	0	0	0	0	0
Total	106	110	72	55	31	16	10	5	5	410

APPENDIX – II

RECONCILIATION OF ACTUARIAL ACCRUED LIABILITY

a. 7/1/2009 Actuarial Accrued Liability	\$93,937,482
b. 2009 Normal Cost	\$3,755,328
c. Interest Rate	4.00%
d. Interest on (b. + c.)	\$3,907,712
e. 2009 Expected Benefit Payments	(\$1,754,347)
f. Interest on f.	<u>(\$34,743)</u>
g. 7/1/2010 Expected Actuarial Accrued Liability (a. + b. + d. + e. + f.)	\$99,811,432
h. 2010 Normal Cost	\$3,886,764
i. Interest Rate	4.00%
j. Interest on (g. + h.)	\$4,147,928
k. 2010 Expected Benefit Payments	(\$1,965,639)
l. Interest on l.	<u>(\$38,927)</u>
m. 7/1/2011 Expected Actuarial Accrued Liability (g. + h. + j. + k. + l.)	\$105,841,558
n. Change in Actuarial Accrued Liability due to	
i. Demographic and plan cost changes	(\$57,352,387)
ii. Change in Actuarial Assumptions	(\$4,337,094)
iii. High Cost Plan Excise Tax	\$210,573
iv. Plan Change	<u>\$0</u>
v. Total	(\$61,478,908)
o. 7/1/2011 Actuarial Accrued Liability (m. + n. v.)	\$44,362,650

APPENDIX – III

DEVELOPMENT OF NORMAL COST AND AMORTIZATION AMOUNT

**A. Prior Bases**

1. Amortization Base Balance as of 7/1/2009	\$93,937,482
2. 2009 Amortization Payment	(\$3,354,967)
3. Interest	4.00%
4. Interest on (1) + (2)	<u>\$3,623,301</u>
5. Amortization Base Balance as of 7/1/2010 (1) + (2) + (4)	\$94,205,816
6. 2010 Amortization Payment	(\$3,619,819)
7. Interest	4.00%
8. Interest on (5) + (6)	<u>\$3,623,440</u>
9. Amortization Base Balance as of 7/1/2011 (5) + (6) + (8)	\$94,209,437
10. Remaining Amortization Period	28.00
11. Valuation Interest rate	4.00%
12. Assumed payroll growth	2.50%
13. 2012 Adjusted Amortization Amount	\$4,065,630

**B. New Amortization Base**

1. Experience (Gain)/Loss	(\$57,352,387)
2. Assumption Changes	(\$4,337,094)
3. High Cost Plan Excise Tax	\$210,573
4. Plan Change	\$0
5. Loss due to Funding timing	<u>\$11,632,121</u>
6. Total (1) + (2) + (3) + (4) + (5)	(\$49,846,787)
7. Remaining Amortization Period	30
8. Valuation Interest rate	4.00%
9. Assumed payroll growth	2.50%
10. Amortization Amount	(\$2,035,050)

**C. Combined Bases**

1. Amortization Base Balance as of 7/1/2011 (A.9. + B.6.)	\$44,362,650
2. 2012 Preliminary Total Amortization Amount (A.13. + B.10.)	\$2,030,580
3. 2012 Minimum Total Amortization Amount (30 year)	\$1,811,154
4. 2012 Total Amortization Amount (greater of 2. and 3.)	\$2,030,580

APPENDIX - IV

PROJECTED BENEFIT PAYMENTS

Year	Amount	Accumulated	Year	Amount	Accumulated	Year	Amount	Accumulated
2011	\$ 922,693	\$ 922,693	2046	\$ 5,962,240	\$ 132,176,756	2081	\$ 1,031,020	\$ 271,074,320
2012	\$ 1,020,939	\$ 1,943,632	2047	\$ 5,927,943	\$ 138,104,699	2082	\$ 882,194	\$ 271,956,514
2013	\$ 1,012,138	\$ 2,955,770	2048	\$ 5,906,796	\$ 144,011,495	2083	\$ 746,368	\$ 272,702,882
2014	\$ 1,185,122	\$ 4,140,892	2049	\$ 5,915,800	\$ 149,927,295	2084	\$ 624,286	\$ 273,327,168
2015	\$ 1,351,995	\$ 5,492,887	2050	\$ 5,859,032	\$ 155,786,327	2085	\$ 516,451	\$ 273,843,619
2016	\$ 1,528,047	\$ 7,020,934	2051	\$ 5,763,449	\$ 161,549,776	2086	\$ 422,624	\$ 274,266,243
2017	\$ 1,670,019	\$ 8,690,953	2052	\$ 5,669,753	\$ 167,219,529	2087	\$ 341,758	\$ 274,608,001
2018	\$ 1,832,492	\$ 10,523,445	2053	\$ 5,582,063	\$ 172,801,592	2088	\$ 272,861	\$ 274,880,862
2019	\$ 1,982,943	\$ 12,506,388	2054	\$ 5,462,607	\$ 178,264,199	2089	\$ 215,680	\$ 275,096,542
2020	\$ 2,118,296	\$ 14,624,684	2055	\$ 5,344,776	\$ 183,608,975	2090	\$ 168,881	\$ 275,265,423
2021	\$ 2,300,161	\$ 16,924,845	2056	\$ 5,248,359	\$ 188,857,334	2091	\$ 130,822	\$ 275,396,245
2022	\$ 2,492,802	\$ 19,417,647	2057	\$ 5,151,654	\$ 194,008,988	2092	\$ 100,101	\$ 275,496,346
2023	\$ 2,670,182	\$ 22,087,829	2058	\$ 5,057,010	\$ 199,065,998	2093	\$ 75,753	\$ 275,572,099
2024	\$ 2,855,097	\$ 24,942,926	2059	\$ 4,954,351	\$ 204,020,349	2094	\$ 56,591	\$ 275,628,690
2025	\$ 3,056,799	\$ 27,999,725	2060	\$ 4,842,518	\$ 208,862,867	2095	\$ 41,745	\$ 275,670,435
2026	\$ 3,228,306	\$ 31,228,031	2061	\$ 4,728,911	\$ 213,591,778	2096	\$ 30,343	\$ 275,700,778
2027	\$ 3,392,249	\$ 34,620,280	2062	\$ 4,606,402	\$ 218,198,180	2097	\$ 21,725	\$ 275,722,503
2028	\$ 3,621,712	\$ 38,241,992	2063	\$ 4,471,855	\$ 222,670,035	2098	\$ 15,272	\$ 275,737,775
2029	\$ 3,834,319	\$ 42,076,311	2064	\$ 4,327,206	\$ 226,997,241	2099	\$ 10,552	\$ 275,748,327
2030	\$ 4,007,705	\$ 46,084,016	2065	\$ 4,169,758	\$ 231,166,999	2100	\$ 7,159	\$ 275,755,486
2031	\$ 4,188,432	\$ 50,272,448	2066	\$ 4,001,966	\$ 235,168,965	2101	\$ 4,767	\$ 275,760,253
2032	\$ 4,403,332	\$ 54,675,780	2067	\$ 3,822,559	\$ 238,991,524	2102	\$ 3,102	\$ 275,763,355
2033	\$ 4,569,621	\$ 59,245,401	2068	\$ 3,632,737	\$ 242,624,261	2103	\$ 1,988	\$ 275,765,343
2034	\$ 4,765,391	\$ 64,010,792	2069	\$ 3,434,061	\$ 246,058,322	2104	\$ 1,254	\$ 275,766,597
2035	\$ 4,963,286	\$ 68,974,078	2070	\$ 3,228,573	\$ 249,286,895	2105	\$ 788	\$ 275,767,385
2036	\$ 5,168,899	\$ 74,142,977	2071	\$ 3,016,797	\$ 252,303,692	2106	\$ 483	\$ 275,767,868
2037	\$ 5,350,722	\$ 79,493,699	2072	\$ 2,802,780	\$ 255,106,472	2107	\$ 294	\$ 275,768,162
2038	\$ 5,553,318	\$ 85,047,017	2073	\$ 2,586,653	\$ 257,693,125	2108	\$ 179	\$ 275,768,341
2039	\$ 5,677,378	\$ 90,724,395	2074	\$ 2,372,558	\$ 260,065,683	2109	\$ 103	\$ 275,768,444
2040	\$ 5,753,298	\$ 96,477,693	2075	\$ 2,160,260	\$ 262,225,943	2110	\$ 50	\$ 275,768,494
2041	\$ 5,892,596	\$ 102,370,289	2076	\$ 1,951,687	\$ 264,177,630	2111	\$ 17	\$ 275,768,511
2042	\$ 5,930,182	\$ 108,300,471	2077	\$ 1,749,001	\$ 265,926,631	2112	\$ 6	\$ 275,768,517
2043	\$ 5,950,502	\$ 114,250,973	2078	\$ 1,554,577	\$ 267,481,208	2113	\$ -	\$ 275,768,517
2044	\$ 5,972,280	\$ 120,223,253	2079	\$ 1,368,643	\$ 268,849,851	2114	\$ -	\$ 275,768,517
2045	\$ 5,991,263	\$ 126,214,516	2080	\$ 1,193,449	\$ 270,043,300	2115	\$ -	\$ 275,768,517

APPENDIX – V  
GLOSSARY

**Actuarial Accrued Liability.** The portion of the present value of benefits which is not provided for by future Normal Costs.

**Actuarial Present Value of Total Projected Benefits.** The present value, as of the valuation date, of future benefit payments expected to be paid to employees, retirees, and covered dependents.

**Annual OPEB Cost.** The accrual basis measure of the periodic cost of an employer's participation in a defined benefit OPEB Plan.

**Annual Required Contributions of the Employer (ARC).** The employer's periodic required contributions to a defined benefit OPEB plan, calculated in accordance with the parameters defined in GAS 45.

**Investment Return Assumption (Discount Rate).** The rate used to adjust a series of future benefit payments to reflect the time value of money.

**Healthcare Cost Trend Rate.** The rate of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services and technological developments.

**Net OPEB Obligation.** The cumulative difference since the effective date of GAS 45 between the annual OPEB cost and the employer's contributions to the plan.

**Normal Cost.** The portion of the Actuarial Present Value of plan benefits which is allocated to a valuation year by the Actuarial Cost Method.

**OPEB.** Postemployment benefits other than pension benefits.

**Pay-As-You-Go.** The amount of the benefits paid out to plan participants during the year.

**Per Capita Claims Cost.** The current average annual cost of providing postretirement health care benefits to one person.

