#### August 5, 2013

#### Personal and Confidential

Ms. Judith Lauzon Town Accountant Town of Wareham 54 Marion Road Wareham, MA 02571

Re: GASB 45 - Summary of Results

Dear Ms. Lauzon:

The purpose of this letter is to summarize our actuarial valuation of the Town of Wareham Other Postemployment Benefits Plan (the "Plan") for the fiscal year ending June 30, 2013 in accordance with Statement No. 45 of the Governmental Accounting Standards Board ("GASB 45").

## What caused plan liabilities to change from FY 11 to FY 13?

Plan experience was better than expected. This is mainly due to the move lower than expected premiums for Medicare Integrated and GIC (retired teachers) coverages. Medicare Integrated plans saw a premium decline of approximately 6% vs. an expected 15.6% increase. Premiums for non-Medicare Plans increased at 16.0% which was in line with expectation. The actuarial experience gain is amortized into the annual OPEB costs over a 30-year period. The net impact of the plan experience is a modest increase in the annual OPEB cost due to a higher interest on the Net OPEB Obligation.

### What is GASB 45 & why does it matter?

GASB 45 was issued to provide a more comprehensive and useful look at the costs and financial obligations that governments incur when they provide postemployment benefits other than pensions ("OPEB"). These benefits often include healthcare, dental insurance and life insurance. Prior to the implementation of GASB 45, most municipal entities accounted for these benefits on a "pay-as-you-go" basis (the actual cash costs of the benefits in a reporting period were charged to the financial statement with no accrual for future costs). It is hoped that GASB 45 will result in more informed policy decisions as all parties will have a better idea as to costs and will further result in a more accurate financial picture of the total costs of services provided by municipal entities by recognizing costs over the working lifetime of employees rather than after their employment has ceased.

### Why now & why us? Has Corporate America faced this?

GASB 45 is similar to Statement No. 106 of the Financial Accounting Standards Board ("FASB 106") which was issued in 1989 and was effective in 1992 for private employers. With the issuance of FASB 106, many plan sponsors either curtailed or eliminated their retiree welfare plans. As a municipal entity, you have seen the effects of these corporate decisions as the lack of retiree welfare programs among private employers yields additional spousal and dependent coverage in your plans which ultimately increases your costs. GASB took many years to finally issue GASB 45 and tried to balance the unique nature of municipalities and the desire for more useful financial statements. The final product is far more flexible than FASB 106 to reflect the concerns of municipal entities.

#### What is the value of benefits accrued to date? How much is accrued each year?

As of July 1, 2012, the Plan had accrued benefits (medical, dental & life insurance) of approximately \$82,104,868. The Plan has a "normal cost" or benefits accruing during the year of approximately \$3,147,254. Additionally, the Plan must amortize the accrued benefits in place at adoption of GASB 45 over a period of not more than 30 years. Given a 30 year amortization period for the obligation at adoption, the continuing annual amortization payment is \$4,618,119. In combination with the normal cost and interest to the end of the plan year and required adjustments to the ARC, the OPEB expense is \$7,792,555 which exceeds the expected pay-as-you-go cost of \$2,603,828 plus contributions to an OPEB Trust of \$0 by \$5,188,727. A key issue to remember is that this is a "non-cash" charge and does not require pre-funding like a pension plan.

#### What are the key assumptions used to estimate a \$82,104,868 liability?

While there are a number of assumptions used to estimate plan costs and liabilities, the most important are future increases in medical care costs and the likelihood of participants retiring when they are eligible. Unlike a pension plan where a participant receives a reduced benefit for early retirement, a participant in a retiree welfare plan will actually receive a higher benefit by retiring early (more years of benefits to be received plus more years before Medicare). A key issue to keep in mind is that participant behavior (as far as retirement is concerned) is affected by many factors including the economy, personal health and work satisfaction.

For future medical care costs, we have assumed that such costs will increase at 6.0% for FY 2013, increasing by 5.0% for FY 2014, grading down to FY 2014 per year by 5.0%. If costs increase at rates higher than assumed, plan liabilities will escalate while costs less than those assumed will yield lower liabilities in the future.

# We have an "unfunded liability". How do we fund it? Can we fund it?

The Plan currently has an unfunded liability of approximately \$82,104,868 and this amount is expected to grow over time in the foreseeable future. While some municipal entities across America have chosen to fund this liability, over 95% are not currently dedicating funding to it. In order for funds to be considered as "plan assets", they must be placed in an irrevocable trust for this purpose. 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 Wareham has not established an irrevocable trust for the purposes of prefunding liabilities under GASB 45.

### How do we solve the "problem"? What can be done?

While you are more limited than Corporate America due to various statutory restrictions, you do have some options available to you to manage plan liabilities and "pre-fund" the liability.

<u>Section 18</u> – as the Plan is already integrated with Medicare, there is no ability to reduce costs via that route.

**Pre-Funding** – if you were to elect to "pre-fund" the OPEB expenses each year by contributing the entire Annual Required Contribution, you would be allowed to use a long-term interest rate based on your underlying investment policy. Assuming a balanced portfolio (50% equities & 50% fixed-income), you could discount plan liabilities at approximately 7.0% vs. the 4.0% used in our analysis. The impact of such funding would be to reduce disclosed plan liabilities to \$54,126,212 and the annual OPEB Cost to \$5,964,007. This would require additional funding of \$1,932,078 in the first year which will increase by 0.00% per year until the plan reaches full funding. While this does not impact the ultimate cost of the plan, it would reduce disclosed liabilities and expenses.

<u>Change in cost sharing</u> – You are currently charging retirees 10% to 30% of premiums for their contribution. Under Massachusetts law, the maximum allowable contribution rate is 50% so you have the ability to increase retiree premiums. Beyond that, changing the underlying plan design is currently your only other alternative.

Blue Cross Blue Shield new design – We recently worked with Blue Cross Blue Shield of Massachusetts to assist them in designing a new product to address the OPEB obligations of municipalities. Basically, under this product the current benefits are slightly reduced for actives & retirees, Medicare benefits are "leveled" to be consistent with those prior to age 65, Flexible Spending Accounts are created for active employees and a VEBA is created to "pre-fund" the retiree liability. This approach creates current cost savings for the Town, long-term accounting benefits due to a higher discount rate, more security for employees/retirees as assets are available to pay future benefits and taxpayers "equity" in that today's taxpayers pay today's bills.

### How does GASB 45 impact our bond ratings or ability to raise cash?

In the short run, GASB 45 is unlikely to have any material impact on bond ratings. While S&P, Moody's & Fitch have all stated that they will reflect these figures in their ratings, the comparative financials to other municipal entities will be similar as they will have all adopted GASB 45. Over time, the outliers (those with very modest or very severe GASB 45 liabilities) are likely to see some benefit or harm to their ratings or financing operations.

# <u>Healthcare Reform in the United States – how does this impact our plan?</u>

As noted earlier, the ultimate cost of the Plan is the premiums and benefits paid from the Plan less the contributions paid by retirees and their dependents. While you can slightly change participant contributions, the true costs of the Plan are the underlying costs of benefits and premiums. As such, if healthcare reform is successful in addressing the underlying cost issue, your Plan will benefit.

If you or your auditors have questions on this, feel free to give us a call.

Sincerely,

Parker E. Elmore, A.S.A., E.A., M.A.A.A. President & CEO

# Town of Wareham Other Postemployment Benefits Plan

# **GASB 45 Actuarial Valuation**

as of

July 1, 2012

For the fiscal years ending

June 30, 2013 June 30, 2014

Delivered August 2013

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#### August 5, 2013

### Personal and Confidential

Ms. Judith Lauzon Town Accountant Town of Wareham 54 Marion Road Wareham, MA 02571

Dear Ms. Lauzon:

We have performed an actuarial valuation of the Town of Wareham Other Postemployment Benefits Plan for the fiscal year ending June 30, 2013. The figures presented in this report reflect the adoption, by the Town of Wareham, 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

## PRINCIPAL RESULTS OF THE VALUATION

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

		July 1, 2012	July 1, 2010
1.	Present Value of Future Benefits A. Actives B. Retirees/Disabled C. Total	77,987,429 <u>40,370,681</u> 118,358,110	77,660,904 44,599,659 122,260,563
П.	Present Value of Future Normal Cost	36,253,242	34,307,730
III.	Actuarial Accrued Liability (Projected Unit Credit)  A. Actives  B. Retirees/Disabled  C. Total	41,734,187 40,370,681 82,104,868	43,353,174 44,599,659 87,952,833
IV.	Plan Assets	0	0
٧.	Unfunded Actuarial Accrued Liability ("UAAL")	82,104,868	87,952,833
VI.	Funded Ratio	0.00%	0.00%
VII.	Annual Covered Payroll	N/A	33,188,784
VIII.	UAAL as % of Covered Payroll	N/A	265.0%
IX.	Net OPEB Obligation	17,293,000	8,912,169
Χ.	Number of Covered Participants  A. Actives	594	639
	B. Retirees/Disabled C. Total	<u>285</u> 879	<u>277</u> 916
XI.	C. Total	879	916
XI. XII.	C. Total  For the Fiscal Year Ending:	879 June 30, 2013	916 June 30, 2011
XII.	C. Total  For the Fiscal Year Ending:  Normal Cost	3,147,254	916  June 30, 2011  3,001,456
XII. XIII.	C. Total  For the Fiscal Year Ending:  Normal Cost  Amortization of UAAL - 30 year flat dollar	3,147,254 4,618,119	916  June 30, 2011  3,001,456  4,618,119
XII. XIII.	C. Total  For the Fiscal Year Ending:  Normal Cost  Amortization of UAAL - 30 year flat dollar  Annual Required Contribution ('ARC') [XI. + XII.]	3,147,254 4,618,119 7,765,373	916  June 30, 2011  3,001,456  4,618,119  7,619,575
XII. XIII. XIV. XV.	C. Total  For the Fiscal Year Ending:  Normal Cost  Amortization of UAAL - 30 year flat dollar  Annual Required Contribution ('ARC') [ XI. + XII.]  Interest on Net OPEB Obligation	3,147,254 4,618,119 7,765,373 691,720	916  June 30, 2011  3,001,456  4,618,119  7,619,575  356,486
XII. XIII. XIV. XV. XVI.	C. Total  For the Fiscal Year Ending:  Normal Cost  Amortization of UAAL - 30 year flat dollar  Annual Required Contribution ('ARC') [ XI. + XII.]  Interest on Net OPEB Obligation  Adjustment to Annual Required Contribution	3,147,254 4,618,119 7,765,373 691,720 (961,592)	916  June 30, 2011  3,001,456  4,618,119  7,619,575  356,486  (495,568)
XII. XIV. XV. XVI. XVII	C. Total  For the Fiscal Year Ending:  Normal Cost  Amortization of UAAL - 30 year flat dollar  Annual Required Contribution ('ARC') [ XI. + XII.]  Interest on Net OPEB Obligation  Adjustment to Annual Required Contribution  Amortization of Actuarial (Gains) / Losses	879  June 30, 2013  3,147,254  4,618,119  7,765,373  691,720  (961,592)  297,054	916  June 30, 2011  3,001,456  4,618,119  7,619,575  356,486  (495,568)  0
XII. XIV. XV. XVI. XVIII	C. Total  For the Fiscal Year Ending:  Normal Cost  Amortization of UAAL - 30 year flat dollar  Annual Required Contribution ('ARC') [ XI. + XII.]  Interest on Net OPEB Obligation  Adjustment to Annual Required Contribution  Amortization of Actuarial (Gains) / Losses  Annual OPEB Cost [XIII. + XIV. + XV. + XVI.]	879  June 30, 2013  3,147,254  4,618,119  7,765,373  691,720  (961,592)  297,054  7,792,555	916  June 30, 2011  3,001,456  4,618,119  7,619,575  356,486  (495,568)  0  7,480,493
XII. XIV. XV. XVI. XVIII	For the Fiscal Year Ending:  Normal Cost  Amortization of UAAL - 30 year flat dollar  Annual Required Contribution ('ARC') [ XI. + XII.]  Interest on Net OPEB Obligation  Adjustment to Annual Required Contribution  Amortization of Actuarial (Gains) / Losses  Annual OPEB Cost [XIII. + XIV. + XV. + XVI.]  I. Expected Employer Contribution	879  June 30, 2013  3,147,254  4,618,119  7,765,373  691,720  (961,592)  297,054  7,792,555  2,603,828	916  June 30, 2011  3,001,456  4,618,119  7,619,575  356,486  (495,568)  0  7,480,493  3,161,000
XII. XIV. XV. XVI. XVIII XVIII XVIII XIX. XX.	For the Fiscal Year Ending:  Normal Cost  Amortization of UAAL - 30 year flat dollar  Annual Required Contribution ('ARC') [ XI. + XII.]  Interest on Net OPEB Obligation  Adjustment to Annual Required Contribution  Amortization of Actuarial (Gains) / Losses  Annual OPEB Cost [XIII. + XIV. + XV. + XVI.]  I. Expected Employer Contribution  Percentage of Annual OPEB Cost Contributed	879  June 30, 2013  3,147,254  4,618,119  7,765,373  691,720  (961,592)  297,054  7,792,555  2,603,828  33.4%	916  June 30, 2011  3,001,456  4,618,119  7,619,575  356,486  (495,568)  0  7,480,493  3,161,000  42.3%
XII. XIV. XV. XVI. XVIII XVIII XIX. XX. XXI.	For the Fiscal Year Ending:  Normal Cost  Amortization of UAAL - 30 year flat dollar  Annual Required Contribution ('ARC') [ XI. + XII.]  Interest on Net OPEB Obligation  Adjustment to Annual Required Contribution  Amortization of Actuarial (Gains) / Losses  Annual OPEB Cost [XIII. + XIV. + XV. + XVI.]  I. Expected Employer Contribution  Percentage of Annual OPEB Cost Contributed  Net OPEB Obligation at Beginning of Year (IX.)	879  June 30, 2013  3,147,254  4,618,119  7,765,373  691,720  (961,592)  297,054  7,792,555  2,603,828  33.4%  17,293,000	916  June 30, 2011  3,001,456  4,618,119  7,619,575  356,486  (495,568)  0  7,480,493  3,161,000  42.3%  8,912,169

# PRINCIPAL RESULTS OF THE VALUATION

(continued)

# Town of Wareham Assuming Pay-as-you-go funding - 4.00% discount rate Plan Liabilities as of July 1, 2012

		<u>M edical</u>	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I.	Present Value of Future Benefits				
	A. Actives	77,571,764	0	415,665	77,987,429
	B. Retirees/Disabled C. Total	<u>39,709,988</u> 117,281,752	<u>0</u> 0	660,693 1,076,358	40,370,681 118,358,110
	O. Total	117,201,732	O	1,070,000	110,000,110
II.	Present Value of Future Normal Cost	36,107,726	0	145,516	36,253,242
III.	Actuarial Accrued Liability (Projected Unit Credit)				
	A. Actives     B. Retirees/Disabled	41,464,038	0	270,149	41,734,187
	B. Retirees/Disabled C. Total	<u>39,709,988</u> 81,174,026	<u>0</u> 0	660,693 930,842	40,370,681 82,104,868
				,	, ,
IV.	Plan Assets	0	0	0	0
٧.	Unfunded Actuarial Accrued Liability ("UAAL")	81,174,026	0	930,842	82,104,868
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	17,096,945	0	196,055	17,293,000
IX.	Number of Covered Participants				
	A. Actives	594	594	594	
	B. Retirees/Disabled C. Total	<u>285</u> 879	<u>92</u> 686	<u>291</u> 885	
	For Fixed Veer Ending June 20, 2012				
	For Fiscal Year Ending June 30, 2013				
Χ.	Normal Cost	3,130,063	0	17,191	3,147,254
XI.	Amortization of UAAL - 30 year flat dollar	4,565,762	0	52,357	4,618,119
XII.	Annual Required Contribution ('ARC') [ X. + XI.]	7,695,825	0	69,548	7,765,373
XIII.	Interest on Net OPEB Obligation	683,877	0	7,843	691,720
XIV.	Adjustment to Annual Required Contribution	(950,691)	0	(10,901)	(961,592)
XV.	Amortization of Actuarial (Gains) / Losses	293,686	0	3,368	297,054
XVI.	Annual OPEB Cost [XII. + XIII. + XIV. + XV.]	7,722,697	0	69,858	7,792,555
XVII	Expected Employer Contribution	2,572,116	0	31,712	2,603,828
XVII	I. Contribution to Trust Fund over 30 Years	0	0	0	0
XIX.	Total Employer Contribution	2,572,116	0	31,712	2,603,828
XX.	Percentage of Annual OPEB Cost Contributed	33.3%	0.0%	45.4%	33.4%
XXI.	Net OPEB Obligation at Beginning of Year (VIII.)	17,096,945	0	196,055	17,293,000
XXII	. Increase in Net OPEB Obligations (XVI XVII.)	5,150,581	0	38,146	5,188,727
XXII	I. Net OPEB Obligation at End of Year (XXI. + XXII.)	22,247,526	0	234,201	22,481,727

## PRINCIPAL RESULTS OF THE VALUATION

(continued)

# Town of Wareham Plan Liabilities as of July 1, 2012 Assuming maintain pay-as-you-go funding method

		Town Employees and Retirees	Schools Employees and Retirees	Public Safety Employees and Retirees	WPCF Employees and Retirees	Total
I.	Present Value of Future Benefits					
	A. Actives	8,458,333	55,873,746	12,073,307	1,582,043	77,987,429
	B. Retirees/Disabled C. Total	<u>14,655,049</u> 23,113,382	<u>25,715,632</u> 81,589,378	<u>0</u> 12,073,307	<u>0</u> 1,582,043	<u>40,370,681</u> 118,358,110
					, ,	
II.	Present Value of Future Normal Cost	3,557,193	25,006,117	6,802,935	886,997	36,253,242
III.	Actuarial Accrued Liability (Projected Unit Credit)					
	A. Actives     B. Retirees/Disabled	4,901,140 14,655,049	30,867,629	5,270,372	695,046	41,734,187 40,370,681
	C. Total	19,556,189	<u>25,715,632</u> 56,583,261	<u>0</u> 5,270,372	<u>0</u> 695,046	82,104,868
		2,222,	,,	-, -,-	,.	, , , , , , , , , , , , , , , , , , , ,
IV.	Plan Assets	0	0	0	0	0
٧.	Unfunded Actuarial Accrued Liability ("UAAL")	19,556,189	56,583,261	5,270,372	695,046	82,104,868
VI.	Annual Covered Payroll	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
VIII.	Net OPEB Obligation	4,061,955	11,750,522	1,094,523	386,000	17,293,000
IX.	Number of Covered Participants					
	A. Actives     B. Retirees/Disabled	66 <u>83</u>	453 <u>202</u>	60 <u>0</u>	15 0	594 <u>285</u>
	C. Total	149	655	60	15	879
	For Fiscal Year Ending June 30, 2013					
Χ.	Normal Cost	357,221	2,307,789	415,666	66,578	3,147,254
XI.	Amortization of UAAL - 30 year flat dollar	1,069,937	3,209,773	298,980	39,429	4,618,119
XII.	Annual Required Contribution ('ARC') [ X. + XI.]	1,427,158	5,517,562	714,646	106,007	7,765,373
XIII.	Interest on Net OPEB Obligation	162,478	470,021	43,781	15,440	691,720
XIV.	Adjustment to Annual Required Contribution	(225,868)	(653,398)	(60,862)	(21,464)	(961,592)
XV.	Amortization of Actuarial (Gains) / Losses	70,754	204,717	19,068	2,515	297,054
XVI.	Annual OPEB Cost [XII. + XIII. + XIV. + XV.]	1,434,522	5,538,902	716,633	102,498	7,792,555
XVII	. Expected Employer Contribution	685,601	1,912,384	3,817	2,026	2,603,828
XVII	I. Contribution to Trust Fund over 30 Years	0	0	0	0	0
XIX.	Total Employer Contribution	685,601	1,912,384	3,817	2,026	2,603,828
XX.	Percentage of Annual OPEB Cost Contributed	47.8%	34.5%	0.5%	2.0%	33.4%
XXI.	Net OPEB Obligation at Beginning of Year (VIII.)	4,061,955	11,750,522	1,094,523	386,000	17,293,000
XXII	. Increase in Net OPEB Obligations (XVI XVII.)	748,921	3,626,518	712,816	100,472	5,188,727
XXII	I. Net OPEB Obligation at End of Year (XXI. + XXII.)	4,810,876	15,377,040	1,807,339	486,472	22,481,727

# PRINCIPAL RESULTS OF THE VALUATION

(continued)

# Town of Wareham 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, 2012

Actives		Present Value of Future Benefits	Actuarial Accrued Liability (Projected Unit Credit)	Normal Cost
Actives	Under Age 65 A. Participants B. Spouses C. Total	12,532,541 <u>9,443,237</u> 21,975,778	6,612,942 <u>4,891,948</u> 11,504,890	516,360 <u>371,428</u> 887,788
	Age 65 and Over A. Participants B. Spouses C. Total	32,090,988 <u>23,920,663</u> 56,011,651	17,362,649 <u>12,866,648</u> 30,229,297	1,301,257 <u>958,209</u> 2,259,466
	Actives Total A. Participants B. Spouses C. Total	44,623,529 33,363,900 77,987,429	23,975,591 <u>17,758,596</u> 41,734,187	1,817,617 <u>1,329,637</u> 3,147,254
Retirees/	<b>Disabled</b> Under Age 65			
	<ul><li>A. Participants</li><li>B. Spouses</li><li>C. Total</li></ul>	4,119,870 <u>3,069,433</u> 7,189,303	4,119,870 <u>3,069,433</u> 7,189,303	0 <u>0</u> 0
	Age 65 and Over A. Participants B. Spouses C. Total	22,650,452 10,530,926 33,181,378	22,650,452 <u>10,530,926</u> 33,181,378	<u>0</u> <u>0</u> 0
	Retirees/Disabled Total A. Participants B. Spouses C. Total	26,770,322 <u>13,600,359</u> 40,370,681	26,770,322 <u>13,600,359</u> 40,370,681	0 <u>0</u> 0
Total Pop	oulation  A. Participants  B. Spouses  C. Total	71,393,851 <u>46,964,259</u> 118,358,110	50,745,913 <u>31,358,955</u> 82,104,868	1,817,617 <u>1,329,637</u> 3,147,254

## PRINCIPAL RESULTS OF THE VALUATION

(continued)

# Town of Wareham Assuming Funding over 30 years at 7.00% discount rate Plan Liabilities as of July 1, 2012

		M edical	<u>Dental</u>	<u>Life</u>	<u>Total</u>
I.	Present Value of Future Benefits A. Actives B. Retirees/Disabled C. Total	40,957,301 28,973,603 69,930,904	0 <u>0</u> 0	204,505 473,404 677,909	41,161,806 29,447,007 70,608,813
II.	Present Value of Future Normal Cost	16,421,311	0	61,290	16,482,601
III.	Actuarial Accrued Liability (Projected Unit Credit)  A. Actives  B. Retirees/Disabled  C. Total	24,535,990 28,973,603 53,509,593	0 <u>0</u> 0	143,215 <u>473,404</u> 616,619	24,679,205 29,447,007 54,126,212
IV.	Plan Assets	0	0	0	0
٧.	Unfunded Actuarial Accrued Liability ("UAAL")	53,509,593	0	616,619	54,126,212
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	17,096,945	0	196,055	17,293,000
IX.	Number of Covered Participants  A. Actives  B. Retirees/Disabled  C. Total	594 <u>285</u> 879	594 <u>92</u> 686	594 <u>291</u> 885	
	For Fiscal Year Ending June 30, 2013				
Χ.	Normal Cost	1,685,872	0	8,411	1,694,283
XI.	Amortization of UAAL - 30 year flat dollar	5,997,372	0	69,111	6,066,483
XII.	Annual Required Contribution ('ARC') [ X. + XI.]	7,683,244	0	77,522	7,760,766
XIII.	Interest on Net OPEB Obligation	1,196,786	0	13,724	1,210,510
XIV.	Adjustment to Annual Required Contribution	(1,287,646)	0	(14,766)	(1,302,412)
XV.	Amortization of Actuarial (Gains) / Losses	(1,751,938)	0	47,081	(1,704,857)
XVI.	Annual OPEB Cost [XII. + XIII. + XIV. + XV.]	5,840,446	0	123,561	5,964,007
XVII	. Expected Employer Contribution	2,572,116	0	31,712	2,603,828
XVII	I. Contribution to Trust Fund over 30 Years	1,840,229	0	91,849	1,932,078
XIX.	Total Employer Contribution	4,412,345	0	123,561	4,535,906
XX.	Percentage of Annual OPEB Cost Contributed	75.5%	0.0%	100.0%	76.1%
XXI.	Net OPEB Obligation at Beginning of Year (VIII.)	17,096,945	0	196,055	17,293,000
XXII	. Increase in Net OPEB Obligations (XVI XVII.)	1,428,101	0	0	1,428,101
XXII	I. Net OPEB Obligation at End of Year (XXI. + XXII.)	18,525,046	0	196,055	18,721,101

## PRINCIPAL RESULTS OF THE VALUATION

(continued)

# Town of Wareham Plan Liabilities as of July 1, 2012 Assuming Funding over 30 years at 7.00% discount rate

		Town Employees and Retirees	Schools Employees and Retirees	Public Safety Employees and Retirees	WPCF Employees and Retirees	Total
I.	Present Value of Future Benefits					
	A. Actives     B. Retirees/Disabled	4,464,313 10,689,622	29,490,192 18,757,385	6,372,298 0	835,003 0	41,161,806 29,447,007
	C. Total	15,153,935	48,247,577	6,372,298	835,003	70,608,813
II.	Present Value of Future Normal Cost	1,617,283	11,369,076	3,092,967	403,275	16,482,601
III.	Actuarial Accrued Liability (Projected Unit Credit)	0.000.050	40.050.040	0.440.500	444.040	04.070.005
	A. Actives     B. Retirees/Disabled	2,898,253 10,689,622	18,253,346 18,757,385	3,116,596 0	411,010 0	24,679,205 29,447,007
	C. Total	13,587,875	37,010,731	3,116,596	411,010	54,126,212
IV.	Plan Assets	0	0	0	0	0
٧.	Unfunded Actuarial Accrued Liability ("UAAL")	13,587,875	37,010,731	3,116,596	411,010	54,126,212
VI.	Annual Covered Payroll	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
VIII.	Net OPEB Obligation	4,061,955	11,750,522	1,094,523	386,000	17,293,000
IX.	Number of Covered Participants		450		45	504
	A. Actives     B. Retirees/Disabled	66 <u>83</u>	453 <u>202</u>	60 <u>0</u>	15 <u>0</u>	594 <u>285</u>
	C. Total	149	655	60	15	879
	For Fiscal Year Ending June 30, 2013					
Χ.	Normal Cost	192,306	1,242,368	223,768	35,841	1,694,283
XI.	Amortization of UAAL - 30 year flat dollar	1,405,497	4,216,443	392,748	51,795	6,066,483
XII.	Annual Required Contribution ('ARC') [ X. + XI.]	1,597,803	5,458,811	616,516	87,636	7,760,766
XIII.	Interest on Net OPEB Obligation	284,336	822,537	76,617	27,020	1,210,510
XIV.	Adjustment to Annual Required Contribution	(305,922)	(884,984)	(82,434)	(29,072)	(1,302,412)
XV.	Amortization of Actuarial (Gains) / Losses	(406,073)	(1,174,915)	(109,435)	(14,434)	(1,704,857)
XVI.	Annual OPEB Cost [XII. + XIII. + XIV. + XV.]	1,170,144	4,221,449	501,264	71,150	5,964,007
XVII	. Expected Employer Contribution	685,601	1,912,384	3,817	2,026	2,603,828
XVII	I. Contribution to Trust Fund over 30 Years	485,030	1,321,128	111,249	14,671	1,932,078
XIX.	Total Employer Contribution	1,170,631	3,233,512	115,066	16,697	4,535,906
XX.	Percentage of Annual OPEB Cost Contributed	100.0%	76.6%	23.0%	23.5%	76.1%
XXI.	Net OPEB Obligation at Beginning of Year (VIII.)	4,061,955	11,750,522	1,094,523	386,000	17,293,000
XXII	. Increase in Net OPEB Obligations (XVI XIX.)	(487)	987,937	386,198	54,453	1,428,101
XXII	I. Net OPEB Obligation at End of Year (XXI. + XXII.)	4,061,468	12,738,459	1,480,721	440,453	18,721,101

#### Overview of GASB 43 and 45

GASB 43 requires retiree medical plans to disclose information about asset and liability levels and show historical contribution information. GASB 43 only applies in situations where a separate trust is established to prefund these benefits. GASB 45 requires employers to perform periodic actuarial valuations to determine annual accounting costs, and to keep a running tally of the extent to which these amounts are over or under funded.

GASB 43 and 45 apply to those benefits provided after retirement except for pension benefits such as medical insurance, dental and life insurance. The philosophy behind the accounting standard is that these post-employment benefits are part of the compensation earned by employees in return for their services, and the cost of these benefits should be recognized while employees are providing those services, rather than after they have retired. This philosophy has already been applied for years to defined benefit pensions; GASB 43 and 45 extend this practice to all other post-employment benefits.

# Overview of GASB 43 and 45

(continued)

The process of determining the liability for OPEB benefits is based on many assumptions about future events. The key actuarial assumptions are:

**Turnover and retirement rates:** How likely is it that an employee will qualify for post-employment benefits and when will they start?

**Medical inflation and claims cost assumptions:** When an employee starts receiving post-employment benefits many years from now, how much will be paid each year for the benefits and how rapidly will the costs grow?

**Mortality assumption:** How long is a retiree likely to receive benefits?

**Discount rate assumption:** What is the present value of those future benefit payments in terms of today's dollars?

Since the liability is being recognized over the employee's whole career with the Town, the present value is divided into three pieces: the part that is attributed to past years (the "Accrued Liability" or "Past Service Liability"), the part that is being earned this year (the "Normal Cost"), and the part that will be earned in future years (the "Future Service Liability").

Once the Accrued Liability and the Normal Cost have been calculated, the next step is to determine an annual contribution. This consists of two pieces:

- ✓ Normal Cost because the benefits earned each year should be paid for each year
- ✓ Past Service Cost a catch-up payment to fund the Accrued Liability over the next 10-30 years

The final step is to keep track going forward of how much of the contribution is actually paid. There is no requirement to actually fund these benefits, but the cumulative deficiency must be disclosed on the Town's financial statements as the OPEB liability. In addition, the Discount Rate used to calculate the liabilities must reflect the expected investment income of whatever funds are set aside to prefund the benefits; if there is no prefunding then the Discount Rate will be much lower and the liabilities significantly higher than if the benefits are prefunded.

### Commentary on Plan Experience and Contribution Amounts

#### 1. Transition to GASB 45:

The Plan adopted and implemented GASB 45 ("Accounting and Financial Reporting by Employers for Postemployment Benefits other than Pensions") effective for the fiscal year ending June 30, 2009. As part of this implementation, the Employer must recognize the Actuarial Accrued Liability for past service. Under GASB 45, this amount may be amortized over a period not to exceed thirty (30) years. The Unfunded Actuarial Accrued Liability at transition was amortized over a 30 year period and a flat dollar amortization of the Unfunded Actuarial Accrued Liability at transition. This approach yields an amortization charge of \$4,618,119. 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 2013 fiscal year is \$3,147,254. The combined amortization charge and normal cost represent the Annual Required Contribution ("ARC") for the plan for the 2013 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 2013 fiscal year beyond the "pay-as-you-go" costs is \$5,188,727 reduced by contributions to an OPEB Trust of \$0 for a net change in the OPEB liability of \$5,188,727.

# 2. Plan Experience:

Plan experience was better than expected. This is mainly due to the move lower than expected premiums for Medicare Integrated and GIC (retired teachers) coverages. Medicare Integrated plans saw a premium decline of approximately 6% vs. an expected 15.6% increase. Premiums for non-Medicare Plans increased at 16.0% which was in line with expectation. The actuarial experience gain is amortized into the annual OPEB costs over a 30-year period. The net impact of the plan experience is a modest increase in the annual OPEB cost due to a higher interest on the Net OPEB Obligation.

## **SUMMARY OF PLAN PROVISIONS**

Effective Date July 1, 2008; GASB 45 is adopted.

<u>Plan Year</u> July 1 through June 30.

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.

Credited Service Elapsed time from date of hire to termination of

service date.

Participant Contributions 30% of premiums for Non-Medicare Integrated

Medical Plans, 25% for Medicare-Integrated Medical Plans & 25% of premiums for life insurance. Teachers covered by the GIC will pay 10% of premiums in retirement if retired prior to July 1, 1990. Otherwise, Retired Teachers shall pay 15% of

premiums.

Benefits Offered Comprehensive Medical Insurance offered through

Blue Cross Blue Shield of Massachusetts and Harvard Pilgrim and various offerings via the GIC for Retired Teachers and Group Term Life

Insurance.

month following a participant's 65th birthday.

Early Retirement is available for any participant who

has attained benefit eligibility.

# ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

### A. ACTUARIAL COST METHOD

The actuarial cost method used to calculate the costs and liabilities of the plan is the Projected Unit Credit Actuarial Cost Method. Under this method, the normal cost and actuarial accrued liability are both based on an accrual of projected benefits over the period for which benefits are accrued. The normal cost is the actuarial present value of one year's benefit accrual on this basis. The actuarial accrued liability is the actuarial present value of the projected benefit times the ratio of past service to expected total service at retirement/termination.

Actuarial gains and losses are calculated each year and amortized over a 30 year period.

All employees who are plan participants on a valuation date are included in the actuarial valuation.

#### B. ASSET VALUATION METHOD

The actuarial value of assets is equal to the Market Value of the Plan's assets.

# 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>	Non Public Safety Male	Non Public Safety Female	Public Safety
0	15.00%	15.00%	1.50%
5	7.60%	7.60%	1.50%
10	5.40%	5.40%	1.50%
15	3.30%	3.30%	0.00%
20	2.00%	2.00%	0.00%
25	1.00%	1.00%	0.00%
30	0.00%	0.00%	0.00%

# 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:

	Non Public	Non Public Safety	<u>Public</u>
<u>Age</u>	Safety Male	<u>Female</u>	<u>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%

# ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

#### C. ACTUARIAL ASSUMPTIONS (continued)

#### Healthcare Trend

It was assumed that healthcare costs would increase in accordance with the trend rates in the following table:

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

## Participation Rate

eligible to receive retirement benefits would enroll in the retiree medical and dental plans upon retirement. For life insurance plans, it was assumed that 80% of eligible employees would elect coverage upon retirement.

It was assumed that 80% of the employees

#### 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.

# ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

#### C. ACTUARIAL ASSUMPTIONS (continued)

<u>Compensation Increases</u> 3.00% per year.

<u>Additional Comments</u> 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.

# 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.

# 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 (Non-GIC)

	Number of Participants			
•	Single	Two-Person	Family	Total
BCBS Network Blue	78		132	210
BCBS Blue Care Elect PPO	39		52	91
Harvard Pilgrim	55		132	187
Unicare Basic / CIC				0
Unicare Basic w/o CIC				0
Unicare Comm Choice				0
Fallon Select				0
Harvard Senior (GIC)				0
Unicare OME w/o CIC				0
Unicare OME/CIC w/ Part B				0
HP Medicare Enhance	6	8		14
BCBS Medex	<u>44</u>	<u>24</u>		<u>68</u>
Total	222	32	316	570

·	Single	Two-Person	<u>Family</u>
BCBS Network Blue	653.00	0.00	1,749.00
BCBS Blue Care Elect PPO	900.00	0.00	2,150.00
Harvard Pilgrim	639.00	0.00	1,672.00
Unicare Basic / CIC	1,146.60		2,775.30
Unicare Basic w/o CIC	722.40		1,726.40
Unicare Comm Choice	428.80		1,029.08
Fallon Select	590.50		1,417.20
Harvard Senior (GIC)	393.20	786.40	
Unicare OME w/o CIC	320.50	641.00	
Unicare OM E/CIC w/ Part B	428.80	857.60	
HP Medicare Enhance	476.00	952.00	
BCBS Medex	480.00	960.00	

Gross Expected FY 2013 Incurred Premiums 8,870,196
Adjustment to reflect children's claims (1,544,208)
Total Expected FY 2013 Incurred Premiums (adults only) 7,325,988

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

	Employer Primary	Medicare Primary
Age 65	11,582	5,751
Average Age	9,865	5,751

Per Contract Costs (monthly) - FY 2013

		GIC Plans for Retired Teachers				
	Per	Per Contract Costs (monthly) - FY 2013				
	<u>Single</u>	Single Two-Person Family				
Comm Indem / CIC	1,146.60		2,775.30			
Comm OME w Part B	320.50	641.00				
Comm OME/CIC w Part B	428.80	857.60				
Fallon Select	590.50		1,417.20			
Harvard Senior w Part B	393.20	786.40				

# ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

#### D. DEVELOPMENT OF REPRESENTATIVE MEDICAL PER CAPITA CLAIMS COSTS

#### III. BREAKDOWN OF CLAIM COSTS

7,325,988 Active and Retired Claims (No Children) - Including Administrative fees & trend

5,416 Average Per-Capita Claim (including Retention & Pooling)

#### ALL ACTIVE EMPLOYEES AND SPOUSES (non-GIC)

	Number of I	Number of	Female Aging	Male Aging	Aged (F) Average	Aged (M) Average	Age Related
Age Bracket	Females	Males	Factor	Factor	Claims	Claims	Claims
24 & Under	1	0	1.312	0.549	7,106	2,973	7,106
25 to 29	30	10	1.312	0.591	7,106	3,201	245,190
30 to 34	30	20	1.312	0.712	7,106	3,856	290,300
35 to 39	28	28	1.312	0.850	7,106	4,604	327,880
40 to 44	59	31	1.312	1.000	7,106	5,416	587,150
45 to 49	70	65	1.456	1.193	7,886	6,461	971,985
50 to 54	62	51	1.599	1.441	8,660	7,804	934,924
55 to 59	75	46	1.740	1.753	9,424	9,494	1,143,524
60 to 64	48	49	1.968	2.102	10,659	11,384	1,069,448
65 to 69	15	13	2.168	2.316	11,742	12,543	339,189
70 & Over	<u>3</u>	<u>3</u>	2.396	2.557	12,977	13,849	80,478
Total	421	316					5,997,174

#### ALL RETIREES AND SPOUSES - NOT MEDICARE ELIGIBLE (non-GIC)

			Female	Male	Aged (F)	Aged (M)	
	Number of I	Number of	Aging	Aging	Average	Average	Age Related
Age Bracket	Females	Males	Factor	Factor	Claims	Claims	Claims
44 & Under	4	2	1.312	1.000	7,106	5,416	39,256
45 to 49	4	3	1.456	1.193	7,886	6,461	50,927
50 to 54	2	4	1.599	1.441	8,660	7,804	48,536
55 to 59	9	7	1.740	1.753	9,424	9,494	151,274
60 to 64	14	11	1.968	2.102	10,659	11,384	274,450
65 to 69	3	4	2.168	2.316	11,742	12,543	85,398
70 to 74	<u>1</u>	<u>2</u>	2.396	2.557	12,977	13,849	40,675
Total	37	33					690,516

#### ALL RETIREES AND SPOUSES - MEDICARE ELIGIBLE (non-GIC)

	Number of I	Number of	Female Aging	Male Aging	Aged (F) Average	Aged (M) Average	Age Related
Age Bracket	Females	Males	Factor	Factor	Claims	Claims	Claims
65 to 69	18	10	2.168	2.316	5,751	5,751	161,028
70 to 74	11	13	2.396	2.557	5,751	5,751	138,024
75 to 79	17	6	2.593	2.769	5,751	5,751	132,273
80 to 84	9	12	2.724	2.910	5,751	5,751	120,771
85 to 89	5	3	2.864	3.059	5,751	5,751	46,008
90 & Over	<u>4</u>	<u>3</u>	3.010	3.215	5,751	5,751	40,257
Total	64	47					638,361
Grand Totals	522	396					7,326,051

# ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

- E. DEVELOPMENT OF REPRESENTATIVE DENTAL PER CAPITA CLAIMS COSTS
- I. CLAIMS COSTS DEVELOPMENT with Active & Retiree Incurred Premiums

Per Contract Costs (monthly) - FY 2013

Single Two-Person Family

Dental Plan N/A N/A

FY 2013 Expected Per Person Rate N/A

# <u>Financial Statement Disclosure</u> (As of July 1, 2012)

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;

#### A DESCRIPTION OF THE RETIREE MEDICAL INSURANCE PROGRAM:

a. Plan Type: Blue Cross HMO Blue New England, Blue Care Elect

Preferred (PPO), Harvard Pilgrim, Blue Cross - Medex 3 and

various coverages via the GIC.

b. Administrator: Town of Wareham & GIC

c. Eligibility: An employee shall become eligible to retire under this plan

upon meeting attainment of age 55 as an active member and

completion of 10 years of service.

d. Cost Sharing: 30% of premiums for Non-Medicare Integrated Plans & 25%

for Medicare-Integrated Plans (Retired Teachers will pay 10% when covered by the GIC if retired prior to July 1, 1990 -

else 15%)

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

a. Plan Type: Not offered

b. Administrator: N/A c. Eligibility: N/A d. Cost sharing: N/A

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

a. Plan Type: Group Term Life Insurance - \$5,000

b. Administrator: Town of Wareham & GIC

c. Eligibility: Same as above

d. Cost sharing: 25% of premiums (Retired Teachers will pay 10% when

covered by the GIC)

# Financial Statement Disclosure (As of July 1, 2012) (continued)

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

Group	Individual	Family
Medical	30% of premiums for	30% of premiums for
	Non-Medicare	Non-Medicare
	Integrated Plans & 25%	Integrated Plans & 25%
	for Medicare-Integrated	for Medicare-Integrated
	Plans (Retired Teachers	Plans (Retired Teachers
	will pay 10% when	will pay 10% when
	covered by the GIC if	covered by the GIC if
	retired prior to July 1,	retired prior to July 1,
	1990 - else 15%)	1990 - else 15%)
Dental	N/A	N/A
Life	25% of premiums	N/A
	(Retired Teachers will	
	pay 10% when covered	
	by the GIC)	

#### 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 2013 fiscal year, total Town premiums plus implicit costs for the retiree medical program are \$2,603,828. The Town is also projected to make a contribution to an OPEB Trust of \$0 for the 2013 fiscal year for a total contribution of \$2,603,828.

# Financial Statement Disclosure (As of July 1, 2012) (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	\$7,765,373
Interest on net OPEB obligation	\$691,720
Adjustment to annual required contribution	(\$961,592)
Amortization of Actuarial (Gains) / Losses	\$297,054
Annual OPEB cost (expense)	\$7,792,555
Contributions made to pay benefits	\$2,603,828
Contributions made to OPEB Trust	<u>\$0</u>
Increase in net OPEB obligation	\$5,188,727
Net OPEB Obligation – beginning of year	\$17,293,000
Net OPEB Obligation – end of year	\$22,481,727

# Financial Statement Disclosure (As of July 1, 2012) (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 2013 fiscal year and the three preceding years were as follows:

Fiscal Year Ended	Annual OPEB Cost	Expected Employer Payments	Increase in OPEB Obligation
06/30/2010	\$7,223,000	\$3,071,000	\$4,152,000
06/30/2011	\$7,480,000	\$3,161,000	\$4,319,000
06/30/2012	\$7,498,000	\$3,437,000	\$4,061,000
06/30/2013	\$7,792,554	\$2,603,828	\$5,188,726
06/30/2014			
(est.)	\$8,075,503	\$2,854,730	\$5,220,773
06/30/2015			
(est.)	\$8,392,955	\$3,072,658	\$5,320,297

# **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
07/01/2009	\$0	\$86,236,867	\$28,889,391	0.0%	N/A	N/A
07/01/2010	\$0	\$87,952,833	\$24,201,981	0.0%	\$33,188,784	265.01%
07/01/2011	\$0	\$91,303,472	\$91,303,472	0.0%	\$34,682,279	263.26%
07/01/2012	\$0	\$82,104,869	\$82,104,869	0.0%	N/A	N/A
07/01/2013 (est.)	\$0	\$85,955,376	\$85,955,376	0.0%	N/A	N/A
07/01/2014						
(est.)	\$0	\$89,776,230	\$89,776,230	0.0%	N/A	N/A

Financial Statement Disclosure
(As of July 1, 2012)
(continued)

		Fiscal Year Ending June 30, 2013			
	Town Employees and Retirees	Schools Employees and Retirees	Public Safety Employees and Retirees	WPCF Employees and Retirees	Total
OPEB obligation at beginning of year	4,061,955	11,750,522	1,094,523	386,000	17,293,000
Annual Required Contribution	1,427,158	5,517,562	714,646	106,007	7,765,373
Interest on Net OPEB Obligation	162,478	470,021	43,781	15,440	691,720
Adjustment to the ARC Amortization of Actuarial (Gains)/Losses	(225,868) 70,754	(653,398) 204,717	(60,862) 19,068	(21,464) 2,515	(961,592) 297,054
Annual OPEB Cost	1,434,522	5,538,902	716,633	102,498	7,792,555
Total Expected Employer Payments	685,601	1,912,384	3,817	2,026	2,603,828
Increase in OPEB Obligation	748,921	3,626,518	712,816	100,472	5,188,727
OPEB obligation at end of year	4,810,876	15,377,040	1,807,339	486,472	22,481,727
APBO at beginning of year	19,556,189	56,583,261	5,270,372	695,046	82,104,868

		Fiscal Year Ending June 30, 2014				
	Town Employees and Retirees	Schools Employees and Retirees	Public Safety Employees and Retirees	WPCF Employees and Retirees	<u>Total</u>	
OPEB obligation at beginning of year	4,810,876	15,377,040	1,807,339	486,472	22,481,727	
Annual Required Contribution	1,441,015	5,571,136	721,585	107,036	7,840,772	
Interest on Net OPEB Obligation	211,229	611,050	56,917	20,073	899,269	
Adjustment to the ARC	(293,639)	(849,449)	(79,124)	(27,904)	(1,250,116)	
Amortization of Actuarial (Gains)/Losses	128,004	407,283	43,276	7,015	585,578	
Annual OPEB Cost	1,486,609	5,740,020	742,654	106,220	8,075,503	
Total Expected Employer Payments	751,665	2,096,659	4,185	2,221	2,854,730	
Increase in OPEB Obligation	734,944	3,643,361	738,469	103,999	5,220,773	
OPEB obligation at end of year	5,545,820	19,020,401	2,545,808	590,471	27,702,500	
APBO at beginning of year	20,473,324	59,236,871	5,517,539	727,642	85,955,376	

# Financial Statement Disclosure (As of July 1, 2012) (continued)

#### 7. FUNDED STATUS AND FUNDING PROGRESS

As of July 1, 2012, the most recent valuation date, the plan was 0.00% funded. The actuarial liability for benefits was \$82,104,868, and the actuarial value of assets was \$0, resulting in an unfunded actuarial accrued liability (UAAL) of \$82,104,868. 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 \$100,541,075 or by 22.5% and the corresponding Normal Cost would increase to \$4,221,154 or by 34.1%. 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 \$67,479,277 or by 17.8% and the corresponding Normal Cost would decrease to \$2,341,556 or by 25.6%.

# Financial Statement Disclosure (As of July 1, 2012) (continued)

#### 9. ACTUARIAL METHODS AND ASSUMPTIONS

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

Actuarial Cost Method: Projected Unit Credit

Investment Rate of Return: 4.00% per annum (previously 4.00%)

Healthcare Trend Rates

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

General Inflation Assumption: 2.50% per annum
Annual Compensation Increases: 3.00% per annum
Actuarial Value of Assets: Market Value

Amortization of UAAL: Level dollar amortization over 30 years at

the last valuation

Remaining Amortization Period: 26 years at July 1, 2012

# Financial Statement Disclosure (As of July 1, 2012)

(continued)

## 10. Remaining Amortization Bases

The initial Actuarial Accrued Liability as of the date GASB 45 was adopted is amortized as a component of the Annual Required Contribution ("ARC"). The Unfunded Actuarial Accrued Liability at transition was amortized over a 30 year period and a flat dollar amortization of the Unfunded Actuarial Accrued Liability at transition. For years subsequent to the initial adoption of GASB 45, cumulative gains/losses are amortized on a level dollar basis over a 30 year period. Gains and losses arise from experience and contribution deficiencies and excess contributions in relation to each year's ARC under GASB 45.

### Changes in Unfunded Actuarial Liability Since Prior Valuation

# Expected Unfunded Actuarial Liability

Actuarial Accrued Liability at prior valuation date	87,952,833
2. Actuarial Value of Assets at prior valuation date	<u>0</u>
3. Unfunded Actuarial Accrued Liability at prior valuation date [1 2.]	87,952,833
4. Normal Cost for prior periods	6,002,912
5. Employer Contribitions for prior periods	(6,598,000)
6. Interest to current valuation date	<u>7,418,450</u>
7. Expected Actuarial Accrued Liability [3. + 4. + 5. + 6.]	94,776,195

### Actual Unfunded Actuarial Liability

8. Actuarial Accrued Liability at current valuation date	82,104,868
9. Actuarial Value of Assets at current valuation date	<u>0</u>
10. Unfunded Actuarial Accrued Liability at current valuation date [8, - 9,]	82.104.868

(12,671,327)

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

11. Unfunded Actuarial Accrued Liability at current valuation date [10.]

12. Remaining Initial Unfunded to be amortized

13. Actuarial (Gain) / Loss to be amortized: [11. - 12.]

14. Separation of the properties of the separation of the properties of the properties of the separation of the properties of the properti

# Financial Statement Disclosure (As of July 1, 2012) (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 Liability	83,050,934	30	76,762,743	26	4,618,119				
July 1, 2012	Cumulative (Gain) / Loss	5,342,125	30	5,342,116	30	297,054				
July 1, 2012	Adjustment to ARC	(17,293,000)	30	(17,293,000)	30	(961,592)				

64,811,859

3,953,581

## 11. Recognition of OPEB trust assets

Total

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 prefund the liabilities under GASB 45. To the best of our knowledge, Town of Wareham has not established an irrevocable trust for the purposes of prefunding liabilities under GASB 45.

# Financial Statement Disclosure (As of July 1, 2012) (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 Wareham nor have we attempted to value the impact of prior Town of Wareham employees currently working at other governmental entities in the State of Massachusetts.

# EXHIBIT B

# Reconciliation of Plan Participation (As of July 1, 2012)

# **ACTIVE EMPLOYEES**

	July 1, 2012	<u>July 1, 2010</u>
A. Average Age at Hire	35.76	35.90
B. Average Service	11.79	11.53
C. Average Current Age	47.55	47.43

# 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

et a a l Mana	T. J. J. ADD.	Named Carl	Expected	Interest on Net OPEB	Adjustment to	Amortization of Actuarial	Expected Annual OPEB	OPEB Obligation as	Employer Share of Premiums /	Excess Employer Payments (beyond	Plan Assets at Beginning	Unfunded Accrued Actuarial Liability
Fiscal Year	Total APBO	Normal Cost	Amortization	Obligation	ARC	(Gain) / Loss	Cost	of June 30 17,293,000	Claims	claims)	of year	("UAAL")
2013	82,104,869	3,147,253	4,618,119	691,720	(961,592)	297,054	7,792,554	22,481,726	2,603,828	0	0	82,104,869
2014	85,955,376	3,222,653	4,618,119	899,269	(1,250,116)	585,578	8,075,503	27,702,499	2,854,730	0	0	85,955,376
2015	89,776,230	3,331,274	4,618,119	1,108,100	(1,540,422)	875,884	8,392,955	33,022,796	3,072,658	0	0	89,776,230
2016	93,636,240	3,460,454	4,618,119	1,320,912	(1,836,261)	1,171,723	8,734,947	38,523,071	3,234,672	0	0	93,636,240
2017	97,616,871	3,588,226	4,618,119	1,540,923	(2,142,108)	1,477,570	9,082,730	44,184,864	3,420,937	0	0	97,616,871
2018	101,695,527	3,731,919	4,618,119	1,767,395	(2,456,938)	1,792,400	9,452,895	50,050,786	3,586,973	0	0	101,695,527
2019	105,914,172	3,888,464	4,618,119	2,002,031	(2,783,117)	2,118,579	9,844,076	56,101,656	3,793,206	0	0	105,914,172
2020	110,250,003	4,081,935	4,618,119	2,244,066	(3,119,581)	2,455,043	10,279,582	62,400,501	3,980,737	0	0	110,250,003
2021	114,769,191	4,249,808	4,618,119	2,496,020	(3,469,833)	2,805,295	10,699,409	68,931,239	4,168,671	0	0	114,769,191
2022	119,444,679	4,459,039	4,618,119	2,757,249	(3,832,981)	3,168,443	11,169,869	75,677,923	4,423,185	0	0	119,444,679
2023	124,259,784	4,661,640	4,618,119	3,027,117	(4,208,137)	3,543,599	11,642,338	82,626,696	4,693,565	0	0	124,259,784
2024	129,196,973	4,888,755	4,618,119	3,305,068	(4,594,528)	3,929,990	12,147,404	89,837,535	4,936,565	0	0	129,196,973
2025	134,315,539	5,129,215	4,618,119	3,593,501	(4,995,494)	4,330,956	12,676,297	97,269,681	5,244,151	0	0	134,315,539
2026	139,569,149	5,376,239	4,618,119	3,890,787	(5,408,765)	4,744,227	13,220,607	104,925,149	5,565,139	0	0	139,569,149
2027	144,955,973	5,662,836	4,618,119	4,197,006	(5,834,453)	5,169,915	13,813,423	112,877,840	5,860,732	0	0	144,955,973
2028	150,548,428	5,974,899	4,618,119	4,515,114	(6,276,670)	5,612,132	14,443,594	121,132,304	6,189,130	0	0	150,548,428
2029	156,348,175	6,305,742	4,618,119	4,845,292	(6,735,666)	6,071,128	15,104,615	129,753,533	6,483,386	0	0	156,348,175
2030	162,417,375	6,662,255	4,618,119	5,190,142	(7,215,057)	6,550,519	15,805,978	138,804,581	6,754,930	0	0	162,417,375
2031	168,817,690	7,046,677	4,618,119	5,552,183	(7,718,348)	7,053,810	16,552,441	148,357,843	6,999,179	0	0	168,817,690
2032	175,619,935	7,439,634	4,618,119	5,934,314	(8,249,566)	7,585,028	17,327,529	158,407,531	7,277,841	0	0	175,619,935
2033	182,813,489	7,852,204	4,618,119	6,336,302	(8,808,388)	8,143,850	18,142,087	169,058,981	7,490,637	0	0	182,813,489
2034	190,502,179	8,286,558	4,618,119	6,762,359	(9,400,671)	8,736,133	19,002,498	180,309,075	7,752,404	0	0	190,502,179
2035	198,677,786	8,720,454	4,618,119	7,212,363	(10,026,242)	9,361,704	19,886,398	192,128,139	8,067,334	0	0	198,677,786
2036	207,304,163	9,179,618	4,618,119	7,685,126	(10,683,452)	10,018,914	20,818,325	204,638,392	8,308,072	0	0	207,304,163
2037	216,502,739	9,648,825	4,618,119	8,185,535	(11,379,094)	10,714,556	21,787,941	217,737,509	8,688,824	0	0	216,502,739
2038	226,161,265	10,141,640	4,618,119	8,709,500	(12,107,482)	11,442,944	22,804,721	231,508,069	9,034,161	0	0	226,161,265
2039	236,359,493	10,641,557	0	9,260,323	(12,873,207)	12,208,669	19,237,342	241,324,712	9,420,699	0	0	236,359,493
2040	247,083,685	11,168,341	0	9,652,988	(13,419,070)	12,754,532	20,156,791	251,621,414	9,860,089	0	0	247,083,685
2041	258,327,628	11,715,480	0	10,064,856	(13,991,626)	13,327,088	21,115,798	262,419,307	10,317,905	0	0	258,327,628
2042	270,114,211	12,281,257	0	10,496,772	(14,592,052)	13,927,514	22,113,491	273,747,524	10,785,274	0	0	270,114,211
2043	282,474,633	12,892,535	0	10,949,901	(15,221,968)	15,221,968	23,842,436	286,386,590	11,203,370	0	0	282,474,633
2044	295,530,350	13,540,059	0	11,455,463	(15,924,774)	15,924,774	24,995,522	299,710,649	11,671,463	0	0	295,530,350

Town of Wareham Other Postemployment Benefits Plan Actuarial Valuation as of July 1, 2012 August 2013 Page 31

# EXHIBIT D

# Projected Cash Flows (Open Group) - Funded Approach

# Total Medical, Dental & Life Insurance - Funding over 30 years at 7.00% discount rate

Fiscal Year	Total APBO	Normal Cost	Expected Amortization	Interest on Net OPEB Obligation	Adjustment to	Amortization of Actuarial (Gain) / Loss	Expected Annual OPEB Cost	OPEB Obligation as of June 30 17,293,000	Employer Share of Premiums / Claims	Excess Employer Payments (beyond claims)	Plan Assets at Beginning of year	Unfunded Accrued Actuarial Liability ("UAAL")
2013	54,126,212	1,694,283	6,066,483	1,210,510	(1,302,412)	(1,704,857)	5,964,007	18,721,101	2,603,828	1,932,078	0	54,126,212
2014	56,942,702	1,725,014	6,066,483	1,310,477	(1,409,969)	(1,597,300)	6,094,705	20,028,998	2,854,730	1,932,078	1,932,078	55,010,624
2015	59,719,894	1,778,738	6,066,483	1,402,030	(1,508,472)	(1,498,797)	6,239,982	21,264,244	3,072,658	1,932,078	3,999,401	55,720,493
2016	62,515,792	1,846,024	6,066,483	1,488,497	(1,601,504)	(1,405,765)	6,393,735	22,491,229	3,234,672	1,932,078	6,211,437	56,304,355
2017	65,406,330	1,911,154	6,066,483	1,574,386	(1,693,914)	(1,313,355)	6,544,754	23,682,968	3,420,937	1,932,078	8,578,316	56,828,014
2018	68,369,305	1,982,727	6,066,483	1,657,808	(1,783,669)	(1,223,600)	6,699,749	24,863,666	3,586,973	1,932,078	11,110,876	57,258,429
2019	71,438,676	2,062,043	6,066,483	1,740,457	(1,872,592)	(1,134,677)	6,861,714	26,000,096	3,793,206	1,932,078	13,820,715	57,617,961
2020	74,587,187	2,164,776	6,066,483	1,820,007	(1,958,182)	(1,049,087)	7,043,997	27,131,278	3,980,737	1,932,078	16,720,243	57,866,944
2021	77,868,244	2,247,218	6,066,483	1,899,190	(2,043,376)	(963,893)	7,205,622	28,236,151	4,168,671	1,932,078	19,822,738	58,045,506
2022	81,263,328	2,354,906	6,066,483	1,976,531	(2,126,589)	(880,680)	7,390,651	29,271,539	4,423,185	1,932,078	23,142,408	58,120,920
2023	84,738,726	2,456,643	6,066,483	2,049,008	(2,204,569)	(802,700)	7,564,865	30,210,761	4,693,565	1,932,078	26,694,455	58,044,271
2024	88,276,929	2,570,564	6,066,483	2,114,753	(2,275,305)	(731,964)	7,744,531	31,086,649	4,936,565	1,932,078	30,495,145	57,781,784
2025	91,925,007	2,689,510	6,066,483	2,176,066	(2,341,272)	(665,997)	7,924,790	31,835,210	5,244,151	1,932,078	34,561,883	57,363,124
2026	95,626,695	2,809,822	6,066,483	2,228,465	(2,397,650)	(609,619)	8,097,501	32,435,494	5,565,139	1,932,078	38,913,293	56,713,402
2027	99,372,773	2,953,098	6,066,483	2,270,485	(2,442,860)	(564,409)	8,282,797	32,925,481	5,860,732	1,932,078	43,569,302	55,803,471
2028	103,217,721	3,111,931	6,066,483	2,304,784	(2,479,763)	(527,506)	8,475,929	33,280,202	6,189,130	1,932,078	48,551,231	54,666,490
2029	107,150,832	3,280,646	6,066,483	2,329,614	(2,506,479)	(500,790)	8,669,474	33,534,212	6,483,386	1,932,078	53,881,895	53,268,937
2030	111,224,475	3,465,647	6,066,483	2,347,395	(2,525,609)	(481,660)	8,872,256	33,719,460	6,754,930	1,932,078	59,585,706	51,638,769
2031	115,490,655	3,667,353	6,066,483	2,360,362	(2,539,561)	(467,708)	9,086,929	33,875,132	6,999,179	1,932,078	65,688,783	49,801,872
2032	120,010,054	3,873,698	6,066,483	2,371,259	(2,551,285)	(455,984)	9,304,171	33,969,384	7,277,841	1,932,078	72,219,076	47,790,978
2033	124,768,704	4,091,640	6,066,483	2,377,857	(2,558,384)	(448,885)	9,528,711	34,075,380	7,490,637	1,932,078	79,206,489	45,562,215
2034	129,865,678	4,323,765	6,066,483	2,385,277	(2,566,367)	(440,902)	9,768,256	34,159,154	7,752,404	1,932,078	86,683,021	43,182,657
2035	135,287,633	4,553,692	6,066,483	2,391,141	(2,572,676)	(434,593)	10,004,047	34,163,789	8,067,334	1,932,078	94,682,910	40,604,723
2036	140,998,186	4,797,485	6,066,483	2,391,465	(2,573,025)	(434,244)	10,248,164	34,171,803	8,308,072	1,932,078	103,242,792	37,755,394
2037	147,111,731	5,043,565	6,066,483	2,392,026	(2,573,629)	(433,640)	10,494,805	34,045,706	8,688,824	1,932,078	112,401,865	34,709,866
2038	153,509,138	5,303,583	6,066,483	2,383,200	(2,564,132)	(443,137)	10,745,997	33,825,464	9,034,161	1,932,078	122,202,074	31,307,064
2039	160,263,059	5,562,692	0	2,367,783	(2,547,545)	(459,724)	4,923,206	27,395,893	9,420,699	1,932,078	132,688,297	27,574,762
2040	167,353,496	5,836,890	0	1,917,713	(2,063,305)	(943,964)	4,747,334	20,351,060	9,860,089	1,932,078	143,908,556	23,444,940
2041	174,763,428	6,120,503	0	1,424,574	(1,532,728)	(1,474,541)	4,537,808	12,638,885	10,317,905	1,932,078	155,914,233	18,849,195
2042	182,505,649	6,410,819	0	884,722	(951,890)	(2,055,379)	4,288,272	4,209,805	10,785,274	1,932,078	168,760,307	13,745,342
2043	190,600,401	6,729,013	0	294,687	(317,059)	317,059	7,023,700	(1,901,943)	11,203,370	1,932,078	182,505,606	8,094,795
2044	199,154,867	7,067,013	0	(133,136)	143,243	14,766	7,091,886	(8,413,598)	11,671,463	1,932,078	197,213,076	1,941,791

#### 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 be 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 unfounded 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 unfounded 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.

# Town of Wareham GASB 45 Projection of Funding Annual Normal Cost and Impact on Unfunded Obligation

Total Medical, Dental & Life Insurance - Funding Annual Normal Cost - 4.00% discount rate

Fiscal Year	Total APBO	Normal Cost	Employer Share of Premiums / Claims including "implicit cost"	Funding Normal Cost beyond claims	Total Funding Costs	Present Value of Employer Share of Premiums / Claims including "implicit cost"	Present Value of Funding Normal Cost beyond claims	Present Value of Total Funding Costs	Plan Assets at Beginning of year	Unfunded Accrued Actuarial Liability ("UAAL")	Present Value of Unfunded Accrued Actuarial Liability ("UAAL")
2013	82,104,869	3,147,253	2,603,828	543,425	3,147,253	2,603,828	543,425	3,147,253	0	82,104,869	82,104,869
2014	85,955,376	3,222,653	2,854,730	367,923	3,222,653	2,744,933	353,772	3,112,856	543,425	85,411,951	82,126,876
2015	89,776,230	3,331,274	3,072,658	258,616	3,331,274	2,840,845	239,105	3,099,461	933,085	88,843,145	82,140,482
2016	93,636,240	3,460,454	3,234,672	225,782	3,460,454	2,875,612	200,719	3,101,394	1,229,024	92,407,216	82,149,679
2017	97,616,871	3,588,226	3,420,937	167,289	3,588,226	2,924,231	142,999	3,091,520	1,503,967	96,112,904	82,157,713
2018	101,695,527	3,731,919	3,586,973	144,946	3,731,919	2,948,230	119,135	3,093,176	1,731,415	99,964,112	82,163,213
2019	105,914,172	3,888,464	3,793,206	95,258	3,888,464	2,997,826	75,284	3,093,084	1,945,618	103,968,554	82,167,858
2020	110,250,003	4,081,935	3,980,737	101,198	4,081,935	3,025,033	76,902	3,126,231	2,118,701	108,131,302	82,170,903
2021	114,769,191	4,249,808	4,168,671	81,137	4,249,808	3,046,007	59,286	3,127,144	2,304,647	112,464,544	82,176,741
2022	119,444,679	4,459,039	4,423,185	35,854	4,459,039	3,107,671	25,191	3,143,525	2,477,970	116,966,709	82,179,258
2023	124,259,784	4,661,640	4,693,565	(31,925)	4,661,640	3,170,804	(21,567)	3,138,879	2,612,943	121,646,841	82,180,247
2024	129,196,973	4,888,755	4,936,565	(47,810)	4,888,755	3,206,698	(31,056)	3,158,888	2,685,536	126,511,437	82,179,417
2025	134,315,539	5,129,215	5,244,151	(114,936)	5,129,215	3,275,481	(71,789)	3,160,545	2,745,147	131,570,392	82,178,479
2026	139,569,149	5,376,239	5,565,139	(188,900)	5,376,239	3,342,278	(113,448)	3,153,378	2,740,017	136,829,132	82,176,031
2027	144,955,973	5,662,836	5,860,732	(197,896)	5,662,836	3,384,427	(114,280)	3,186,531	2,660,718	142,295,255	82,171,964
2028	150,548,428	5,974,899	6,189,130	(214,231)	5,974,899	3,436,604	(118,955)	3,222,373	2,569,251	147,979,177	82,167,584
2029	156,348,175	6,305,742	6,483,386	(177,644)	6,305,742	3,461,533	(94,846)	3,283,889	2,457,790	153,890,385	82,163,335
2030	162,417,375	6,662,255	6,754,930	(92,675)	6,662,255	3,467,800	(47,577)	3,375,125	2,378,458	160,038,917	82,159,698
2031	168,817,690	7,046,677	6,999,179	47,498	7,046,677	3,454,992	23,446	3,502,490	2,380,921	166,436,769	82,157,870
2032	175,619,935	7,439,634	7,277,841	161,793	7,439,634	3,454,372	76,794	3,616,165	2,523,656	173,096,279	82,158,837
2033	182,813,489	7,852,204	7,490,637	361,567	7,852,204	3,418,629	165,014	3,780,196	2,786,395	180,027,094	82,162,016
2034	190,502,179	8,286,558	7,752,404	534,154	8,286,558	3,402,015	234,405	3,936,169	3,259,418	187,242,761	82,168,415
2035	198,677,786	8,720,454	8,067,334	653,120	8,720,454	3,404,055	275,588	4,057,175	3,923,949	194,753,837	82,177,431
2036	207,304,163	9,179,618	8,308,072	871,546	9,179,618	3,370,804	353,609	4,242,350	4,734,027	202,570,136	82,188,039
2037	216,502,739	9,648,825	8,688,824	960,001	9,648,825	3,389,697	374,517	4,349,698	5,794,934	210,707,805	82,201,640
2038	226,161,265	10,141,640	9,034,161	1,107,479	10,141,640	3,388,866	415,434	4,496,345	6,986,732	219,174,533	82,216,050
2039	236,359,493	10,641,557	9,420,699	1,220,858	10,641,557	3,397,945	440,350	4,618,803	8,373,680	227,985,813	82,232,028
2040	247,083,685	11,168,341	9,860,089	1,308,252	11,168,341	3,419,642	453,723	4,727,894	9,929,485	237,154,200	82,249,006
2041	258,327,628	11,715,480	10,317,905	1,397,575	11,715,480	3,440,789	466,060	4,838,364	11,634,916	246,692,712	82,266,462
2042	270,114,211	12,281,257	10,785,274	1,495,983	12,281,257	3,458,313	479,689	4,954,296	13,497,888	256,616,323	82,284,387
2043	282,474,633	12,892,535	11,203,370	1,689,165	12,892,535	3,454,208	520,801	5,143,373	15,533,787	266,940,846	82,302,846
2044	295,530,350	13,540,059	11,671,463	1,868,596	13,540,059	3,460,125	553,964	5,328,721	17,844,303	277,686,047	82,322,877
2045	309,294,938	14,203,797	12,188,508	2,015,289	14,203,797	3,474,431	574,474	5,489,720	20,426,671	288,868,267	82,344,193
2046	323,762,636	14,909,294	12,588,273	2,321,021	14,909,294	3,450,372	636,178	5,771,393	23,259,027	300,503,609	82,366,288
2047	339,127,002	15,670,088	13,108,970	2,561,118	15,670,088	3,454,896	674,988	6,016,014	26,510,409	312,616,593	82,390,756
2048	355,355,645	16,459,089	13,683,790	2,775,299	16,459,089	3,467,684	703,304	6,242,983	30,131,943	325,223,702	82,416,718
2049	372,456,210	17,288,624	14,119,698	3,168,926	17,288,624	3,440,529	772,168	6,609,455	34,112,520	338,343,690	82,443,774
2050	390,650,158	18,161,323	14,723,241	3,438,082	18,161,323	3,449,609	805,532	6,887,691	38,645,947	352,004,211	82,473,477
2051	409,851,771	19,075,365	15,354,557	3,720,808	19,075,365	3,459,158	838,244	7,179,966	43,629,867	366,221,904	82,504,459
2052	430,115,482	20,046,690	15,918,257	4,128,433	20,046,690	3,448,222	894,304	7,576,655	49,095,870	381,019,612	82,536,699

# Town of Wareham GASB 45 Projection of Employer Share of Retiree Health, Dental & Life Insurance Costs

# Total Medical, Dental & Life Insurance - pay-as-you-go funding

Fiscal Year	Number of Retirees, Spouses & Surviving Spouses	Total Accumulated Postretirement Benefit Obligation ("APBO")	Present Value of Total Accumulated Postretirement Benefit Obligation ("APBO")	Employer Share of Premiums / Claims including "implicit cost"	Present Value of Employer Share of Premiums / Claims including "implicit cost"
2013	417	82,104,869	82,104,869	2,603,828	2,603,828
2014	449	85,955,376	82,649,400	2,854,730	2,744,933
2015	475	89,776,230	83,003,171	3,072,658	2,840,845
2016	495	93,636,240	83,242,276	3,234,672	2,875,612
2017	510	97,616,871	83,443,310	3,420,937	2,924,231
2018	526	101,695,527	83,586,310	3,586,973	2,948,230
2019	542	105,914,172	83,705,509	3,793,206	2,997,826
2020	555	110,250,003	83,780,941	3,980,737	3,025,033
2021	566	114,769,191	83,860,724	4,168,671	3,046,007
2022	578	119,444,679	83,920,247	4,423,185	3,107,671
2023	587	124,259,784	83,945,458	4,693,565	3,170,804
2024	598	129,196,973	83,923,890	4,936,565	3,206,698
2025	606	134,315,539	83,893,089	5,244,151	3,275,481
2026	615	139,569,149	83,821,614	5,565,139	3,342,278
2027 2028	622 626	144,955,973	83,708,463	5,860,732	3,384,427 3,436,604
2028	629	150,548,428 156,348,175	83,594,198 83,475,569	6,189,130 6,483,386	3,461,533
2029	631	162,417,375	83,380,735	6,754,930	3,467,800
2030	632	168,817,690	83,333,159	6,999,179	3,454,992
2031	630	175,619,935	83,356,672	7,277,841	3,454,372
2033	628	182,813,489	83,433,690	7,490,637	3,418,629
2034	625	190,502,179	83,598,757	7,752,404	3,402,015
2035	620	198,677,786	83,833,162	8,067,334	3,404,055
2036	615	207,304,163	84,108,758	8,308,072	3,370,804
2037	610	216,502,739	84,462,368	8,688,824	3,389,697
2038	604	226,161,265	84,836,891	9,034,161	3,388,866
2039	598	236,359,493	85,252,324	9,420,699	3,397,945
2040	593	247,083,685	85,692,716	9,860,089	3,419,642
2041	587	258,327,628	86,146,444	10,317,905	3,440,789
2042	582	270,114,211	86,612,504	10,785,274	3,458,313
2043	578	282,474,633	87,092,203	11,203,370	3,454,208
2044	572	295,530,350	87,613,004	11,671,463	3,460,125
2045	566	309,294,938	88,166,978	12,188,508	3,474,431
2046	562	323,762,636	88,741,452	12,588,273	3,450,372
2047	558	339,127,002	89,377,630	13,108,970	3,454,896
2048	553	355,355,645	90,052,618	13,683,790	3,467,684
2049	549	372,456,210	90,755,929	14,119,698	3,440,529
2050	545	390,650,158	91,528,101	14,723,241	3,449,609
2051	542	409,851,771	92,333,633	15,354,557	3,459,158
2052	539	430,115,482	93,171,877	15,918,257	3,448,222