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August 25, 2009

Judith A Mulligan
Business Manager
Manchester-Essex Regional School District
PO Box 1407
Manchester-by-the-Sea, MA 01944

RE: July 1, 2008 Actuarial Valuation of Other Postemployment Benefits

Dear Judith,

Enclosed are two copies of the report covering the July 1, 2008 valuation of postretirement benefits offered to current and future retirees of the Manchester-Essex Regional School District.

The financial results of the actuarial valuation are summarized in the report. The Executive Summary highlights the results of the valuation. 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, is 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 Number 45 (GASB 45).

Please call me if you have any questions.

Sincerely,

USI CONSULTING GROUP

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

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

Enclosures



**Other Postemployment Benefits
GASB 45 Actuarial Valuation
As of July 1, 2008**

For:

**Manchester-Essex
Regional School District**

Prepared by:
The USI Consulting Group

August 25, 2009



August 26, 2009

Manchester-Essex Regional School District
PO Box 1407
Manchester-by-the-Sea, MA 01944

RE: July 1, 2008 Actuarial Valuation of Other Postemployment Benefits

We enclose the report covering the actuarial valuation of postemployment benefits other than Pension provided to the employees of the Manchester-Essex Regional School District as of July 1, 2008. The numbers presented in this report reflect the compliance by the Manchester-Essex Regional School District with 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, 2008, \$2,206,170 which is based on a 30 year amortization of the UAAL as of July 1, 2008. The 30 year calculation represents the *maximum* amortization period allowed under the parameters of GASB 45 and produces the *minimum* Annual OPEB Cost under GASB 45. This valuation provides financial information that may be used to meet the requirements of GASB 45 for fiscal years ending June 30, 2009, and June 30, 2010.

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 Number 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

Handwritten signature of Robert W. Webb in cursive script.

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

USI Consulting Group

Handwritten signature of Lauren B. Schneider in cursive script.

Lauren B. Schneider
Staff Consultant



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Section I

Executive Summary

The section presents the results of the July 1, 2008 valuation. The first part of this section provides a brief summary of key valuation results, and includes the actuarial certification.

The Executive Summary Detail provides a detailed development of the expenses and liabilities. Items I through V show the development of the Annual Required Contribution (ARC). Items VI through IX show the calculation of the Annual OPEB Cost. Item X shows the expected benefits payable to retirees during the fiscal year.

EXECUTIVE SUMMARY

Introduction

This report details the development of the Annual OPEB Cost for the Fiscal Year ending June 30, 2009. Estimated June 30, 2009 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.

<u>Valuation Date</u>	<u>July 1, 2008</u>
<i>Present Value of Future Benefit Payments</i>	\$35,030,901
<i>Actuarial Accrued Liability (AAL)</i>	\$19,340,378
<i>Annual Required Contribution (30 year amortization)</i>	\$2,206,170
<i>Expected Benefit Payment</i>	\$389,167
<i>Net OPEB Obligation (NOO)</i>	\$0

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:

<u>Assumption Selection Date</u>	<u>July 1, 2008</u>
<i>Funding Interest Rate*</i>	4.0%
<i>2008 Trend Medical/Drug Rates</i>	10%
<i>Ultimate Medical Cost Trend Rate</i>	5%
<i>Year Ultimate Medical Trend Rate Reached</i>	2013
<i>Projected annual increase in payroll</i>	2.5%

* Reflects current funding policy (assumes no funding).

Changes included in current valuation

A fresh start approach was used.

Accounting for Postretirement Benefits

Government Accounting Standard No. 45 (GAS 45) addresses the accounting and financial reporting requirements by Employers for Postemployment Benefits Other than Pensions (OPEB). Employers that are required to follow Government Accounting Standards are subject to this standard. The statement does not require that the benefits be pre-funded, however, it defines a financial framework for assessing the costs, design, and sustainability of OPEBs offered by employers.

This report presents the annual expense required to be recognized by the plan sponsor for purposes of complying with the accounting requirements of Governmental Accounting Standards Board Statement No. 45. This report also provides the information needed to prepare the footnote in your financial statements related to your postretirement benefit plans.

The Annual Required Contribution (ARC) and Annual OPEB Cost are developed in the Executive Summary Detail included in this section. Section III presents the disclosure information, including the development of the Net OPEB obligation based on expected contributions / benefits to be paid during the fiscal year.

Actuarial Certification

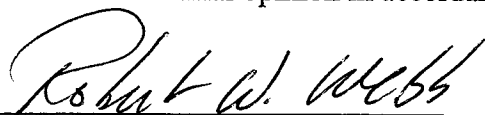
The financial results of the actuarial valuation are summarized in this report. The valuation has been prepared as of July 1, 2008. The detail charts included in this Executive Summary highlight the results of the valuation. Additional information summarizing the census, actuarial assumptions, plan provisions, and a glossary of selected terms used in this study are also included in this report.

The valuation is based on the March 1, 2009 census data and the July 1, 2008 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.

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

I certify that I am a member 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 Olaiya, ASA, MAAA
OPEB Manager and Actuary

EXECUTIVE SUMMARY DETAIL - A

GASB 45 LIABILITIES, ANNUAL REQUIRED CONTRIBUTION AND ANNUAL OPEB COST
July 1, 2008 COMBINED RESULTS

ACTUARIAL COST METHOD – Entry Age Normal

I.	<i>Present value of Future benefits</i>	
	A. Retirees/Disableds	\$8,626,269
	B. Active Employees	<u>\$26,404,632</u>
	C. Total	\$35,030,901
II.	<i>Actuarial Accrued Liability</i>	
	A. Retirees/Disableds	\$8,626,269
	B. Active Employees	<u>\$10,714,109</u>
	C. Total	\$19,340,378
III.	<i>Actuarial Assets</i>	\$0
IV.	<i>Unfunded Actuarial Accrued Liability (UAAL)</i>	\$19,340,378
V.	<i>Annual Required Contribution (ARC)</i>	
	A. Normal Cost	\$1,339,210
	B. Supplemental Cost [XI.]	\$789,592
	C. Compound Interest to Year End	<u>\$77,368</u>
	D. Annual Required Contribution	\$2,206,170
	[A. + B. + C.]	
VI.	<i>Net OPEB Obligation</i>	\$0
VII.	<i>Interest on net OPEB Obligation</i>	\$0
VIII.	<i>Adjustment to ARC</i>	(\$0)
IX.	<i>Annual OPEB Cost (Expense)</i>	\$2,206,170
	[V. + VII. - VIII.]	
X.	<i>Expected Benefit Payments</i>	
	A. Retirees/Disableds	\$385,637
	B. Active Employees	<u>\$3,530</u>
	C. Total	\$389,167
XI.	<i>Supplemental Cost</i>	
	A. Unfunded Actuarial Accrued Liability [IV.]	\$19,340,378
	B. Amortization Period	30
	C. Supplemental Cost	\$789,592
XII.	<i>Key Actuarial Assumptions</i>	
	A. Interest Rate	4.00%
	B. 2009 Medical Trend Rate	9.00%
	C. Ultimate Medical Trend Rate	5.00%
	D. Year Ultimate Medical Trend Rate Reached	2013
	E. Annual Payroll Increase	2.50%

EXECUTIVE SUMMARY DETAIL -

**GASB 45 LIABILITIES, ANNUAL REQUIRED CONTRIBUTION AND ANNUAL OPEB COST
 July 1, 2008 RESULTS BY BENEFIT**

ACTUARIAL COST METHOD – Entry Age Normal

	<u>Teachers</u>	<u>Non-Teachers</u>	<u>Retirees</u>	<u>Total</u>
I. Present value of Future benefits				
A. Retirees/Disableds	\$0	\$0	\$8,626,269	\$8,626,269
B. Active Employees	<u>\$15,895,648</u>	<u>\$10,508,984</u>	<u>\$0</u>	<u>\$26,404,632</u>
C. Total	\$15,895,648	\$10,508,984	\$8,626,269	\$35,030,901
II. Actuarial Accrued Liability				
A. Retirees/Disableds	\$0	\$0	\$8,626,269	\$8,626,269
B. Active Employees	<u>\$7,455,673</u>	<u>\$3,258,436</u>	<u>\$0</u>	<u>\$10,714,109</u>
C. Total	\$7,455,673	\$3,258,436	\$8,626,269	\$19,340,378
III. Actuarial Assets				
	\$0	\$0	\$0	\$0
IV. Unfunded Actuarial Accrued Liability (UAAL)				
	\$7,455,673	\$3,258,436	\$8,626,269	\$19,340,378
V. Annual Required Contribution (ARC)				
A. Normal Cost	\$696,316	\$642,894	\$0	\$1,339,210
B. Supplemental Cost [XI.]	\$304,386	\$133,029	\$352,177	\$789,592
C. Compound Interest to Year End	<u>\$39,970</u>	<u>\$31,024</u>	<u>\$6,374</u>	<u>\$77,368</u>
D. Annual Required Contribution [A. + B. + C.]	\$1,040,672	\$806,947	\$358,551	\$2,206,170
VI. Net OPEB Obligation				
	\$0	\$0	\$0	\$0
VII. Interest on net OPEB Obligation				
	\$0	\$0	\$0	\$0
VIII. Adjustment to ARC				
	(\$0)	(\$0)	(\$0)	(\$0)
IX. Annual OPEB Cost (Expense) [V. + VII. - VIII.]				
	\$1,040,672	\$806,947	\$358,551	\$2,206,170
X. Expected Benefit Payments				
A. Retirees/Disableds	\$0	\$0	\$385,637	\$385,637
B. Active Employees	<u>\$2,881</u>	<u>\$649</u>	<u>\$0</u>	<u>\$3,530</u>
C. Total	\$2,881	\$649	\$385,637	\$389,167
XI. Supplemental Cost				
A. Unfunded Actuarial Accrued Liability [IV.]	\$7,455,673	\$3,258,436	\$8,626,269	\$19,340,378
B. Amortization Period	30	30	30	30
C. Supplemental Cost	\$304,386	\$133,029	\$352,177	\$789,592

Section II

Census Information

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

CENSUS INFORMATION – A.

EMPLOYEE COUNTS

As of March 1, 2009

	<u>Actives</u>	<u>Retirees</u>	<u>Total</u>
Male	60	16	76
Female	141	29	170
Total	201	45	246

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	N/A	18	18
30 - 34	N/A	18	18
35 - 39	N/A	21	21
40 - 44	0	19	19
45 - 49	0	35	35
50 - 54	0	37	37
55 - 59	16	22	38
60 - 64	1	12	13
65 and over	0	2	2
Total	17	184	201

CURRENT RETIREES:

<u>Age</u>	<u>Retirees</u>	<u>Spouses</u>	<u>Total</u>
55 and under	0	1	1
55-59	6	5	11
60-64	22	9	31
65-69	13	8	21
70-74	3	2	5
75-79	1	0	1
80+	0	0	0
Total	45	25	70

CENSUS INFORMATION – B.

AVERAGE AGE AND SERVICE

As of March 1, 2009

ACTIVE EMPLOYEES *:

A. Average Age at Hire

Males	35.6
Females	39.8
Total	38.6

B. Average Service

Males	7.6
Females	8.6
Total	8.3

C. Average Current Age

Males	43.2
Females	48.5
Total	46.9

CURRENT RETIREES

D. Average Current Age

Males	65.6
Females	63.6
Total	64.3

Section III

Financial Statement Disclosure

This section provides the required information and notes to the Financial Statement.

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 INSURANCE PLAN:

Type of Coverage:	Blue Cross Blue Shield HMO, PPO Post 65 Plan -Blue Cross Managed Blue for Seniors		
Eligibility:	Ten and twelve month employees must have completed ten years of service and be at least 55 years old. Teachers must have completed at least 15 years of service and be at least 55 years old.		
Cost Sharing:	The retiree pays 15% of the medical premium. At age 65 retiree pays 25% of the medical premium.		
Spouse Coverage:	Yes		
Surviving Spouse Coverage:	No		
Annual Medical Premiums:	July 1, 2008 through June 30, 2009		
		<u>Single</u>	<u>Family</u>
	HMO	\$6,038.16	\$16,303.68
	PPO	\$7,541.64	\$20,362.08
	Managed Blue	\$5,400.00	
	July 1, 2009 through June 30, 2010		
		<u>Single</u>	<u>Family</u>
	HMO	\$6,447.72	\$17,409.60
	PPO	\$8,053.20	\$21,740.76
	Managed Blue	\$5,700.00	

FINANCIAL STATEMENT DISCLOSURE (cont.)

2.) GASB 45 DISCLOSURE REQUIREMENTS – ESTIMATED

A. Annual OPEB Cost and Net OPEB Obligation	<u>07/01/2008 - 06/30/2009</u>	<u>07/01/2009 - 06/30/2010</u>
1. Annual Required Contribution (ARC)	\$2,206,170	\$2,338,490
2. Interest on net OPEB Obligation	\$0	\$72,681
3. Adjustment to ARC	\$0	(\$75,900)
4. Annual OPEB Cost (Expense)	\$2,206,170	\$2,335,271
5. Contribution made (assumed middle of year) *	\$389,167	\$398,051
6. Increase in net OPEB Obligation	\$1,817,003	\$1,937,220
7. Net OPEB Obligation - beginning of year	\$0	\$1,817,003
8. Net OPEB Obligation - end of year	\$1,817,003	\$3,754,223

* 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 2009 / 2010 are as follows:

Fiscal Year Ending	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation	Covered Payroll	OPEB Cost % of Pay
06/30/2009	\$2,206,170	17.6%	\$1,817,003	\$10,526,801	21.0%
06/30/2010	\$2,335,271	17.0%	\$3,754,223	\$10,789,971	21.6%

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)
07/01/2008	\$ -	\$19,340,378	\$19,340,378	0.0%	\$10,526,801	183.7%

C. Methods and Assumptions

- Interest Rate	4.00%
- 2009 Medical Trend Rate	9.00%
- Ultimate Medical Trend Rate	5.00%
- Year Ultimate Medical Trend Rate Reached	2013
- Actuarial Cost Method	Entry Age Normal
- The remaining amortization period at 06/30/2009	30. years
- 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. A 7.00% interest rate was used in Appendix-III to show the potential impact of advance funding the plan in accordance with GASB 45.

2. **Mortality:** The mortality rates are from the RP-2000 Combined Mortality Table projected to 2010 with projection scale AA.

3. **Disability Rates:** None assumed

4. **Termination Rates:** Non Teachers

<u>Age</u>	<u>Rates</u>
20	7.0%
30	5.5%
40	4.0%
50	3.0%

Teachers

<u>Age</u>	<u>Male/Female Rate</u>
20	1.0% / 5.0%
30	1.0% / 5.0%
40	1.7% / 2.9%
50	2.2% / 2.1%

5. **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>Rates</u>
2009	9.0%
2010	8.0%
2011	7.0%
2012	6.0%
2013	5.0%
2014+	5.0%

6. **Retirement Rates:** Non Teachers

<u>Age</u>	<u>Male</u>	<u>Female</u>
55	1.5%	3.0%
60	8.0%	8.0%
65	25.0%	25.0%
70	100.0%	100.0%

ACTUARIAL ASSUMPTIONS AND METHODOLOGY (cont.)

6. <u>Retirement Rates (cont.):</u>	Teachers-Males/ Females			
	<u>Years of Service</u>			
	<u>Age</u>	10	20	30+
	50	0% / 0%	1% / 1.5%	2% / 2%
	55	3% / 2%	3% / 3%	6% / 6%
	60	15% / 20%	15% / 16%	50% / 35%
	65	40% / 30%	40% / 30%	50% / 35%
	70	100% / 100%	100% / 100%	100% / 100%

7. **Participation Rate:** It was assumed that 90% of the current active school employees covered under the districts plan on the day before retirement would enroll in the retirement plan upon retirement.

8. **Percent Married:** It was assumed that 65% of the male and 40% of the female employees who elect retiree health care coverage for themselves would also elect coverage for their spouse upon retirement. It was assumed that husbands would be three years older than their wives. For current retirees, actual census information was used.

9. **Actuarial Value of Assets:** N/A

10. **Per Capita Claims Cost:** Are based on the premiums levels of the plans utilized. The premium levels are summarized in the plan provisions in Section III. Actual premiums were used as an approximation to claims experience. Aging factors were then introduced to allow for the calculation of age-related per-capita claim rates.

<u>Age</u>	<u>Male</u>	<u>Female</u>
40	\$3,873	\$5,424
45	\$4,597	\$5,771
50	\$5,519	\$6,366
55	\$6,701	\$6,953
60	\$8,082	\$7,747
64	\$9,024	\$8,450
65	\$5,593	\$5,237
70	\$6,176	\$5,787
75	\$6,820	\$6,390
80	\$7,169	\$6,712

11. **Participant Salary Increases:** 3.50% annually

12. **Payroll Growth Rate:** 2.50% annually

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.

Six Actuarial Cost Methods are acceptable for use under GASB 45: entry age, frozen entry age, attained age, frozen attained age, projected unit credit, and aggregate. The results in Sections I and III are based on the Entry Age Method. The development of the Annual Required Contribution under all acceptable methods is provided in Appendix II.

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. The results in Sections I and III are based on a 30 year amortization of the unfunded actuarial accrued liability as a level percentage of payroll. The development of the Annual Required Contribution under alternative amortization methods is provided in Appendix II.

ADDITIONAL COMMENTS

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

Medical premiums were adjusted to an annual basis and trended forward to the valuation date.

Section V

Plan Provisions

BRIEF DESCRIPTION OF BLUE CROSS BLUE SHILD MEDICAL PLANS

HMO Blue Plan 2

Outpatient Visits:	\$10 per visit
Emergency Room Visits:	\$50 per visit (waived if admitted)
X-rays Lab Tests:	No Charge
Inpatient Care:	No Charge
Prescription Drugs	
Tier 1:	\$10 copayment
Tier 2:	\$15 copayment
Tier 3:	\$30 copayment
Mail Service Drugs (up to 90 day supply):	
Tier 1:	\$10 copayment
Tier 2:	\$20 copayment
Tier 3:	\$35 copayment

Blue Choice Plan 2

Office Visits:	\$10 per visit
X-rays and Lab Tests:	No Charge
Inpatient Hospital Care:	No Charge
Emergency Room Visits:	\$50 per visit (waived if admitted)
Prescription Drugs	
Tier 1:	\$10 copayment
Tier 2:	\$15 copayment
Tier 3:	\$30 copayment
Mail Service Drugs (up to 90 day supply):	
Tier 1:	\$10 copayment
Tier 2:	\$20 copayment
Tier 3:	\$35 copayment

Managed Blue for Seniors (POST 65)

Routine Office Visits:	\$10 per visit
X-rays and Lab Visits:	No Charge
Emergency Room Services:	\$50 per visit
Prescription Drugs	
Generic Drugs:	\$8 copayment
Brand-Name Drugs:	\$15 copayment

Section VI
Appendices

APPENDIX - I.

ACTIVE EMPLOYEE BY AGE AND SERVICE

AS OF MARCH 1, 2009

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	2	1	0	0	0	0	0	0	0	3
25 - 29	14	1	0	0	0	0	0	0	0	15
30 - 34	9	9	0	0	0	0	0	0	0	18
35 - 39	6	11	3	1	0	0	0	0	0	21
40 - 44	8	6	5	0	0	0	0	0	0	19
45 - 49	9	13	8	1	3	1	0	0	0	35
50 - 54	12	8	10	2	4	1	0	0	0	37
55 - 59	8	9	6	5	6	2	2	0	0	38
60 - 64	5	7	1	0	0	0	0	0	0	13
65 - 69	0	1	0	0	0	0	0	0	0	1
70 - 74	0	1	0	0	0	0	0	0	0	1
75 - 79	0	0	0	0	0	0	0	0	0	0
80 - 84	0	0	0	0	0	0	0	0	0	0
85 and Over	0	0	0	0	0	0	0	0	0	0
Total	73	67	33	9	13	4	2	0	0	201

APPENDIX - II

ALTERNATIVE ACTUARIAL COST AND AMORTIZATION METHODS

(Assumes a 4.00% Return on Supporting Assets)

	<u>Entry Age</u>	<u>Frozen Entry Age</u>	<u>Attained Age</u>	<u>Frozen Attained Age</u>	<u>Projected Unit Credit</u>	<u>Aggregate</u>
1. Projected Benefit Payments	\$ 107,240,501	\$ 107,240,501	\$ 107,240,501	\$ 107,240,501	\$ 107,240,501	\$ 107,240,501
2. Present Value of Projected Benefit Payments	\$ 35,030,901	\$ 35,030,901	\$ 35,030,901	\$ 35,030,901	\$ 35,030,901	\$ 35,030,901
3. Actuarial Accrued Liability (AAL)	\$ 19,340,378	\$ 19,340,378	\$ 20,816,017	\$ 20,816,017	\$ 20,816,017	\$ -
4. Present Value of Future Normal Costs (2.-3.)	\$ 15,690,523	\$ 15,690,523	\$ 14,214,884	\$ 14,214,884	\$ 14,214,884	\$ 35,030,901
5. Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6. Unfunded UAAL	\$ 19,340,378	\$ 19,340,378	\$ 20,816,017	\$ 20,816,017	\$ 20,816,017	\$ -
7. Annual Required Contribution						
a. Normal Cost	\$ 1,339,210	\$ 1,337,957	\$ 1,199,003	\$ 1,199,003	\$ 1,436,081	\$ 3,145,408
b. Amortization of UAAL	\$ 789,592	\$ 789,592	\$ 849,837	\$ 849,837	\$ 849,837	\$ -
c. Interest	\$ 77,368	\$ 77,319	\$ 74,170	\$ 74,170	\$ 83,653	\$ 118,033
d. Total	\$ 2,206,170	\$ 2,204,868	\$ 2,123,010	\$ 2,123,010	\$ 2,369,571	\$ 3,263,441
8. Current Year Benefit Payment	\$ 389,167	\$ 389,167	\$ 389,167	\$ 389,167	\$ 389,167	\$ 389,167
9. Amortization of UAAL:						
a. 30 Yrs Level Dollar	\$ 1,075,438	\$ 1,075,438	\$ 1,157,493	\$ 1,157,493	\$ 1,157,493	\$ -
b. 30 Yrs Level % of Pay	\$ 789,592	\$ 789,592	\$ 849,837	\$ 849,837	\$ 849,837	\$ -
c. 15 Yrs Level Dollar	\$ 1,672,591	\$ 1,672,591	\$ 1,800,207	\$ 1,800,207	\$ 1,800,207	\$ -
d. 15 Yrs Level % of Pay	\$ 1,424,573	\$ 1,424,573	\$ 1,533,266	\$ 1,533,266	\$ 1,533,266	\$ -
10. Annual Required Contribution						
a. 30 Yrs Level Dollar	\$ 2,503,451	\$ 2,502,147	\$ 2,442,972	\$ 2,442,972	\$ 2,689,534	\$ 3,263,441
b. 30 Yrs Level % of Pay	\$ 2,206,170	\$ 2,204,868	\$ 2,123,010	\$ 2,123,010	\$ 2,369,572	\$ 3,263,441
c. 15 Yrs Level Dollar	\$ 3,124,490	\$ 3,123,187	\$ 3,111,395	\$ 3,111,395	\$ 3,357,956	\$ 3,263,441
d. 15 Yrs Level % of Pay	\$ 2,866,551	\$ 2,865,248	\$ 2,833,776	\$ 2,833,776	\$ 3,080,338	\$ 3,263,441

APPENDIX - III

ALTERNATIVE ACTUARIAL COST AND AMORTIZATION METHODS

(Assumes a 7.00% Return on Supporting Assets)

	<u>Entry Age</u>	<u>Frozen Entry Age</u>	<u>Attained Age</u>	<u>Frozen Attained Age</u>	<u>Projected Unit Credit</u>	<u>Aggregate</u>
1. Projected Benefit Payments	\$ 107,240,501	\$ 107,240,501	\$ 107,240,501	\$ 107,240,501	\$ 107,240,501	\$ 107,240,501
2. Present Value of Projected Benefit Payments	\$ 34,375,477	\$ 34,375,477	\$ 34,375,477	\$ 34,375,477	\$ 34,375,477	\$ 34,375,477
3. Actuarial Accrued Liability (AAL)	\$ 18,962,855	\$ 18,962,855	\$ 20,409,569	\$ 20,409,569	\$ 20,409,569	\$ -
4. Present Value of Future Normal Costs (2.-3.)	\$ 15,412,622	\$ 15,412,622	\$ 13,965,908	\$ 13,965,908	\$ 13,965,908	\$ 34,375,477
5. Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6. Unfunded UAAL	\$ 18,962,855	\$ 18,962,855	\$ 20,409,569	\$ 20,409,569	\$ 20,409,569	\$ -
7. Annual Required Contribution						
a. Normal Cost	\$ 1,339,211	\$ 1,337,957	\$ 1,199,003	\$ 1,199,003	\$ 1,436,081	\$ 3,145,408
b. Amortization of UAAL	\$ 1,100,842	\$ 1,100,842	\$ 1,184,827	\$ 1,184,827	\$ 1,184,827	\$ -
c. Interest	\$ 157,183	\$ 157,095	\$ 153,247	\$ 153,247	\$ 169,843	\$ 206,558
d. Total	\$ 2,597,236	\$ 2,595,894	\$ 2,537,077	\$ 2,537,077	\$ 2,790,751	\$ 3,351,966
8. Current Year Benefit Payment	\$ 389,167	\$ 389,167	\$ 389,167	\$ 389,167	\$ 389,167	\$ 389,167
9. Amortization of UAAL:						
a. 30 Yrs Level Dollar	\$ 1,428,176	\$ 1,428,176	\$ 1,537,134	\$ 1,537,134	\$ 1,537,134	\$ -
b. 30 Yrs Level % of Pay	\$ 1,100,842	\$ 1,100,842	\$ 1,184,827	\$ 1,184,827	\$ 1,184,827	\$ -
c. 15 Yrs Level Dollar	\$ 1,945,813	\$ 1,945,813	\$ 2,094,263	\$ 2,094,263	\$ 2,094,263	\$ -
d. 15 Yrs Level % of Pay	\$ 1,678,706	\$ 1,678,706	\$ 1,806,778	\$ 1,806,778	\$ 1,806,778	\$ -
10. Annual Required Contribution						
a. 30 Yrs Level Dollar	\$ 2,947,483	\$ 2,946,141	\$ 2,914,046	\$ 2,914,046	\$ 3,167,719	\$ 3,351,966
b. 30 Yrs Level % of Pay	\$ 2,597,236	\$ 2,595,894	\$ 2,537,077	\$ 2,537,077	\$ 2,790,751	\$ 3,351,966
c. 15 Yrs Level Dollar	\$ 3,501,355	\$ 3,500,013	\$ 3,510,174	\$ 3,510,174	\$ 3,763,847	\$ 3,351,966
d. 15 Yrs Level % of Pay	\$ 3,215,550	\$ 3,214,209	\$ 3,202,565	\$ 3,202,565	\$ 3,456,238	\$ 3,351,966

APPENDIX - IV

PROJECTED BENEFIT PAYMENTS

Year	Amount	Accumulated	Year	Amount	Accumulated
2008	\$ 389,167	\$ 389,167	2041	\$ 2,764,866	\$ 59,063,901
2009	\$ 398,051	\$ 787,218	2042	\$ 2,725,431	\$ 61,789,332
2010	\$ 460,862	\$ 1,248,080	2043	\$ 2,663,562	\$ 64,452,894
2011	\$ 508,105	\$ 1,756,185	2044	\$ 2,608,178	\$ 67,061,072
2012	\$ 553,899	\$ 2,310,084	2045	\$ 2,532,677	\$ 69,593,749
2013	\$ 612,390	\$ 2,922,474	2046	\$ 2,447,798	\$ 72,041,547
2014	\$ 684,182	\$ 3,606,656	2047	\$ 2,367,940	\$ 74,409,487
2015	\$ 759,594	\$ 4,366,250	2048	\$ 2,282,133	\$ 76,691,620
2016	\$ 849,839	\$ 5,216,089	2049	\$ 2,209,357	\$ 78,900,977
2017	\$ 967,682	\$ 6,183,771	2050	\$ 2,124,208	\$ 81,025,185
2018	\$ 1,103,941	\$ 7,287,712	2051	\$ 2,035,767	\$ 83,060,952
2019	\$ 1,218,634	\$ 8,506,346	2052	\$ 1,951,265	\$ 85,012,217
2020	\$ 1,350,448	\$ 9,856,794	2053	\$ 1,860,313	\$ 86,872,530
2021	\$ 1,471,903	\$ 11,328,697	2054	\$ 1,765,455	\$ 88,637,985
2022	\$ 1,582,351	\$ 12,911,048	2055	\$ 1,675,086	\$ 90,313,071
2023	\$ 1,715,444	\$ 14,626,492	2056	\$ 1,583,572	\$ 91,896,643
2024	\$ 1,834,423	\$ 16,460,915	2057	\$ 1,490,127	\$ 93,386,770
2025	\$ 1,944,393	\$ 18,405,308	2058	\$ 1,397,218	\$ 94,783,988
2026	\$ 2,045,804	\$ 20,451,112	2059	\$ 1,305,048	\$ 96,089,036
2027	\$ 2,131,409	\$ 22,582,521	2060	\$ 1,214,480	\$ 97,303,516
2028	\$ 2,215,829	\$ 24,798,350	2061	\$ 1,125,559	\$ 98,429,075
2029	\$ 2,316,651	\$ 27,115,001	2062	\$ 1,038,628	\$ 99,467,703
2030	\$ 2,393,437	\$ 29,508,438	2063	\$ 953,968	\$ 100,421,671
2031	\$ 2,479,126	\$ 31,987,564	2064	\$ 871,926	\$ 101,293,597
2032	\$ 2,568,834	\$ 34,556,398	2065	\$ 792,562	\$ 102,086,159
2033	\$ 2,628,536	\$ 37,184,934	2066	\$ 716,236	\$ 102,802,395
2034	\$ 2,661,455	\$ 39,846,389	2067	\$ 643,114	\$ 103,445,509
2035	\$ 2,690,887	\$ 42,537,276	2068	\$ 573,449	\$ 104,018,958
2036	\$ 2,714,718	\$ 45,251,994	2069	\$ 507,579	\$ 104,526,537
2037	\$ 2,738,678	\$ 47,990,672	2070	\$ 445,859	\$ 104,972,396
2038	\$ 2,762,232	\$ 50,752,904	2071	\$ 388,389	\$ 105,360,785
2039	\$ 2,772,428	\$ 53,525,332	2072	\$ 335,440	\$ 105,696,225
2040	\$ 2,773,703	\$ 56,299,035			
			2073	\$ 287,071	\$ 105,983,296
			2074	\$ 243,258	\$ 106,226,554
			2075	\$ 204,016	\$ 106,430,570
			2076	\$ 169,243	\$ 106,599,813
			2077	\$ 138,834	\$ 106,738,647
			2078	\$ 112,640	\$ 106,851,287
			2079	\$ 90,357	\$ 106,941,644
			2080	\$ 71,704	\$ 107,013,348
			2081	\$ 56,298	\$ 107,069,646
			2082	\$ 43,750	\$ 107,113,396
			2083	\$ 33,654	\$ 107,147,050
			2084	\$ 25,606	\$ 107,172,656
			2085	\$ 19,245	\$ 107,191,901
			2086	\$ 14,279	\$ 107,206,180
			2087	\$ 10,444	\$ 107,216,624
			2088	\$ 7,521	\$ 107,224,145
			2089	\$ 5,327	\$ 107,229,472
			2090	\$ 3,708	\$ 107,233,180
			2091	\$ 2,537	\$ 107,235,717
			2092	\$ 1,706	\$ 107,237,423
			2093	\$ 1,126	\$ 107,238,549
			2094	\$ 734	\$ 107,239,283
			2095	\$ 469	\$ 107,239,752
			2096	\$ 296	\$ 107,240,048
			2097	\$ 187	\$ 107,240,235
			2098	\$ 115	\$ 107,240,350
			2099	\$ 69	\$ 107,240,419
			2100	\$ 42	\$ 107,240,461
			2101	\$ 24	\$ 107,240,485
			2102	\$ 11	\$ 107,240,496
			2103	\$ 5	\$ 107,240,501
			2104	\$ -	\$ 107,240,501

APPENDIX – V
GLOSSARY

Actuarial Accrued Liability. The portion, as determined by a particular Actuarial Cost Method, of the present value of benefits which is not provided for by future Normal Costs.

Actuarial Cost Method. A procedure for determining the Actuarial Present Value of Total Projected Benefits and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.

Actuarially Equivalent. Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

Actuarial Present Value of Total Projected Benefits. The present value, as of the valuation date, of the cost of future benefits to be paid to employees, retirees, and covered dependents, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment. It is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay total projected benefits when due.

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 per individual.

Supplemental Cost. The amount of the Annual Required Contribution attributable to the amortization of the unfunded Actuarial Accrued Liability.